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# PHARMACY PRACTICE

# AND

# SMALL VICTORIAN HOSPITALS

by

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A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Health Administration in the University of New South Wales.

December, 1979

I, Lindsay Charles Allan, certify that this dissertation "Pharmacy practice and small Victorian hospitals", has not been submitted for a degree or similiar award to any other university or institution.

Signed.....

Dated.....31/12/79.....

Come writers and critics

Who prophesize with your pen

And keep your eyes wide

The chance won't come again

And don't speak too soon

For the wheel's still in spin

And there's no tellin' who

That it's namin'.

For the loser now

Will be later to win

For the times they are a-changin'.

Bob Dylan 1963

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# ABSTRACT

An extensive literature assessment of community pharmacy practice and hospital pharmacy practice is related to Victorian hospitals with daily bed average of less than sixty. The traditional pharmaceutical patient care service mode (operated in the absence of pharmacists), regional pharmacy and sessional pharmacy are evaluated in terms of composition and quality, utilising the Donabedian medical care model.

An extensive analysis is undertaken of organisational, occupational and environmental factors that may influence the presentation and quality of the pharmaceutical patient care service in one hundred and thirty two small Victorian hospitals. Issues relating to the location and disposition of pharmaceutical patient care service providers and small Victorian hospitals, current acts and regulations, professionalism and the interactions of the involved organisations, associations and authorities are given attention.

The attributes and deficiences of the traditional pharmaceutical patient care service and alternative intervention schemes are considered. A planning scenario for Victoria is presented based upon historical developments. The inadequacies of this rationalisation process, theory associating future developments with multidisciplinary intervention processes and area wide planning consideration, are the basis of a prospective planning scenario formulated for the universal rationalisation of pharmaceutical patient care services in small Victorian hospitals.

# C H A P T E R  I

## INTRODUCTION

Since 1968 emphasis has been placed upon the rationalisation of pharmaceutical services in hospitals not employing pharmacists. The provision of a rationalised service ideal in the ensuing years in Victoria presented in two forms; regional hospital pharmacy and sessional pharmacy practice. The propounders of the first scheme were representative of hospital pharmacy and of the latter scheme were representative of community pharmacy practice.

Although these schemes have been incorporated in a minority of Victorian hospitals, a reorganisation or rationalisation of pharmaceutical services in a majority of small Victorian hospitals has not been achieved. The Hospitals and Charities Commission's regionalisation program, the accreditation program of the Australian Council on Hospital Standards and contributions in the pharmacy literature are important in alerting small Victorian hospitals to the nature of alternative pharmaceutical service forms.

The fact that a majority of small Victorian hospitals still operate a pharmaceutical patient care service without the assistance of a pharmacist raises many questions. Aside from the issue of the quality and composition of the traditional and alternative pharmaceutical service modes, a general analysis of community pharmacy practice and hospital pharmacy practice, the existing acts and regulations governing pharmacy practice, professionalism and the interactions of various bodies, and these relationships with small Victorian hospitals, may elucidate factors presently constraining pharmaceutical service rationalisation in a majority of small Victorian hospitals. An analysis of the intervention processes supporting the existing schemes may give direction for future planning proposals.

This study divides into three parts.

In Part 1 the major literature is reviewed and a pharmaceutical patient care model is presented.

In Part 2 an analysis is undertaken to elucidate organisational, occupational and environmental factors impinging upon pharmaceutical patient care service provision and small Victorian hospitals.

In Part 3 discussion of the survey results and the characteristics of alternative pharmaceutical patient care service modes are presented. Planning implications for the rationalisation of pharmaceutical patient care services in small Victorian hospitals then follow.

# PART I

# CHAPTER II

## LITERATURE SURVEY

Preliminary reading followed by a literature search revealed that a comprehensive assessment had yet to be undertaken of pharmaceutical practice and relationships with small hospitals, either in Victoria or Australia. With respect to hospitals with daily bed average of less than sixty, Naismith's analysis (1) in 1968 was first to appear in the Australian literature. Other reports have since appeared (2), (3), (4), (5), (6).

However comprehensive assessments have been undertaken in Australian hospitals with daily bed average of greater than seventy five and in hospitals with more than one hundred beds. Three Australian studies, Naismith (7), Miller (8) and Biggs (9) consider the Australian scene for the period 1967- 1975. These studies describe pharmaceutical inpatient care activity generally in Australian hospitals.

The overseas studies by Francke et al. (10) and Stone (11) included assessment of pharmaceutical services in small hospitals.

The Australian and overseas surveys are briefly reviewed to place into context the nature of this writer's inquiry.

NAISMITH 1968 (12)

Stimulation for this survey was firstly the American survey by Francke et al. (13) in 1964, and secondly that such a survey had yet to be undertaken in Australia.

The area related to small hospitals is chapter six entitled, 'regional hospital pharmacy'. Information relating to hospitals without pharmacy departments or without full time pharmacists is presented. A visual inspection of fourteen hospitals with daily bed average ranging from seventeen to eighty was undertaken. Following consideration of drug inventory control, storage and handling procedures, it was submitted

that a substandard practice of pharmacy was occurring. The reasons advanced for this included the geographic isolation of these hospitals, the inadequate pharmacy equipment in hospitals serviced by part-time pharmacists, the lack of correct equipment and appreciation of the special requirements of hospitals by community pharmacists supplying hospitals, and lack of a pharmacist's supervision in those hospitals supplied by a central drug supply department.

Other observations included substandard pharmacy practice could be occurring in more than 1800 hospitals and nursing centres in Australia, the number of available hospitals beds in rural areas appears more than necessary, a component of higher bed day costs in small hospitals may be the exorbitant dispensing fees charged by local pharmacies, and some small hospitals with low daily bed average could hardly justify their existence.

The development of a regional hospital pharmacy service was considered a matter of importance, and the following aspects were considered by Naismith; the determination of regional areas, service scope, staffing requirements, drug supply methods and equipment requirements. This discussion was the first comprehensive development of the notion of regional hospital pharmacy in Australia.

This study is a landmark in Australian hospital pharmacy since it generated concepts that were new to Australian hospital pharmacists. It was published in an era when hospital pharmacy practice was beginning to emerge and become recognised amongst all Australian pharmacists. Aspects examined included pharmacy personnel and facilities, the hospital drug committee, centralised systems for drug purchasing, manufacturing and supply, and predictions of the pharmacists' future role.

This study set the background for future developments in Australian hospital pharmacy, for it emphasised great variances existing within the knowledge and practice of pharmacy up to 1967. It highlighted the lack of uniform and acceptable standards in hospitals employing pharmacists and hospitals without the services of pharmacists.

MILLER 1975 (14)

This study served to update the 1967 Naismith survey. It is based on the studies of Francke et al. (15) and Naismith (16), for questionnaire construction, methodology and results assessment. Questionnaire response rates for each Australian state or territory are omitted in Miller's presentation. Without specific reference it was indicated that the response rate in Victoria was significantly lower than that of the other Australian states and territories. This writer concluded that the method used for gaining questionnaire circulation sanction in Victoria would require investigation.

This report records the prevailing practices in hospital pharmacy until 1975. In retrospect the survey compares with those of Francke et al. and Naismith in highlighting changes that have occurred within hospital pharmacy practice. It emphasised what is termed clinical involvement in major teaching hospitals. It concluded by reinforcing the idea that all facets of the occupation of hospital pharmacy must be developed to secure a system that befits clinical involvement and bedside patient care.

BIGGS 1976 (17)

The stimulus for this survey, from this writer's point of view was that the surveys by Naismith and Miller did not come to grips with the problems of isolated hospitals, considering that the comparative assessment technique of Naismith and Miller utilised the teaching

hospital as the yardstick for standards of hospital pharmacy. Biggs analysed small hospitals situated in country towns, where the problems of distance, isolation and local politics are experienced in markedly varying degrees. The assessment of hospitals in this survey overlaps those hospitals utilised by Naismith and Miller. The title does not accord with this writer's definition of small hospitals; however it serves to highlight that the assessment was made in isolation to teaching hospitals.

Biggs stressed that country hospitals with approximately one hundred beds have specific problems, different from those of the metropolitan teaching hospital. The employment of a pharmacist in these hospitals may improve the standard of pharmaceutical service. A regional pharmacy service may serve as the best alternative when the full-time employment of a pharmacist is not possible. Biggs emphasised differences in the standard of pharmacy being undertaken in these hospitals. The survey indicated to this writer that the notion of clinical pharmacy and practices involving bed side work with patients, are isolated within hospital pharmacy practice and mainly confined to teaching hospitals.

The work of Naismith and Miller challenges pharmacists working in remote areas or in isolation from teaching hospitals, implying that all hospital pharmacists should have the necessary initiative to develop clinical practice; however constraints independent of pharmacy practice may be operating against the development of newer practices outside teaching hospitals.

FRANCKE et al. 1964 (18)

The volume and comprehensiveness of this survey dwarfs the Australian studies presented. This survey ranks as a foundation stone in American hospital pharmacy, and was sponsored and carried out under the auspices of the American Society of Hospital Pharmacists. Assessment involved a one third sample of the American hospital population. It can truly be considered an audit as titled. To present a summary would be an injustice to this survey.

The section of this survey most relevant to this writer's survey is chapter ten, entitled 'drug service in hospitals without full-time pharmacists'.

TABLE 2.1 American hospitals without the services of a full-time pharmacist- 1964.(Source:- Francke et al., table 112, p169.)

| Short term hospitals | Number | Percentage |
|---|---|---|
| Less than 50 beds | 2325 | 49.8% |
| 50 to 99 beds | 1065 | 22.8% |
| Greater than 100 beds | 288 | 6.2% |
| All long term hospitals | 987 | 21.2% |
| Hospital population | 4665 | 100.0% |

Table 2.1 shows that 72.6% of American hospitals without a pharmacist's services in 1964 had less than one hundred beds, and 49.8% were in the less than fifty bed category.

Table 2.2 shows that in 1964, community pharmacists personally supervised hospital pharmacy services in 10.3% of all short term American hospitals with less than one hundred beds. A community pharmacist's personal supervision in an hospital is equivalent to the Australian term sessional pharmacist, and satellite or auxiliary pharmacy service is equivalent to the Australian term regional pharmacy.

TABLE 2.2 Methods used for handling drugs in American hospitals.

| All short term responding hospitals not serviced by a full time pharmacist | No pharmacist involved | | Person other than a pharmacist involved plus an arrangement with a community pharmacist | | Community pharmacist personally supervises hospital service | | Other methods | |
|---|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | no. | % |
| <50 beds | 573 | 42.9 | 571 | 42.8 | 164 | 12.3 | 27 | 2.0 |
| 50 - 99 beds | 321 | 50.0 | 276 | 43.1 | 39 | 6.1 | 6 | .8 |
| Total | 894 | 45.2 | 847 | 42.8 | 203 | 10.3 | 33 | 1.7 |

(Source:- adapted from Francke et al., table 113 p171.)

A study of small hospitals was recommended to measure the effectiveness of employing part-time pharmacists. With respect to the community pharmacists supervising capacity in small hospitals, Francke et al. established that;

- they require a better understanding of their duties and responsibilities when they provide service within an hospital; and
- the narrowest scope for pharmacy service in small hospitals grouped in Table 2.2 was provided by part-time community pharmacists. (19)

This result was significant and seemingly inexplicable; however the authors proposed that such a result may have arisen since the hospital administrator was not willing to hand over certain pharmaceutical patient care activities to the community pharmacist, and may not have been aware of the community pharmacist's repertoire and left so many pharmaceutical procedures in the hands of nursing personnel. Evidence concerning this point was related to the community pharmacists' major activity, prescription compounding and dispensing. These were the only activities to match the activities of pharmacists (non community) employed part-time in other hospitals.

It was observed that even in the presence of a part-time community pharmacist, the nursing staff were still controlling the drug distribution within these small hospitals. These authors advocated a

need for direct professional service in hospitals shown in Table 2.2, even if limited to a few hours per week, and a recommendation was made that more community pharmacists be encouraged to accept part-time hospital appointments.

A satellite pharmacy category is not shown in Table 2.2. These authors proposed that;

- Existing hospitals with hospital pharmacies could greatly expand their service scope to small hospitals, nursing homes and other institutions requiring pharmacy services, hence the notion of auxiliary or satellite pharmacy was coined introducing the idea that larger hospitals could supply pharmacy manpower to smaller hospitals.
- This mechanism would offer better service in the small hospital and more prestige to the pharmacy department supplying the service.

"However we believe that this program will still not meet the total needs of small hospitals and related health care institutions." (20)

This survey recommended the continuance of the community pharmacists' involvement in small hospitals and recommended the commencement of hospital pharmacy satellite pharmacy services. Corresponding to the predicted decline in nursing involvement in pharmacy activities, it was recommended that nursing duties be reassigned from the pharmaceutical patient care category back to traditional nursing roles.

Overall, chapter ten in this survey bears considerable relevance to this writer's project. The sequence of intervention into small hospitals has been noted and will be further discussed in the conclusions to this report. The survey by Francke et al. is a monumental work and recommended reading for all hospital pharmacists, whether dispensers, clinical pharmacists or administrators. Its importance was further recognised by the Australian authors who modelled their assessments on this work.

This study is evidence of how development of hospital pharmacy practice in Australia lags behind that in America.

STONE 1968 (21)

This report was undertaken following the author's consideration of the problems of medication errors and the 'new therapeutic drug explosion', with respect to small hospitals. A need for such a study in small hospitals was expressed in February 1967 at a conference held at the King's Fund Hospital Centre.

Stone presented an extremely comprehensive report with respect to twenty two hospitals not employing pharmacists. This report describes processes and conditions of pharmacy practice in small hospitals that bear similarity with those presented in the former surveys.

DISCUSSION

The surveys by Naismith and Miller set out to assess comprehensively the types of pharmaceutical patient care services that were provided by pharmacists in Australian hospitals. Biggs survey included such an assessment, as well as considering services provided in hospitals with or without an employed part-time pharmacist.

The most common aspect mentioned in the five surveys are descriptions of the inadequacies that existed in hospitals when pharmacists did not have control of the pharmaceutical patient care service. The Australian studies did not include any comprehensive evaluation of a large sample of small Victorian or Australian hospitals with daily bed average less than sixty. The American study involved such an analysis. Naismith's study discussed the pharmaceutical services operating within fourteen small Victorian hospitals. Stone's survey assessed twenty two hospitals in the United Kingdom.

Each study defined the activities of an hospital pharmacist, but did not attempt to develop or utilise a model describing pharmaceutical patient care. Therefore, rather than being related to a service model, questionnaire and interview information was related to each author's established standards of pharmaceutical patient care. These surveys gave attention to the components of the pharmaceutical service and data assessment is based upon percentage tabulations.

The components of pharmaceutical patient care were shown not to vary greatly between Australia, America and the United Kingdom with respect to small hospitals. However developments in the American study that included drug information services, intravenous additive services, ward and clinical pharmacy, were not emphasised in Naismith's 1967 study, and had only shown signs of development in some Australian teaching hospitals in Miller's 1975 study. Hence there appears to be a delay in both patterns and trends in development of pharmaceutical patient care services between America and Australia.

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# C H A P T E R  I I I

## MODEL OF PHARMACEUTICAL PATIENT CARE

DEFINITIONS

The evaluation in this study relates to pharmaceutical practice in hospitals without the services of a full time pharmacist. Prior to the implementation of the regional hospital pharmacy service in Gippsland in 1972, the hospital population under study had never been serviced by pharmacists employed in the hospital system. The services that were not in existence are those consistent with the definitions of regional pharmacy and sessional pharmacy in the glossary of terms in this report.

It is sometimes useful to describe a model to facilitate the description and analysis of any real situation. Service models of pharmaceutical patient care have not been utilised in the surveys reviewed in chapter two. In specifying this service, those authors used definitions relating to the role of the pharmacist in the hospital environment.
In the Australian surveys, the earliest reference to the role of the hospital pharmacist was by Naismith in 1967;
"The professional role of the hospital pharmacist is such that it is felt that it would be unwise to lay down any comprehensive pattern of responsibilities for universal application throughout the hospital service in Australia. The role of the pharmacist is partly shaped by local factors such as the size and type of the hospital and it is unlikely that any single comprehensive scheme would fit any individual circumstance. It is apparent however that sharp and clear identification of the essential professional role of the pharmacist must be common to all hospitals and that no reasons either of convenience or expedience should be allowed to obscure this professional identity. It is equally apparent that the first step is to endeavour to define this essential professional role of the pharmacist." (1)
With respect to the pharmacist's role, Naismith added;
"In his professional role the pharmacist is responsible for,

- the preparation and sterilisation of injectable medications when manufactured in the hospital;
- the manufacture of pharmaceuticals;
- the dispensing of drugs, chemicals and pharmaceutical preparations;
- the filling and labelling of all drug containers issued to services from which medications are going to be issued;
- necessary inspection of all pharmaceutical supplies on all services;
- the maintenance of an approved stock of antidotes and emergency drugs;
- the dispensing of all narcotics and alcohol and the maintenance of a perpetual inventory of them;
- specification as to both quality and source for the purchase of all drugs, chemicals, antibiotics, biologicals and pharmaceutical preparations used in the treatment of patients;
- furnishing information concerning medications to physicians, interns and nurses;
- cooperation in teaching courses to students in the school of nursing and the medical intern training program; and
- implementing the decisions of the pharmacy and therapeutics committee." (2)

Miller's study in 1975 included a definition encompassing the pharmacist's role as described by Naismith above. (3) These definitions include the broad day to day activities of the hospital pharmacist at the time of each study's publication.

A definition of pharmaceutical patient care was coined by Mikeal et al. in 1975, using a definition of medical care as the basis for construction;

"Pharmaceutical patient care can be defined as- the provision of any personal health service involving the decision whether to use, the use and the evaluation of the use of drugs, including the range of

services from prevention, diagnosis and treatment, to rehabilitation provided by physicians, dentists, nurses, pharmacists and other health personnel. Pharmaceutical care includes the complex of personal relationships and organised arrangements through which these health services of a personal nature are made available to the population."(4)
These authors further stated;
"Using this definition, pharmaceutical patient care is a subset of medical care; is not provided by any one health practitioner exclusively; is not delineated by environment, the writing of a prescription, or even a patient consuming a drug." (5)
The implications of this latter definition on the former are twofold.

Firstly the notion of personal service is clearly delineated. The definitions used by Naismith and Miller are product oriented, where product refers to drugs, pharmaceutical and medicinal preparations. These definitions reflect Australian hospital pharmacy practice over the period 1967- 1975, if one can make the assumption that each author considered the chosen definition as the most suitable for publication. The definition put forward by Mikeal et al. included a factor describing personal relationships. Their terminology was formulated in 1975, at the time when the definition utilised by Miller was being considered. This writer believes that these emphasize the differences and progress being made in hospital pharmacy practice, with respect to America and Australia. Moreover, Miller's definition is quoted from a 1951 American publication. (6)

Secondly, within this definition the pharmacist is not necessarily a component of pharmaceutical patient care; but in the Australian surveys the pharmacist must always be a component of any definition describing the pharmacist's professional role. This writer believes that Naismith and Miller utilised definitions appropriate to the

hospital setting and pharmaceutical patient care. Their orientation was solely towards pharmaceutical patient care being provided by pharmacists, and this is specified in the objectives of each study. The definition put forward by Mikeal et al. is common to all types of health care providers and health care institutions. It not only embodies pharmacy services being provided by pharmacists, but also pharmaceutical patient care being provided in hospitals without pharmacists.

The definitions discussed are all relevant to hospital pharmacy practice; however the Australian studies did not attempt to describe, dimensionalise or define any sort of model that would either encompass the subject of their studies, or would facilitate assessment procedures. With respect to the quality of service provided, a subjective approach was taken in that the recognition of activities was guided by the standards established by each author. This writer supports the technique of utilising a service model.

## THE MODEL

A model for pharmaceutical patient care has been described by Mikeal et al. (7) The model is appropriate to this survey.

Initially when discussing this model, no mention of quality or quantity is proceeded with. The description follows Donabedian's model (8) and is the model utilised by Mikeal et al.

A simple system could be stated as;

primary material ⟶ transformation ⟶ product

and generalising this could be stated as;

input ⟶ process ⟶ output

With respect to medical care (pharmaceutical patient care being a subset of this) Donabedian included a structural component and

defined outcome as a situation describing output in terms of hospital patient care;


Components of this model in terms of pharmaceutical patient care are;

(a) Input. This encompasses patients, finance, pharmaceutical and medicinal supplies, and information.

(b) Structure. This encompasses a pharmacy or room designated solely for procedures relating to pharmaceutical patient care, providers of pharmaceutical patient care, equipment, the pharmacy and therapeutics committee, formal rules and policies, hospital organisation structure and the qualifications of the service providers.

(c) Process. This encompasses the competence of the service providers, the types of pharmaceutical patient care provided, interaction with other health care providers and the hospital environment.

(d) Outcome. Successful supply of the proper medicinal or pharmaceutical preparation in the proper strength and proper formulation delivered by the proper route to the proper patient at the proper time.

With respect to this model, an evaluation of outcome could only be achieved by a study of medication error. A medication error may result from any change in the conditions listed under outcome. Medication error studies in America (9) and Australia (10) (11) are numerous and these studies provide further references. Medication error literature has been generated in hospitals employing full time pharmacists. The literature search failed to produce any articles dealing with medication errors in hospitals not employing pharmacists. This situation is understood since pharmacists have primarily been responsible for medication error studies in Australia.

There are clearly insufficient grounds to warrant an evaluation of the outcome of pharmaceutical patient care services in small Victorian hospitals. The hospital questionnaires formulated for this survey relate to input, structure and process components of the model. The latter two components will be the subject of evaluation.

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# PART II

# CHAPTER IV

## VICTORIAN HOSPITALS AND THE SURVEY POPULATION

INTRODUCTION

In Victoria, the Hospitals and Charities Act 1958 established the Hospitals and Charities Commission's responsibility for all public hospitals. On 8th December 1978, the Hospitals Division of the Victorian Health Commission assumed the responsibilities of the Hospitals and Charities Commission. Appendix E relates this change to this writer's survey. Schedule two of the mentioned act lists public hospitals under the category of 'incorporated institutions'. Other public hospitals are listed in the third schedule. These are designated 'separate institutions', not drawing their existence as legal entities from the Hospitals and Charities Act. An example of a third schedule institution is a public hospital conducted by a religious organisation. (1) (2)

TABLE 4.1 The Hospitals and Charities Commission classification of public hospitals.

| Location | Hospital classification | Number of hospitals | Number of beds |
|---|---|---|---|
| Metropolitan | Special | 11 | 1991 |
| | General | 26 | 5551 |
| | Auxiliary | 1 | 80 |
| Country | Base | 10 | 2364 |
| | Daily bed average $\geqslant$ 25 | 40 | 3036 |
| | Daily bed average $<$ 25 | 61 | 1170 |

(Source:- Hospitals and Charities Commission Annual Report, 1977-78 )

Section X of the Victorian Health Act 1958, relates to hospitals for the treatment of infectious diseases, tuberculosis, and private hospitals. This section of the act was administered by the Hospitals and Charities Commission. In Victoria there are three distinct groups of private hospitals; firstly those operated by entrepreneurs or organisations as private business ventures; secondly those operated by religious and charitable organisations; and thirdly those operated under the auspices of the Victorian Bush Nursing Association.

TABLE 4.2 Private hospitals in Victoria.

| Location | Service classification | Number of hospitals | Number of beds |
|---|---|---|---|
| Metropolitan | Acute care | 62 | 3915 |
| | Nursing home | 151 | 3976 |
| Country | Acute care | 53 | 1338 |
| | Nursing home | 42 | 1007 |

(Source:- Hospitals and Charities Commission Annual Report 1977-78 )

TABLE 4.3 Victorian bush nursing hospitals.

| Location | Service classification | Number of hospitals | Number of beds |
|---|---|---|---|
| Country | Acute care | 39 | 619 |

(Source:- Victorian Bush Nursing Association Annual Report 1977-78, the figures in Table 4.3 are included in the totals within Table 4.2)

TABLE 4.4 The survey hospital population.

| Goverance | Location | Hospital classification | Number of hospitals |
|---|---|---|---|
| Public | Metropolitan | - | 8 |
| | Country | Daily bed average $\geqslant 25$ | 24 |
| | | Daily bed average $< 25$ | 61 |
| Bush nursing | Country | - | 39 |

(Sources:- Hospitals and Charities Commission Annual Report 1977-78 and the Victorian Bush Nursing Association Annual Report 1977-78.)

When considering hospitals that supply acute care facilities, Table 4.4 shows the coverage supplied by hospitals in this survey population. The eighty five Victorian country hospitals in Table 4.4 include five hospitals with greater than sixty beds. The remaining eighty Victorian country public hospitals are considered in Tables 4.5 and 4.6.

TABLE 4.5 All Victorian hospitals with less than sixty beds supplying acute patient care facilities.

| Location | Goverance | Number of hospitals | % | Number of beds | % |
|---|---|---|---|---|---|
| Metropolitan | Public* | 11 | 20.0 | 397 | 21.8 |
| | Bush nursing | 0 | 0 | 0 | 0 |
| | Private | 44 | 80.0 | 1421 | 78.2 |
| | Total | 55 | 100% | 1818 | 100% |
| Country | Public | 80 | 63.0 | 2047 | 72.7 |
| | Bush nursing | 39 | 30.7 | 619 | 21.7 |
| | Private | 8 | 6.3 | 187 | 6.6 |
| | Total | 127 | 100% | 2853 | 100% |

(* includes three special metropolitan hospitals)

(Source:- Hospitals and Health Services Year Book, 1978- 79)

It is evident in Table 4.5 that the majority of acute care bed facilities provided by hospitals with less than sixty beds in the metropolitan area are private hospitals (80%). However in the Victorian country classification in Table 4.5, private hospitals (non bush nursing) provide acute care bed facilities in a minority of hospitals(6.3%).Therefore public hospital provision represents 20% of the acute care bed facilities in the metropolitan area ( with respect to small hospitals with less than sixty beds), and 63% in country Victoria. In the latter category, Victorian bush nursing hospital provision represents 30.7%.

The major characteristic distinguishing Victorian bush nursing hospitals from country private hospitals (aside from ownership and management status), is that all bush nursing hospitals are situated in towns with no other acute hospital facilities. In Table 4.5, four of the eight private country hospitals are in towns with other acute care public hospital facilities. The eighty public country hospitals in Table 4.5 are the sole providers of acute care bed facilities in their respective towns.

TABLE 4.6 This survey hospital population's coverage of acute bed facilities.

| Location | Governance | Number of survey hosp-itals | Total popul-ation * | % being analy-sed | Number of survey beds | Total popul-ation * | % being analy-sed |
|---|---|---|---|---|---|---|---|
| Metropolitan | Public | 8 | 55 | 14.5% | 280 | 1818 | 15.4% |
| | Bush nursing | - | - | - | - | - | - |
| Country | Public | 80 | 127 | 63.0% | 2047 | 2853 | 72.7% |
| | Bush nursing | 39 | 127 | 30.7% | 619 | 2853 | 21.7% |

(*population related to Table 4.5 )

( Source:- Hospitals and Health Services Year Book 1978- 79 )

The hospitals under consideration in this survey are classified as country hospitals, except for the eight metropolitan public hospitals shown in Table 4.6. Within the country category, 94.4% of all acute beds ( supplied by hospitals with less than sixty beds) are under consideration. Analysis of the forty four metropolitan and eight country private hospitals was not undertaken because of the lack of available statistics and a probable difficulty in gaining access to private hospital records.

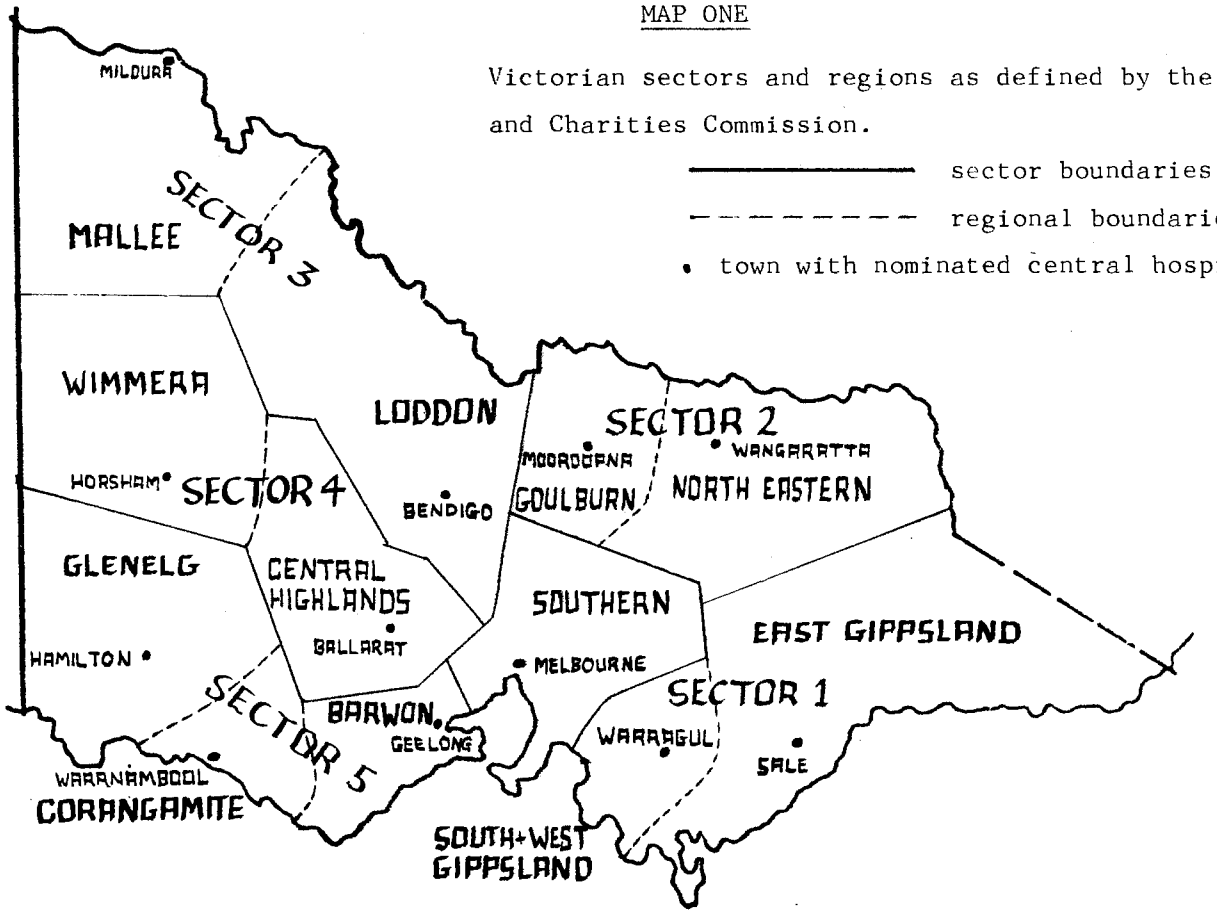
The eight metropolitan hospitals are included in this survey to provide a distinct sample of hospitals that can be later used in statistical analyses and comparisons with the country hospital population. In rural Victoria, bush nursing hospitals supply a significant proportion of acute bed facilities, and therefore are included in this study.

VICTORIAN PUBLIC HOSPITALS

The Hospitals and Charities Commission have prepared model by laws for incorporated institutions, that are applicable to all schedule two hospitals. This code is circulated to guide hospitals when formulating regulations. The code includes guidelines relating to pecuniary interests and hospital committee members, and for hospitals

MAP ONE

Victorian sectors and regions as defined by the Hospitals and Charities Commission.




sector boundaries

regional boundaries

• town with nominated central hospital

undertaking the administration of annexe hospitals.

In 1954, the regional development scheme was introduced to Victoria by the Hospitals and Charities Commission. Victoria was divided into twelve regions as in map one. Ten country regions contained one base hospital having greater than two hundred beds. The South and West Gippsland region does not have a nominated base hospital. This development proposed that base hospitals be responsible for assisting the provision of health care, by aiding small public hospitals in specific projects. The activities of each region were reviewed by a regional council that consisted of hospital administrators and elected professional personnel from within the region.

At a conference of the chairman of these regional councils held on 26th June 1970 at the Mayfield Centre, Melbourne, the program of regional service development was considered. At this meeting, it was decided to amalgamate existing regions into larger groups, to be known as sectors.

TABLE 4.7 Hospitals and Charities Commission classification of regions and sectors, and base hospitals.

| Sector | Region | Base hospitals | Beds | Other hospitals |
|---|---|---|---|---|
| 1 | East Gippsland<br>South and West Gippsland | Sale | 168<br>151<br>155 | <br>Warragul<br>Moe |
| 2 | North Eastern<br>Goulburn | Wangaratta<br>Mooroopna | 176<br>224 | |
| 3 | Mallee<br>Loddon | Mildura<br>Bendigo | 235<br>297 | |
| 4 | Wimmera<br>Central Highlands | Horsham<br>Ballarat | 157<br>269 | |
| 5 | Glenelg<br>Corangamite<br>Barwon | Hamilton<br>Warrnambool<br>Geelong | 168<br>206<br>464 | |

(Source:- Hospitals and Charities Commission Annual Report 1977- 78 )

Each of the five sectors has a formal link with a Melbourne teaching hospital. Sector boards were established to promote, coordinate,

implement, evaluate and recommend with respect to specific health care projects.

This organisation is independent of the distribution and location of Victorian bush nursing hospitals.

TABLE 4.8 Administration organisation of small public hospitals.

| Group | Committee of management | | Manager or secretary | | |
|---|---|---|---|---|---|
| | Own hospital committee | Base hospital committee | Full time manager | Associated hosp. mgr. | Base hosp. manager |
| 1 | 62 | - | 62 | - | - |
| 2 | 26 | - | - | 26 | - |
| 3 | 4 | 1 | - | - | 5 |

(Source:- Hospitals and Charities Commission Annual Report 1977- 78 )

Three distinct types of administrative organisation are detailed in Table 4.8. Group one hospitals operate as independent public hospitals. Group two hospitals operate with their own committee of management, and administrative services are provided by an associated hospitals manager from the corresponding base hospital. Group three are annexe hospitals controlled directly by the base hospital manager.

TABLE 4.9 Nursing administration status in small public hospitals.

| Base hospital | Senior nursing staff nominated as 'in charge' | | | |
|---|---|---|---|---|
| | Associated hospitals | | Annexe hospitals | |
| | Matron- base hospital | Matron- assoc.hosp. | Matron- base hospital | Sister in charge annexe hospital |
| Ballarat | - | 3 | - | - |
| Bendigo | - | 5 | - | - |
| Geelong | - | 4 | - | - |
| Hamilton | - | 4 | - | - |
| Mildura | - | - | - | 1 |
| Mooroopna | - | 2 | 1 | - |
| Wangaratta | - | 1 | - | - |
| Warrnambool | - | 2 | - | - |
| Horsham | - | 2 | 1 | 2 |
| other hospitals | | | | |
| Colac | - | 1 | - | - |
| Ouyen | - | 1 | - | - |
| Warragul | - | 1 | - | - |

(Source:- Hospitals and Charities Commission Annual Report 1977- 78 )

In the third column of Table 4.9 there are two exceptions to the general rule that in all associated and annexe hospitals, the matron or sister in charge is nominated as being in charge of each hospital. The remaining sixty two public hospitals (not shown in Table 4.9) designate matron as being in charge of the nursing services.

VICTORIAN BUSH NURSING HOSPITALS

The constitution of the Victorian Bush Nursing Association contains fifty two clauses and a schedule of affiliated bodies and organisations. The prime aim of the Victorian Bush Nursing Association is to maintain independence from government via the cooperative effort of the local population. One of their foundation policies is;

"To help districts which are making a determined effort to help themselves".(3

The Victorian Bush Nursing Association provides a format of rules to be instituted by affiliated bodies. These rules are analogous to the model by laws for public hospitals. Seven regions have been established for its hospitals and nursing centres. This subdivision provides a basis for conducting annual regional meetings. The Victorian Bush Nursing Association conducts an annual conference in Melbourne and this draws representation from all regions.

TABLE 4.10 Victorian Bush Nursing Association regions for the distribution of bush nursing centres and hospitals.

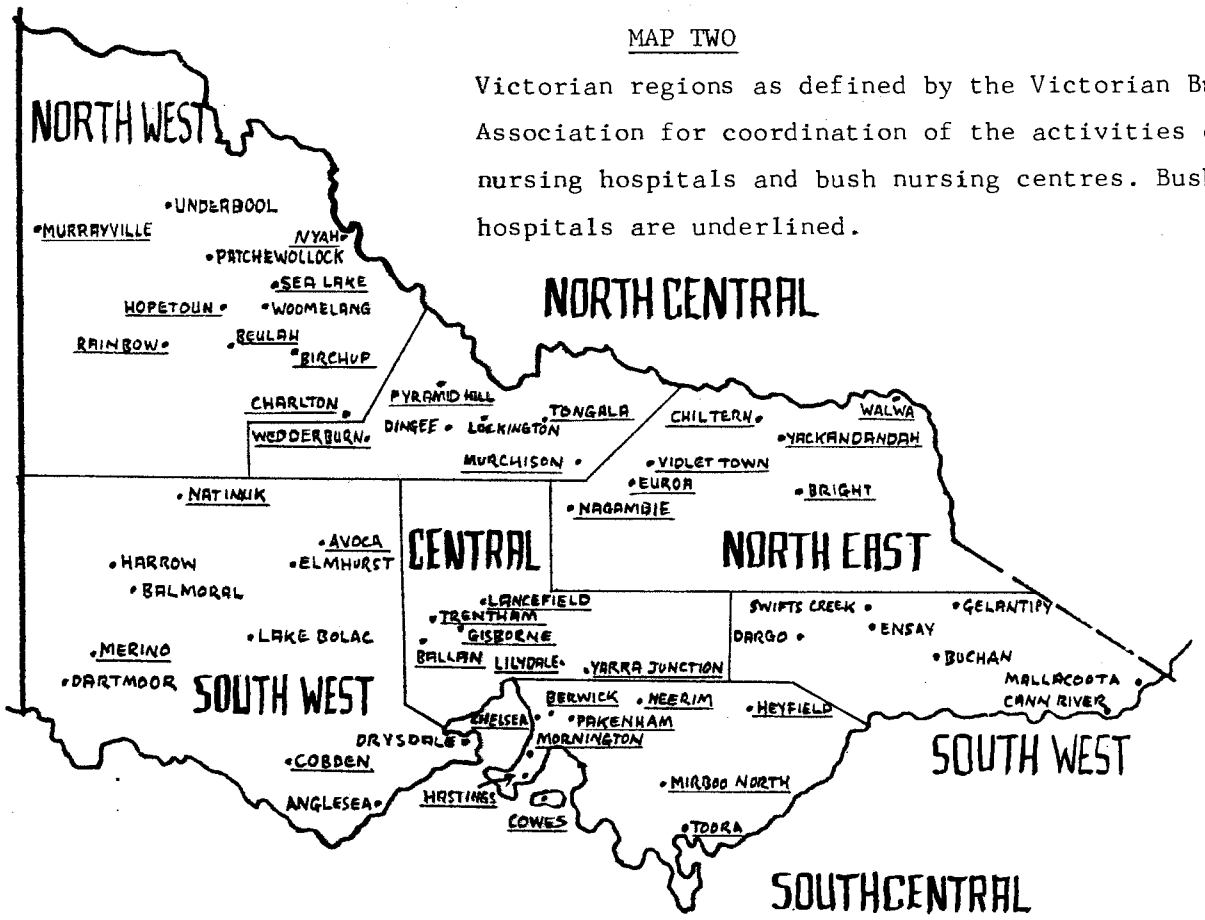
| Region | Number of hospitals | Number of centres |
|---|---|---|
| North West | 8 | 3 |
| South West | 4 | 7 |
| North Central | 4 | 2 |
| Central | 6 | 1 |
| South Central | 10 | - |
| North East | 7 | - |
| South East | - | 7 |

(Source:- The Victorian Bush Nursing Association )

These regions were formed taking into consideration the distribution of bush nursing centres and hospitals. The philosophy behind this regional organisation differed from that of the Hospitals and Charities Commission.

MAP TWO

Victorian regions as defined by the Victorian Bush Nursing Association for coordination of the activities of bush nursing hospitals and bush nursing centres. Bush nursing hospitals are underlined.



The secretary of the bush nursing hospital is elected from within the membership of the committee of management. Three larger hospitals employ the services of a manager.

TABLE 4.11 Designated titles for elected secretaries of bush nursing hospitals.

| Title | Hospitals using this title |
|---|---|
| Honorary secretary | 13 |
| Secretary full-time | 8 |
| Secretary part-time | 15 |
| Manager full-time | 2 |
| Manager part-time | 1 |

(Source:- The Victorian Bush Nursing Association )

The term matron is used to designate the sister in charge of nursing services at all bush nursing hospitals.

Since 1951, six newly established hospitals have affiliated with the Victorian Bush Nursing Association. In the period, eleven hospitals were dissolved and then registered as public hospitals with the Hospitals and Charities Commission. One hospital was dissolved to become a community health centre. Bush Nursing Hospitals are exempted from the operations of the Hospitals and Charities Act 1958; but not from controls exercised by the Hospitals and Charities Commission. These hospitals received no financial assistance from the Hospitals and Charities Commission.

Hospitals seeking registration with the Hospitals and Charities Commission were those in areas where population growth meant larger hospitals were needed and therefore an avenue for financial assistance was required. However nearly all bush nursing hospitals and centres are subsidized by the Victorian government via the health department. Hence bush nursing hospitals can be classified as subsidized institutions.

HOSPITAL ACTIVITY STATISTICS

In 1977, in order to decide the survey hospital population, this writer analysed statistics from the 1975- 76 annual reports of the Hospitals and

Charities Commission and the Victorian Bush Nursing Association. For public hospitals and bush nursing hospitals respectively, this writer found that there was no significant difference ( .05 probability level) between;

- length of patient stay data;
- percentage hospital bed occupancy data;
- proximity of public and bush nursing hospitals to Victorian base hospitals; and
- proximity of public and bush nursing hospitals to Victorian base hospitals and district hospitals with daily bed average greater than sixty.

An analysis of hospital daily bed average revealed that the sample of public hospitals in this survey population had a significantly higher average. However a similiar analysis comparing small public associated and annexe hospitals with bush nursing hospitals revealed no significant difference between hospital daily bed average data.

Hence the characteristics of Victorian bush nursing hospitals are more akin to the sample of smaller public hospitals in this survey population. The statistical data are presented in Appendix C.

THE SYME TOWNSEND REPORT 1975 (4)

On 5th June 1973, Syme and Townsend were appointed to conduct a committee of inquiry into hospitals and health services in Victoria. The minister of health received the report in July 1975. This submission encompassed areas pertinent to this study.

With respect to the Hospitals and Charities Act 1958, Syme Townsend reported that all hospitals subsidized by the Hospitals and Charities Commission are somewhat responsive to their directions. However, the Hospitals and Charities Act has implied power to the Hospitals and

Charities Commission, without explicitly stating this in the act. The Hospitals and Charities Commission felt that its stand was not sufficiently positive and that it needed more power.

The characteristics of bush nursing hospitals noted by Syme Townsend are;

- each hospital has its own committee of management, of whom all are members of the Victorian Bush Nursing Association;
- the Victorian Bush Nursing Association coordinates all the activities of member hospitals, and seeks government help when necessary;
- they are classified as private hospitals; pensioners are treated as private patients via an appropriate health fund;
- all hospitals receive a maintenance grant from the state government via the health department and could therefore be classified as subsidized institutions; and
- many of the hospitals serve the geriatric and obstetric needs of the local communities.

The following statements are also included;

- it was irrational and inefficient to exclude Victorian bush nursing hospitals from the supervision of the Hospitals and Charities Commission when it had the general role of supervising all subsidized hospitals in Victoria;
- very small hospitals were uneconomic;
- a lack of sophisticated resources meant a patient's welfare may be better served in a larger hospital; and
- it may be a more efficient use of resources if such hospitals were used for chronic treatment only.

This writer agrees in principle with these statements;
however former discussion concluded that there is no significant

difference between small public and bush nursing hospitals. The statements included by Syme Townsend are relevant to small Victorian public hospitals. In 1968, Kirk (10) conducted a comprehensive assessment of small Victorian public and bush nursing hospitals. Findings in this current survey confirm the conclusions put forward by Kirk.

In response to the above deliberations, the Victorian Bush Nursing Association claimed that;

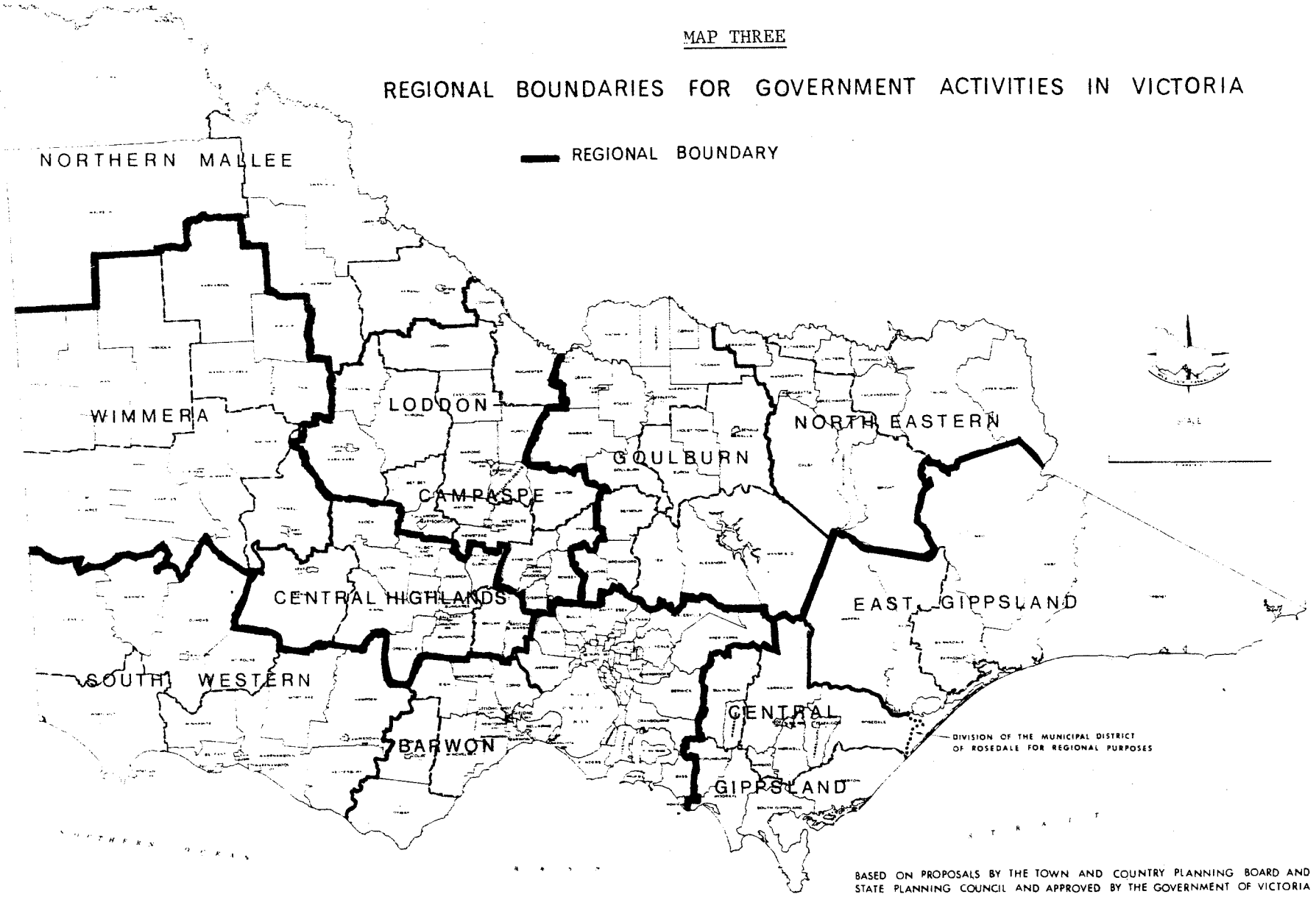
- they are the small hospital specialists;
- the Hospitals and Charities Commission would not be sufficiently receptive and flexible to their requirements; and
- the hospitals received strong local support, and the bed day costs were less than that of large public hospitals.

Syme Townsend recommended that bush nursing hospitals in remote areas should be encouraged to continue. However in general terms, they felt that all hospitals should come under the control of the new Health Commission. This would not imply that all new controls and regulations would affect bush nursing hospitals. It was stated that the Victorian Bush Nursing Association should continue to be backed in its role of supporting small hospitals and centres in remote areas, and implied that the Victorian Bush Nursing Association be controlled by a wing or subcategory of the Health Commission's hospital division. It was recommended that when a Victorian Bush Nursing Hospital attains twenty five beds, then its supervision should be vested with the Health Commission.

One of the principal recommendations of the Syme Townsend report is that the proposed Health Commission embrace all the current activities of the Department of Health including the Commission of Public Health, the

MAP THREE

# REGIONAL BOUNDARIES FOR GOVERNMENT ACTIVITIES IN VICTORIA



Mental Health Authority and the Hospitals and Charities Commission. Regional activities were controlled independently by each authority, and the central divisions may or may not have taken up the development of regional activities embraced in their ambits. Such tripartite division is an historical facet in the development of the Victorian health care system.

Syme and Townsend felt that regional organisation of the Victorian health care system today may not necessarily be the most appropriate division for sharing health care administration. They saw the desirability for decentralising administrative decision making. They proposed an alternative form of regional authority termed 'integrated regional administration'. This would be the administrative structure between the Health Commission and the regional health services. This represents a radical change from the prevailing system, and the proposed administration would be housed in a regional office taking over the functions of today's regional organisers; that is the three health authorities, the sector and regional councils.

The regional office would then embrace the activities of the Hospitals and Charities Commission, the Mental Health Authority and the Department of Health at the regional level. It was recommended that this system be phased in, and it was suggested that commencement would be two years after the establishment of the new Health Commission.

Map three shows the proposed regional boundaries for Victoria. These correspond with the guidelines developed by the Premier's department. The regions are similiar to those presented in map one, the difference being that the Glenelg and Corangamite regions in map one are represented by the South West region in map three. It appears that the original Hospitals and Charities Commission map was drafted from the

guidelines in map three. This proposal also over rides the regions established by the Victorian Bush Nursing Association, for the coordination of bush nursing centres and hospitals as shown in map two.

In conclusion, Syme Townsend recommended the establishment of the Victorian Health Commission, to amalgamate the activities of the Department of Health, the Mental Health Authority and the Hospitals and Charities Commission. A new form of regionalisation is proposed to amalgamate the existing tripartite health administration functions in all regions. The integrated regional administration would neither be institutionally based, nor would be formed by a council of health institution workers; but is proposed that a regional office facility be developed with personnel who would function to administrate, coordinate and foster regionalism. It is stated that authority would be delegated by the Health Commission to this intermediate body.

It was recommended that bush nursing hospitals be placed under the control of the Health Commission for reasons of administrative expediency. Criticism directed to bush nursing hospitals was not all embracing since these comments could also be related to Victorian public hospitals. In seven lines, Syme Townsend summarised the regional achievements of the Hospitals and Charities Commission. (5) The health care activities of a region, the fruits of the labour of the regional councils and the regional health care workers, seemed to be of little concern to Syme and Townsend. Their concern was for the structure that will plan and facilitate the delivery of such services. Hence the anticipation of the Hospitals and Charities Commission in a change of structural facilities was confirmed; however anticipation of change to the nature of the health care services in regions was untimely, a move that may have unnecessarily delayed future developments.

New organisational forms of the regional development team may not produce significantly better services than for example, the regional pharmacy scheme, although this activity was singularly under the control of the Hospitals and Charities Commission. Where services are common to the three authorities, then new ground in regional development may be unearthed.

The Hospitals and Charities Commission's decision to stall regional development in 1976 (see Chapter Six), may see these activities marking time for another five, or more years, while Victoria awaits the development of the Health Commission and the phasing in of the regional administrations in the ensuing years. While the Hospitals and Charities Commission regional development remained in limbo, ad hoc development could proceed, with initiatives being demonstrated by hospital boards of management together with institutional or private enterprise health care providers.

THE HEALTH COMMISSION ACT 1977

On 24th May 1977, the Health Commission Act was introduced. The act was proclaimed on 8th December 1978. Initially this act established the Victorian Health Commission and makes amendments to the Health Act 1958, the Hospitals and Charities Act 1958 and other acts. Schedule two of the Hospitals and Charities Act is amended to become the fifth schedule table A. No amendments are made to the classification of bush nursing hospitals within division X part three of the Health Act.

The Hospitals Division of the new Health Commission now assumes the powers vested in the Hospitals and Charities Commission. Appendix E specifies the relationship of this act with the hospital questionnaire survey period.

## DISCUSSION

It is noted that the characteristics of Victorian bush nursing hospitals and small Victorian public hospitals with daily bed average of less than sixty, are very similiar. The main difference is that bush nursing hospitals are private hospitals and therefore do not offer standard (public) bed accommodation.

The hospitals which have elected to change status from operating under the auspices of the Victorian Bush Nursing Association to the Hospitals and Charities Commission, clearly demonstrate the adaptability of the bush nursing hospital. These hospitals continue to serve the community in a manner not significantly different from their former operations under the control of the Victorian Bush Nursing Association.

Syme and Townsend felt that all government subsidized hospitals should come under the control of the Health Commission. The similiar characteristics of small public and bush nursing hospitals in Victoria, their regional organisation and disposition with respect to base hospitals substantiates in this writer's mind the merit of the Syme Townsend recommendations.

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2. Dewdney, J.C.H., Australian health services , John Wiley Sydney, 1972 p198- 200

3. Andersen, C.E., History of the Victorian Bush Nursing Association , V.B.N.A., 1951 p22

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# C H A P T E R  V

# COMMUNITY PHARMACY PRACTICE

## INTRODUCTION

By 1976, the statutory and regulatory control of pharmacy in Australia had been experienced for one hundred years. The Pharmacy Board of Victoria functions to examine, register and monitor the behaviour of pharmacists, via regulatory requirements, sometimes by board rulings or alternatively via personal advice from board members. (1)

The Pharmaceutical Society of Victoria was founded in 1857, nineteen years prior to the formation of the Pharmacy Board of Victoria. The society has undertaken to carry out the responsibilities of a professional society for pharmacy in Victoria. Membership is open to all pharmacists registered in Victoria. The society carries the following responsibilities;

- the education of undergraduate pharmacists;
- the continuing education and professional development of members; and
- the development and implementation of the highest standards of practice. (2)

## COMMUNITY PHARMACY SERVICES

(a) Traditional service.

Very few articles describe the daily activities of a community pharmacist. Lloyd (3) specified the dispensing of medicines, and the distribution of poisons and pharmaceutical preparations; and in addition, by law, the pharmacist is a custodian of medicines and poisons. Feehan (4) recorded a similiar account. The community pharmacist also provides information about dispensed medications and assists those discomforted by minor ailments.

Lloyd (5) advanced the following reasons why the public come to the pharmacist;

- the pharmacist is the most accessible of all health professionals, not

protected by a secretary, an appointment book or an enclosed office;

- the community pharmacist has an interest in minor ailments and a desire to assist treatment; and

- those chemists responding to demands by the public have undertaken to supply this facet of community health. (5)

Lloyd considered that these characteristics are undervalued and under rated by other health professionals. The latter function is part of the referral pathway to the medical practitioner. By recommending medications for minor ailments, the pharmacist in effect performs a filtering function, perhaps reducing the work load at the referral endpoint ( the medical practitioner), by serving those seeking immediate attention.

The day to day activities of a community pharmacist vary according to the local population's needs and the pharmacist's business initiative. A definition of the actual role of the community pharmacist was called for by the executive director of the newly formed Pharmaceutical Society of Australia, when considering the identification of priority issues, of concern to all community pharmacists. (6) Another note supporting this proposal is listed in the aims of the Pharmaceutical Society's professional development committee. (7)

These statements indicate the following to this writer; either

- there is no unanimity of opinion to what the community pharmacists' current role is; or

- the role is known to the practitioners and has not been adequately described by the professional associations whose concern to date has involved descriptions that enhance status within the community.

(b) Individual initiatives.

Some community pharmacists have adusted their work styles providing

for (what is considered to be) a more appropriate patient oriented routine. (8) A change that received much publicity in the Australian Journal of Pharmacy is the patient counselling undertaken by C. Trevena in his community pharmacy at Boorowa in New South Wales. (9) (10) (11) Another initiative appeared in a later journal. (12) These references comprehensively describe the Trevena initiatives, and the time taken to develop a service incorporating a patient orientation factor within the traditional community pharmacy.

This process involved advertising the service (from within the practice), and orientating the community to the potential benefits of the scheme. Trevena's achievement involved careful planning and thoughtful implementation of ideas that became accepted by the pharmacy's customers. This development was neither hasty, nor superficial, and at that time had completed five years of patient counselling. (13) For four years the service proceeded without an adequate counselling room. Trevena purposely removed the mystique from the pharmacists' traditional activities by opening the dispensary for the customers' view. This served three important functions;

- it demonstrated that there is a primary routine involved with the dispensing of a medication;
- this highlighted the patient medication recording system; and
- this focussed the customer's attention on the counselling activity, where the pharmacist can demonstrate expertise to the community.

Trevena believed that his initiatives may be resisted by many practitioners. (14) It is evident that broader implementation of such activities will heavily depend upon the initiatives of individual community pharmacists.

ISSUES IN COMMUNITY PHARMACY

(a) Rationalisation.

A recognised trend in pharmacy over the last seven years has been the declining number of community pharmacies in Australia. Prior to 1970 - 71 the number of outlets steadily increased per annum. (15) The nineteen seventies witnessed the closing of some uneconomic pharmacies. Larger and smaller turnover businesses have been affected by redundancy. The minister for health believed that viable pharmacies do not have to be large pharmacies. (16)

Concern over the falling numbers of pharmacies and the desire that the decline should be orderly, not entirely governed by market forces, saw the formation of a committee of inquiry into the rationalisation of pharmacy late in 1973. Representation was sought from the Pharmacy Board of Victoria, the Pharmaceutical Society of Victoria and the Pharmacy Guild of Australia. Recommendations resulting from this inquiry related to;

- the formation of a pharmacy amalgamation consulting service;
- supporting a public relations exercise oriented towards amalgamation,
- pharmacy manpower; and
- legislation to support pharmacy rationalisation if voluntary effort failed. (17)

The committee of inquiry's report revealed that 23% of Victorian pharmacies operated at an uneconomic level.

Manning listed four broad categories of rationalisation; involuntary and voluntary depicting activity of a random nature, and persuasive and compulsory depicting activity of an orderly nature. The random component is not in the best interest of the industry. An adaptive technique is required in the strategy whereby those needing assistance are involved

in the rationalisation process. The government's power to license national health service outlets is described as a tool that could enable compulsory change. (18)

The process of pharmacy amalgamation brings together two neighbouring pharmacies, when the economic viability of one or both is challenged. The following are advantages of amalgamation;

- economies of scale;
- time necessary for self education would be available;
- work specialisation could develop;
- hours of work could be varied;
- work pressure and long hours of work could be relieved;
- the quality of the service offered may improve; and
- there will be better training opportunities for graduate pharmacists.

The disadvantages of amalgamation are;

- a partnership reduces entrepreneural activity; and
- amalgamation of competitors may require conciliation.

Amalgamation provides opportunities for improving the quality of pharmacy service, while reducing the quantity of pharmacies. However, some uneconomic pharmacies may need to be preserved. The government has recognised this need by allocating a zone allowance for pharmacies that are greater than 25 kilometers from a neighbouring pharmacy, and where a need for financial assistance exists. (19) At March 1977, over one hundred applications for assistance had been received and grants were allocated in seventy five cases. (20)

The topic of open selling attracted comment nationally in pharmacy, following the Restrictive Trade Practices Commission's decision to annul chemist only selling policies. Hence companies wholesaling certain proprietary and scheduled medicines to pharmacy could no longer deny

purchase requests for non scheduled goods from non pharmacy outlets. Thus supermarkets became an even bigger threat to the retail chemist. An editorial comment indicated that it is hypocritical on one hand to see the collapse of the chemist only marketing arrangement, yet on the other hand to see reports indicating tighter controls are required on the sale of analgesic medications. (21)

Pharmacy's options for competition against supermarkets in the absence of scheduling reform are;

- each pharmacy maintains the same stock range and price cuts; or
- each pharmacy expands its stock range to include supermarket items.

The structures necessary to facilitate this activity are;

- an amalgamation of smaller pharmacies; or
- the formation of cooperative pharmacy buying schemes.

A major challenge to pharmacy came early in 1978 when Coles New World Supermarkets displayed full page advertisements in the Melbourne Herald (22), relating to chemist merchandise. The analgesic Panadol was offered for a special price. Another advertisement appeared on the following day. (23) The Pharmacy Guild of Australia accused Coles New World of irresponsibility for advertising an analgesic. (24) This matter was raised in the Victorian Legislative Assembly by the assistant health minister, Mr Jona. (25)

Besides marketing and sales achievements, the advertisements indicated a firm intention by Coles New World to sell pharmacy merchandise. It also indicated that chemists were overpricing particular merchandise. The Pharmacy Guild's recommended prices on chemist only products may have protected some pharmacists not able to demonstrate business merchandising skills. One article indicated that this could be viewed as seeing the chemist returning to the traditional selling role. (26)

Advertising in pharmacy by cooperative and other buying groups is becoming prominent in Victorian newspapers. However occasionally individuals take the initiative to advertise prominently in the Melbourne Press. (27) (28) One may ask in what way these advertisements differ from those of Coles New World ?

Pharmacy ownership in Victoria is limited to registered pharmaceutical chemists (pharmacists), thus excluding non pharmacy and limited company ownership. A pharmacist may not share or hold the equity of more than three pharmacies at any one time. These regulations have not rationalised the number of pharmacies; but resulted in a proliferation of pharmacies. Since 1971, pharmacy numbers have been declining; however this has not been due to the stringent ownership provisions. (29)

(b) Patient medication profiles.

TABLE 5.1 Patient medication recording systems.

| Prescription recording procedure | Patient's choice for prescription dispensing or over the counter medication purchase | Zones of drug interaction recognition |
|---|---|---|
| Community pharmacy traditional prescription recording book | Regular pharmacy outlet | Intra- prescription |
| | Variety of pharmacy outlets | |
| Community pharmacy patient medication profile | Regular pharmacy outlet | Intra-prescription Inter-prescription (regular) |
| | Variety of pharmacy outlets | Intra and inter prescription (episodic) |
| The patient's personal patient medication profile | Regular pharmacy outlet | Intra and inter prescription (universal) |
| | Variety of pharmacy outlets | |

Pharmacy is endeavouring to expand its traditional practice activities into areas claimed to be professionally more responsible. However innovative activities are few, and one activity that has received attention in the Australian literature dating back to 1972 is the

system of patient medication records.

The prescription recording book is the traditional facility used by the community pharmacist. Prescriptions are hand copied, one by one, day by day; the information being transcribed according to legal requirements. This is the simplest and most basic manual arrangement that conforms with legal requirements. Microfilming apparatus extends this system, enabling a photographic record of the prescription to be maintained on the pharmacy premises. Disadvantages of the microfilming system are;

- although a compact way of storing a prescription copy the retrieval process is cumbersome; and
- this recording system prevents the utilisation of the pharmacist's knowledge of drugs and drug interactions outside a single prescription presentation ( with respect to a customer's total medication history).

"An effective drug recording system was one of the main methods by which pharmacists could assert their role as part of the community health team, which was appreciated by patient and doctor alike." (30)

Pioneers of patient medication recording in Victoria (31) (32), advocated that card recording systems offered convenience, economy, compactness and rapid access to specific information. Each card records the patient's name and address, the regular consulting doctor, the patient's age and card commencement date, drug idiosyncrasies, chronic disease details and a chronological sequence of drug therapy and other requirements to be transcribed by law from a prescription.

Advantages of using the patient medication recording system are;

- it is a patient orientated system, with full drug therapy recorded in chronological sequence;

- patient safety is improved;
- this system allows medication review and an evaluation of the patient's drug taking compliance, by assessing the under or over use of drugs between prescribing episodes;
- the customer is encouraged to use the same community pharmacy;
- information is provided for the patient relating to prescription and over the counter purchased medications for taxation purposes;
- the pharmacist's basic skill dispensing, is enhanced, and more importantly provides a framework that may promote the pharmacist's own knowledge;
- the system provides a platform for the supply of drug information and a necessary base for pharmacy counselling activities; and
- the doctor's prescribing habits can be monitored.

Disadvantages of using a patient medication recording system are;
- it is an incomplete drug therapy record when customers receive medicines or over the counter preparations from other pharmacies;
- pharmacists may be subject to liability if potentially dangerous drug interactions are overlooked;
- it is marginally more expensive to operate than the traditional recording system; and
- it is dissociated from the patient medical history, this situation differing from hospitals where the medication profile forms part of the medical history.

Community pharmacists may elucidate important drug idiosyncrasies and others that are of no concern to the patient's safety; the latter may be expected since the community pharmacist is displaced from the patient's diagnosis, clinical data, prognosis and future drug therapy regimens. The community pharmacist appears disadvantaged in comparison with the role of the hospital pharmacist.

There is an absence of literature in Australia and only a few articles in American journals that analyse patient medication recording systems. (33) (34). Nelson et al. (35) conducted a comprehensive investigation in America dealing with the community pharmacists' effectiveness in monitoring drug interactions whilst using patient medication recording systems. This survey should be noted by all Australian pharmacists.

Only one pharmacist in forty eight correctly identified a well known drug interaction.
"These results are most disappointing, if not shocking, from the perspective of professional responsibility and public accountability. No excuse can be offered, nor can any be accepted." (36)
This study critically analysed the community pharmacists' function, tendered disturbing observations and comments relating to the participation of community pharmacists in newer patient oriented activities.

The patient medication profile needs to placed into context since;
- systems within Australia developed within community pharmacies; and
- patients may choose any community pharmacist for medication dispensing being able to purchase goods in a free market (the public advertising of patient medication profiles contravenes pharmacy ethical codes).

Table 6.1 presented an overview of patient medication recording systems, and the limiting factor in these systems is the pharmacists' ability to recognise drug idiosyncrasies. The patient's personal medication profile involves drug consuming individuals possessing this record that can be updated when medications are purchased. An alternative system involves centralised computer records, allowing doctors and pharmacists on line access to enable record updating and scrutiny of a

person's profile. These alternatives aim to monitor the universal drug consumption of people in a free market, and are yet to become operative in Australia.

Conclusions- prescription recording procedures.

- The traditional recording system accords with the traditional role of the community pharmacist; a custodian and dispenser of drugs.
- Microfilm recording techniques facilitate the traditional recording system.
- Patient medication records are a framework for patient oriented activities. Microfilm recording is not compatible with this philosophy.
- Investment in microfilm recording procedures is a barrier to the implementation of patient medication records.
- Patient medication recording systems are place bound and do not account for the total drug consumption of a patient able to purchase medications in a free market.
- There is no guarantee that the implementation of a patient medication recording system will immediately accord the dispensing pharmacist an ability to recognise clinically, chemically or physically significant drug interactions, and errors or omissions in drug therapy.
- The number of patient medication recording systems in Victoria is uncertain and efforts to determine this number by the Pharmaceutical Society of Australia have been unsuccessful.
- The implementation of a patient medication recording system may lead to a significant change in the community pharmacists' traditional role.
- The use of patient medication recording systems requires a significant change in pharmacy knowledge and practice orientation.
- The issue avoids consideration of medical practitioners, and they may require further education with respect to the evaluation of total drug therapy and be required to utilise patient medication profiles.

- Patient medication recording systems could be used to audit the prescribing activities of medical practitioners.
- Patient medication recording systems could render a pharmacist liable when drug therapy omissions, errors or potentially dangerous interactions are not recognised.
- Traditional recording procedures have yet to be audited in Australia with respect to the associated quality of service and the traditional role of the community pharmacist.
- Patient medication records, although yet to be proven an appropriate and patient safe system, are recommended for use when patients require drug therapy advice.
- There are insufficient patient medication recording systems operating in Victoria to acquire a sample similiar in size to that achieved by Nelson et al in the study referenced in this chapter. The observations, recommendations and conclusions by Nelson et al. should be brought to the attention of all bodies representing the interests on pharmacists in Australia.

(c) Patient Counselling.

The presentation of advice to customers when receiving dispensed medications or over the counter medicines, can be delivered by either verbal instruction, supplementary labelling or pamphlet.

Anderson and Lloyd (37) adequately documented the use of ancilliary medication labels in community pharmacy practice. This system may reinforce information communicated to the customer during a counselling episode. Manning and Feehan (38) noted that change from traditional practice may be desirable on the grounds of supplementing the activities of the community pharmacist and overcoming any disillusionment with professional fulfilment.

Passing fashions such as pregnancy testing and ear piercing, thoughtful innovations such as patient medication profiles and ancilliary medication labelling systems were considered. The authors concluded that the long term benefits of these processes should be demonstrated or else they are likely to disappear.

Practice reform has been called for by only a few individuals amongst the rank and file of the pharmacy profession. Trevena (39) included the following aspects as being pertinent to counselling practice;
- the activity should cover the administration and application technique of drugs; and
- it should include discussion relating to the actions and uses of drugs, drug interactions, side effects and precautions.

"This second tier requires more knowledge than those pharmacists who qualified some years ago were given." (40)

Manning and Feehan (41) listed twenty two situations where the pharmacist could offer advice to the community. Calls for consultation charges were made with respect to this substantial list.

Johnston (42) also described the counselling process. This included nine theoretical phases of involvement and action by the community pharmacist covering a majority of customer- pharmacist interactions. Johnston (43) also considered that structural changes in traditionally designed community pharmacies are necessary before genuine counselling intent could be shown. Remodelling of the premises is necessary to provide a counselling room, a counselling area where privacy is not required and a traditional dispensing area. The arrangement should facilitate an efficient work flow pattern. Suitable reference material providing access to a file of current drug

information is necessary for counselling.

Trevena (44) believed that a shelf information system ( associated with each stocked medication) is far more desirable than mandatory continuing education programs. A patient medication recording system is also considered essential by Trevena. (45) Johnston (46) indicated that pharmacists offering a counselling service should delegate leadership responsibilities to other staff members, freeing the proprietor from commercial worries. More importantly, skills must be acquired before the activity is allowed to proceed. Development should not be rushed, for dangers would be considerable in unskilled and unprofessional counselling activities.

Two areas receiving least attention are those of education and law. (47) It is well recognised that dramatic changes in the education curriculum over the last fifteen years in Australia have led to changes in hospital pharmacy practice. With respect to education and counselling, Grimes said; "It is a 'cart before the horse' situation." (48)
Johnston presented a similiar opinion;
"Already my shoulders are bent at the thought of the staggering amount of work required to train all pharmacists in the field of health counselling." (49)
The legal position of the pharmacist and the supply of counselling services, is currently untested in Australia. This relates to the supply of incorrect or insufficient information for a prescribed fee.

Manning and Feehan (50) believed that all counselling interactions should attract a fee. This writer believes that any salesman must offer information in pursuit of selling, and this usually bears relevance to the product being sold, to the purchaser and his environment. A call for counselling and consultation fee recognition for any customer

interaction in pharmacy when compared to any other selling trade is absurd. Recognition and acclamation may only be accorded to pharmacy when life threatening drug therapy regimens are averted. The lone pioneers of counselling activities, indicated that initiatives should only be rewarded when long term benefits have been firmly established. The initiative of these practitioners stemmed from a desire to fulfil a role more closely associated with the pharmacy education process and with community needs.

The paramount importance of implementing pharmacy counselling fees became evident at the Australian Royal Commission into Drugs in 1978, when a combined submission by the Pharmaceutical Society of Victoria, the Pharmacy Board of Victoria and the Victorian College of Pharmacy raised the question of counselling fees. The raising of this question could only bear relevance to the sociological process of professionalisation. (51) Criteria involving a fee were described by Manning and Feehan. (52)

"To some pharmacists an additional sanction from the medical profession may be required (particularly if a fee for patient counselling is being sought)...." (53)

The federal council of the Australian Medical Association recently asked its New South Wales branch to examine the question of remunerating pharmacists for counselling and projected health care services in pharmacies.

"Doctors have questionned the implication in the Guild's advice that a pharmacist should charge for supply of services such as drug counselling and health education, for which they feel pharmacists have not been trained." (54)

The approval accorded by the medical profession to proposals set forth by the Pharmacy Guild of Australia will be a major factor in deciding the outcome of attracting fee for service counselling.

Conclusions- patient counselling.

The issue of patient counselling has been pursued with great vigour over the last three years by pharmacy organisations in Australia. Some community pharmacists have restructured their working environment to facilitate this activity. This transition has not occurred overnight. Practitioners who have implemented a counselling framework, believe that its benefits should be substantiated before a fixed remuneration or fee for service payment be sought.

Academic writers and the professional associations have been criticized by the rank and file for moving too hastily. Terminology used by the professional associations is becoming 'patient' oriented, supplementing this term for the traditional 'customer'.

The professional associations and the academic writers demonstrated a responsible attitude towards change, by striving for improved patient well being; but have yet to fully recognise the limitations imposed upon the newer activities by the actual reality of the community pharmacist's day to day routine.

The issue of whether to counsel in privacy or public has yet to be resolved in the literature. The advocates of counselling rooms imply privacy; but the advocates of counselling involvement in every pharmacist-customer interaction by-pass the question.

It is clear that all good salesmen offer advice, and the pharmacist traditionally belongs in this category, by the very nature of an involvement in business activity.

Counselling criteria and the abdication of specific shop duties such as dispensing may give partnership pharmacies an advantage over the sole proprietor.

Fitzwarryne stated;

"Very few pharmacists are capable of undertaking the full range of counselling, and post graduate education in this area is badly needed."(55) Fitzwarryne added that there would be a small demand in the future for community based clinical specialists. (56)

Currently counselling is undertaken in few community pharmacies, and whether it is necessary cannot yet be determined. Counselling involves more than a superficial exercise; an understanding of the patient's medical history is required, the diagnosis, the prognosis and the drug regimens. Pharmacists do not need to mimic the role of the doctor; however, counselling knowledge should be supported by patient oriented knowledge. Considering the spectrum of activities involved in community pharmacy practice, then patient counselling could be a contender for one of Manning and Feehan's passing fashions. (57)

(d) Relationships with other health occupations.

Unlike hospital and community health centre colleagues, the community pharmacist works in isolation from the medical and allied health occupations. The hospital pharmacist retains contact with health care occupations involved in the chain of events that constitute a patient's stay in hospital. Liaison with the nursing staff is paramount for they are the occupation most involved with patient management twenty four hours per day. At the ward level, hospital pharmacists have involvement with acutely ill or chronically disabled patients. In the hospital outpatient department pharmacists have involvement with ambulatory patients, either being discharged from hospital or following attendance at outpatient clinics. The community health centre pharmacist maintains daily contact with medical and health care occupations. Health centre pharmacists have involvement with ambulatory patients being treated for either non acute short term problems or chronic long term problems, that are not totally

disabling or require frequent long term hospitalisation. Contacts with the nursing staff coordinating patient care activities proceed in this environment.

It is often said that the local doctor is as far away as the telephone; however there is no substitute for face to face interaction. The community pharmacist traditionally dealt with customers, and this writer noted that calls for increased professsional recognition utilise the term 'patient'. The community pharmacist's isolation from the community health nurse and organisations such as the Royal District Nursing Service may constrain the growth of the pharmacist's professional activities in the community. The community pharmacist is place bound and acts and regulations prevent practice outside the licensed premises.

When activities such as patient counselling and medication compliance are raised with respect to the average drug consumer, then one wonders if community pharmacists are appropriately located to facilitate these. The pharmacists' education background and the nature of work lend support for involvement in these activities. Pharmacists are well placed to offer advice related to pharmaceutical prescription purchases. On the other hand community nursing services operate within households of non ambulant persons whom perhaps require regular drug administration assistance. Even though community pharmacy manpower outnumbers community nursing manpower, community nursing services fulfil a role in isolation to the community pharmacist.

Drug compliance, an issue raised by pharmacy, led to a number of studies in Melbourne teaching hospitals where pharmacists monitored drug giving processes. This issue has also been pursued by pharmacy writers having involvement with community pharmacy. However it is clear that services involving patient medication profiles, counselling and other

advice disseminating activities do not guarantee a solution to the drug compliance or non- compliance problem.

If one accepts drug compliance as an issue, then it may affect both ambulant and non ambulant patients, and while community pharmacists remain isolated from community nursing services, there can be no solution to this issue. (58) The community pharmacist may be further displaced from participation in rationalising such relations between community nursing and community pharmacy if community nursing services are expanded, and continue to work from district or teaching hospitals.

The community pharmacist whilst isolated from the medical and allied health occupations, and his own colleagues, still carries on the traditional dispensing and business role in the community; however the transition to newer patient oriented activities may be limited by this isolation.

OWNERSHIP AND THE DISTRIBUTION OF COMMUNITY PHARMACIES

(a) Ownership status.

The ownership regulations are specified on the Pharmacists Act 1974. Pharmacy ownership is limited to registered pharmacists. The other specified premises in the Pharmacists' Regulations 1976 are depot pharmacies. These are controlled by a principal pharmacy practice, and cannot be established closer than fifteen road kilometers from another community pharmacy or depot. Depot pharmacies are distribution centres for labelled, packaged and addressed medications supplied from the principal pharmacy. An agent of the pharmacist (over eighteen years of age) can operate this service, which is usually restricted to a few hours per day, one or more days per week.

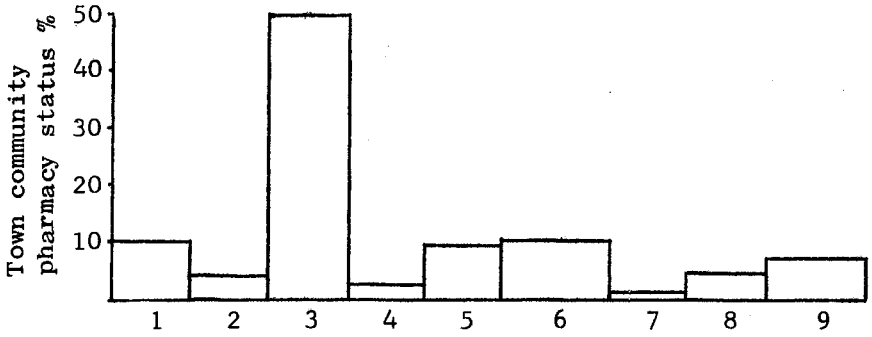
(b) Community pharmacy distribution.

Table 5.2 presents by region, community pharmacy ownership status and community pharmacies located in towns of hospitals in this survey.

TABLE 5.2 The status of community pharmacy practice in country hospital towns in this survey population. (June 1978)

| Regions | Community pharmacy classification per town: 1 No local community pharmacy | 2 Depot pharmacy only | 3 Sole community pharmacist | 4 One partnership community pharmacy | 5 Two sole proprietors | 6 One sole and one partnership proprietor | 7 Two partnership pharmacies | 8 Three or more sole proprietors | 9 Three or more sole and partnership proprietors | Total towns |
|---|---|---|---|---|---|---|---|---|---|---|
| Mallee | 1 | - | 2 | - | - | 1 | 1 | - | - | 5 |
| Wimmera | 1 | 3 | 8 | - | 1 | - | - | 1 | - | 14 |
| Glenelg | 1 | 1 | 4 | - | 1 | - | - | 1 | - | 8 |
| Loddon | 4 | 1 | 10 | - | 2 | - | - | - | 3 | 20 |
| Central Highlands | 1 | - | 6 | - | 1 | 1 | - | - | - | 9 |
| Barwon | 1 | - | 3 | 1 | - | - | - | - | - | 5 |
| Corangamite | - | - | 4 | - | 1 | 2 | - | - | - | 7 |
| Goulburn | 1 | - | 4 | 1 | - | 3 | 1 | - | - | 10 |
| North East | 2 | - | 6 | - | - | 3 | - | - | 1 | 12 |
| East Gippsland | - | - | 5 | - | 2 | - | - | - | 2 | 9 |
| Gippsland | - | - | 4 | - | 1 | 1 | - | 1 | - | 7 |
| Southern | 1 | - | 5 | 1 | 3 | 2 | - | 3 | 3 | 18 |
| Total | 13 | 5 | 61 | 3 | 12 | 13 | 2 | 6 | 9 | 124 |
| % | 10.5 | 4.0 | 49.2 | 2.4 | 9.8 | 10.5 | 1.6 | 4.8 | 7.2 | 100 |

FIGURE 5A Percentage distribution of community pharmacy status in country hospital towns in this survey population. (June 1978)

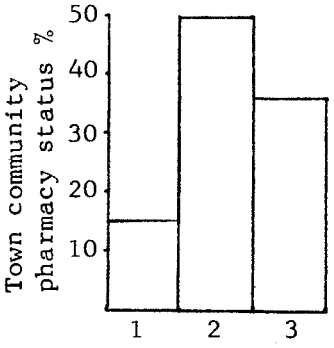



(Information utilised in Table 5.2 and Figure 5A was made available by the Pharmaceutical Society of Victoria.)

TABLE 5.3 Grouped classification of community pharmacy status in hospital towns in this survey population. (June 1978)

| | 1 No community pharmacy | 2 Sole proprietor | 3 All other proprietors | Total |
|---|---|---|---|---|
| Total | 18 | 61 | 45 | 124 |
| % | 14.5 | 49.2 | 36.3 | 100 |

FIGURE 5B Percentage breakdown of community pharmacy facilities available in hospital towns in country Victoria. (June 1978)




Community pharmacy classification as in Table 5.3.

The significant feature of Table 5.2 is that 49.2% of the survey hospital towns in country Victoria have a sole proprietor community pharmacist. Of equal significance is the fact that 14.5% of the hospital towns are not serviced by a full time community pharmacist. Figure 5A represents a diagram of the statistics in Table 5.2. Table 5.3 distinguishes the prime elements in Table 5.2, and Figure 5B presents a percentage distribution of these prime elements.

The main feature of community pharmacy ownership in the survey hospital towns in country Victoria is the sole proprietor community pharmacist. It cannot be assumed that they do not employ other staff pharmacists. Without investigating such arrangements, a gauge of such organisation could be found in details relating to the allocation of isolated pharmacy allowances.

A sole proprietor is required by law to be in attendance at all times while the pharmacy is open to the public. Partnership pharmacies may remain open operated by one partner, whilst the other may participate in the business or any other external activities whether business or pleasure. The partners are in a position to negotiate and rotate any working arrangements.

(c) Pharmacists per community pharmacy.

Feehan (59) calculated (approximately) a value for this ratio using available 1971 data, and listed the limitations involved in making such a calculation. In Victoria, this value approximated to 1.5 pharmacists per community pharmacy.

"In fact a ratio of something like 2.5 pharmacists per pharmacy would reflect a situation where better and more adequate specialized services were provided." (60)

Table 5.4 assumes that sole proprietor community pharmacists do not employ other staff pharmacists, and includes a calculation similiar to that made by Feehan.

TABLE 5.4 The ratio of pharmacists per community pharmacy in hospital towns in this survey population.

| Number of community pharmacies | Number of owners and partners* | Ratio of pharmacists per pharmacy |
|---|---|---|
| 174 | 218 | approx. 1.2 |

(* The names of owners and partners were only counted once.)

A further assumption made is that the partners actively participated in the partnership community pharmacy. This ratio of 1.2 is less than the figure calculated by Feehan and thus further removed from the ideal figure proposed.

TABLE 5.5 The ratio of pharmacists per hospital town in this survey.

| Number of towns | Number of owners and partners | Ratio of pharmacists per hospital town |
|---|---|---|
| 124 | 218 | approx. 1.8 |

The ratio of 1.8 pharmacists per hospital town does not reflect the fact that 49.2% of towns are serviced by sole proprietors and 10.5% are not serviced by a community pharmacist.

(d) Community pharmacies in country Victorian towns.

TABLE 5.6 The ratio of pharmacies per town, in hospital towns in this survey population.

| Number of towns | Number of pharmacies | Ratio of pharmacies per town |
|---|---|---|
| 124 | 174 | 1.4 |

The ratio of 1.4 reflects the number of pharmacies in towns served by at least a partnership community pharmacy and other pharmacies.

TABLE 5.7 Community pharmacy practice in Victorian country towns classified by town hospital status (June 1978).

| Country Victorian towns with: | Number of towns | % of all towns in this table | Total number of town community pharmacies | % of all community pharmacies in table |
|---|---|---|---|---|
| Base hospital | 13 | 7.0% | 160 | 34.5% |
| Other public hospitals with daily bed average $\geqslant$ 60 | 13 | 7.0% | 54 | 11.6% |
| Hospitals with daily bed average $<$60 | 107 | 57.8% | 174 | 37.5% |
| Without public or bush nursing hospitals but with a community pharmacy | 52 | 28.2% | 76 | 16.4% |

(Source:- The 1977- 78 annual reports of the Hospitals and Charities Commission and the Victorian Bush Nursing Association, and information supplied by courtesy of the Pharmaceutical Society of Victoria.)

Table 5.7 shows that of 464 community pharmacies situated in country Victoria, 37.5% of these are situated in hospital towns in this survey. The category 'other public hospitals with daily bed average greater than sixty', includes hospitals other than those within the base hospital category, that may or may not employ a full-time pharmacist. Amongst the fifty four community pharmacies in this category, twenty two are situated in towns of hospitals not employing a full-time pharmacist.

Hence the issue of employing a community pharmacist in public and bush nursing hospitals in this survey relates to a maximum of one hundred and ninety six country community pharmacies. This represents 42.2% of

all Victorian community pharmacies at June 1978. For comparative purposes it might be noted that there were 990 metropolitan community pharmacies in Victoria at this date. Therefore the issue of sessional pharmacy in country Victoria relates to 14.5% of all Victorian community pharmacies.

(e) Hospitals in towns without a community pharmacy.

Table 5.8 shows the 10.5% of hospitals situated in towns not served by a full-time community pharmacist. Table 5.9 shows the 4.0% of hospitals situated in towns served by a depot pharmacy.

TABLE 5.8 Hospital towns without a full-time community pharmacist. (June 1978)

| Town | Hospital type | H.&C.C. region | V.B.N.A. region |
|---|---|---|---|
| Murrayville | bush nursing | | North west |
| Goroke | public | Wimmera | |
| Merino | bush nursing | | South West |
| Maldon | public | Loddon | |
| Elmore | public | Loddon | |
| Lancefield | bush nursing | | Central |
| Trentham | bush nursing | | Central |
| Violet Town | bush nursing | | North East |
| Walwa | bush nursing | | North East |
| Chiltern | bush nursing | | North East |
| Woods Point | public | Southern | |
| Beeac | public | Barwon | |
| Avoca | bush nursing | | South West |

TABLE 5.9 Hospital towns with a depot pharmacy. (June 1978)

| Town | Hospital type | H.& C.C. region | V.B.N.A. region |
|---|---|---|---|
| Jeparit | public | Wimmera | |
| Rupanyup | public | Wimmera | |
| Beulah | bush nursing | | North East |
| Dunolly | public | Loddon | |
| Macarthur | public | Glenelg | |

SESSIONAL PHARMACY

(a) Introduction.

On 21st. November 1974, Mr P. Gross, chairman of the rural health working party of the Hospitals and Health Services Commission tendered the following for consideration by the Pharmaceutical Society of Victoria;

- the potential role expansion of the pharmacist in rural, remote and isolated areas;
- the potential role of the pharmacist in patient counselling, on therapeutics committees, and as a member of the health care team;
- pharmacy relationships with general practitioners and the potential for improving the attractiveness of rural areas for young doctors and pharmacists;
- the potential opportunities for shared pharmacy counselling service among groups of smaller rural hospitals; and
- the advantages and disadvantages of involving retail pharmacists in hospital based activity within their local community.

The Pharmaceutical Society of Victoria invited members to submit opinions to enable preparation of a submission for the rural health working party.(61) This writer forwarded comments on 19th December 1974 for consideration. A copy of the final submission was forwarded to this writer in January 1975. (62)

"The reason for the society's interest in the matters under review is that it represents the whole spectrum of pharmacists as a profession in the state of Victoria." (63)

Opinions were sought from practising pharmacists in rural areas as well as from persons represented on official pharmacy bodies.

"The society believes that the recommendations made reflect a general consensus." (64)

This submission included discussion on the following matters;

- the legal and professional functions that can be supplied by a pharmacist in rural and urban surroundings;
- that sessional pharmacy is a matter of special significance in rural areas;
- the role advantages of a sessional pharmacist;
- patient counselling and involvement of the community pharmacist on the hospital pharmacy and therapeutics committee;
- the pharmacists' isolation from his peers and other members of the health care team;
- the relationship between community pharmacists and general practitioners, which was stated as being good for the reason of the common aspects in their legal and professional responsibilities;
- the attractiveness of the rural environment, the recurrent costs of operating an isolated pharmacy practice and areas where attention should be given to promote a higher quality community pharmacy service; and
- the well established relationship between community pharmacists and local rural hospitals.

The following is a summary of the conclusions presented in this submission;

- a subsidization scheme is recommended to enable continuing education programs for rural community pharmacists;
- local pharmacists should participate in hospital therapeutic committees, a pilot sessional practice should be established, and regional/sessional pharmacy should be considered;
- viable community pharmacies will continue to fulfil their primary communication role as members of the health care team;
- there is scope for pharmacists to be consulted in relation to hospital drug problems; and
- the community pharmacist could be of assistance in any community health

development or education strategy.

With respect to future options for community pharmacy, the Pharmaceutical Society believed that the following matters required serious consideration;

- the active participation of community pharmacists on a sessional basis in a small country hospital;
- the joint participation of hospital and community pharmacists in a regional pharmaceutical supply service from a central hospital to a number of outlying smaller hospitals;
- financial assistance for ongoing education programs to be participated in by various members of the health care team;
- provision of a range of community health and welfare information from hospitals, doctor's surgeries and pharmacies;
- subsidisation of establishment and recurrent costs of pharmacies and doctor's surgeries in new or redeveloped country centres;
- encouragement for the appointment of pharmacists to the board of management of local hospitals when not served by an employee pharmacist;
- a requirement that hospital therapeutic committees have pharmacist representation on an ex officio basis (where salaried pharmacists are employed) or on an appointment basis (where the services of a community pharmacist are utilised); and
- the general economic and other benefits to public health likely to arise from an overall well monitored drug program in remote and isolated rural areas. (65)

This writer appraised this report, and on 22nd January 1975 submitted a reply to the Pharmaceutical Society of Victoria. The following conclusions were included;

- the society claimed to represent the whole spectrum of pharmacists as a profession in the state of Victoria; however this submission only

recognised the potential of the community pharmacist;

- there is a lack of depth and consideration shown in the three short clauses dealing with regional pharmacy, since no endeavours were undertaken to research this development;
- the submission failed to identify the different roles and the variance in the level of patient care involvement and associated expertise between hospital pharmacy and community pharmacy practice; and
- the submission obviously had a minor input from rural hospital pharmacists; the matters raised by this writer (whilst employed as a hospital pharmacist in country Victoria) received no attention.

"For years doctors and nurses have been involved in areas or duties of drug control, distribution and administration which would best be handled by pharmacists." (66)

Ten years ago doctors and nurses fulfilled this role in Australian teaching hospitals. However the above quotation is still representative of this current era since not all hospitals have implemented ward pharmacy services. For small Victorian hospitals, the quote is indicative of the past and present. Seventeen hospitals are serviced by a part-time pharmacist and this involvement may not secure and encompass all of the pharmaceutical patient care activities currently being fulfilled by nurses and doctors. In a majority of small Victorian hospitals, pharmacists have never been involved in areas or duties related to drug control, distribution and administration.

The impetus for the development of sessional pharmacy proceeded the introduction of medibank in July-August 1975, and an opinion by the Hospitals and Charities Commission that all hospitals should have access to a pharmacist's service. The Commission were prepared to offer assistance and to make funds available for the implementation of approved schemes.

At the same time regional pharmacy development appeared to be stagnating. Naismith initially advocated regional pharmacy (67) (68), and more recently advocated sessional pharmacy with base hospital involvement.(69)

(b) Current practice in small hospitals.

"Unqualified dispensing in hospitals." (70)

A report in the Bulletin of the Pharmaceutical Society of Victoria said that some small hospitals had a room marked 'dispensary', and that nursing staff were distributing medications in bulk packs.

"These circumstances tend to be brought about through convenience to hospital management." (71)

This resulted in oversight of many factors including, professional control of medication dosages, drug interaction recognition, and storage and shelf life requirements of medications.

"Thus saving in most cases is illusory and can lead to cases of overdosage and poisonings." (72)

A meeting to discuss these matters was proposed between the Victorian Nursing Association and the council of the Pharmaceutical Society of Victoria.

The following stand typified the philosophy of the Pharmaceutical Society with respect to drug matters in small hospitals;

"Pharmacists are the only persons specially trained as drug custodians, and pharmacists must be prepared to fight to protect their right to dispense." (73)

The problem areas in small hospitals were discussed at a work shop on sessional pharmacy on 16th October 1977. (74)

Sessional pharmacy is advocated as a substitute for the following procedures undertaken in small hospitals;

- the ordering of drugs on a rotating basis from local community

pharmacists, a process whereby the community pharmacist works within the local pharmacy; and

- the ordering process and the distribution of drugs in small hospitals by nursing staff under the supervision of the attending doctor. (75)

(c) Current practice and the local community pharmacist.

The traditional supply service from the community pharmacist ceased on the hospital doorstep. Without a pharmacist's oversight, each hospital developed a pharmaceutical patient care service. The community pharmacist's relationship with the hospital was seen in a commercial light. Traditionally each hospital obtained pharmaceutical supplies via many avenues. (76)

Apple (77) affirmed that the community pharmacist could never change into a clinical pharmacist, and proposed that;

- the community pharmacist would not be able to gain government support for such a role model;
- technology would ultimately make the corner drug store obsolete; and
- the public were not going to want their health care delivery carried out in a mercantile environment.

Apple indicated that American pharmacy was moving away from the personal communication role, noting that;

- pharmacists would not be willing to give up other activities and concentrate solely on clinical pharmacy; and
- mail order prescription services were developing in America for retired and less active people.

Des Roches (78) advocated that clinical pharmacy was not practical in a community pharmacy. An institutional setting was considered more appropriate.

Bloomfield (79) considered that clinical pharmacy is the only acceptable future role for the community pharmacist advocating participation in medication information systems, medication surveillance and health education programs, based upon investigations into the record keeping practices of medical practitioners.

(d) The employment of a sessional pharmacist.

The sessional pharmacist is a part-time hospital employee. An employment contract based upon facets of the hospital pharmacists' industrial award should be drafted in the absence of any specific determination. (80) (81)

The following are considered advantages of sessional pharmacy;

- regular personal attendance of a pharmacist would enable prompt solutions to drug distribution problems;
- the pharmacist's participation would enable dissemination of relevant drug information concerning patients, and medication storage in the hospital;
- the pharmacist would ensure that medication legal requirements were met, and further monitor hospital activities to ensure that such requirements were adhered to in the best interests of the hospital and its patients; and
- the pharmacist would consciously orientate the nursing staff to recognise the importance of the pharmaceutical patient care function in the hospital. (82)

Feehan et al. (83) considered that benefits of a professional nature would accrue for the community pharmacist in the hospital environment.

The community pharmacist's involvement in the hospital brings together aspects of primary and institutional health care. As well as participating in medication dispensing and stock control, the community pharmacist would gain an insight into inpatient care and a greater

understanding of hospital patients. This arrangement allows an ongoing appreciation of each inpatient and a far greater understanding could be achieved than could be obtained from occasional community pharmacy interaction. Patient contact within the hospital provides the best opportunity to understand patient ailments at the time of greatest urgency. Community contact before and after hospital contact would provide the necessary reassurance for the patient and the community pharmacist, in the pharmacist's role of providing a support service. The hospital environment also facilitates contact with other health care occupations.

A sessional pharmacist listed the following areas of concern in this new role;

- the displacement of nursing staff from their traditional duties;
- new ideas were subject to slow reception;
- dosage administration times were organised around meal times; and
- irregular practices such as tablet crushing were evident. (84)

A Victorian base hospital chief pharmacist noted the following;

- community pharmacists were initially apprehensive about participating in sessional pharmacy;
- acceptance of the idea by the nursing profession varied between hospitals;
- the views of the local doctors also varied;
- small hospitals usually had insufficient space and facilities for sessional pharmacy;
- there is an initial cost barrier in setting up a pharmacy department and then stocking it with pharmaceutical preparations; and
- when a sessional pharmacist operates a busy sole community pharmacy, then temporary relieving assistance may be required for either activity.(85)

A service with community pharmacist and hospital pharmacy input is more

advantageous than either sessional or regional pharmacy alone.
Reasons advanced for this are;

- exotic hospital drugs could be stocked in larger quantities at a Victorian base hospital, avoiding the unnecessary tying up of money in expensive inventory in the small hospital;
- routine drug supply from the base hospital could achieve considerable cost savings over other avenues of supply;
- the base hospital could supply a comprehensive back up service to a sessional pharmacist, for example drug information;
- the sessional pharmacist requires an orientation in hospital pharmacy practice, and this could be aided by visits to the base hospital, and by visits by hospital pharmacists to the sessional practice;
- the base hospital could supply a relieving service when the sessional pharmacist is on leave; and
- the base hospital pharmacist would supervise the overall activities in hospitals serviced by a sessional pharmacist.(86)

Regional/sessional pharmacy is the best arrangement for bringing together two different groups of practitioners, and provides a forum enabling more comprehensive discussion to proceed on this development.

Feehan et al. (87) proposed that the following points require consideration prior to the establishment of sessional pharmacy in a small hospital;

- a minimum number of beds that would warrant the daily attendance of a pharmacist;
- the community pharmacist's workload pattern would govern attendance times at the hospital, in the case of a partnership practice then this may not be a problem;
- the hospital requires sufficient space to install and equip a pharmacy department;
- funds need to be secured from the Hospitals and Charities Commission;

- the community pharmacist needs to be available to visit the hospital;
- the local doctor's prescribing habits;
- the type of hospital care provided (acute or chronic care);
- other professional staff employed at the hospital; and
- the geographical location of the hospital.

In addition, this writer adds that the expressed desires of the matron and administrator of the small hospital are factors governing the need for sessional pharmacy. On the other hand sessional pharmacy cannot be offered to small hospitals in towns not serviced by a community pharmacist.

Hospital meetings are the most appropriate medium for considering the new role of the community pharmacist. They need not take the form of a special committee; but a mechanism orientated towards an ongoing evaluation that is impartial, is essential. It was recommended that sessional practitioners participate on the hospital drug and therapeutic committee, and if no such committee existed then the sessional pharmacist should instigate its formation. Further consideration needs to be given to the notion that a hospital pharmacist be invited to participate on this committee, following the commencement of new sessional pharmacy services.

(e) Outpatient and inpatient roles.

Dispensing medications in community pharmacy resembles the dispensing activities in the outpatient pharmacy departments of major teaching hospitals. Outpatient pharmacy departments have undergone little change in structure and work flow patterns over the last ten years. Hospital annual reports have recorded a marked increase in the output of these departments over the same time period.

Ten years ago, inpatient hospital pharmacy dispensing resembled the functions of today's hospital pharmacy outpatient department. However

today, modern academic education programs for the undergraduate pharmacist and overseas developments in pharmacy have led to new forms of the inpatient pharmacy service. Ward pharmacy and clinical pharmacy are two terms utilised to signify this transition. The role of the inpatient pharmacy dispenser has been transformed into one incorporating a patient orientation and activities within the hospital ward. New interactions with other health care occupations have subsequently evolved within the hospital environment. Pharmacists participating in these schemes are experienced in hospital pharmacy practice.

Small hospitals do not supply specialist outpatient facilities and demands for outpatient dispensing are small. The discharged patient receives a prescription to be dispensed by the community pharmacist. Sessional pharmacy requires an inpatient pharmacy orientation. However the type of activity undertaken by the community pharmacist does not accord with the activities of pharmacists in Melbourne teaching hospitals. It would be naive to contemplate sessional pharmacy purely involving the transition of the community pharmacist from one environment to another.

"Clinical pharmacy will become increasingly more important in hospitals but there will be relatively small demand for community based clinical specialists." (88)

If sessional pharmacy fails to encompass new hospital pharmacy inpatient services, but relies on the custodian and distribution function, then sessional pharmacists will be doing no more than that previously undertaken by hospital nursing staff.

The formation of guidelines for inpatient pharmacy activities and the required performance of the sessional pharmacist needs consideration. The last quotation raises a doubt, that community pharmacy may not be a source activity for a clinical pharmacy orientation (now and in the future)

similiar to that being called for today in Melbourne teaching hospitals. In addition, the sessional pharmacist may not be involved in a sufficient variety of inpatient activity to convert the hospital role into one analogous with ward pharmacy standing.

(f) Sessional pharmacy planning.

Bodies involved in sessional pharmacy development included; the Hospitals and Charities Commission, the Society of Hospital Pharmacists (Vic.), the Pharmacy Guild of Australia (Vic.) and the Pharmaceutical Society of Victoria. The latter three bodies prepared a submission to the Hospitals and Charities Commission to seek endorsement for proposed guidelines to encourage the greater involvement of community pharmacists in small Victorian hospitals. (89)

The chief medical officer of the Hospitals and Charities Commission, Dr. Race (90) at a seminar in October 1977, stated that the entire promotion and development of sessional pharmacy had been undertaken by the Hospitals and Charities Commission's pharmacy consultant and his assistant. He further emphasized that the Commission's role was to provide services to all hospitals in Victoria. The Commission acted to regulate the activities of public hospitals, although today public hospitals remain relatively autonomous. The Commission was not in a position to dictate the needs of any hospital; but could curtail any hospital's view of their own needs by restricting the flow of funds.

"However, basically sessional practice has developed through the initiatives of local pharmacists and local hospital boards seeking a safer and more professional pharmaceutical service." (91)

The sessional pharmacy literature did not reveal any broad based evaluation of the components of the service, nor were any long range plans specified. Development has proceeded in isolated areas without

specification of a model activity. A long range plan should include consideration of what system would be most appropriate to a particular hospital and to society in general. This process requires handling by a team; however sessional pharmacy has been pursued by few individuals, and even more surprisingly by only one professional discipline.

"It is impossible for the behaviour of a single isolated individual to reach any high degree of rationality." (92)
The work load pertaining to the development of this scheme by the Hospitals and Charities Commission is vested in the hands of one individual representing one occupation. Sessional pharmacy aspirations should become a planning exercise. As this practice impinges upon areas other than pharmacy in the health care environment, other professional disciplines need to be involved in the planning process.

The intentions highlighted in the sessional pharmacy literature are generalised and no consideration has been given to the variations in the initiatives of rural community pharmacists. It would be a cumbersome task to judge such initiatives and then to intertwine this information with the planning aspirations. The readiness of rural community pharmacists to accept such responsibility remains an unknown factor. Recognition needs to be accorded when individual initiatives are demonstrated in response to a proposed development; however when they do not arise limitations to the planners ideal scheme will be faced.

To enable development of a scheme appropriate to all hospital environments, the sessional practitioners' activities may require the scrutiny of the local doctor, the hospital nursing staff and the regional pharmacist.
The future of sessional pharmacy need not be governed solely by a contract for service and remuneration. Evaluation of new schemes must be an ongoing process, and if the initiatives of the sessional pharmacist wane, then

the format of the service will require reconsideration.

Sessional pharmacy and regional pharmacy are alternative service forms. If they only mimic the traditional service in a small hospital (where pharmacy intervention has not occurred) then the bodies advocating change must substantiate their claims to hospital administrators and to society. Hospital pharmacy has advanced in an environment where the health care occupations are clustered and technological advance has been rapid. Whether or not recognition can be gained by a community pharmacist in a lesser environment, where drug supply and control are the key motives, is questionable.

In small Victorian hospitals, the nursing staff traditionally control patient care, and have traditionally controlled pharmaceutical patient care. Who will control the pharmaceutical patient care service in small hospitals twenty four hours per day, with the advent of part-time pharmacy services, is a question that presently remains unanswered.

## THE FUTURE OF COMMUNITY PHARMACY PRACTICE

".....pharmacy has a great future, and this will be derived from its health professional role rather than the ability to beat supermarkets." (93)
Schwartz (94) stated that in America, there is evidence to suggest that the community pharmacist is not viewed as a professional involved in health care. Professional aspirations involve patient and clinically orientated approaches to practice. Aspirations impinging upon patient well being should be clearly defined and be of value to society.
Schwartz advocated the following:

- The public must be able to interpret the value of the service, hence pharmacy, by the utilisation of public related exercises may achieve a higher level of community confidence above that of the current image portrayed in the pharmacists' merchandising role.

- Political action is required to achieve a positive approach for participation in changing the format of the service delivery by the community pharmacist in the health care system.

"The community pharmacist should be separated from the drug store." (95) This separation in Victorian would be governed by the Pharmacists Act 1974 and would require arbitrary dividing of a community pharmacy into two areas. Discussion relating to the viability of community pharmacies and revenue from professional services has already been documented. Schwartz mirrored the same circumstances in America, that community pharmacists could not survive on revenue attracted solely from professional activities. (96)

Griffenhagen listed the following activities as professional services that could be offered by a community pharmacist;

- patient medication recording systems;
- pharmaceutical services to nursing homes;
- professional guidance to the self medicating public;
- adverse drug reaction reporting;
- monitoring drug reactions; and
- product selection. (97)

The Australian literature added the following;

- information services including medication and social aspects;
- diagnostic testing and medical screening; and
- health education.

"In the past, it has been characteristic of organised pharmacy (and in fact some other professions) to virtually ignore voices from outside the profession until they pose a direct threat through proposed legislation." (98)

It is evident that the latter three activities will not form

part of the future of community pharmacy. The allied health care system in Australia has mushroomed over the last ten years. Pharmacy bodies in Australia need to recognise these developments and the training programs undertaken by graduates of these new specialities.

Schwartz called for the voluntary participation by community pharmacists in the activities listed by Griffenhagen.

"If however pharmacists are reluctant to perform them, I believe they must be forced to do so through regulation or legislation." (99)

Without voluntary or complusory participation, then what will be pharmacy's future ? Merchandising may be the future for many of today's community pharmacists;

"However, for the present the evidence of patterns and trends in pharmacy sales, share of the market, growth factors and numbers and size of pharmacy units, all seems to point to the commercial success of large scale and the economic problems of small scale business." (100)

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# CHAPTER VI

# HOSPITAL PHARMACY PRACTICE

INTRODUCTION

"Infusions of bucha leaves, calumba root, and cinchona bark were made almost daily." (1)

The production of galenicals was a traditional routine for the hospital pharmacist in the early twentieth century. The discovery of Prontosil by Domagüe around 1930 sparked new research within the pharmaceutical manufacturing industry, that led to changes in the nature of hospital pharmacy practice.

Developments in intravenous therapy provided new manufacturing challenges for hospital pharmacists in the late 1950's and early 1960's. However the era when hospital pharmacy competed with the pharmaceutical manufacturing industry has now passed, and total reliance for production is now placed upon this industry.

The development of intravenous additive services in Melbourne teaching hospitals in the early 1970's signified recognition of a specialised dispensing technique involving the addition of drugs to intravenous solutions. Due to short term instability problems these cannot be supplied by the pharmaceutical manufacturing industry.

Today in Victoria, some hospital pharmacy departments provide an intravenous additive service, and where this is not provided, then nursing staff prepare these solutions within the hospital ward. Hospital drug distribution systems have undergone marked change over the last decade. (2) (3) The ward basket system involved the spasmodic ordering of pharmaceutical preparations, and delivery to the hospital ward by basket via the hospital courier system.

The imprest system is an extension of the ward basket system. The pharmacist replenished ward drug stocks, maintaining a constant level

of drug inventory. This enabled the pharmacist to routinize drug supply and to gain a working knowledge of the drugs utilised in specialist areas in the hospital. The reservoir of drugs located in the ward, in addition to the actual drugs in use in the ward sister's station cupboard, is a disadvantage of this system.

The commencement of ward pharmacy, whereby a pharmacist interacts with hospital patients and other members of the health care team, included the role of replenishing drug stocks stored in a drug trolley or in the cabinet containing current use drugs. This procedure obviated the need for duplicated drug stocks in the imprest cupboard.

A later refinement of the supply system is unit dose packaging. The three former systems based supply on the volume thought necessary for a ward's requirements for a set period of time, and thus medications were supplied in bulk packs. The ward pharmacy drug supply system included weekly supply to individualised patients. This fragmentised the bulk supply arrangement. Unit dose packaging extended this concpet, each tablet or individual medication being packed separately, and supplied in weekly quantities to each patient. This system is said to;

- reduce nursing staff drug handling time;
- reduce drug wastage since unit dose packed drugs could be recycled;
- provide each medication dose with individualised labelling;
- reduce drug pilfering since bulk packs are not supplied; and
- rationalise ward drug storage and facilitate drug security. (4) (5)

Davis (6) detailed the benefits of this form of intervention. However, the literature did not account for the disadvantages of this system;

- the increased cost of the pharmacist's involvment in the ward is a greater expense than nursing staff involvement; and
- a unit dose system is only applicable to high volume of use drugs.

Melbourne's Austen Hospital purchased unit dose packaging equipment to support this concept, since the pharmaceutical manufacturing industry has not undertaken unit dose packaging of low volume of use and other exotic medications.

Within the Victorian hospital system, no hospital has yet achieved a complete ward pharmacy/ unit dose drug distribution service. Developments have occurred mainly in teaching hospitals in Victoria. Throughout Victoria, a range of drug distribution services have developed covering aspects of the above techniques. The drug and therapeutic committee developed in teaching hospitals has not been formed in all hospitals employing pharmacists. This committee is a mechanism whereby pharmaceutical patient care procedures can be reviewed. This committee could act to restrain professional cajolery expounded by the hospital pharmacist.

The chief hospital pharmacist assumes both administrative and pharmaceutical responsibilities. Besides routine activities, there are opportunities to rationalise drug ordering and stock control procedures within the hospital. The drug therapy chart is designed for recording all medication orders, medications administered to inpatients by whom, when and where, thus avoiding the necessity of maintaining duplicated records. This chart is the prescriber's original request and serves all personnel working from it; for example the pharmacist when supplying medications, the nurse when preparing and administering drug doses and the physician whilst on ward rounds reviewing drug therapy regimens.

The drug therapy chart has made obsolete card filing recording systems, the order for treatment chart in the inpatient's history, the inpatient drug prescription order, nursing staff notes summarising drug administration and discharge medication prescriptions.

Hospital pharmacy is typified by a mix of traditional practice and new developments. Variables used to describe this mix include;

- whether the service is product or patient oriented, or a mix of both;
- whether the service operates from within the pharmacy department, or has been decentralised to include activities such as ward pharmacy; and
- whether the service provision and the repertoire of the incumbent hospital pharmacist is either known or unknown in the hospital, or is recognised to be of importance or is not recognised as such.

These variables encompass a multitude of outcomes and it is quite evident from this writer's pharmacy experience that no two Victorian hospital pharmacy departments offer and practice the same procedures.

MEDICATION HANDLING PROCEDURES IN HOSPITALS EMPLOYING PHARMACISTS

(a) Introduction.

"Pharmacists professional responsibilities should not be transferred to other members of the health care team. The pharmacist must assume total responsibility for medications from the time the order is written to the point of administration of the drug to the patient." (7)

In 1974 Miller (8) noted that no comprehensive medication error study had been undertaken in Australia, and predicted that overseas study results would be mirrored in Australia. In 1976 Davis (9) reported that overseas medication error studies revealed approximately one dose in every five doses administered was associated with an incorrect procedure, generally termed a medication error.

Medication error includes;

- omitted doses, incorrect dosage, extra doses, non ordered drugs administered, incorrect dosage form, incorrect administration time and incorrect route of administration. (10)

Four agents contribute to the medication error; the doctor, the nurse,

the pharmacist and the patient.

(b) Medication ordering and supply.

Miller (11) described the process presented in the following table.

TABLE 6.1 Traditional hospital pharmacy service- agents involved in medication ordering and supply.

| Order written | Transcribed and taken to pharmacy | Dispensed | Ward storage followed by administration | Patient receives medication |
|---|---|---|---|---|
| Doctor → | Nurse → | Pharmacist → | Nurse → | Patient |

A similiar analogy can be made for the community pharmacist.

TABLE 6.2 Community pharmacy service- agents involved in medication ordering and supply.

| Order written | Delivered to pharmacy | Dispensed | Transported home | Patient takes medication |
|---|---|---|---|---|
| Doctor → | Patient → | Pharmacist → | Patient → | Patient |

In Table 6.1 and 6.2 the pharmacist is separated from the medical prescriber. In the traditional hospital pharmacy distribution service, the ward nurse buffers the pharmacist from the medical prescriber and the patient. Medication supply by a ward pharmacy distribution service, whether utilising weekly supplies bulk packed or similarly in unit dose containers, is central to the following analogy.

TABLE 6.3 Rationalised hospital drug distribution service- agents involved in medication ordering and supply.

| Order written | Order checked and taken by a pharmacist | Dispensed | Trans-ported | Storage and stock control | Admin-istered | Taken by patient |
|---|---|---|---|---|---|---|
| Doctor → | Pharmacist → | Pharmacist → | Pharmacist → | | Nurse → | Patient |

This system is said to reduce the nursing staff's involvement in ward drug handling and control procedures, and increase the pharmacist's workload in the ward area. It is further claimed that greater inventory control may be achieved and medication error reduction would result. (12)

(c) Medication errors.

An inventory of observed medication error incidents was drafted by

Miller (13), where incidence could be related to the working routines of either the doctor, the nurse or the pharmacist. Miller showed that nursing staff routines could be associated with the highest incidence of medication error, and believed that;

"Upwards of 90% of the errors observed in the surveys could have been avoided if a unit dose distribution system was operating." (14)

Miller (15) outlined problems encountered during the drug administration round, which worked against the ideal patient- drug administration format. These included drug administration times varying due to changes in daily meal times, drug errors resulting from incorrect transcription of the doctor's order and the fact that drug administration omission often arose when nursing staff confused drug generic and trade names.

As a solution to these problems Davis advocated that the following activities would promote a better quality pharmaceutical service in hospitals employing full-time pharmacists;

- A ward pharmacy service, the pharmacist participating in ward activities whilst performing routine medication distribution and control.
- The packaging of drugs for each patient's individual use, eliminating bulk ward drug stock supplies.
- The use of portable lockable drug trollies in the wards designed to store individually packed drugs.
- The use of rationalised drug therpy charts.
- An intravenous additive service counters against the possibilities of drug additive incompatibilities, bacterial contamination of the intravenous fluid and allows such additive requirements to be prepared by persons with a specialised knowledge of such techniques.
- Drug information services act as an education facility for pharmacy, nursing and medical personnel, and provides a support facility for the

ward pharmacist when interacting with other members of the health care team and the patient. (16)

(d) Conclusion.

Davis contended that the importance of medication errors may be judged by whether or not the patient's stay in hospital is increased, in lieu of searching for trends in morbidity or mortality statistics. This writer believes that the elucidation of any trends relating medication error to hospital inpatient stay for an hospital population over a significant time period would be a difficult task.

Other writers have postulated that iatrogenesis (17) and the general social habits of the community (18) may be other factors contributing to the length of patient stay, when compared to standardised hospital populations. Therefore the benefits of intervention in overcoming the medication error problem cannot be readily gauged against any suitable patient outcome measure.

Without a knowledge of the effects on length of patient hospital stay or the duration of disease, or even measures of well being, then what supports the pharmacists' claims ? Miller advocated the use of unit dose distribution systems since surveys had shown that these systems reduced the incidence of medication error in the ward, and in the long run this system would be more cost effecive than traditional packaging, distribution and control procedures. (19)

In lieu of implementing the unit dose packaging concept, persons involved in the medication process from prescription to administration require a greater appreciation of the consequences of routine actions related to drug handling. The implementation of a structured distribution system by the hospital pharmacist may overcome some of the envisaged problems

contributing to the incidence of medication error; but neglect consideration of the composite cause, the prescribing doctor, the nurse and the pharmacist. Intervention requires a multidisciplinary process to foster better cooperation and improve the inadequacies of each member's routine contribution within the health care team. These inadequacies are presently seen by the pharmacist in the medical and nursing roles; but should also account for the inadequacies in the pharmacist's role as seen by the nurse and the doctor.

## COMMUNITY ORIENTED INITIATIVES

Davis (20) reported the involvement of hospital pharmacists in a Canberra community health centre.

"The anomaly exists that they are virtually 'on their own' as soon as they leave the hospital." (21)

This development involves the delivery of clinically oriented services to the community, in the community by hospital pharmacy trained personnel. Such development opposes the community pharmacists' interests in clinical services.

## CLINICAL PHARMACY OR WARD PHARMACY

The role of the clinical pharmacist has been comprehensively described in the American literature. (22) In the Australian literature, Madden and Thomas described this role. (23)

American developments have been associated with the academic medical care institutions. McLeod (24) indicated that various clinical pharmacy practice models have been established, e.g. the pharmacist's activities in supplying intensive services to small groups of patients, and in the education of aspiring clinical pharmacists, medical and nursing staff. Developments occurred in specialist areas such as paediatrics and psychiatry, as well as in general areas such as drug information,

clinical pharmacokinetics, total parental nutrition, adverse drug reaction monitoring, patient counselling, drug history compilation on patient admission and in the field of radio pharmaceuticals. (25)

Madden and Thomas identified clinical pharmacy in Australian hospitals with the hospital ward, the drug committee, the drug information service and the teaching and research functions of the hospital pharmacist. These authors stressed patient involvement in clinical pharmacy and advocated that the terms clinical pharmacy and ward pharmacy were not synonymous. (26)

In lieu of a grandiose definition carrying the pharmacist into the hospital ward and clinical pharmacy activity, McLeod advocated that a unit dose distribution service and a pharmacy based drug information service would support such development.
"Unit dose was an entree into the patient care area which spared the pharmacist the trauma of announcing he was there for clinical reasons."(27) McLeod indicated that ward involvement was an issue forced by the restructuring of the drug distribution system in the hospital, whereby interaction with the doctor, nurse and the drug chart, and to some degree the patient, was achieved. (28)

In Australia, the key to hospital ward intervention was primarily rationalisation of the drug distribution system, and even today restructuring to unit dose specifications has not proceeded as specified in the American literature.

A logical extension of clinical pharmacy is in the hospital outpatient pharmacy department, where drug choice, patient education and medication compliance are of concern to the hospital pharmacist. The training of clinical pharmacists for involvement in special clinics could only be achieved in an organised health care setting, and the teaching hospital

is the most appropriate environment for such role development. To support further this role, the primary education processes for the pharmacist require redevelopment and specialised training programs in teaching hospitals must be a future consideration. (29)

Madden and Thomas stated;
"The community pharmacist has always been involved in clinical pharmacy activities, but these activities have generally been minimal." (30)
With respect to American community pharmacy developments, McLeod stated;
"If clinical pharmacy is going to make its maximal input into providing rational drug therapy, a significant involvement in ambulatory and community medicine must be developed. If this occurs it will be an outgrowth of hospital clinical pharmacy programs, not a development within the drug store establishment." (31)

To realise its full impact in the health care field, clinical pharmacy requires establishment outside the institutions in which it was nurtured. Development of the community role would best be served by hospital trained personnel; however fostering this role in the community pharmacy environment may not be possible.
"The ferment will not come from community pharmacies, nor will the thrust of clinical pharmacy programs be aimed at the solo medical practitioner and his patients." (32)
More favourable settings are advocated for the clinical pharmacist such as the community health centre or the group medical practice.

A key issue is whether or not clinical pharmacy developed as a specialist area, or is a new form of practice towards which hospital pharmacy is being directed.The clinical pharmacist in America and Australia remain in a working environment with pharmacists undertaking traditional responsibilities. The new and the traditional activities are

complementary and each form may survive this current period of change.

Another issue surrounding the clinical pharmacist are the attributes and activities of the medically trained clinical pharmacologist. Provost indicated that the terms clinical pharmacist and clinical pharmacologist are interchangeable. (33)

Madden and Thomas (34) undertook a study of the attributes and activities of hospital pharmacists in Australia in an endeavour to clarify their relationship with clinical pharmacy. Opinions of the pharmacists' role were sought from hospital pharmacists, medical and nursing personnel. This survey substantiated that up till 1972 clinical pharmacy practice in Australian teaching hospitals was a non event, and today is being nurtured as a new event. A minority of hospital pharmacists are endeavouring to achieve clinical pharmacist status by work experience. This survey detailed the mixed feelings of hospital pharmacists towards new skills. The survey also supported the view that the importance of the hospital pharmacist in the health care system today is based upon the supply and distribution function. This role has been expanded to include drug information services, intravenous additive services, ward pharmacy etc., and the unknown fact is whether or not these latter developments could be firstly nurtured in non teaching hospitals employing pharmacists and secondly in small Victorian hospitals where the services of a full-time pharmacist cannot be acquired.

McLeod (35) believed that there is a lack of cost benefit data detailing the hospital pharmacists' participation in the health care system, in alternative roles such as clinical pharmacy. If the role of clinical pharmacist became accepted without such an analysis, then McLeod queried whether sufficient legal recognition exists to support this role. As well, the provision of continuing care to patients with diseases such as

hypertension, diabetes, mental illness, tuberculosis and other chronic conditions on a pharmacological basis do not necessarily strengthen the profession since nurse practitioners and the physician's assistant also perform these activities under the physician's guidance.

SMALL HOSPITALS- COMPREHENSIVE PHARMACEUTICAL SERVICES

A number of reports have appeared in the American literature detailing the development of comprehensive pharmaceutical services, including unit dose and clinical pharmacy, in small hospitals. (36) (37) (38) (39) (40)
Part-time pharmacy services are provided in small American hospitals by local pharmacists (not employed elsewhere), community pharmacists and hospital pharmacists. Traditionally this service involved no more than routine tasks such as inventory control and the supply of emergency drugs. (41)

Even though the American health care system and its funding of the small hospital differs from Australia, the change process evident in the literature is relevant to Australia. The uncertainties of future government funding are recognised as a constraint for the development of new services. However one small American hospital developed a system that ultimately paid its own way. (42)

"Many administrators of small hospitals erroneously assume that the cost of comprehensive pharmacy services, especially in hospitals with fewer than one hundred beds cannot be justified." (43)
The support required by the hospital administrator and the necessary liaison with the medical staff concerning proposed developments is evident.(44) (45) Thus a number of occupations should have involvement in the planning process.

This writer believes that the implementation of the following systems into small hospitals require consideration;

- a hospital formulary of medications;
- a pharmacy policy and procedure manual of service facilities;
- a pharmacy and therapeutics committee;
- patient drug therapy charts;
- a pharmacy newsletter distributed on a monthly basis;
- a drug technician (trained nurse);
- facilities for an intravenous additive service; and
- a unit dose trolley and drug distribution system. (46) (47)

"Until recently, the unit dose system, was generally considered to be feasible only for large hospitals maintaining big pharmacy and nursing staffs." (48)

There is no real justification (besides finance) why these systems could not be implemented in small hospitals, and those hospitals without a pharmacist's services would surely benefit the most. These supportive services are essential for the development of clinical pharmacy services.

Some articles put forward the idea of having selected technicians for pharmaceutical patient care activities and for drug administration rounds. (49) (50) In each nursing shift, one trained nurse would be oriented (by the part-time pharmacist) to the nature of the drugs routinely used in the hospital. Preferably the technician would be a permanent member of the nursing staff willing to undertake these duties.

The following activities are said to constitute more comprehensive pharmaceutical services in small hospitals;

- centralised preparation of all pharmaceuticals;
- a unit dose distribution service via a 24 hour trolley;
- patient drug charts recording orders and subsequent administration;
- intravenous additive service facilities;
- the establishment and maintenance of a uniform medication labelling

system in the hospital;

- a centralised drug information service; and
- the promotion of clinically oriented pharmacy activities. (51) (52)

These activities rival those offered in hospitals employing full-time pharmacists. To enable the provision of these services by a part-time pharmacist, it was considered essential that pharmacy technicians be employed on a full-time basis. By delegating drug administration responsibility to trained nursing staff, the activities of the part-time pharmacist would be optimised and made more orderly in the hospital ward. Duties such as restocking the unit dose trolley and the preparation of intravenous additive solutions could also be undertaken during the pharmacist's absence from the hospital.

In Australia, technicians (with or without former hospital experience) are employed in the pharmacy departments of teaching hospitals. It seems logical in small hospitals that nursing staff be trained to carry out the functions of pharmacy technicians, during the part-time pharmacist's presence and absence from the hospital. In New Mexico, the pharmacy board redrafted regulations providing for the activities of pharmacy technicians in isolated health clinics. These regulations allowed non pharmacist personnel to perform many of the procedures prior to the dispensing of a medication by a licensed practitioner. (53)

Hence the limitations imposed by across the board regulations on part-time pharmacy services were realised. The former regulations were never adhered to. No matter how routine the hospital or health clinic was operating twenty four hours per day and receiving the services of a pharmacist for only two of these hours.

"In this case specific registered nurses have been trained by pharmacists and are authorised to enter the pharmacy to dispense drugs in the

absence of the pharmacist." (54)
Unscheduled patient admissions requiring statum drug doses and when patient drug therapy changes are indicated during the pharmacist's absence from the hospital are times when technicians are called upon.

To gain an insight into the implications of service rationalisation, Nelson et al. (55) recommended an evaluation based upon the principles of cost effectiveness. Evaluations considered by these authors are;
- an analysis of the affect of new services on the quality of patient care;
- a task analysis of the activities of a pharmacist in a small hospital;
- the attitudes of the patients, physicians and nurses towards an increased level of pharmacy involvement in patient care; and
- the financial impact of comprehensive services.

These authors undertook an evaluation based upon the fourth proposal. An analysis related to the principles of cost effectiveness was attempted in an Australian teaching hospital following the implementation of ward pharmacy. (56) Two other studies ( not related to the principles of cost effectiveness) related to the second proposal; the first was carried out in 1964 prior to the development of ward pharmacy (57), and the second was carried out in 1975 and included consideration of traditional and ward pharmacy activities. (58) No comprehensive studies related to the principles of cost effectiveness and hospitals with regional or sessional pharmacy have appeared in the Australian literature.

In Victorian public hospitals, pharmacy charges are not raised against hospital inpatients and outpatients. Bush nursing hospitals could raise charges against hospital inpatients. The prime factor inhibiting the development of comprehensive pharmaceutical services in small Victorian hospitals is clearly a lack of support from the government funding authorities. The state government budget constraints imposed on Victorian public hospitals in September 1977 were a big set back to the proposers

of such developments.

In the absence of literature generated by the management, nursing and medical professions, it is clear that pharmacy should co-opt their participation and undertake an investigation into methods that would achieve rationalisation of pharmaceutical patient care services in small Victorian hospitals.

REGIONAL PHARMACY SERVICES

(a) Introduction.

Regional pharmacy was first considered in Australia by Naismith in 1968. (59) (60) In 1970, Kirk presented his thoughts on this topic. (61) Kirk believed that the gains made in ward pharmacy could also be achieved in regional pharmacy. Both Kirk and McMahon (62) reported the proposed development of regional pharmacy in six hospitals in the Bunbury region of Western Australia.

"Let me say here that I would not at this stage advocate the regional pharmacist in the role of drug dispenser for his regional hospitals.." (63) Kirk saw the regional pharmacist as a problem solver and did not envisage participation in either ward rounds or drug therapy chart scrutiny, in all involved hospitals. This role embodied a streamlining and standardising function.

Kirk's views were opposed to those of Naismith (see Chapter Two) who advocated a central hospital fulfilling drug supply and the regional pharmacist's participation in traditional custodian and dispensing activities in small hospitals.

Kirk noted the following experience in a Scottish hospital;

"Although I note in a recent article that in one of the Scottish off shore islands arrangements have been made by Aberdeen for a local retail

pharmacist to assist part-time in the local hospital." (64)

(b) Regional development in Victoria as reported by the Hospitals and Charities Commission.

In 1954 the Hospitals and Charities Commission instituted a regional development program. The 1966-67 annual report of the Commission recorded; "The pattern of regional services continues and has been in progress long enough to prove that it is a worthwhile achievement." (65)

The following statements are in the Commission's 1967-68 Annual Report; "In belonging to a region the small hospital feels it has a part to play in the hospital field." (66)
"Most of the base hospitals realize they are regional hospitals and render assistance to the district hospitals as and when required. (67)

The 1968-69 annual report tabled the first substantial recommendations for promotion of the regional development program following the appointment of Dr. E. Wilder as the leader of a reorganised regional body. The recommendations included calls for better communication between regional councils and the commission, that the commission utilise the regional councils as sources of advice, and that suitable publications be made available at regular intervals for the information of regional organisations.

At the conference involving the regional councils held at the Mayfield Centre in 1970, it was agreed that better coordination and facility sharing would be required between the regions to meet future challenges in the health care field. The amalgamation of the eleven existing regions into sectors was proposed and accepted (see map one in Chapter Two). Each sector would have an affiliation with a Melbourne teaching hospital and undertake a pilot project, reporting back on this in two years time. A sector supervisor was appointed and the project was to be administered

by a board drawn from the existing regional councils.
Regional pharmacy was chosen for sector one. The 1970-71, 71-72, and 72-73 annual reports of the Commission included discussion on this project.

The 1972-73 annual report signified the end of the unofficial two year period decided upon in May 1970. The 1973-74 and 74-75 annual reports indicated that the development of all pilot projects was running well behind schedule. The 1975-76 annual report recommended that the regional pharmacy service be extended to other isolated communities in other Victorian regions.

Unlike the New South Wales Health Commission, the Hospitals and Charities Commission appeared not to foster the publication of reports for the benefit of writers and readers in the health care field. This may not be an affirmed policy of the Commission; however the lack of published material dealing with the Victorian health care system and supported by the Hospitals and Charities Commission was apparent to this writer during the literature search. This writer hopes that the new Victorian Health Commission will become active in this area.

The Hospitals and Charities Commission's contribution to the literature relating to regionalism is on record in the annual reports of that body. The meagre offerings published are an indication of the role the Commission played in regional development. This performance is manifestly on record; reporting characterised by the resurrection of past annual report material, meandering and the use of vague terminology are evidence of the Commission's indulgence in regionalisation. Initiatives at the regional level by the involved hospital and community personnel were outstanding during endeavours to promote a flagging concept.

1976 heralded the twenty second year of the Commission's regional

development scheme;

"However over the past year the development of the regional scheme has tended to mark time whilst awaiting further information of the Syme Townsend report on hospitals and health services." (68)

(c) Regional pharmacy development in sector one in Victoria.

Two reports and a journal article comprehensively describe the research, planning and development of the regional pharmacy service based at the Latrobe Valley Community Hospital, Moe Victoria. (69) (70) (71)

The board of Sector One accepted the following pilot project;

"To enquire and investigate the possibility and feasibility of establishing a sector pharmacy service to hospitals not employing full-time pharmacists." (72)

The involved chief pharmacists stated that;

"The range of pharmaceuticals and literature available to the participating hospitals would necessarily be the same as those available to the base hospital with the addition of any items in local demand. This then implied that the service would be better than that available from the local pharmacy for specialised hospital items if not as fast for more usual lines. Emergency service would be available at all times." (73)

Opposition to this scheme was voiced by town pharmacists who for many years had supplied pharmaceutical requirements to the local hospitals.

The authors noted that independent reports elucidated the information that matrons and visiting medical staff of the participating hospitals were more than satisfied with the service provided.

"As we are fully aware it is not possible for a number of reasons for every hospital to conduct its own pharmacy department. It is possible however for larger hospitals to provide a regional pharmacy service to

smaller hospitals and thus extend to them therapeutic facilities in materials, resources and manpower." (74)

Development of the pilot project involved administrators, matrons, pharmacists, sector and regional councils and the Hospitals and Charities Commission. These reports reflected the time and effort contributed to making the pilot project a success and the implemented scheme an invaluable service to the participating hospitals. However the community pharmacist's involvement with the local hospital was not considered, and was rapidly dismissed on cost grounds.

The hospitals' rejection of participation in the project may have been an indication of the support of the local community pharmacist. The scheme did not embrace the sector or a region since a vital cog in the Victorian hospital system, the bush nursing hospitals, was not considered from the outset of the planning process.

"It is unanimous opinion that all hospitals within the sector without regard to their size or location be offered the service." (75)

The regional pharmacy service involves;

- the nursing staff at each hospital would compile the order and telephone it through to the base hospital;
- the order is assembled and delivered in a vehicle exclusively for this purpose;
- the pharmacist makes the delivery and during attendance at the small hospital checks the ordering process and drug storage requirements, the security of the drugs of addiction, and the general safe custody of all drugs during transit are an advantage of this system; and
- the pharmacist undertakes stock inspection, stock rotation, supplies requested drug information, monitors drug handling techniques and undertakes to record reported drug interactions, overdosage and incompatibilities.

This contribution would eliminate the inappropriate everyday pharmaceutical patient care activities of the nursing staff, as noted by the chief pharmacists during hospital inspection tours.
"We believe that we have formulated a workable plan based on our research into the problems existing in hospitals without pharmacists." (76)

Grebe and Coupe contended that;
- the prerogative of joining the scheme still lay in the hands of each hospital's board of management;
- the matron still retained responsibility for hospital drugs but the workload had been shifted to the regional pharmacist; and
- the reaction of the local pharmacists was significant since prior agreements for drug supply with the local hospital existed and were subsequently terminated at short notice. (77)

Grebe and Coupe noted that in 1970 the Warrnambool Base Hospital supplied drugs to surrounding hospitals by laundry van. However this type of non involvement service was previously condoned by Kirk. These authors also noted comments by Naismith following his 1972 Churchill Fellowship tour of America, where the trend was towards the greater involvement of the community pharmacist in small hospitals.
"Whatever the outcome, all pharmacists should endeavour to cooperate together towards a common goal." (78)

These authors belatedly acknowledged the presence of other alternatives, these not receiving consideration in the planning phase.
"From our experience there is certainly a need to assist hospitals which do not employ pharmacists. Therefore hospital pharmacists should consider extending their services to fill this need which exists not only in country areas, but in metropolitan areas as well." (79)

VICTORIAN BASE HOSPITAL DISTRIBUTION SERVICES

(a) Introduction.

One of the foremost aims of the regional hospital system is to foster cooperation between large and small hospitals. Many Victorian base hospitals have opted to distribute pharmaceutical preparations under their chief pharmacist's guidance to neighbouring small hospitals.

The following discussion aims to show where the supply of pharmaceutical preparations is provided to smaller hospitals, where visits are made by base hospital pharmacy staff to small hospitals, where sessional pharmacy has commenced and what consideration has been given to the future development of pharmaceutical patient care services in associated and neighbouring small Victorian hospitals.

(b) Sector one- Gippsland region. (80)

The central hospital is the Latrobe Valley Community Hospital at Moe. Hospitals receiving regional pharmacy service are South Gippsland (Foster), Morwell, Korumburra and Wonthaggi*. Regional pharmacy will be a future consideration at the Woorayl (Leongatha) Hospital.

Sector one- East Gippsland region. (81)

The central hospital is the Gippsland Base Hospital at Sale. Hospitals receiving regional pharmacy service are Yarram, Maffra, East Gippsland Geriatric Centre* and East Gippsland (Bairnsdale)*. Organisations receiving a pharmaceutical supply service are Orbost and District Hospital, and bush nursing centres at Ensay, Dargo, Cann River, Swift's Creek, Nowa Nowa, Gelantipy and Omeo. Community health centres at Rosedale, Mallacoota and Lakes Entrance are also supplied. With respect to the East Gippsland Hospital and the Gippsland Geriatric

(* Hospital not within this survey population.)

Centre, Thornhill stated;

"Neither of these hospitals wants their present services upgraded. This is based on sound judgement rather than rural parochialism." (82)

(c) Sector two- Goulburn region. (83)

The central hospital is the Mooroopna and District Base Hospital.

No hospitals receive a regional pharmacy service.

Organisations receiving a pharmaceutical supply service are hospitals at Kyabrahm*, Nathalia, Numurkah, Waranga (Rushworth), Tatura and Tongala. The community centre at Stanhope is also supplied. Regional pharmacy will be a future consideration at the Kyabrahm*, Nathalia and Seymour hospitals.

Current pharmaceutical practice in small hospitals not supervised by pharmacists was described as deplorable. Sessional and regional pharmacy have been advocated as solutions. The service required would be more than that of just tidying up the drug cupboards in these small hospitals. Gillies maintained that sessional pharmacy intervention would do no more than maintain the status quo. Gillies doubted the community pharmacist's motivation to accept hospital pharmacy practice, in view of the nature of their established interest in community pharmacy practice.

Gillies advocated a hospital sessional scheme as an extension to the regional pharmacy concept. The employment of a hospital pharmacist in lieu of a community pharmacist would guarantee an interested service provider.

Sector two- North East region. (84)

The central hospital is the Wangaratta and District Base hospital.

Rutherglen Hospital receives a regional pharmacy service.

A reply to this writer's enquiry regarding pharmaceutical services was not received. However during previous contact with the chief pharmacist and via a later telephone conversation it was indicated that;

(* Hospital not within this survey population.)

- a distribution service located at the base hospital was advocated;
- a regional pharmacy service with sessional pharmacy involvement was advocated for small hospitals; and
- frequent visits were made to small hospitals in isolated areas south, south east and east of Wangaratta.

(d) Sector three- Mallee region. (85)

The central hospital is the Mildura Base Hospital. No hospitals receive a regional pharmacy service. Ouyen and Robinvale hospitals receive a regular pharmaceutical supply service whilst Red Cliffs and Manangatang hospitals receive only special inventory requirements.

Mildura is situated in the far north of Victoria and the hospitals serviced are those situated closest to the hospital within the Mallee region. A shortage of pharmacy staff at the base hospital has prevented regional pharmacy development in these hospitals.

It was stated that the association between the local hospital and the community pharmacy must be preserved;

"If we do not give the local pharmacy enough business he may have to close down and move elsewhere; if this happens the doctor will soon leave too." (86)

The merits of sessional pharmacy must be weighed up alongside regional pharmacy. Darken considered that sessional pharmacy would be a more appropriate service in the Mallee region.

Sector three- Loddon region. (87) (88)

The central hospital is the Bendigo and Northern District Base Hospital. The following details were gathered during an inspection of the base and associated hospitals and during a telephone conversation with the chief pharmacist.

No hospitals receive a regional pharmacy service. Hospitals at Boort, Dunolly, Elmore, Heathcote and Inglewood receive a pharmaceutical supply service. Regional pharmacy services had been contemplated; however a lack of pharmacy staff curtailed any development whatsoever.

(e) Sector four- Wimmera region. (89)

The central hospital is the Wimmera Base Hospital at Horsham. Dimboola Hospital receives a regional pharmacy service. The hospitals at Goroke, Jeparit, Minyip, Murtoa, Rupanyup and Warracknabeal* receive a pharmaceutical supply service. Jeparit Hospital is visited every two to three weeks. Sessional pharmacy services operate at Nhill and Warracknabeal* hospitals.

Regional visits to other small hospitals were not planned for. In the future sessional pharmacy may be implemented at Murtoa, Rupanyup and Minyip hospitals.

Gerlach said that the regional pharmacy service was a vast improvement on the traditional 'dump system', whereby service to small hospitals only involved drug supply and delivery. Two visits per week to the Dimboola Hospital are insufficient to allow the development of a ward pharmacy service. The success of sessional pharmacy relies mainly on the available time of the community pharmacist. The Warracknabeal scheme is operated under a contract arrangement between the hospital and a partnership community pharmacy. A sole community pharmacist may not find the time necessary for such involvement.

The nursing staff retain much of the responsibility for the regional pharmacy service. Sessional pharmacy guarantees the daily attendance of a community pharmacist.

(* Hospital not within this survey population.)

Sector four- Central Highlands region. (90)

The central hospital is the Ballarat Base Hospital. No hospitals receive a regional pharmacy service. Ripon Peace (Beaufort) , Lismore and Skipton hospitals receive a pharmaceutical supply service. Visits are made to these hospitals every two to three months.

Regional pharmacy development is not envisaged, due to a shortage of pharmacy staff at the base hospital. The associated hospitals are located in small country towns, and a regional service would affect the livelihood of the local community pharmacists. These small hospitals are presently not suitable for sessional pharmacy either, and a compromise has arisen between the base hospital and the community pharmacist. The base hospital supplies the inpatient pharmaceutical requirements whilst the community pharmacist supplies the discharge medications.

(f) Sector five- Glenelg region. (91)

The central hospital is the Hamilton Base Hospital. Coleraine Hospital receives a regional pharmacy service. Regional and sessional pharmacy operates at Casterton Hospital. The regional pharmacist will assume supervisory responsibility at Penshurst and Portland hospitals pending sessional pharmacy development. Penshurst, Heywood, Macarthur, Willaura and Edenhope hospitals receive a pharmaceutical supply service.

The Hospitals and Charities Commission supported plans for the development of regional pharmacy in four small hospitals; however further development has been suspended due to financial restrictions. The autonomous nature of hospitals makes it difficult for an outsider to exert influence, (the small hospital and the base hospital pharmacist interaction);

"In my hospital, I am quite capable of doing the dispensing. We don't need any regional pharmacy service." (92)

In this region there are lengthy travelling distances between hospitals, and the value of regional pharmacy could be clouded by excessive travel time. For this reason sessional pharmacy appears more attractive. The community pharmacist could be contracted to work in the hospital, for periods of half to one hour, once or twice daily. This situation would be ideal when a partnership community pharmacy was involved. Coleraine is a town with a busy sole community pharmacist, and sessional pharmacy involvement may unduly extend the pharmacist's working day. Casterton, Penshurst and Portland are other hospital towns with community pharmacists in the same position.

Following the implementation of sessional pharmacy the regional pharmacist assumes a supervisory responsibility, coordinating liaison between the community pharmacist and the base hospital. The regional pharmacist continues to attend the hospital on a weekly basis.

Sector five- Corangamite region. (93)

The central hospital is the Warrnambool and District Base Hospital. Koroit, Timboon and Terang hospitals receive a regional and sessional pharmacy service. Mortlake, Camperdown and Port Fairy hospitals receive a pharmaceutical supply service.

Currently funds are not availabe to extend the sessional pharmacy scheme to Port Fairy and Camperdown hospitals. A regional pharmacy service may be implemented early in 1978 (pending staff establishment increase) at Port Fairy Hospital and periodic visits may then be made to Camperdown Hospital. This would also allow extra visits to be undertaken to the established schemes at Koroit, Timboon and Terang hospitals.

Mortlake Hospital has sixteen beds and a daily bed average of eight, and about half are geriatric medical cases. A pharmaceutical supply service is not warranted and only periodic visits will be undertaken by a regional

pharmacist. Weekes favoured regional/ sessional pharmacy for the following reasons;

- the base hospital pharmacist can work from his own hospital at the same time supplying the needs of smaller hospitals;
- community pharmacists can provide a daily service and are on hand for emergency requirements;
- the alternative Gippsland scheme met with objections from some hospital managers since they believed that the local community pharmacist's business would be endangered; and
- the regional pharmacist could be better utilised than spending three hours per day travelling between hospitals.

A disadvantage of sessional pharmacy is that community pharmacists have a lack of familiarity with hospital procedures.

Sector five- Barwon region. (94)

The central hospital is the Geelong Hospital. No hospitals receive a regional pharmacy service. Hospitals at Lorne, Beeac, Apollo Bay and Winchelsea receive a pharmaceutical supply service. Community health centres at Anglesea, Leigh, Portarlington, Queenscliff and Torquay are also supplied.

To date regional pharmacy has not been proposed for implementation in this region. The merits of sessional pharmacy would also require consideration in any future developments. This view is shared by the regional inspector of poisons. Following the invitation by the respective boards of management, the chief pharmacist visits the associated hospitals and comments on drug inventory and security requirements when necessary.

(g) Conclusion.

The correspondence undertaken with the chief pharmacists of eleven

Victorian country hospitals nominated as the central hospital within each region, has clearly shown the variation existing in the provision of pharmaceutical patient care services in small Victorian hospitals. Many factors were mentioned that could restrain pharmaceutical service rationalisation;

- the base hospital pharmacist may not have thought change was necessary;
- the community pharmacist may not have been in a position to forgo leisure time when operating a busy sole pharmacy and others may not have wanted to participate in this new service;
- the hospital matron may have a preference for the current method of pharmaceutical patient care service; and
- the manager of the small hospital may not have any concern for how pharmaceutical patient care services are delivered in the hospital.

Where development has proceeded the cooperation of the above parties was achieved, and service rationalisation proceeded to the point where a lack of government funding prevented further development.

## THE RELIEVING HOSPITAL PHARMACIST

Previous discussion has related inadequacies in pharmaceutical patient care services with the involvement of personnel other than pharmacists. The following discussion generated from personal communications with relieving hospital pharmacists formerly employed by the Hospitals and Charities Commission.

It was noted that community pharmacists are disadvantaged when the following practices occur in hospitals employing pharmacists;

- selling hospital purchased pharmaceutical and medicinal preparations to staff;
- dispensing staff national health prescriptions for no charge; and
- dispensing private prescriptions for the national health service fee

or at a price below that recommended to be charged by a community pharmacist.

The community pharmacist is disadvantaged when medical practitioners opt to seek expensive drugs for private clinic patients via the hospital pharmacist rather than the community pharmacist. In such cases general practitioners may have considered the drug cost too exorbitant and were able to foster goodwill with local citizens by seeking a cheaper supply source. This practice may occur with or without the knowledge of the hospital manager.

On the other hand the community pharmacist was seen to be at an advantage when charging hospitals for pharmaceutical items above those prices recommended by the Pharmacy Guild of Australia (Vic.). This included over the counter and extemporaneous preparations. The community pharmacist appeared not to care greatly about the local hospital, and was perhaps more interested in making the most money in the shortest possible time in all hospital dealings.

A community pharmacist routinely utilised a delivery boy to transport drugs of addiction to the local hospital. The security of the steel drugs of addiction safe in the community pharmacy and at the hospital was defeated by this routine. It perhaps seems too easy for a pharmacist to wash his hands of security responsibility once a prescription for a drug of addiction is dispensed. A situation blurring professional etiquette was recorded when a community pharmacist as a matter of routine willingly took responsibility for the easy work such as prescription dispensing, but refused to participate in more laborious work such as the preparation of extemporaneous compounds and oral mixtures. This latter work was channelled to a neighbouring hospital pharmacist whilst the community pharmacist was servicing a hospital not employing a pharmacist.

It was noted that unqualified assistants in pharmacy departments may be in the habit of dispensing prescriptions whether supervised or unsupervised by pharmacists. When bulk supplies of drugs of addiction were not held in the small hospital, prescriptions for these drugs were dispensed by the local community pharmacist. These drugs then became general ward stock at the hospital. When the nominated patient was discharged from hospital, a further prescription was supplied for the patient and the original order for drugs of addiction remained in the hospital, as ward stock. Reasons for this practice include;

- stock of a particular drug of addiction may be the only supply in the hospital, and would cover the hospital if a new order for the drug arose following the admission of a new patient; and
- the community pharmacist does not provide an after hours service

and therefore the resident general practitioner relied on the hospital for the acquisition of drugs after normal working hours.

A community pharmacist did not want to participate in sessional pharmacy before or after shop trading hours. The money offered for these duties was not an incentive due to the extra tax burden. The participation of a community pharmacy with one employed pharmacist may not be a viable proposition in the best interests of that business unless qualified pharmacist relief could be gained. Another community pharmacist felt that the wage was insufficient and the hospital would more or less be making a convenience of the community pharmacist. It was doubted whether participation five days per week could be undertaken, however consideration would be given to rostered participation.

Another community pharmacist felt threatened by regional pharmacy involvement in the local hospital, and was prepared to withdraw after-hours services if the scheme was introduced.

Pharmacists, nursing staff and general practitioners are the possible providers of pharmaceutical patient care services in small Victorian hospitals. A search for information relating to the involvement of medical practitioners in pharmaceutical patient care services in small hospitals was unproductive.

HOSPITAL ACCREDITATION

(a) Introduction.

Accreditation describes the acceptance of a suitable process standard by a sanctioned body, and this standard could relate to educational (96), departmental (97), organisational (98) or any prescribed situation. The latter two concepts are to be considered.

(b) Accreditation of hospital pharmaceutical services. (99)

"It is disturbing to note that the Society of Hospital Pharmacists of Australia has not been consulted by this committee although the committee has produced standards for pharmaceutical services." (100)

The Australian Council on Hospital Standards committee involves representatives from the Australian Hospitals Association, the Australian Medical Association and other bodies.

Miller indicated that studies by Brooks relating to drug distribution and patient type, class of hospital etc., can be identified and quantified and used as a cost control indicator for the evaluation of drug management. (101) Unit dose drug distribution, intravenous admixture and drug monitoring were recommended as essential components of a service that would lead to the more rational use of medications in hospitals. (102)

Miller noted that hospital pharmacy had advanced rapidly and today's activities are outside the traditional responsibilities of the pharmacist; that hospital pharmacy has no overall plan for the next twenty years, and that if any plan is formulated it should include a process of service accreditation. (103)

The services provided by pharmacy departments throughout Australian hospitals differ markedly, and to encompass a broad categorisation, an accreditation system recognising such variation should be developed. These categories are: the clinical teaching hospital, the specialist teaching hospital, the general hospital, base and large country hospitals, and hospitals with pharmacy departments employing pharmacists. (104) These five major groups could be further subdivided. Miller's concern is for pharmaceutical services in hospitals, and this writer's study deals with pharmaceutical patient care services in small hospitals; hence hospitals without pharmacists, and with or without pharmacy departments are a notable omission in Miller's classification list.

To ensure maintenance of a hospital pharmaceutical service standard following an accreditation tour, a committee was recommended to oversee the ongoing operation of the newly accredited department. This was termed the professional standard revision organisation and a number of recommendations were made by Miller regarding its activities. (105)

(c) Accreditation of Australian hospitals.

"Introduction of formal standard setting for Australian hospitals would seem to be particularly appropriate for this time." (106)

Pickering (107) noted that medical science was going through a period of consolidation. He referenced a significant rate of accidents in hospitals, and a process of hospital iatrogenesis related to clinical procedures. "...and one of the few areas open for innovation in the health care system is that of the implementation of quality control schemes." (108)

"It is the structural approach then that hospital accreditation finds its principal territory and where it suggests standards." (109)

The elements examined include;

- the principal organisation of the hospital including its submatrices

of committees and communications;

- the hospital's physical attributes, buildings and equipment etc.; and
- the hospital employees, their qualifications, the appointment mechanism etc.

"The role of the accreditation scheme is to indicate whether or not a hospital is able to fulfil its objectives, in a sense is it meeting its own standards ?" (110)

The judgement of what is adequate can vary markedly;

"The structural system examined is assumed to carry out the function of an examination of process in the provision of care." (111)

This may not be so, as Pickering indicated that North American studies in accredited hospitals showed that many had failed to achieve the results which the structures were designed to facilitate. Therefore it was considered that standard setting beyond structure should be encompassed. However;

"Accreditation can only review the mechanisms applying standards of process- that is it can only assess standards of structure."(112)

Pickering listed sixteen critical areas where special attention was required to ensure basic patient safety, and medication error is one of these areas. (113) A structural component needs to be established before a process standard may be improved, and the initial consideration would usually be the formation of a committee.

An inquiry into the pharmaceutical patient care service might include;

"Is there a pharmacy and therapeutics committee which develops and maintains a formulary for use in the hospital, which is comprehensive and contemporary. Does such a committee involve itself in the design of safe methods of drug distribution and prescription." (114)

The committee was not considered to be an all embracing component of

structure that would initiate problem solving exercises and ongoing evaluation.

"Indeed this approach would be ludicrous in a small hospital." (115)

The functions of these committees are the important considerations, and when such functions are provided for without an overseeing committee, then a hospital's structural standards may still be met. The accreditation surveyors produce a report detailing all patient care areas in the hospital. The final report is an aggregate of these area reports. Conclusions are drawn related to each service. A service may either be commended for its contribution to the hospital or recommendations tendered related as to how a particular service facility may contribute further to better standards of patient care.

From this writer's perusal of an accreditation report (116), it is apparent that accreditation of an hospital does not depend on the commendation of every service department but rather upon a consideration of all services and the total contribution to standards of patient care. Therefore an accredited hospital may have service departments where considerable recommendations are made; the implementation of these may promote the quality of the service being delivered.

Hospital accreditation is for a three year term and to maintain this status a further accreditation tour is required. The following tour of an hospital may be an enlightening event, since the survey team is provided with an opportunity not only to evaluate current service standards but also to evaluate the initiatives and interest taken by hospital administration in implementing the former tour's recommendations.

(d) Provisional standards for Australian hospitals.

The 1974 publication of the Australian Council on Hospital Standards presented standards for fifteen service departments, including

pharmaceutical services. (117)

(i) Pharmaceutical service standards.

These relate to all hospitals whether or not a pharmacist is employed.

Standard one: organisation and staffing.

"The pharmaceutical service shall be directed by a professionally competent and legally qualified pharmacist. It shall be staffed by a sufficient number of competent personnel, in keeping with the size and scope of services of the hospital." (118)

The director of the pharmacy service may be either full-time or part-time, and if an hospital does not have a pharmacy department, then pharmaceutical services shall be obtained from another hospital with such service or from a community or regional pharmacy. Failing the latter alternatives, responsibility should be delegated by the hospital board to a physician member of the medical staff who would discharge responsibility in consultation with administration and a legally and professionally qualified pharmacist.

Standard two: facilities and operations.

"There shall be equipment and supplies provided for the professional and administrative functions of the pharmaceutical service, as required to ensure patient safety through the proper storage and dispensing of drugs." (119)

Examples include the storage of drugs under the supervision of a pharmacist, and that up to date pharmaceutical reference material be provided. Authoritative and current antidote information should be readily available in the pharmacy for emergency reference.

Standard three: scope of service and accountability.

"The scope of the pharmaceutical service shall be consistent with the medication needs of the patients, and shall include a programme for the

control and accountability of drug products throughout the hospital."(120)
Policies and procedures should be developed by the medical staff in cooperation with the pharmacist. The pharmacy director should be responsible for the admixture of parental products and pharmaceutical manufacturing in the hospital etc. Responsibility can imply work involvement or work oversight and therefore this clause is relevant when a pharmacist does not attend an hospital on a full-time basis. However it precludes situations where there is no oversight by a pharmacist, and responsibility is then delegated to a physician as interpreted in standard one.

Standard four: intrahospital drug distribution system.
"Written policies and procedures that pertain to the intrahospital drug distribution system shall be developed by the medical staff in cooperation with the pharmacist and with representatives of other disciplines, as necessary." (121)
These written hospital policies relate to drug labelling and precautionary statements, expired and discontinued medications, medication dispensing, medication container transfers and label changing and drug recall procedures.

Standard five: safe administration of drugs.
"Written policies and procedures that govern the safe administration of drugs shall be developed by the medical staff in cooperation with the pharmacist and with representatives of other disciplines, as necessary." (122)
These written policies relate to;
- drug administration to follow upon the written order by an individual assigned medical staff privileges;
- medications to be administered by the appropriated licensed personnel in accordance with the laws and regulations governing such activities;

- a stop drug order procedure;
- acceptable precautionary measures for safe admixture of parental products;
- the proper recording and maintenance of medication adminstration records;
- the reporting of medication errors and drug interactions to the prescribing medical practitioner; and
- patients bringing drugs to the hospital shall not be administered such, unless identifiable, and written orders are given by the responsible medical practitioner, unused drugs should be packaged, stored and sealed, and returned to the patient, on the physician's approval at the time of discharge.

The self administration of drugs shall be permitted only following specific orders from the responsible medical practitioner. Investigational drugs shall only be used by the principal investigator and should be approved by the appropriate committee. The abbreviation of medical orders shall only prevail if such terminology or symbolisation has been approved by the medical staff.

(ii) Nursing services.

Standard five: policies and procedures.

"There shall be written policies which provide the nursing personnel with clear directives as to the scope and limitation of their functions and their responsibility for patient care. Written procedures shall be developed as a guide to nursing action and shall be kept current." (123) These matters included the implementation of doctor's orders, the administration of medications, infection control and patient safety, recording the patient's condition and response to therapy and the introduction and/ or evaluation of new forms of therapy including drugs.

Standard seven: evaluation.

"There shall be a continuous programme of evaluation of personnel providing nursing care, the system by which nursing care is provided and the end product, i.e. the nursing care provided." (124)

These evaluations included information and statistics related to drug error incidents, infection etc., should be kept and where necessary, practices and procedures should reviewed and included in the service education program.

(e) Conclusion.

These drug related inclusions in the nursing standards indicate that such activity is recognised to be part of the nursing service. The nursing staff are delineated ward functions related to drug administration and the standards have clearly defined such responsibility. However when an hospital employs a pharmacist, that person may undertake these activities, or in conjunction with the nursing staff. This interpretation specifies ward drug functions for nursing staff in hospitals not employing a pharmacist.

(f) Discussion.

The accreditation process may stimulate hospital administration to examine all departments with respect to the published standards before making application for an accreditation survey tour. When an hospital is not recommended for accreditation, the survey report is then classified as an advisory report and is held confidential to the hospital concerned.

Hospital accreditation entails a qualitative analysis of all service departments, and this process is best understood by a perusal of the standards and their interpretation. Accreditation does not constitute the recognition of perfect service components and the surveyors' report is accompanied by numerous recommendations for improving component service

facilities. Hence accreditation recognises the aggregate mix of each service department's contribution to the patient care facility.

Accreditation considers the pharmaceutical patient care service in all hospitals. It attempts to assess the structural and process components of the Donabedian model. However this is of theoretical concern and the outcome of the assessment could either be a commendation or the prescription of recommendations. In this study's evaluation, accredited hospitals form a group that can be contrasted with all other public and bush nursing hospitals.

An accredited hospital may or may not have a pharmaceutical patient care service that received commendation by the survey team and one therefore should not presuppose a relationship between accreditation and the quality of the pharmaceutical patient care service. Pickering indicated that the accreditation surveyors' assessment of structural components is an indicator of the adequacy of service process components. This survey attempts to assess structural and process elements in the questionnaire investigation. The scoring technique used accounts for a representative cross section of facets that constitute the pharmaceutical patient care service in the hospital. Therefore service components are looked at in segments no smaller than the Donabedian model components- process and structure.

Thus the pharmaceutical patient care service is recognised as a total entity in each hospital's patient care activity. The accreditation process accords similiar recognition and when the service is inadequate recommendations are formulated. The hospital accreditation process does not include an overall quantitative scoring technique (125), the final report taking the form of a qualitative assessment.

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# C H A P T E R  V I I

## PROFESSIONALISM

## INTRODUCTION

Professionalism is an issue that has been of great concern to the Pharmaceutical Society of Victoria and the Pharmaceutical Society of Australia. The behaviour of occupations and their adaption to organisational and environmental influences are embodied in the sociological theory discussing professionalism. Pharmacy is endeavouring to establish new work roles and definitions hailing this change are founded upon patient care involvement.

The pharmacy professional associations are adamant that increased recognition will be accorded to pharmacy as the occupation becomes more professional. This process in pharmacy is associated with changes in work value and role; however before accepting that these changes make an occupation more professional, an understanding of the sociological literature may place into context the relationship between the recent developments in pharmacy and professionalism.

"An industrialising society is a professionalising society". (1)
In today's society, professions are becoming more numerous and are involving a larger proportion of the work force. Professions can deliver services, advice or action, to individuals, organisations or governments, to classes or groups of people or to the public in general. Professions claim to know better than others the nature of certain matters, and to know better than their clients what ails them or their affairs. (2) Professions consider themselves the rightful body to formulate terms relating to some aspect of society, or to themselves, to define and give details of policies concerning these aspects. (3)

## DEFINITIONS

The terms professionalisation, profession, professionalism and professionals are somewhat used interchangeably in the literature with generally no

distinction being drawn between the meaning of each term. Vollmer and Mills (4) suggested specifications for the use of these terms, and they proposed that a profession should refer to an ideal type of model of an occupation characterised by specific elements.

Whilst reviewing the attributes, traits and characteristics of professions, this writer did not find any consensus of opinion on this topic. Greenwood's publication in 1957 (5) proposed five characteristics, and this definition has been widely referenced. A literature survey by Millerson in 1964 (6) revealed twenty one authors contributing twenty three characteristics of a profession. No author suggested more than six characteristics in each definition and no two authors chose exactly the same combination. (7) In reference to Millerson, Hickson and Thomas (8) suggested that a much broader common denominator could typify professions in general.

The pharmacy literature recorded recognition of the trait definition, by Feehan (9), Smith (10) and Johnston (11); Mathew's definition (12) of what is not a professional and a journal editorial (13) denoting pharmacy as slotting in with a world trend to professionalism.

With respect to the work of Greenwood, Roth concluded;
"Perhaps the epitome of misdirected zeal and misinformation concerning professionalism." (14)
Roth backed his statement with the following criticisms of the trait definition of a profession;
- a systematic theory of knowledge requires lengthy training; but the opposite could be true;
- professional authority accorded over the client in fact can be avoided or modified by the client e.g. medication defaulting; and also clients can be exploited in circumstances where the service is accepted;

- admission to an occupation or a profession is subject to control by professional peers and can one consider this a community sanction ?; another unexamined notion is that the performance of professionals can only be governed by the profession's peers;
- there is no evidence that ethical codes have the compelling power suggested by them, they may curb competition from colleagues but have almost no protective value for clientele or public; and
- the fact that every occupation or profession develops some distinguishing social pattern does not account for the formation of subcultures within the occupation e.g medicine and its various specialities.

Maley (15) also commented on this theme;

- autonomy and authority in a profession could be synonymous with specialisation in bureaucracy;
- occupations struggling to achieve professional status often first extend their training periods by adding a body of theory of dubious relevance to effective practice; and
- ethical codes can justify privilege and freedom from social controls, and the codes are not usually enforced; one cannot assume that ethical codes are a necessary adjunct to effective occupational performance, are a guarantee of disinterested service or are conclusive evidence that the occupation is professional in character.

With respect to the Pharmaceutical Society of Victoria, the following appeared in a circular to members;

"Such codes are the strength of all other great professions, being what distinguishes the professions from the trades." (16)

Roth (17) concluded that the attribute approach proved to be a theoretical dead end. This technique did not focus on the professional process but more on the product of the process. This approach had become clouded with the hopes and ideologies of professional groups rather than

being an assessment of how and what they had achieved. Roth considered that a study of the problems created by professionalism may be more viable in the public interest, such studies so far being avoided, e.g. avoidance of accountability to the public, the manipulation of political power to promote monopoly and the restriction of services to create scarcities and increase costs.

In 1964 Wilensky (18) analysed the history of various occupations to seek a sequence of development of the established professions and of other occupations making claims for professional status. Wilensky distinguised between the established professions and the developing professions in that author's proposed development sequence. Goode stated that there appeared to be no universal development sequence for professionalisation and that Wilensky's proposal could be time or place bound. In addition many occupations have tried all or most of those steps in Wilensky's sequence without gaining the professional recognition they perceived. (19)

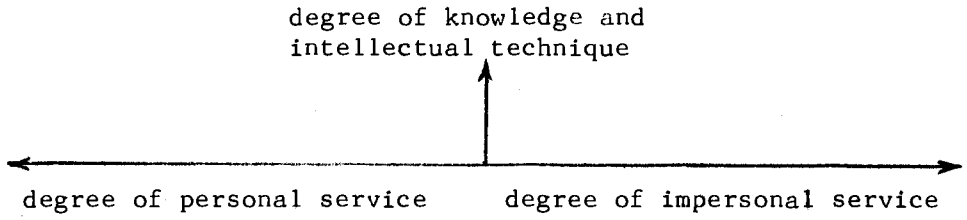
Toren (20) distinguised between humanistic welfare person professions and the more scientific and technically based professions. Some professions may exhibit both these characteristics; however the client is the major challenge to the human welfare professions, whilst the knowledge base is the challenge to the scientific professions. Parish (21) related these aspects to pharmacy. Lloyd (22) identifed the product and patient oriented aspects of pharmacy, and Feehan (23) listed the pharmacists' personnel skills.

Toren also discussed the concept that the attributes of professionalism should be viewed along a continuum, and thus this dynamic concept would picture degrees of professionalism in an occupation. Maley (24) considered that no real agreement has been achieved on a trait definition

and that there is confusion with the historical development of a profession and today's trends. Prior to the industrial revolution the criteria defining a profession were markedly different. Today this status relates to occupationalism. Maley concluded that the attribute list is a mixture of historically significant traits plus occupational attributes that professions have in common today.

Johnson (25) stated that the deficiencies in the theory of professions were due in part to the confusion about what the subject is- whether it is the study of occupational activity or the institutionalised form of control of such activity. Maley (26) considered the broader development of a definition including a degree of knowledge and intellectual technique and a degree of human cultural importance. A dimension of the latter degree is personal service and this provided criteria for the following diagram by Maley. (27)

Figure 7A Continuum dimensionalising a definition of professions




"The last decade has seen increasing criticism of the professions ....scepticism about the match between promise and performance, between avowed ends and real ends, between worthwhile ideals and contemptible practice. It is indeed an indirect confirmation of the validity of the definition proposed that the indignation expressed is indicative of the human and cultural importance of the professional roles." (28)

The sociological literature revealed no formal definition of a profession. Maley and other writers indicated that it may be of more importance to be concerned about the issues that professions raise in society in lieu of striving for a formal definition.

PROFESSIONAL ASSOCIATIONS

A professional association consists of members of an occupation who elect to join it. Members may be elected to become spokesmen for the occupation when interacting with other members and the general public. Professional associations aim to better the standing of their occupation.

"It is the elite of an emerging profession that takes the lead in pushing for the advancement of professionalism in its occupational group and in claiming public recognition of its new status." (29)
These leaders work to establish and strengthen the professional association. "Laws have been enacted, amended, and re-enacted at the suggestion of the association hoping to secure the police powers of the state for the elimination of undesirable practitioners." (30)

Professional associations endeavour to regulate laws for the publics' protection and their own self esteem. In doing so these two facets may not conflict, and often can be served similtaneously. If they cannot be served together then a professional association will promote the law which best suits its interests.(31) Stock identified these issues as being detrimental to pharmacy. (32)

The Pharmaceutical Society of Victoria was established in 1857 and ever since has undertaken to carry out the responsibilities of a professional society for pharmacy in Victoria.
"The aim of the society for the future will be the continued strengthening of the profession in Victoria." (33)
The Pharmaceutical Society of Australia was established in 1975. The following was notified to members;
"The Pharmaceutical Society is your national professional organisation. One of our major tasks is to gain an increased public awareness to the status and importance of the profession." (34)

The inaugral president of the Pharmaceutical Society of Australia, Mr. G. Oscar said with respect to priority issues;

"Basically, we would be attempting to marshal the resources available to pharmacy in order to make significant progress in the further development of the profession. If P.S.A. can achieve maximum cooperation within the profession, it should be possible to make progress and achieve greater recognition of the professional skills of pharmacists by the community." (35)

The Society of Hospital Pharmacists (Victoria) is smaller in membership than the Pharmaceutical Society of Victoria. Miller (36) reflected that the strength of the hospital society lay firstly in its smallness and secondly that members were less committed to materialistic considerations in their occupation. Growth of the hospital pharmacists' society has been most evident over the last ten years correlating with advances the occupation has made.(37) (38)

OCCUPATIONAL DEVELOPMENT

Hepner and Hepner (39) discussed licensing within professions, and suggested that job educational requirements are higher than the performance required, or permited to undertake in an occupation claiming professional standing.

"Are academic credentials required for doing the job or just getting the job." (40)

The Australian Journal of Pharmacy indicated that pharmacists in the future must place more emphasis on demonstrating skills to the community, and tendered the following questions;

"But what of the attitudes of the rank and file Australian retail pharmacists ? To what extent are thay so influenced by international trends ?" (41)

Miller (42) challenged the non activity of hospital pharmacists in general, in a belief that it is a responsibility for all society members to pursue new skills and gain further recognition for the occupation in the health care field. It has been accepted that pharmacy bodies should continue to develop the profession, however the real test of the activities of the rank and file come by the collective measurement of their initiatives relating to such activities as patient counselling and the use of patient medication records. If the rank and file do not seem desperately concerned about overseas trends and the impact of these new developments, then what is the function of the professional association ?

Bucher and Strauss discussed the concept of segments within a profession with respect to task variation (e.g. research teaching compared with patient care); and technique and methodology (e.g. ward pharmacist compared with pharmacy dispenser). (43)
With respect to colleagueship within an occupation these authors stated; "...may be one of the most sensitive indicators of segmentation within a profession. Whom a man considers to be his colleagues is ultimately linked with his own place within his profession." (44)
Hence segments may limit and direct colleagueship.
"Groups that control the associations can wield various sanctions so as to bring about compliance of the general membership with codes which they have succeeded in enacting.... Those who control the professional associations also control the organs of public relations. They take on the role of spokesmen to the public, interpreting the position of the profession as they see it. They also negotiate with relevant special publics." (45)

A statement by the Pharmaceutical Society of Victoria best summarizes new developments in pharmacy practice;

"The area of growth appears to be in clinical pharmacy where face to face patient contact can assist the pharmacist to alleviate the problems of drug interactions, non compliance and drug induced disease. It is here and in other health oriented areas that the development work must concentrate." (46)

Combden believed that these developments are a sensible extension of the pharmacists' present activities, and should be pursued without expectation for short term benefits to the pharmacists' income. (47)

Oscar held a contrary view;

"I would also move towards increased professional involvement but it depends on the controllers of the health system transferring additional areas of professionalism to pharmacists." (48)

This writer disagrees with Oscar; initiative for change in work style rests in the hands of the individual practitioners, and the remuneration method is controlled by the government authorities.

Oscar indicated that the implementation of a remuneration framework that recognised a counselling fee in lieu of or in addition to the traditional dispensing fee would provide new work roles. However Stock (49) indicated that pharmacists must change and expand their individual work roles before any new payment framework could be justified.

".....the pharmacist...one of the few who still hand on free advice without ostensibly charging for it." (50)

A background in clinical pharmacy, face to face contact between client and community pharmacist and mechanisms for the dissemination of information and advice in a meaningful way to the patient, are requisite for counselling activities. A new skill is currently being nurtured, recognition is being sought and calls for remuneration for the activity have been made.

In 1975, Hutcheson called for fundamental changes to be made in the National Health Act 1953- 1975;

"In the nineteenth century the pharmacists' advisory function was interpreted as 'practicing medicine' and by an Act of 1815, made illegal." (51)

Ever since the pharmacist has supplied advice free of charge. This act amalgamated the apothecary with the medical profession and today's pharmacist grew from the chemist and druggist of the time.

Hutcheson proposed that pharmacy counselling is no longer confused with medicine, that the drug knowledge explosion substantiates the pharmacists' claim for the recognition as the giving of advice, and when the counselling time factor expands the cost of the service will be borne increasingly from the pharmacists' general merchandising profits. This theme for changing the remuneration framework is the same as that expressed by Oscar, however this writer views the arguments contributed already by Stock as being important considerations for future change.

Counselling for a fee is presently not compatible with the professional fee system recognising the community pharmacists' duties. Combden stated that remuneration for dispensing had not kept pace with inflation. (52)

With respect to the current system of remuneration Oscar stated;

"These areas could well be re-examined to provide more efficient and economic systems resulting in, firstly the greater use of the pharmacists' skills, secondly better patient compliance, thirdly reduced drug consumption, fourthly better community health and fiftly a lower rate of increase in health expenditures." (53)

This writer agrees that a greater use of the pharmacists' skills could be made in the community; the second point could never be substantiated in the community without considerable research and expense being borne by

the taxpayer; the third point requires a change in medication prescribing philosophy and is contrary to the community pharmacists' business function; the fourth point requires a fundamental change in the lifestyle of the community in general and the fifth point must be considered along with the extra costs that might be incurred with the implementation of pharmacists' counselling fees.

STATUS

Segments within a profession are not fixed, boundaries become diffuse and overlap, different definitions of work develop and new groupings emerge. Segments are capable of rejecting certain images as being inappropriate to the profession. (54) Akers and Quinney (55) also noted that conflict could occur between subgroups in a profession, resulting in a profession having less success in pursuit of its goals.

Smith (56) discussed other contingencies facing an emerging profession. Leaders of the professional association may be selected as being persons with an orientation towards the future, they may demand change in their new role; but remain insensitive to fellow members whose security systems are rooted in the status quo. They can behave in ways not necessarily those of the profession they represent, and they may disenfranchise interest groups other than their own.

Along with the call for the recognition of new pharmacy skills, came the call for changes in title. The drug compounder and dispenser is now the drug expert and the clinical pharmacist. The community pharmacist may become the clinical pharmacist generalist. (57) Changing titles can assist the regaining of a lost image, can substantiate new skills before they are implemented or can regain lost mystique when a skill is removed from the occupation.

Smith considered that compounding in closed off dispensaries in community pharmacies provided a mystical setting; however with today's ready prepared preparations and open dispensaries, mystique has been lost. (58)

A profession can march forward by either sloughing off facets of its work to other occupational groups or to technicians, or by taking over situations (or mimicking) that are practised by professions with relatively higher status.

"The occupational culture may be threatened or torn apart during periods of drastic professional change." (59)

Divergencies may develop and professions need to be aware of this problem and its effects upon professional unity.

During May 1977, Corr and Corr (60) advised the Society of Hospital Pharmacists of Australia of the following;

- The title doctor does not appear to be a protected title and the categories of persons privileged to adopt such a title and the categories of institutions entitled to confer such a title are not closed.
- In some case the title is conferred as a courtesy title. In such caes one must distinguish the privilege of holding such a title from the privilege attached to the title itself.
- The courts, although reluctant to define the term, will draw a definite limit to the title in cases where there is a fraudulent misrepresentation of such a title.
- There appears not to be any limit in the objects of the society's memorandum of association or in law in your conferring the title doctor on graduates of the society.
- The medical board should be advised of intentions to issue a diploma of hospital pharmacy entitling the holder to the status of doctor of hospital pharmacy.

On 19th- 20th May 1977, the federal council of the Society of Hospital Pharmacists of Australia affirmed the title of doctor of hospital pharmacy to holders of the fellowship diploma of the Society of Hospital Pharmacists of Australia. The title remained official until the following annual general meeting of the society, on October 1st. 1977. At that meeting a motion to rescind the title was put. (61) The overwhelming vote for the motion reflected the feelings of the rank and file hospital pharmacists, reversing a situation imposed upon the profession by the leaders of the Society of Hospital Pharmacists of Australia.

DUALITY

This refers to a business orientation to promote a profitable pharmacy outlet and a professional orientation to the skills a pharmacist can offer the community. Smith (62) concluded that these two faces of pharmacy are incompatible, and that if one aspect takes precedence over the other then economic constraints will always relegate the professional aspects of pharmacy to an inferior position.

Combden (63) believed that the non professional aspects of community pharmacy must be accepted and then enhanced, indicating that no matter what setting the future community pharmacist practised in, business survival would entirely depend upon business skills. With respect to the development of patient oriented facets of community pharmacy the following was stated;

"We believe that this liaison can be maintained.....with both professional and commercial aspects of pharmacy developing in tandem rather than in opposition, a workable solution to the problem of pharmacy's future in Australia can be found." (64)

This indicated the difference between the commercial and clinical facets of community pharmacy, and that each facet was promoted by different organisations.

Mathews (65) indicated that these components should develop in harmony; but he saw the profitability of the retail business being dependent upon the business skills. Parish went even further by stating that community pharmacy in Australia is a split profession. (66) Fairfax believed that the sole community pharmacist does not possess the necessary business skills to survive the threat of supermarket merchandising of what were formerly chemist only products. He advocated that the amalgamation of business and pharmacy chain stores would be the only alternative to supply the management and marketing services required for the profitable survival of a business.(67)

Oscar held another view;

"There was some hope that the professional content of the pharmacist's work would increase and the purely commercial side decrease." (68)

Feehan (69) advanced the idea that community pharmacy is a business and a profession and that all professions are businesses. He equated the community pharmacist with the dentist in community practice. In dispelling the notion of duality, Feehen inferred that the income mechanism for the business was an independent factor. The community pharmacist was then seen to be disadvantaged;

"The pharmacist, therefore, however commercial his operation may appear to the casual onlooker, may truly be claimed to be one of the few who still hand on free advice without ostensibly charging for it." (70)

This writer believes that Feehan's argument does not support calls for changes in remuneration mechanisms for the professional activities of the community pharmacist.

FICTIONS

With respect to professional fictions, Smith stated;

"Every profession operates in terms of a basic set of fictions about itself. These provide the profession with a comforting self image, some

stereotype to help meet and adapt to the varied and often drastic contingencies of every day operation." (71)
An example quoted is the air force pilot gazing up into the blue sky, which serves as a useful recruitment tool.
"Of whom in the profession are these fictions true.... and to whose professional experience are they false." (72)

Subsequently prestige and rewards are associated with these fictions. An art or skill is usually a distinctive trait of all professions, and when a profession is emerging or undergoing change, 'skill clusters' become apparent, in Smith's terms. (73) If claims are made by a profession, it would be necessary to know who possesses these skills and who does not, for those who do not possess these new or perceived nuclear skills may be limited in the full exercise of their professional competence.

With respect to new roles Goode stated;
"In order to be accepted by society as a profession an occupation requires special transactions in mainly the prestige markets..... merely clever transactions that yield power and money for an occupation are not sufficient to achieve acceptance as a profession." (74)
Pharmacy has identified the prestige market- the physician's domain.
".... the script should ultimately be abolished with pharmacists deciding brand, dosage form, and giving directions to the patient. (75)

New roles may involve another skill and members of a profession may gain by forming attachments with higher status interest groups. However;
"Few occupations rise from the bottom to the top of the prestige hierarchy." (76)
Relative to each other on the status ladder professions may show little movement, and competition will be strongest between overlapping occupations. (77)

PROFESSIONALS IN ORGANISATIONS

Goldner and Ritta (78) examined the relationships between professionalism in large organisations and career mobility. They proposed that management could impose professionalism as a definition of success within an organisation in order to maintain commitment to those specialists who would ordinarily be considered failures for not moving into management. Professional identification may have become a way to redefine failure as success.

Alternative goals can be made viable and members whose aspirations have not been achieved are provided with alternative definitions of success. "In organisations, however, the structure of success is different- for unlike society- an organisation can deliberately create new definitions of success." (79)
A professional engaged in a specialist activity in an organisation is seen to be in a position of reduced mobility within that organisation. The process of professionalisation has been stated to be a reaction to blocked mobility within an organisation. (80)

"Pharmacy is a vulnerable profession often mis-understood not only by allied professions but by many pharmacists themselves." (81)
In this case the mobility of the profession could be hampered by its own practitioners. Initiatives by individual members of the profession are essential for achieving recognition from the authorities sanctioning financial disbursements.

"Many doctors and members of the public saw pharmacists as merely specialised retailers dealing in drugs." (82)
The major external force that could act to promote or demote the pharmacists' new skills are the medical profession.

DEPROFESSIONALISATION

Some authors have accepted that a definition for a profession exists.(83) (84) Toren discussed deprofessionalisation and its sources;

"It will be argued that deprofessionalisation, to various degrees, is indeed a probable fate of some professions, and that its sources are rooted in the central elements of professionalism itself." (85)

Toren recognised the difficulties in defining a profession, and then proceeded to look for factors that might promote deprofessionalisation.

Although evidence is meagre, professionalism may be threatened by bureaucratic organisations where the quality and the quantity of the professional service may become predetermined, outside the hands of the profession. Many of the problems professionals deal with have lost either a crisis quality or magic elements. Toren quoted the physician confronted by a patient with his own ready diagnosis and the pharmacist who no longer compounds mysterious mixtures.

A process of specialisation can become standardised and routinised and work is delegated to subordinates, the former role may be eroded, leaving little to warrant professional status to the occupation in name. Members may then be stimulated to seek new roles; however others will leave the occupation to take on other tasks where greater opportunities and power exist.

With the loss of mystique in one's profession the clientele are placed in a position where they may become critics. 'Revolt of the client' may occur, where originally the clientele were cast in the role of being ignorant, helpless and dependent. In this case the professional mandate over the client is being challenged.

Increasing government intervention precludes the exclusive right of professions to determine how they would best serve the public.

Expertise is not generally challenged by governments; but the prerogatives to decide on goals and to determine the nature of interaction with others, is. Therefore the profession's autonomy, authority, monopoly and prestige may be modified and limited in various ways. (86)

DISCUSSION

The actions of the professional associations and the path down which pharmacy is being led are not unknown in general terms, being predicted in the sociological literature. Pharmacy is following in the footsteps of other occupations in the quest for professional recognition. The leaders of the professional associations have yet to falter, dauntlessly following a path they believe exists, that the literature does not deny. However social theory ideologies have not been static and society can demonstrate its dynamic character by challenging the claims made by certain occupations.

The social theorists have clearly shown that the concept of professionalism is neither static, crystal clear, nor entirely definable. It recognised the interaction between occupation and occupation, and occupation and society. The leaders of the pharmacy professional associations and other pharmacy writers failed to comprehend sociological literature that may assist in setting a future course for the occupation. In general, the rank and file pharmacist has shown respect for the literature generated by colleagues; however it is evident that the literature contributed by pharmacy writers dealing with professionalism and professions has been meagre.

The American literature recorded criticisms of the path pharmacy is taking, and these American pharmacists showed an appreciation of the sociological literature dealing with professionalism. (87)
Members of the pharmacy profession recorded their belief in the attribute

definition of professions, whilst others contributed definitions not found in the sociological literature. The variety of proposed definitions highlighted the uncertainty of the topic by pharmacists in general.

The pharmacy literature demonstrated a firm belief in the notion of professionalism. However other pharmacists have shown disenchantment and the most compelling thoughts are portrayed in the following;

"Knapp and his colleagues have studied pharmacists' performance and thus concluded that professional ability eludes the pharmacist." (88)

"Provost has observed pharmacy is promising more professionalism than it is able to provide." (89)

"A pharmacist when dispensing a prescription is no more professional than the clerk who sells the law books." (90)

"Pharmacists in general have cast themselves into the role of storekeeper-conveyor- assessor of drugs rather than an authority on the use of drugs." (91)

"The response of pharmacists to the most elementary drug related questions have soiled the name and reputation of pharmacy." (92)

"The plaintive cry is often heard that the pharmacist is the expert on drugs. Who can identify him ? Where are they ?" (93)

The leaders of the professional associations claimed that pharmacists are disenchanted, yet generally they continue to practice whilst the leaders of the occupation maintain this opinion. On some occasions the leaders may be disenchanted, whilst the majority of the rank and file are satisfying their business aspirations in successful pharmacies.

Pharmacy has been termed a marginal, quasi, limited, semi and peripheral profession in the sociological literature. Denzin and Mettlin (94) called it an incomplete profession and they identified areas where they believed the occupation had failed;

- Advertising was prominent.
- The institutions of learning had failed to recruit truly committed persons who could go out and commit their lives to the altruistic goals and values of the profession.
- Pharmacy had failed to engage in long term activities which would ensure control over the social object around which the occupation is organised- the drug. The dispensing doctor, medical detailers and salesmen, industry production and drug trafficking are areas where pharmacists have not gained control of the drug.
- The bodies of learning have diluted the scientific knowledge matter with business oriented subjects.
- A proliferation of specialities reduces cohesiveness in social organisation and lessens the controls over members.
- Pharmacists have attempted to legislate their mandate- the drug, in the hospital through a definite structuring of the drug distribution system; however they have largely failed in this endeavour.

The momentum behind claims for professionalism in pharmacy practice has come from the leaders of the professional associations concerned with developments in retail pharmacy. The following points relate to community and hospital pharmacy practice;

- The most significant factor determining the tone and nature of articles relating to professions and professionalism appears to be the difference in the remuneration mechanism between community and hospital pharmacists. The community pharmacist is self employed and competes for trade in the market place. The hospital pharmacist is an employee working in an institutional setting.
- Calls for change and recognition of the community pharmacists' skills are more often associated with calls for changes in remuneration mechanisms.

- Calls for change and advancement of hospital pharmacy skills are associated with calls for greater recognition of the hospital pharmacist.
- In community pharmacy practice, the current economic climate and the pressures associated with operating a small business are claimed to dampen the initiatives of pharmacists with respect to the implementation of new skills such as patient counselling.
- In hospital pharmacy practice, apathy is attributed to the rank and file member not taking the initiative to develop new hospital pharmacy skills.
- The literature dealing with community pharmacy in most cases associated new skills with professionalism; the corresponding hospital pharmacy literature associated new skills with standards of patient care and both of these situations call for increased recognition.
- It is clear that many members of the Pharmaceutical Society of Victoria and the Society of Hospital Pharmacists of Australia do not seek to practise or undertake new initiatives. Comments concerning the rank and file member have been recorded; however few attempts have been made to understand such non activity, by the leaders of pharmacy's professional associations.
- With respect to patient counselling, initiatives have been demonstrated in community pharmacy by rank and file members, and they are now spokesmen for the profession on these developments. (95) (96)

## CONCLUSIONS

Pharmacy is a profession markedly split by the very nature of its own professional associations and by the roles of its various practitioners. "The institutional practice of pharmacy offers the greatest hope the profession has for the renewal and maintenance of a viable professional base." (97)

However in hospital pharmacy, the majority of pharmacists are not

involved in direct patient oriented activities, and in Australia only the elite of the hospital pharmacy profession participate continuously in ward pharmacy activities in major teaching hospitals.

The leaders of the associations representing community pharmacy strongly advocated professionalism; but seem to be unaffected with respect to the path down which they are leading pharmacy, one that may hinder effective adaption to future change. They have attempted to apply professional ideology to a non professional work force.

Sessional pharmacy provides a transitional structure that may aid, foster and provide extended opportunities for community pharmacists to experience new skills, more so than in the community pharmacy environment. The pharmacy literature omitted analysing the views of the owners of successful high turnover pharmacies with respect to new skills. These pharmacists have traditionally been respected for their managerial and business skills by their counterpart community pharmacists. These operators have enjoyed success in business terms.

For the benefit of those currently not enjoying success, then the professional associations are endeavouring to redefine business failure. Success is defined as a move towards professionalism and the participation in new patient oriented skills. As Goldner and Ritta indicated, failure is being redefined as success. (98)

This evaluation of the sociological and pharmacy literature relative to professions and professionalism revealed that pharmacy is currently in a state of turmoil, being guided by the professional associations in their endeavours to achieve greater recognition for the practice of pharmacy. In this context decisions made by the pharmacy professional associations may be unsubstantiated. They are seeking change and their

hopes and ideologies are based upon professionalism, a cloudy issue, probably not understood by many people including those persons steering pharmacy.

However the virtue of this sociological process was recognised by Maley; "Denunciation of the professions on the grounds that their claim to service are hypocritical and empty, justified though they may be, do not dismiss the social fact that the claims are made; a fact which points at least to aspirations of service and 'without the claims the aspirations will cease and without the aspirations the service will become useless'." (99)

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# C H A P T E R  V I I I

## ASSOCIATIONS, ORGANISATIONS AND AUTHORITIES

## INTRODUCTION

The authorised providers of pharmaceutical patient care services in small Victorian hospitals include pharmacists, nurses, medical practitioners and dentists. The latter occupation will not be considered in this chapter.

## IDENTIFICATION OF BODIES WHOSE AMBITS IMPINGE UPON PHARMACEUTICAL PATIENT CARE SERVICES IN SMALL VICTORIAN HOSPITALS

The Pharmaceutical Society of Victoria, the Society of Hospital Pharmacists of Australia, the Australian Council on Hospital Standards, the Health Commission and the Victorian Bush Nursing Association have previously been discussed.

The major body representing nursing in Victoria is the Royal Australian Nursing Federation. Directors of nursing, matrons and sisters in charge of hospitals may also belong to the Association of Directors of Nursing, Victoria.

The Royal Australian College of General Practitioners (Victorian Faculty) serves the interests of medical practitioners, working in towns within this survey hospital population. This writer considers that this college is more likely to be associated with the interests of country general practitioners than for example the Australian Medical Association.

Hospital managers and administrators in general are served by the Australian College of Health Service Administrators. Whether employed full-time or part-time, hospital managers are involved with administrative policy matters relating to pharmaceutical patient care services in small Victorian hospitals.

Administration of the Poisons Act was controlled by the Department of Health. The Poisons Act covers all hospitals in the survey hospital population.

The Victorian Hospitals Association provides services specific to hospitals and others in direct competition with private enterprise. The activities of

this organisation impinge upon pharmaceutical patient care services in small Victorian hospitals.

The Victorian Nursing Council, the Pharmacy Board of Victoria and pharmaceutical drug companies are not considered even though their activities may have global implication with pharmaceutical patient care services in small Victorian hospitals.

ASSOCIATIONS, ORGANISATIONS AND AUTHORITIES- THEIR INTERACTIONS

Organised intervention into pharmaceutical patient care services in small Victorian hospitals has occurred in a number of Victorian regions. This chapter aims to firstly investigate the interactions that have occurred between the eleven mentioned bodies with respect to pharmaceutical patient care services and secondly to investigate the interactions that have occurred between these bodies and small Victorian hospitals, base hospitals, country general practitioners and country community pharmacists with respect to pharmaceutical patient care services.

In June 1978, a questionnaire was circulated to the secretaries of the eleven organisations. The abbreviated names for these organisations are listed in Table 8.1, and the circulated questionnaire is reproduced in Appendix B. The period of investigation proposed to each secretary is the preceding five years, and the accuracy of the documentation in the returned questionnaires is a function of the length of tenure of each organisation's secretary and the state of their record keeping systems.

(a) Interaction medium- correspondence.

Table 8.1 delineates correspondence as that initiated by, and that received from related to pharmaceutical patient care services in small Victorian hospitals. The Department of Health claimed complete interaction in each category due to its responsibility for the Poisons Act 1962.

Table 8.1 Associations, organisations and authorities: correspondence input and output interaction relating to pharmaceutical patient care services in small Victorian hospitals.

| Association, organisation or authority | Abbreviation | Have initiated and undertaken correspondence with (output) | Have received correspondence from (input) |
|---|---|---|---|
| 1. Royal Australian Nursing Federation (Vic. Branch) | R.A.N.F. | nil | 4 |
| 2. Association of Directors of Nursing, Victoria | A.D.N.V. | nil | nil |
| 3. Society of Hospitals Pharmacists of Aust. (Vic. Branch) | S.H.P.A. | 4,5,11. | 4,5. |
| 4. Pharmaceutical Society of Victoria | P.S.V. | 3,5,8,9. | 3,5,9,11. |
| 5. Hospitals and Charities Commission | H.& C.C. | 3,4,11. | 3,4,9,11. |
| 6. Victorian Bush Nursing Association | V.B.N.A. | nil | nil |
| 7. Australian Institute of Hospital Administrators (Vic. Branch) | A.I.H.A. | nil | nil |
| 8. Royal Australian College of General Practitioners (Vic. Faculty) | R.A.C.G.P. | nil | 1,2,3,10. |
| 9. Department of Health (Poisons Division) | D.H.P.D. | all bodies | all bodies |
| 10. Australian Council on Hospital Standards | A.C.H.S. | 1,3,5,7,8,11. | 1,3,5. |
| 11. Victorian Hospitals Association | V.H.A. | 3,4,5,9. | 3,4,5,9. |

It is evident that the only involved professional associations initiating correspondence are the two pharmacy bodies. The administrative, medical and nursing associations have not initiated correspondence with the other listed professional associations. The Hospitals and Charities Commission initiated correspondence with each pharmacy body and with the Victorian Hospitals Association. The Victorian Bush Nursing Association has been inactive.

The Australian Council on Hospital Standards and the Victorian Hospitals Association corresponded with a number of organisations, and these interactions parallel those of the pharmacy professional associations. The second column indicates a similiar pattern of interaction. Hence this affirms the interaction between the pharmacy bodies, and with the Hospitals and Charities Commission and the Department of Health; the non correspondence of the pharmacy bodies with the nursing, administrative and medical bodies; the inactivity of the nursing, administrative and medical bodies; the interdisciplinary correspondence activity of the Australian Council on Hospital Standards; and the interactions of the Victorian Hospitals Association are oriented to the pharmacy bodies, and to the legal and authoritative bodies.

(b) Interaction medium- policies.

Table 8.2 shows that three organisations have formulated written policies relating to pharmaceutical patient care services in small Victorian hospitals. These policies have not been widely circulated. The Pharmaceutical Society circulated policies to the Society of Hospital Pharmacists and to the Hospitals and Charities Commission.

The activity of the former Department of Health is overstated. This policy concern relates to the production of the Poisons Act 1962. The Society of Hospital Pharmacists indicated the production of written guidelines

Table 8.2 Associations, organisations and authorities policy formulation: input and output interactions relating to pharmaceutical patient care services in small Victorian hospitals.

| Association, organisation or authority | Have formulated written policies | Bodies, written policies have been communicated to (output) | Bodies from whom written policies have been received (input) |
|---|---|---|---|
| 1. R.A.N.F. | no | - | nil |
| 2. A.D.N.V. | no | - | nil |
| 3. S.H.P.A. | no* | nil* | nil |
| 4. P.S.V. | yes | 3,5. | 3*. |
| 5. H.& C.C. | yes | nil | nil |
| 6. V.B.N.A. | no | - | nil |
| 7. A.I.H.A. | no | - | nil |
| 8. R.A.C.G.P. | no | - | nil |
| 9. D.H.P.D. | yes | all bodies | 4,5. |
| 10. A.C.H.S. | no | - | nil |
| 11. V.H.A. | no | - | nil |

(* Refers to the receipt of guidelines only.)

only, the Pharmaceutical Society indicating receipt of these. The Hospitals and Charities Commission indicated that policies had been formulated but had not been communicated to any of the listed organisations.

There is a lack of written policies relating to the activities of the service providers, and the associated professional associations, authorities and organisations when considering the supply of pharmaceutical patient care services in small Victorian hospitals. This writer does not suggest that such policies are vitally important; however this situation serves to emphasize the lack of involvement in discussion of such matters at a level above that of the small hospital.

The main stream of concern has been shown by the pharmacy professional associations. It is also noted that the Hospitals and Charities Commission had documented the formulation of policies whilst the Victorian Bush Nursing Association had not. It is clear that more consideration

beyond that of the legal requirements included in the acts and regulations relating to the supply of pharmaceutical patient care services in small Victorian hospitals, should be given to this service arrangement by all of the involved associations.

(c) Interaction medium- committees.

Table 8.3 Associations, organisations and authorities: committee activity related to pharmaceutical patient care services in small Victorian hospitals.

| Association, organisation or authority | Bodies having initiated and formed committees with members from | | Invited participation on committees established by other bodies (3) |
|---|---|---|---|
| | Own body (1) | With other bodies (2) | |
| 1. R.A.N.F. | no | no | 4. |
| 2. A.D.N.V. | no | no | nil |
| 3. S.H.P.A. | yes | yes- 4. | 4. |
| 4. P.S.V. | yes | yes- 1,3. | 5,9. |
| 5. H.& C.C. | yes | no | 4. |
| 6. V.B.N.A. | no | no | nil |
| 7. A.I.H.A. | no | no | nil |
| 8. R.A.C.G.P. | yes | yes- 1,3. | 10 |
| 9. D.H.P.D. | yes | yes- 4. | nil |
| 10. A.C.H.S. | yes | yes- 1,7. | nil |
| 11. V.H.A. | yes | yes- 3. | nil |

Table 8.3 firstly shows the activity of the pharmacy bodies and the inactivity of the nursing and administrative associations; and secondly the involvement of the Victorian Hospitals Association, the Department of Health and the Australian Council on Hospital Standards. The Hospitals and Charities Commission indicated activity whilst the Victorian Bush Nursing Association did not.

The following interactions are present in Table 8.3; hospital pharmacy - hospital services; legal authority - community pharmacy; community pharmacy - governing authority; community pharmacy - nursing; community

pharmacy - hospital pharmacy; hospital standards - administration; hospital standards - nursing; medical service - nursing; and medical service - hospital pharmacy.

It was not intended to measure the regularity of these events; but it was intended to show the degree of activity mix. Column two in Table 8.3 shows what consideration has been given to this service ideal. The pharmacy bodies have given consideration to the nursing service, a governing body and a legal authority. Table 8.3 shows that overall consideration for pharmaceutical patient care services in small Victorian hospitals has not been of a multidisciplinary nature. More specifically the representation of all service provider organisations has not been achieved in a single committee interaction.

Table 8.3 shows the narrow scope of the consideration given by the pharmacy professional associations to the multidisciplinary activity that constitutes pharmaceutical patient care services in small Victorian hospitals.

(d) Interaction level- correspondence.

Table 8.4 sets out the interaction pattern between the service providers and the listed organisations. The absence of any correspondence output from the administrative and nursing professional associations is noted. The pharmacy bodies have been active; however correspondence interaction with the general practitioner is not recorded. Column two in Table 8.4 shows from whom organisations have received correspondence, and these interactions parallel those listed in column one.

If the Department of Health (Poisons Division), whose correspondence relates solely to the production of the Poisons Act 1962 is omitted, then the Victorian Hospitals Association, the Australian Council

Table 8.4 Associations, organisations and authorities: interactions with providers and facilitators of pharmaceutical patient care services in small Victorian hospitals.

| Association, organisation or authority | To whom correspondence has been undertaken with (self initiated output) (1) | From whom correspondence has been received (input) (2) |
|---|---|---|
| 1. R.A.N.F. | nil | nil |
| 2. A.D.N.V. | nil | nil |
| 3. S.H.P.A. | A,B. | A,B, D. |
| 4. P.S.V. | A,B. | A,B, D. |
| 5. H.& C.C. | A,B. | A,D. |
| 6. V.B.N.A. | nil | nil |
| 7. A.I.H.A. | nil | nil |
| 8. R.A.C.G.P. | C. | A,C,D. |
| 9. D.H.P.D. | A,B,C. | A,B,C,D. |
| 10. A.C.H.S. | A. | nil |
| 11. V.H.A. | A. | A,D. |

Code used in Table 8.4 and 8.5.
A = Small country hospital. B = Country community pharmacy.
C = Country general practitioner D = Victorian base hospital.
In Table 8.4 A, B and C are relevant to columns (1) and (2), whilst D is only applicable to column (2).

on Hospital Standards and the Hospitals and Charities Commission have undertaken correspondence with small Victorian hospitals as well as the pharmacy professional associations.

(e) Interaction level- policies.

Table 8.5 shows those organisations with written policies relating to pharmaceutical patient care services in small Victorian hospitals. The interactions of two policy formulating bodies are shown. The Pharmacy professional associations have interacted with all providers except the general practitioner.

The Society of Hospital Pharmacist's activity related to the circulation of guidelines as indicated in Table 8.5. The Hospitals and Charities

Table 8.5 Associations, organisations and authorities policy formulation: input and output interactions with providers and facilitators of pharmaceutical patient care services in small Victorian hospitals.

| Association, organisation or authority | Have formulated written policies | To whom written policies have been communicated | To whom written policies have not been communicated |
|---|---|---|---|
| 1. R.A.N.F. | no | - | - |
| 2. A.D.N.V. | no | - | - |
| 3. S.H.P.A. | no (a) | A,B,D. | C. |
| 4. P.S.V. | yes | A,B,D. | C. |
| 5. H.& C.C. | yes | A,D. | B,C. |
| 6. V.B.N.A. | no | - | - |
| 7. A.I.H.A. | no | - | - |
| 8. R.A.C.G.P. | no | - | - |
| 9. D.H.P.D. | yes (b) | A,B,C,D. | - |
| 10. A.C.H.S. | no | - | - |
| 11. V.H.A. | no | - | - |

(a) Guidelines only. (b) Leglislation only - Poisons Act 1962.

Commission have communicated policies to small hospitals, base hospitals; however they have not communicated these policies to country general practitioners or country community pharmacists. These interactions relate to the type of service provider only; no attempt has been made in this survey to investigate the frequency and regularity of such interactions.

Policy circulation has been noted with the limitation that this may not have related solely to hospitals where change to the traditional mode of pharmaceutical patient care service occurred.

## CONCLUSIONS

This investigation revealed the nature of consideration given to pharmaceutical patient care services in small Victorian hospitals by the listed organisations, associations and authorities. There are two points in time when such matters may have received consideration; firstly during the period prior to the implementation of any alternative pharmaceutical

service mode, and secondly immediately preceding and then following the implementation of an alternative service form such as regional or sessional pharmacy.

It is evident that has been little interaction between the involved nursing, administrative, medical and pharmacy professional associations on these occasions. The pharmacy bodies have initiated policies and committee processes; but are yet to achieve complete interaction with the professional associations representing;

- the nursing staff who are the providers of the traditional mode of pharmaceutical patient care service;
- the administrator who manages the day to day affairs of the small hospital; and
- the general practitioner who has a legal association with all modes of pharmaceutical patient care service.

The Australian Council on Hospital Standards is the only responding organisation whose activities could be described as being of a multidisciplinary nature. It was shown that the administrative, nursing and medical professional associations have not given consideration to either the traditional mode or to the alternative modes of pharmaceutical patient care services operating in small Victorian hospitals.

The pharmacy bodies have interacted with small Victorian hospitals, base hospitals and community pharmacists. They have not interacted with community general practitioners in the towns of hospitals in this survey population. The nursing, administrative and medical professional associations have not interacted with small Victorian hospitals, base hospitals, community pharmacists nor general practitioners when considering pharmaceutical patient care services in small Victorian hospitals.

It is evident that the development of alternative modes of pharmaceutical patient care services in small Victorian hospitals has been of a unidisciplinary nature. Past developments aimed to promote better quality pharmaceutical services; however it is evident that unidisciplinary action may result in a unidisciplinary planning process. Pharmaceutical patient care services in small Victorian hospitals have traditionally been of a multidisciplinary nature.

In the short term, hospitals may derive benefit from the employment of a pharmacist enabling provision of the alternative service mode; however in the long term, unidisciplinary action may be detrimental to the overall planning process when considering the maintenance or rationalisation of pharmaceutical patient care services in all small Victorian hospitals. This includes a consideration of hospitals in townships not serviced by a community pharmacist and other towns where the local community pharmacist is not available to visit the hospital.

# C H A P T E R  I X

## ACTS AND REGULATIONS

INTRODUCTION

The code of practice of health care workers such as medical practitioners and pharmacists are defined by legislation. In Victoria, the ambit of the pharmacist was formerly stated in part three of the Medical Act 1958. This was repealed when the Pharmacists Act 1974 was enacted. The practice of pharmacy is the subject of a number of acts and regulations and the intention of this chapter is to elucidate how this affects the organisation of pharmaceutical patient care services in small Victorian hospitals.

Appendix E is a time frame of reference showing how the following discussion relates firstly to the Health Commission Act 1977 (see Chapter Four) and secondly with the creation of the Victorian Health Commission.

THE HOSPITALS AND CHARITIES ACT 1958 (Victorian state Act.)

Section 92 of this act states;

"No person other than a registered pharmaceutical chemist or where the services of such a chemist are not available a duly qualified medical practitioner shall compound any medicine or drug for use in any hospital whatsoever (whether or not a hospital within the meaning of this act). Every person who acts in contravention of this section shall be punishable for an offence under section one hundred and fifteen of the Medical Act 1958." (1)

This applies to all hospitals in Victoria, whether state, public or private institutions. Its application to commonwealth hospitals in Victoria is doubted.

THE POISONS ACT 1962 (Victorian state Act.)

The Poisons Division of the Health Commission is responsible to the chief health officer for the administration of the Poisons Act 1962 and the regulations made thereunder. This legislation controls all aspects of the manufacture, sale, distribution and use of poisons, including drugs in Victoria. Schedules two, three, four, seven and eight of the act, categorise and define poisons that are relevant to pharmacy practice.

The licensing regulations cover the manufacture, sale and possession of scheduled poisons. Provision is made for the inspection of all premises where poisons are manufactured, sold or used. Strict regulations control substances that may be sold for therapeutic use, particularly in the case of schedule four and schedule eight substances.

The other activities of the Poisons Division include; the initiation of drug recall procedures when necessary; oversight of the implementation of the code of good manufacturing practice; the destruction of unwanted drugs and poisons from doctors, pharmacists, hospitals and industry etc; and oversight of the storage requirements for drugs in community and hospital pharmacy departments, in small hospitals and in industry etc.

The Drugs of Addiction and Restricted Substances Regulations are made under sections 37 and 63 (r) respectively of the Poisons Act.
Sections in these regulations relevant to this survey are as follows.
(a) Persons authorised to have restricted substances in their possession.(2)
(b) Persons authorised to have drugs of addiction in their possession. (3)
(c) Dispensing restricted substances. (4)
This includes medical practitioners, pharmacists, veterinary surgeons and dentists, and undergraduates of these occupations when supervised by anyone of the former categories.
(d) Dispensing drugs of addiction. (5)
This activity is confined to medical practitioners, pharmacists, veterinary surgeons and dentists; and to undergraduates of these disciplines whilst supervised by their peers. The undergraduate of pharmacy may be supervised by a medical practitioner or a pharmacist.
(e) Restricted substances in hospitals where a pharmaceutical chemist is not employed. (6)
In these hospitals, the matron or sister in charge can be issued with an authority enabling an hospital to possess restricted substances. These

can only be supplied to such hospitals via purchase orders issued and signed for by the authorised person.

(f) Drugs of addiction in hospitals where a pharmaceutical chemist is not employed. (7)

An authority can be issued to the governing body of an hospital where there is no pharmacy department, authorising a nominated person to keep in their possession, for hospital use, drugs of addiction.

Within these regulations, drugs of addiction dispensing by the hospital nursing staff is not sanctioned, implying that any dispensing undertaken by the nursing staff is illegal.

The pharmaceutical chemist in charge is defined under regulation 46 and 93 of these regulations.

"Pharmaceutical chemist in charge, means the pharmaceutical chemist in charge of the pharmacy department of the hospital where he is employed or in his absence a pharmaceutical chemist acting in the capacity of and under the direction of the pharmaceutical chemist- in- charge." (8)

This definition relates to hospitals employing pharmaceutical chemists and does not distinguish between full-time and part-time employment. When the pharmacist in charge is absent from the hospital during normal working hours then another pharmacist is designated as the pharmacist in charge of the pharmacy department in the hospital.

The sessional pharmacist falls within this definition and Division 12 of the Drugs of Addiction and Restricted Substances Regulations of the Poisons Act. The regional pharmacist does not come within this definition. Regulation 61 does not cover the responsibilities of the regional pharmacist.

These considerations highlight an anomaly. When a sessional pharmacist and a regional pharmacist service different small hospitals for the same

time periods per week, both have responsibility for the pharmaceutical patient care service, yet Divisions 12 and 13 of the regulatuons fail to recognise the role of the regional pharmacist. For this reason, hospitals serviced by a regional pharmacist retain an authorised person within the meaning of the Poisons Act.

THE PHARMACISTS ACT 1974 (Victorian state Act.)

When this act was assented to on November 19th 1974, schedules six, seven, eight and nine of part three of the Medical Act 1958 were repealed. This act includes provisions relating to the Pharmacy Board of Victoria, the pharmacists' register of Victoria, registration and examination, inquiries and investigations, the practice of pharmacy, offences and legal proceedings and the formulation of regulations.

Section 3 includes the following definition;

" 'Pharmacy department' means-

(a) In respect of an institution or an hospital, the portion of the institution or hospital set aside for the compounding or dispensing of drugs and medicines;.....

'Practice as a pharmacist' includes the supplying, compounding or dispensing of drugs and medicines on an order or prescription." (9)

Where a pharmacy department is to be located in an institution or hospital within the meaning of the Hospitals and Charities Act 1958, then approval of the premises by the Board shall only be granted following consultation with the Hospitals and Charities Commission.

Section 27 (1) states;

"A pharmacist shall not practise as a pharmacist except-

(a) in a pharmacy or in a pharmacy department which is approved by the Board; or

(b) in such other circumstances as may be approved by the Board in a

particular case." (10)

Subsection (b) of section 27 is an escape clause for hospitals employing a pharmacist but as yet have not sought approval for an hospital pharmacy department, or where the application for approval is being processed by the Pharmacy Board of Victoria.

Section 28 (1) states;

"When a pharmacy or a pharmacy department is open for business it shall at all times be personally supervised by a pharmacist." (11)

When personal supervision is not provided then an offence will be deemed to have occurred. Personal supervision by a pharmacist means personally supervised by a pharmacist who is present at the pharmacy or the pharmacy department. (12)

Regulations can be made by the Govenor in Council on the recommendation of the Pharmacy Board of Victoria, relating to a vast array of areas, including standards defining equipment and services to be maintained in a private hospital or any other place; prescribing the equipment and appliances to be installed in any pharmacy or pharmacy department; the establishment and operation of pharmacy depots and generally any matter or thing necessary to be prescribed for carrying this act into effect.

The Pharmacists' Regulations came into operation on November 29th 1976, revoking the Pharmacy Regulations 1930 and the Pharmacy (Prescribed Fees) Regulations 1975. These regulations are made with respect to the aforenamed provisions of the Pharmacists Act 1976.

Regulation 503 (2) states;

"A pharmacist in charge of a pharmacy department in an institution or an hospital shall, subject to sub-regulation (3), at all times keep in his exclusive possession every key to the pharmacy department." (13)

Regulation 503 (3) states;

"Nothing in sub-regulation (2) shall prevent the pharmacist in charge from permitting a medical practitioner or a dentist to have access to and possession of such key." (14)

This regulation implies that sole responsibility for control of the pharmacy department is vested in the hands of the pharmacist in charge. A definition of a 'pharmacist in charge' is neither included in the Pharmacists Act 1974, nor the Pharmacists' Regulations 1976.

Regulation 505 states;

"In the case of a pharmacy department of a hospital, a pharmacist may, in his absence, leave persons other than pharmacists within areas of the department where- (a) members of the public do not have access to that department; and (b) the person or persons so left do not have access to any scheduled poisons." (15)

This regulation clearly relates to any hospital with a pharmacy department; however with respect to smaller hospitals employing sole pharmacists and others employing part-time pharmacists, then department design would be an important consideration when other than pharmacy personnel are involved with the operation of a pharmacy department conducted by a sole or a part-time pharmacist. One survey documented the absence of a sole pharmacist from the hospital pharmacy department during normal working hours. (16)

It is apparent to this writer although not clearly stated, that a pharmacy department premises would be approved in the case of employment, or the attendance of a part-time pharmacist in a hospital.

THE NATIONAL HEALTH ACT (Commonwealth Act.)

This act relates to the provision of pharmaceutical, hospital and sickness benefits, and of medical and dental services. Section 90 of the act relates to the approval for the provision of pharmaceutical benefits by

pharmaceutical chemists from their community pharmacy premises. Each premises require separate approval.

Where there is no community pharmacy in a town with a medical practitioner and an hospital, then the medical practice may make application to dispense pharmaceutical benefits to persons. (17) For the approval of an hospital authority to provide pharmaceutical benefits to patients, then all dispensing must be undertaken by a pharmaceutical chemist or a medical practitioner or under their direct supervision. (18) The previously discussed state acts define the personnel allowed to dispense under such supervision. An hospital cannot charge more per prescription for this service than that charged for by a community pharmacist. This approval of an hospital authority relates to Victorian public and private hospitals.

AUTHORITY AND APPROVALS

Table 9.1 Categorisation of hospitals in this survey population with approved pharmacy departments by status of community pharmacy practice in the hospital towns (June 1978).

| | Pharmaceutical patient care service in small Victorian hospitals | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sessional pharmacy | | | | | Regional/sessional pharmacy | | | | | Regional pharmacy | | | | |
| | Town community pharmacy status | | | | | Town community pharmacy status | | | | | Town community pharmacy status | | | | |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| Hospitals with approved pharmacy departments | - | 1 | - | 2 | 4 | - | 2 | - | - | 1 | - | 2 | - | 1 | 3 |

Table 9.1 presents the distribution of regional, sessional and regional/sessional pharmaceutical patient care services in small Victorian hospitals with approved pharmacy departments by the status of community pharmacy practice in these hospital towns.

Community pharmacy status code used in Table 9.1 and Table 9.2.
1. No community pharmacy.
2. One sole practice community pharmacy.
3. One partnership pharmacy.
4. Two sole practice pharmacies.
5. Two or more pharmacies (excluding 4).

The seventeen recorded occasions of change from the traditional mode of pharmaceutical patient care service in small Victorian hospitals represents a 12.9% change in the survey hospital population. One hospital without an approved pharmacy department receiving the services of a regional pharmacist is not recorded in Tables 9.1 and 9.2.

Table 9.2 Categorisation of hospitals in this survey population without approved pharmacy departments by status of community pharmacy practice in the hospital towns (June 1978).

| | Town community pharmacy status | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Hospitals without approved pharmacy departments | 18 | 56 | 3 | 9 | 22 |
| Hospital township population* | 18 | 61 | 3 | 12 | 30 |
| Percentage change from the traditional mode of pharmaceutical patient care service | 0 | 8.2% | 0 | 25.0% | 26.7% |

(* Excludes metropolitan hospitals.)

Table 9.2 categorises hospitals without approved pharmacy departments by status of community pharmacy practice in these hospital towns. The percentage change from the traditional service mode is similarly categorised. It is evident that most progress in supplying alternative means of pharmaceutical patient care services in small hospitals has been made in towns with at least two community pharmacies. Activity has yet to be witnessed in hospital towns not serviced by a community pharmacist.

Table 9.3 (a) categorises hospitals with personnel authorised to have possession of poisons and deleterious substances by the mode of pharmaceutical patient care service. Hospitals receiving regional, sessional and regional/ sessional pharmacy services have an authorised person approved under the Poisons Act. Amongst the one hundred and fifteen hospitals with traditional pharmaceutical patient care services,

Table 9.3 Categorisation by pharmaceutical patient care service;
(a) Hospitals with personnel authorised to have possession of poisons and deleterious substances;
(b) Hospital towns with premises approved for the dispensing of pharmaceutical benefits (June 1978).

| | | Hospital pharmaceutical patient care service type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sessional pharmacy | | Regional/ sessional pharmacy | | Regional pharmacy | | Traditional pharmaceutical patient care service | | |
| | | With approved pharmacy department | Without approved pharmacy department | With approved pharmacy department | Without approved pharmacy department | With approved pharmacy department | Without approved pharmacy department | Hospital towns with a resident doctor and a community pharmacist | Hospital towns with a resident doctor; but without a community pharmacist | Hospitals towns with neither a resident doctor nor a community pharmacist |
| Poisons Act(a) | Authorised persons (schedule 4 and 8) | 6 | - | 3 | 1 | 6 | 1 | 91 | 10 | 5 |
| | Authorised persons (schedule 8 only) | - | - | - | - | - | - | 3 | - | - |
| | No persons authorised | - | - | - | - | - | - | 3 | 3 | - |
| National Health Act (b) | General practitioner approved for dispensing pharmaceutical benefits | - | - | - | - | - | - | - | 1 | - |
| | Towns with community pharmacies approved for dispensing pharmaceutical benefits | 6 | - | 3 | 1 | 6 | 1 | 97 | - | - |
| | Hospitals approved for dispensing pharmaceutical benefits | - | - | - | - | - | - | - | - | - |

six hospitals do not hold such an authorisation; of these, four are public annexe hospitals not requiring such an authorisation and the other two hospitals could only forgo this authorisation when all restricted substances and drugs of addiction are requisitioned and handled by the attending medical practitioner. Such drugs may be requisitioned by prescription for use in the hospital.

Table 9.3 (b) categorises premises approved for the dispensing of pharmaceutical benefits. Amongst the eighteen hospital towns without a community pharmacy, only the medical practice at Walwa obtained approval to dispense pharmaceutical benefits.

DISCUSSION

This writer recognises the need for acts and regulations to govern the activities of health care workers. Traditionally these acts were designed for two purposes; firstly to protect the public from fraudulent practitioners, and secondly to promote quality service by licensed practitioners in such occupations as pharmacy.

In the hospital pharmacy department and in hospitals without pharmacy departments, the compounding and the dispensing of preparations are not so easily delineated in practice. The preparation of intravenous solutions containing drug additives is a pertinent example. The Hospitals and Charities Act 1958 precludes all personnel from compounding medications except medical practitioners and pharmacists. The Poisons Act 1962 allows other personnel in addition to the former two, to participate in the dispensing of medications in hospitals.

Within the Poisons Act, the sessional pharmacist comes within the definition of a pharmacist in charge. When an hospital does not have an approved pharmacy department within the meaning of the Pharmacists Act,

then a sessional pharmacist may still be entitled as in charge of the pharmacy department as detailed in the Poisons Act; but carrying on the practice of a pharmacist in a non approved department contravenes Section 27 (a) of the Pharmacists Act. Section 27 (b) is an escape clause covering this situation. The Pharmacists Act ensures that appropriate pharmacy facilities are instituted in an hospital before the employment of a part-time pharmacist.

Hence the association between an approved pharmacy department and employed pharmacist (in the Pharmacists Act 1974) is res-ipsa-loquitur, if one construes that the terms 'pharmacist in charge' and 'chief pharmacist' refer to an hospital employed and qualified pharmacist, the latter term appearing in the Hospital Pharmacists' Determination made under the Labour and Industry Act 1958.

Divisions 12 and 13 of the Drugs of Addiction and Restricted Substances Regulations clearly outline that for an hospital to have a pharmacy department it must employ a 'pharmacist in charge'. The regional hospital pharmacist is not provided for in these two divisions. These regulations were enacted in 1966 prior to the development of regional pharmacy services in Victoria.

The Pharmacists Act 1974 and the Pharmacists' Regulations 1976 were proclaimed following the successful implementation of regional pharmacy in Victoria and following proposals for sessional pharmacy. This writer believes that the Pharmacists' Regulations avoid the issue of regional pharmacy, even though such involvement with an approved pharmacy department in a small Victorian hospital could be sanctioned under 'special circumstances' in Section 27 (1) (b) of the Pharmacists Act 1974.

A combination of regional pharmacy and sessional pharmacy in one small

hospital could provide the regional pharmacist (as well as the sessional pharmacist) with an approved pharmacy department. In this circumstance, the regional pharmacist may act as the supervisor of the service, facilitating liaison between the small hospital, the base hospital, the sessional pharmacist and other involved health care workers. In simplistic terms, the regional pharmacist could possibly be denied an approved pharmacy department when solely supplying part-time pharmacy services to a small Victorian hospital.

Irrespective of the prior acts and regulations, both regional and sessional pharmacists could be termed as being in charge of the pharmaceutical patient care service in small hospitals. However the practicality of such a title may be challenged by the presence in the hospital of continuous, round the clock nursing services. This issue can be extended to the position of the part-time pharmacist in charge of the pharmacy department. During the absence of a regional or sessional pharmacist outside part-time working hours, a small hospital could institute call back procedures for the pharmacist, or call for the service of the local medical practitioner in the pharmacy department in lieu of the employed part-time pharmacist.

A related issue is the possible abrogation of the pharmacists' professional responsibilities to personnel such as nursing staff during these periods of absence. The regional pharmacist is farther displaced from a small hospital than the sessional pharmacist during these periods of absence, never the less such a generalised observation would provide insufficient grounds to indict any one service provider as being more likely to delegate or abrogate professional responsibilities defined in the discussed acts and regulations.

The Pharmacy Board of Victoria may approve hospital pharmacy department

premises in hospitals scheduled in the Hospitals and Charities Act, following due consultation with the Hospitals and Charities Commission. (19) The Pharmacists Act 1974 does not define what an 'hospital' is. Nor does the Health Commission Act 1977. A definition of 'hospital' or 'public hospital' is provided in the Hospitals and Charities Act 1958. There are thirty nine private hospitals (bush nursing) in this survey population. Even though private hospitals are not scheduled hospitals within the Hospitals and Charities Act, they were the responsibility of the Hospitals and Charities Commission. It is clear that the Health Commission should be consulted in relation to pharmacy premises in both Victorian public and private hospitals.

Part VI division (1) of the Pharmacy Regulations list provisions necessary for the establishment of a pharmacy department. These relate to building design, the demarcation of areas for specific activities such as inventory control, dispensing and medication compounding, floor area requirements and security for the department. Traditionally some hospitals have maintained an area known as a drug room. A definition for such an area is not included in any of the discussed acts and regulations. This area is utilised for the organisation of pharmaceutical patient care services in hospitals not employing pharmacists. The dispensing of drugs or the compounding of medications by a medical practitioner could proceed in this area.

The Pharmacists Act and Regulations are vague regarding the attendance of a part-time pharmacist in an hospital. Such attendance can be read as coming under regulation 503 (2) of the Pharmacists' Regulations. Section 503 (3) of these regulations could impede the development of pharmaceutical patient care services in small Victorian hospitals. This section requires that only a pharmacist, medical

practitioner or dentist have access to the pharmacy department keys.

In this survey population, 14.5% of country hospital towns are not served by a community pharmacist, a minimum of 6.8% do not have a resident medical practitioner, and 4.5% have neither of these service providers. One may argue that the latter hospitals could hardly justify their existence (20); however they continue to function, surviving the Hospitals and Charities Commission's regionalisation program, the rural recession and the reality of today's economic climate. It is apparent that with local support small hospitals may survive, even though a town may lose the services of the community pharmacist and the resident doctor.

The Pharmacists Act 1974 purports to regulate the practice of pharmacy; however it appears to be unresponsive to the needs of such hospitals if one accepts an association between a pharmacist and the facilities deemed to come under his control. No hospital should be denied any facility that could promote the pharmaceutical patient care service. It is commended that an authority such as the Pharmacy Board of Victoria gain regulatory control over all pharmacy department premises; however the shortsightedness of this legislation is evident when unique aspects of the Victorian hospital system have not been identified and accounted for in the enacted legislation.

The Pharmacists Act and Regulations are not designed to facilitate pharmaceutical patient care services in small hospitals in towns with neither a community pharmacist nor a resident doctor. The provisions of the Poisons Act 1962 provide for pharmaceutical patient care services in these hospitals, recognising the multidisciplinary nature of the service. The Pharmacists Act adds constraints to the development of provisions in the Poisons Act, and whilst service provision and service quality are necessary considerations, the Pharmacists Act 1974 secures a role for

community pharmacists, if and when they choose to accept appointments as sessional pharmacists in small Victorian hospitals.

The Pharmacists Act and Regulations imply that in an hospital the practice of pharmacy and a pharmacy department are concomitant; however it is not clearly stated when it is desirable for an hospital not to have a pharmacy department when providing a pharmaceutical patient care service.

Within the meaning of the National Health Act 1953, fourteen hundred and forty nine Victorian pharmacies were approved in June 1978 to dispense pharmaceutical benefits. In addition a medical practice (at Walwa) and two private hospitals (Ballarat and Warburton) were also approved. No bush nursing hospitals are approved; however a number of bush nursing centres are (e.g. Dartmoor). The approved private hospitals employ a full-time pharmacist whilst the bush nursing centres do not.

## CONCLUSIONS

The Poisons Act 1962 and the Pharmacists Act 1974 are the two principal documents regulating pharmacy practice in Victoria. They should be read together when considering pharmaceutical patient care services in small Victorian hospitals. This writer contends that there is a noticeable difference between the implied reality of the various acts and what has been previously described in the literature relating to the organisation of community pharmacy services, hospital pharmacy services and small Victorian hospitals.

The provision of a number of acts and regulations has resulted in the lack of one comprehensive document embracing facets of the Hospitals and Charities Act, the Poisons Act, the Pharmacists Act and the National Health Act, relating to pharmacy practice in general and to the provision of pharmaceutical patient care services in small Victorian hospitals. The

parts of the acts and regulations considered by this writer relate to the confinement of activities, and to the control and availability of facilities, to authorised personnel and premises. It is evident that when pharmacy qualified personnel are not available to participate in pharmaceutical patient care services in small Victorian hospitals, then certain activities and facilities are rendered unavailable. The reorganisation of the traditional mode of pharmaceutical patient care service into an arrangement acceptable to the nursing, medical and pharmacy occupations, when the services of a part-time pharmacist are not available may be hindered by the prevailing acts and regulations discussed in this chapter.

REFERENCES


1. The Hospitals and Charities Act 1958, section 92 (p46)
2. The Poisons Act 1962, section 37, part three, division one, section 80.
3. Ibid., The Drugs of Addiction and Restricted Substances Regulations part two, division three, section 7
4. Ibid. part two, division three, sections 86- 87
5. Ibid. part two, division seven, sections 16- 22
6. Ibid. part three, division five, sections 105- 108
7. Ibid. part two, division thirteen, sections 61- 65B
8. Ibid. part two, division twelve, section 46
9. The Pharmacists Act 1974, section 3
10. Ibid. part VI, section 27(1)
11. Ibid. part VI, section 28
12. see Brown v Weir, Law Reports of New South Wales 1956, and Mercer v Pharmacy Board of Victoria, Victorian Law Reports 1969 p72, for a judicial interpretation of this expression
13. The Pharmacists' Regulations 1976, part V, division one, regulation 503(2)
14. Ibid. part one, division one, regulation 503(3)
15. Ibid. part one, division one, regulation 505
16. Allan, L.C., "Ward pharmacy and the sole pharmacist", Aust. J. Hosp. Pharm. 5:2 1975 p44- 47
17. The National Health Act 1953, part VII, section 92(1), (2)
18. Ibid. part VII, section 94
19. The Pharmacists Act 1974, part VI, section 27(1)
20. Kirk, M.G., The role of the small country hospitals in the hospital system of Victoria , Masters Degree Dissertation, U.N.S.W. 1968 (unpublished)

# PART III

# CHAPTER X

## SURVEY RESULTS

METHODOLOGY

A questionnaire investigation involving one hundred and thirty two Victorian hospitals was undertaken. One hundred and twenty hospitals returned completed questionnaires.

The 1964 study by Francke et al. (1) made use of two questionnaires. The construction and content of these guided this writer during the questionnaire formulation stage. The Australian studies by Naismith (2) and Miller (3) were also used as guides during this process. Two questionnaires were formulated and circulated to the survey hospital population. These are reproduced in Appendix A.

The questionnaires sought information relating to the sources of supply of pharmaceutical and medicinal preparations; sources of emergency supply of pharmaceutical and medicinal preparations; sources of drug information; the status of ongoing drug education; hospital dispensing activities; drug disposal; pharmaceutical and medicinal preparation storage and control; drug recording procedures; intravenous drug therapy; hospital policies concerning the pharmaceutical patient care service; communications between the community medical practitioner and the hospital nursing staff; the community pharmacist's relationship with the hospital; the regional pharmacist's relationship with the hospital; attitudes towards the current pharmaceutical patient care service; and attitudes towards changing the pharmaceutical patient care service.

The sections within each questionnaire were organised according to the number of answer alternatives to be checked. Table 10.1 shows the extent of dependence this writer placed upon the questionnaires utilised by Francke et al. (4)

Table 10.1 Questionnaire content- this survey and Francke et al.

| Questionnaire | Total number of questions | Questions adapted from Francke et al. |
|---|---|---|
| Manager (no. 1) | 20 | 9 |
| Matron (no. 2) | 42 | 9 |

The remaining questions were formulated on the basis of this writer's experiences in hospitals and community pharmacy, and with situations described in the literature.

Support for the study and questionnaire circulation was sought from the Victorian Bush Nursing Association, the Association of Directors of Nursing Victoria, The Australian Institute of Hospital Administrators (Vic.), the Society of Hospital Pharmacists (Vic.), the Pharmaceutical Society of Victoria and the Royal Australian Nursing Federation (Vic.). Introduction to these organisations was aided by a letter of identification from Professor J. Dewdney, the study supervisor. This introduction, the questionnaires and a brief résumé of the study were presented for tabling at a monthly meeting of each association. After approval for the research exercise was given, a letter acknowledging this was requested, for inclusion within the documents circulating to the hospital population. These documents are reproduced in Appendix D.

The studies reviewed in Chapter Two presented data analysis incorporating percentage tabulations. The assessment undertaken in this survey firstly relates to quality (5) and secondly to composition. Outcome measures have not widely been written about. In pharmaceutical patient care service terms outcome refers to medication errors. No other measures such as patient morbidity are taken into account. Medication error studies have not been undertaken in small Victorian hospitals, since the medium likely to conduct such a study, the pharmacist, is not employed by these hospitals. Therefore outcome measures cannot be used with respect to the quality of pharmaceutical patient care services in small Victorian hospitals. The surveys reviewed in Chapter Two neither developed a model for pharmaceutical patient care nor attempted to divide the questionnaire analysis into sections of any similiar description to the components of input, structure, process and outcome.

The assessment in this survey brings together the process and structure components. Individual facets of pharmaceutical patient care are thus grouped following the scoring procedure to be outlined. One point was allocated for a response that indicated a satisfactory practice or was something that would contribute towards providing a satisfactory practice standard. Zero points were allocated for an answer indicating an unsatisfactory practice standard or something that might constrain the provision of a satisfactory standard of pharmaceutical patient care.

Table 10.2 Questionnaire components and scoring composition.

| The number of | Model component and question category | | | Total |
|---|---|---|---|---|
| | Input | Structure | Process | |
| Questions scored | - | 18 | 26 | 44 |
| Questions not scored | 5 | 6 | 3 | 14 |
| Total | 5 | 24 | 29 | 58 |

The pharmaceutical patient care model presented in Chapter Three is independent of any one specific pharmaceutical service provider. Hence the question relating to the employment of a part-time pharmacist is not utilised when scoring the pharmaceutical patient care service.

The judgement of what is a satisfactory practice standard is a subjective one; however clear distinctions are made between the questionnaire response alternatives, and judgement is made upon the basis of providing an adequate service where the provider is either a nurse, a pharmacist or a medical practitioner. These personnel are defined to be the providers of pharmaceutical patient care where appropriate in this study.

The major concern of this analysis is a consideration of the pharmaceutical patient care service as a whole entity. The pharmaceutical service score is composed of the structure mean score and the process mean score added. Following this primary analysis, structure and process components are considered separately. It was not possible to frame a set of questions

appropriate to all hospitals in the survey. Therefore the maximum obtainable raw score varies between hospitals. For example, four questions are inappropriate to hospitals not having a drug room or a pharmacy department. Hence only questions applicable to an hospital's environment are utilised in this analysis, which measures service quality and not the quantity of pharmaceutical patient care service components.

Each hospital score has been standardised according to the following formula:

$$\text{Standardised score} = \frac{\text{Hospital's raw questionnaire score}}{\text{Hospital's maximum possible raw questionnaire score}} \times \text{The mean of the responding hospital population maximum raw score}$$

Table 10.3 Questionnaire analysis- standardised maximum scores.

| | Service component | | Pharmaceutical service score |
|---|---|---|---|
| | Structure | Process | |
| Standardised maximum score | 13.7 | 24.6 | 38.3 |

The survey hospital population is subgrouped according to the characteristics listed in Table 10.4. Hospital questionnaire scores are tallied according to the listed characteristics. Significance testing is undertaken between the hospital population mean score and the appropriate mean sample scores. This method aims to assess whether these characteristics promote the quality of pharmaceutical patient care services in small Victorian hospitals.

The certainty with which an adequate service type can be elucidated within the framework of the environmental and hospital characteristics that impinge upon the service is made less clear by firstly the difficulties arising relating to the objectivity of question statements in the questionnaires, and secondly whether or not there exists a relationship between structure and process components with outcome within the defined model.

Table 10.4 Questionnaire scores

| Factor | | Code | Sample size | Service component: standardised mean score | | Pharmaceutical service score |
|---|---|---|---|---|---|---|
| | | | | Structure | Process | |
| Population mean | | | 120 | 9.3 | 19.7 | 29.0 |
| Length of patient stay | <10 days | a1 | 59 | 9.1 | 19.9 | 29.1 |
| | ⩾10 days | a2 | 61 | 9.4 | 19.6 | 29.0 |
| Work load (Bed days) | <5000 | b1 | 70 | 9.0 | 19.5 | 28.5 |
| | ⩾5000 | b2 | 50 | 9.6 | 20.0 | 29.6 |
| Hospital governance | Public | c1 | 85 | 9.4 | 19.9 | 29.3 |
| | Bush nursing | c2 | 35 | 8.9 | 19.3 | 28.2 |
| Manager or secretary | Full-time | d1 | 63 | 9.4 | 19.8 | 29.2 |
| | Part-time | d2 | 57 | 9.1 | 19.6 | 28.7 |
| Distance from a base hospital (miles) | <35 | e1 | 52 | 9.7 | 19.8 | 29.5 |
| | ⩾35 | e2 | 60 | 8.8 | 19.6 | 28.5 |
| Location | Metropol. | f1 | 8 | 9.3 | 19.9 | 29.2 |
| | Rural | f2 | 112 | 9.3 | 19.7 | 29.0 |
| Community pharmacy in hospital town | Yes | g1 | 105 | 9.2 | 19.8 | 29.0 |
| | No | g2 | 15 | 9.7 | 19.3 | 29.0 |
| Community pharmacist on hospital board of management | Yes | h1 | 35 | 9.0 | 19.5 | 28.5 |
| | No | h2 | 85 | 9.4 | 19.8 | 29.2 |
| Town medical practitioner status in towns with a community pharmacy | Resident | i1 | 85 | 9.0 | 19.6 | 28.6 |
| | Non resident | i2 | 3 | 8.1 | 19.4 | 27.5 |
| Town medical practitioner status in towns without a community pharmacy | Resident | j1 | 10 | 10.0 | 20.3 | 30.3 |
| | Non resident | j2 | 5 | 9.1 | 17.4 | 26.5 |
| Accreditation | Public | k1 | 15 | 10.2 | 20.8 | 30.9 |
| Yet to be accredited | Public | k2 | 70 | 9.3 | 19.7 | 29.0 |
| | Bush Nur. | k3 | 35 | 8.9 | 19.3 | 28.2 |
| Pharmaceutical service classification | Regional & sessional | L1 | 17 | 10.6 | 20.6 | 31.2 |
| | Traditional | L2 | 103 | 9.0 | 19.6 | 28.6 |
| Pharmaceutical service classification | Regional | m1 | 7 | 9.1 | 19.9 | 28.9 |
| | Sessional | m2 | 10 | 11.7 | 21.1 | 32.8 |
| Pharmaceutical service classification in accredited hospitals | Regional and sessional | n1 | 8 | 11.4 | 21.5 | 32.8 |
| | Traditional | n2 | 7 | 8.8 | 19.9 | 28.7 |

RESULTS

Statistical testing of the mean scores in Table 10.4 revealed that there is no significant difference between these scores and the corresponding population mean score (at the .05 probability level) for the following characteristics.

| STRUCTURE | PROCESS | PHARMACEUTICAL SERVICE SCORE |
|---|---|---|
| a1, a2, b1, b2, c1, c2, d1, d2, e1, f1, f2, g1, g2, h1, h2, i1, i2, j1, j2, k2, k3, L2, m1, n2. | a1, a2, b1, b2, c1, c2, d1, d2, e1, e2, f1, f2, g1, g2, h1, h2, i1, i2, j1, j2, k2, k3, L2, m1, n2. | a1, a2, b1, b2, c1, c2, d1, d2, e1, e2, f1, f2, g1, g2, h1, h2, i1, i2, j1, j2, k2, k3, L2, m1, n2. |

Hence these characteristics are not considered to be related to the quality of pharmaceutical patient care services in small Victorian hospitals.

Statistical testing of the mean scores in Table 10.4 revealed that the scores for the following hospital samples are significantly higher than the corresponding hospital population mean score at the .05 probability level (*significantly lower).

| STRUCTURE | PROCESS | PHARMACEUTICAL SERVICE SCORE |
|---|---|---|
| e2*, k1, L1, m2, n1. | j2*, k1, L1, m2, n1. | k1, L1, m2, n1. |

Hence these characteristics are considered to be related to the quality of pharmaceutical patient care services in small Victorian hospitals.

Further statistical analysis revealed that there is no significant difference between the paired structure, process and pharmaceutical service mean scores in Table 10.4. Statistical data are presented in Appendix C.

RESULTS - DISCUSSION

The analysis of structure, process and pharmaceutical service mean scores revealed six characteristics that could be significantly distinguished from the hospital population mean structure, process and pharmaceutical service scores.

(a) Distance from Victorian base hospitals.

Small Victorian hospitals located further than thirty five miles from Victorian base hospitals recorded a mean structure score significantly

lower than the hospital population mean structure score. As well, the former score is not significantly different from the sample of small Victorian hospitals located less than thirty five miles from Victorian base hospitals.

(b) Hospital towns with neither a community pharmacy nor a resident medical practitioner.

This sample of hospitals recorded a mean process score significantly lower than the population mean process score. As well, the former score is not significantly different from the mean process score recorded by the sample of hospitals in towns without a community pharmacy and with a resident medical practitioner.

(c) Accredited hospitals.

The accredited sample of public hospitals recorded significantly higher mean structure, process and pharmaceutical service scores in comparison with the hospital population mean structure, process and pharmaceutical service scores. As well, the former scores are not significantly different from the mean structure, process and pharmaceutical service scores for the non accredited group of public hospitals.

(d) Intervention into the traditional mode of pharmaceutical patient care service utilising regional or sessional pharmacy services.

Small Victorian hospitals incorporating regional or sessional pharmacy services recorded a mean structure, process and pharmaceutical service score significantly higher than the population mean structure, process and pharmaceutical service scores respectively. As well, the former scores are not significantly different from the mean structure, process and pharmaceutical service scores for hospitals utilising the traditional mode of pharmaceutical patient care service.

(e) Sessional pharmacy.

The sample of hospitals using sessional pharmacy recorded mean structure, process and pharmaceutical service scores significantly higher than the hospital population mean structure, process and pharmaceutical service scores, and not significantly different from the regional pharmacy hospital sample mean structure, process and pharmaceutical service scores. The mean structure, process and pharmaceutical service scores for the sample of hospitals with regional pharmacy are not significantly different from the hospital population mean structure, process and pharmaceutical service scores.

(f) Accredited hospitals with regional or sessional pharmaceutical patient care services.

The mean structure, process and pharmaceutical service scores for this hospital sample are significantly higher than the hospital population mean structure, process and pharmaceutical service scores; but are not significantly different from the mean structure, process and pharmaceutical service scores for the accredited sample of hospitals with the traditional mode of pharmaceutical patient care service. The mean structure, process and pharmaceutical service scores for accredited hospitals with the traditional mode of pharmaceutical patient care service are not significantly different from the hospital population mean structure, process and pharmaceutical service scores.

The characteristics discussed are associated with three primary factors that accord certain groups of hospitals a higher quality pharmaceutical patient care service;

- Intervention into the traditional mode of pharmaceutical patient care service;
- The hospital accreditation process; and
- The closer proximity of hospitals to Victorian base hospitals.

Two specific characteristics associated with a higher mean pharmaceutical service score are;

(a) Sessional pharmacy.

This is one form of service intervention, being implemented in five of the fifteen responding accredited small Victorian hospitals.

(b) The base hospital pharmacy service.

This is directly associated with regional pharmacy which is the second form of service intervention implemented in three of the fifteen responding accredited small Victorian hospitals. The base hospital pharmacy service has a lesser affect on the structure component of pharmaceutical patient care service in remotely situated small Victorian hospitals.

COMPARISON BETWEEN THE MODES OF PHARMACEUTICAL PATIENT CARE SERVICE.

There are two processes underlying the supply of information in the respondents' questionnaires. Respondents supplied answers either correctly detailing the pharmaceutical inputs, processes and structures, or they incorrectly described these components within the hospital. In the latter circumstance, an awareness of pharmaceutical service structure and process elements is an integral component of the service provider's consciousness relating to the pharmaceutical patient care service. The circulated questionnaires included a representative selection of questions altogether constituting an assessment of the pharmaceutical patient care service. Individual questioning into one element of the service may not have been exhaustive, since the questionnaires were not designed for such an investigation.

All questionnaire responses were tabulated according to the characteristics associated with each survey hospital. Due to the volume of data generated a more exhaustive presentation could not be proceeded with in this report. The following descriptions have been prepared on the basis

of the research based on the questionnaire returns.

(a) Service components common to the traditional, regional and sessional pharmaceutical patient care service modes.

The service component is described and the related model component is delineated as: input (I), process (P) and structure (S).

| MODEL COMPONENT | SERVICE COMPONENT |
|---|---|
| S | The hospital drug room/ pharmacy department. |
| S | Drugs of addiction storage facility in the drug room. |
| S | Drugs of addiction storage facility at the ward sister's station. |
| S | The main storage areas for drugs and pharmaceutical preparations are: 1. Ward sister's station; 2. Theatre; 3. Drug room; 4. Casualty. |
| S | Drug information reference material is supplied. |
| S | The community pharmacist is represented on the hospital board of management. |
| S | Hospitals have a policy for reporting adverse drug reactions. |
| S | Hospitals have a policy that drugs only be administered to patients on the written orders of a medical practitioner. |
| P | The manager or secretary has procedural involvement in the hospital pharmaceutical patient care service. |
| P | The manager or secretary conducts a half yearly or yearly physical inventory of drugs and pharmaceuticals stocked in the hospital. |
| P | The nursing staff are involved in the hospital drug distribution service. |
| P | The nursing staff are involved in dispensing medications to hospital outpatients and staff members. |
| P | The repackaging of tablet bottles and the relabelling of medicinal containers is an uncommon event. |
| P | The packaging or repackaging of lotions in the drug room is an uncommon event. |
| P | The procurement of emergency drugs has not been a problem. |
| P | An infrequent need for emergency drugs at night was indicated. |
| I | On admittance, inpatients bring tablets and other medications to hospital. |
| P | Doctors and nursing staff are involved with patient drug administration. |
| P | Intravenous therapy is used in emergencies and infrequently in other cases. |
| P | The use of intravenous drug additive solutions is uncommon. |
| S | Doctors and nurses are normally involved in the preparation of intravenous drug additive solutions, when required. |
| P | The attending doctor is matron's first choice when in need of drug information. |

| MODEL COMPONENT | SERVICE COMPONENT |
|---|---|
| I | Without request, the attending doctor supplies drug information to hospital nursing staff. |
| I | Medical representatives visit the hospital. |
| I | Medical representatives are helpful to matron when providing information relevant to the needs of hospital inpatients. |
| P | The attending doctor is beneficial to hospital nursing staff for ongoing education concerning drugs, drug administration and drug regimens. |
| P | Drug companies are beneficial to hospital nursing staff for ongoing education concerning drugs, drug administration and drug regimens. |
| P | In general, matron communicates with doctor during normal hospital conversation when presenting a problem related to the pharmaceutical patient care service, for either consideration or recommendation. |
| P | The community pharmacist enjoys a satisfactory relationship with the hospital. |

(b) Service components common to the traditional and regional pharmaceutical patient care service modes.

| | |
|---|---|
| S | Matron is assigned as being in charge of the hospital drug room. |

(c) Service components common to the traditional and sessional pharmaceutical patient care service modes.

| | |
|---|---|
| P | Multiple avenues for the supply of drugs and pharmaceutical preparations are used by the hospital. |
| I | On admittance, inpatients are requested to bring tablets and other medications to hospital. |
| P | Drugs brought to hospital by a patient are used for ongoing drug therapy following hospital admission. |
| P | The community pharmacist is matron's second choice when in need of drug information. |
| P | The community pharmacist is the second most helpful person, for matron and hospital nursing staff regarding ongoing education concerning drugs, drugs administration and drug regimens. |
| P | The community pharmacist is the avenue of choice when the hospital is in need of emergency drugs. |

(d) Service components common to the regional and sessional pharmaceutical patient care service modes.

| | |
|---|---|
| S | A pharmacist attends the hospital on a part-time basis. |
| S | The attendance of the pharmacist is a formal arrangement. |
| P | The pharmacist is involved with waste drug disposal. |
| P | The hospital has a pharmacy department. |

(e) Service components common only to the traditional mode of pharmaceutical patient care service.

S A Pharmacist does not attend the hospital

S The community pharmacist is not available to attend the hospital.

S If the community pharmacist is available to visit the hospital, then this is an informal arrangement.

P There is a variety of waste drug disposal methods.

P The manager or secretary considers that change to this service mode is not necessary.

- Factors that may prevent change are:

S Gaining the acquisition of a community pharmacist's services.

I Financial commitment by the Hospitals and Charities Commission.

- Reasons for satisfaction with this service mode are:

S The community pharmacist supports this service.

S The nursing staff have developed a well organised system.

S When change from the traditional service mode was advocated, regional and sessional pharmacy received equal consideration.

(f) Service components common only to the regional pharmacy service mode.

P The associated base hospital supplies drugs and pharmaceutical preparations.

P Tablets and medications brought to hospital by inpatients, are not used in their ongoing medication therapy.

P The regional pharmacist is matron's second choice when in need of drug information.

P The regional pharmacist is the most helpful person, for matron and hospital nursing staff regarding ongoing education concerning drugs, drug administration and drug regimens.

P The regional pharmacist enjoys a satisfactory relationship with the hospital.

P The regional pharmacist is the first avenue of choice when emergency drugs are required.

(g) Service components deficient in all modes of pharmaceutical patient care services.

S Regular meetings to discuss pharmacy and therapeutic matters are not held.

P Professional associations, organisations and authorities do not communicate pharmaceutical service policies to small Victorian hospitals.

P No consensus of opinion is sought when considering the purchase or supply of antivenene stocks.

S Adequate drug administration recording systems have not been implemented.

(h) Service components common only to the sessional pharmacy service mode.

S A community pharmacist is employed on a part-time basis.

S The community pharmacist is in charge of the pharmacy department.

S There is an awareness for the need to conduct pharmacy and therapeutic committee meetings.

P The employed community pharmacist enjoys a satisfactory relationship with the hospital.

P Professional associations and other organisations do not conduct or participate in ongoing education for nursing staff concerning drugs, drug administration and drug regimens.

(i) Service component not common to the traditional mode of pharmaceutical patient care service.

P There is no common reason preventing change from the traditional service mode, in hospitals where service change was thought necessary.

(j) Service components deficient in the traditional and regional pharmaceutical patient care service modes.

S There is not an awareness for the need to hold meetings to discuss pharmacy and therapeutic matters.

(k) Service components deficient in the regional pharmacy service mode.

P Patients are not requested to bring tablets and other medications to hospital when being admitted as inpatients.

(i) Discussion.

This service comparison elucidated the constitution of the various pharmaceutical patient care service modes. A majority of service components described are common to the traditional, regional and sessional pharmaceutical patient care service modes. There are few service components that allow one to distinguish regional and sessional pharmacy from the traditional service mode. The primary difference relates to the attendance of a part-time pharmacist and the provision of a pharmacy department. One cannot deduce from these two structural components any association with the provision of any other specific structure and process

service components.

The implementation of the alternative modes of pharmaceutical patient care services in small Victorian hospitals appears not to be associated with the type of service to be provided; but only with the qualifications of the service provider and with the provision of a pharmacy department. The potential of the pharmacists' contribution to pharmaceutical patient care service activities in small Victorian hospitals is recognised by this writer and by other writers throughout the pharmacy literature; however the potential for developing the traditional service mode utilising traditional service providers has not been recognised in practice or in the Australian pharmacy literature.

SELECTED QUESTIONNAIRE DATA

The following information is central to the theme and issues involved in this survey.

Table 10.7 Pharmacists employed by small Victorian hospitals.

| Pharmaceutical service category | Hospital classif-ication | Hospitals employing a part-time pharmacist | | Hospitals not employing a part-time pharmacist | |
|---|---|---|---|---|---|
| | | Number | % | Number | % |
| Traditional service | Public | - | - | 68 | 56.7% |
| | Bush nursing | - | - | 35 | 29.2% |
| Regional pharmacy | Public | - | - | 7 | 5.8% |
| | Bush nursing | - | - | - | - |
| Sessional pharmacy | Public | 10 | 8.3% | - | - |
| | Bush nursing | - | - | - | - |

Table 10.7 shows that the employment of a pharmacist relates only to sessional pharmacy. The regional hospital pharmacist's service is acquired without charge from a neighbouring Victorian base hospital. Respondents indicated that sessional pharmacy could involve the service of one community pharmacist on a permanent basis, or the participation of community pharmacists on a rotating basis. The part-time involvement of pharmacists in Victorian

bush nursing hospitals is not recorded in Table 10.7.

Table 10.8 The attendance of pharmacists in small Victorian hospitals.

| Pharmacist's time per week in the hospital | Category of pharmaceutical service | | | | | |
|---|---|---|---|---|---|---|
| | Regional pharmacy | | Sessional pharmacy | | Traditional service | |
| | no. | % | no. | % | no. | % |
| No time | 0 | - | 0 | - | 81 | 67.5% |
| Less than four hours | 4 | 3.3% | 5 | 4.2% | 17 | 14.2% |
| Four to eight hours | 2 | 1.7% | 3 | 2.5% | 4 | 3.3% |
| Greater than 8 hours | 1 | .8% | 2 | 1.7% | 1 | .8% |

Table 10.8 shows the time spent by pharmacists in small Victorian hospitals. A majority of hospitals with traditional pharmaceutical patient care services are not visited by a pharmacist. Subtracting the fifteen hospital townships not served by a community pharmacist from the figure of eighty one in Table 10.8 leaves sixty six hospitals not visited by the town community pharmacist. Respondents indicated that community pharmacists regularly collected prescriptions and delivered dispensed medications; however such an arrangement was considered to be a delivery service only.

Table 10.9 The availability of a community pharmacist to visit small Victorian hospitals.

| | Available | Not available |
|---|---|---|
| Hospital category | | |
| Public | 50 | 35 |
| Bush Nursing | 21 | 14 |
| Hospital town community pharmacy status | | |
| Community pharmacy | 68 | 37 |
| No community pharmacy | 3 | 12 |
| Total % | 59.2% | 40.8% |

Table 10.9 shows that 59.2% of hospitals classified the town community pharmacist as being available to visit the hospital. This figure is similiar for public and bush nursing hospitals. In hospital towns with a community pharmacist, 35.2% of hospitals indicated the unavailability of a community pharmacist to visit the hospital.

Table 10.10 The hospital manager or secretaries' attitudes towards changing the traditional mode of pharmaceutical patient care service.

| | Those who think change is necessary | Those who do not think change is necessary |
|---|---|---|
| Hospital category | | |
| Public | 30 | 38 |
| Bush nursing | 1 | 33 |
| Work load category | | |
| Less than 5000 bed days | 14 | 43 |
| Greater than 5000 bed days | 17 | 28 |
| Town community pharmacy status | | |
| Community pharmacy | 27 | 60 |
| No community pharmacy | 4 | 11 |
| Traditional service mode | 31 | 71 |
| Total % | 30.4% | 69.6% |

Table 10.10 shows that 69.6% of managers or secretaries of the responding hospitals with the traditional mode of pharmaceutical patient care service do not consider change necessary to this service. One bush nursing hospital indicated the necessity for change. The thirty one respondents favouring change represent only 30.4% of all responding hospitals with the traditional mode of pharmaceutical patient care service.

Table 10.11 Situations preventing or delaying the implementation of change to traditional pharmaceutical patient care services, (Respondents are those favouring change in Table 10.10.)

| Situations that could prevent or delay change | Hospital category | |
|---|---|---|
| | Public | Bush nursing |
| 1 Hospital is to remote from a base hospital | 3 | - |
| 2 There is no local community pharmacist | 5 | 1 |
| 3 The community pharmacist is to busy to participate | 6 | - |
| 4 The community doctor supports the current service | 3 | - |
| 5 The base hospital pharmacist is to busy to participate | 1 | - |
| 6 The nursing staff are satisfied with the current service | 2 | - |
| 7 Hospitals and Charities Commission funds are unavailable | 4 | - |
| 8 Have requested regional or sessional pharmacy intervention- still awaiting outcome | 6 | - |

Table 10.11 shows respondents' reasons why the implementation of an

alternative mode of pharmaceutical patient care service had not been accomplished in hospitals where change to the traditional service mode was thought necessary. Factors (1), (2), (4) and (6) may have constrained the development of plans for service change, whilst the other factors (3), (5), (7) and (8) may have prevented further developments following consideration of the available alternatives to the traditional service mode. Hence there appears not to be any one dominant reason restraining the implementaion of an alternative mode of pharmaceutical patient care service in small Victorian hospitals.

Table 10.12 The influence by, or acquisition of, personnel associated with pharmaceutical patient care services in small Victorian hospitals as a determinant of change to the traditional mode of pharmaceutical patient care service.

| Service change obstacles | Hospital category | |
|---|---|---|
| | Public | Bush nursing |
| Establishing relationships with a base hospital | 2 | - |
| Acquiring the services of a community pharmacist | 13 | 1 |
| Resistance to change by hospital nursing staff | 1 | - |
| Resistance to change by the attending doctor | 4 | - |
| Other alternatives: financial restrictions, or awaiting regional or sessional pharmacy | 10 | - |

Table 10.12 shows that fourteen respondents indicated that difficulty would be encountered acquiring the services of a community pharmacist. Amongst the ten respondents indicating other alternatives, five are awaiting regional or sessional pharmacy to commence, whilst three hospitals stated that service change was a function of financial support from the Hospitals and Charities Commission.

Table 10.12 questioned those respondents who indicated a necessity to change the traditional mode of pharmaceutical patient care service. Thus on fourteen occasions respondents would need to seek an alternative other to those incorporating the local community pharmacist.

Table 10.13 Situations that are considered to make the current mode of pharmaceutical patient care service ideal in small Victorian hospitals.

| The situation | % | Classification | | | | |
|---|---|---|---|---|---|---|
| | | Hospital category | | Mode of pharmaceutical service | | |
| | | Public | Bush Nursing | Traditional | Regional | Sessional |
| The hospital is already served by a regional pharmacist | 21 | 15 | 2 | 9 | 7 | 1 |
| The hospital is already served by a sessional pharmacist | 9 | 7 | - | - | - | 7 |
| The nursing staff developed a well organised system | 28 | 12 | 10 | 22 | - | - |
| The community doctor actively supports the current system | 8 | - | 6 | 6 | - | - |
| The community pharmacist actively supports the current system | 34 | 15 | 12 | 27 | - | - |

Table 10.13 shows that hospitals with the traditional mode of pharmaceutical patient care service receive support (non participation) for this service mode in 34% of hospital towns by the community pharmacist and in 28% of hospitals by the nursing staff, in the matron's view. Nine hospitals recorded the regional pharmacist's support for the traditional service mode. Visits to those nine hospitals fall outside the definition of a regional pharmacy service defined in this survey. However these respondents indicated satisfaction with the traditional mode of service incorporating liaison with the base hospital pharmacist.

Table 10.14 shows that seventy three hospitals are satisfied with the current pharmaceutical patient care service arrangement. Of these, fifty seven have the traditional service mode, and sixteen have either regional or sessional pharmacy services. Thus 47.5% of responding survey hospitals indicated a preference for the traditional service mode.

Two hospitals amongst twenty with a preference for the participation of a community pharmacist are situated in towns without a community pharmacy. These preferences are not governed by distance to Victorian base hospitals.

Table 10.14 The arrangement of pharmaceutical patient care service that most satisfies the managers or secretaries of small Victorian hospitals.

| Preferred system or personnel involvement | % | Classification | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hospital category | | Community pharmacy status in hospital town | | Distance from a base hospital | | Mode of pharmaceutical service | | |
| | | Public | Bush nursing | Yes | No | <35 miles | ⩾35 miles | Traditional | Regional | Sessional |
| The present system | 62.4 | 43 | 30 | 63 | 10 | 32 | 37 | 57 | 7 | 9 |
| Participation of the community pharmacist | 17.1 | 18 | 2 | 17 | 3 | 7 | 11 | 20 | - | - |
| Participation of the regional pharmacist | 14.5 | 17 | - | 16 | 1 | 7 | 9 | 17 | - | - |
| More involvement of the attending doctor | 0 | - | - | - | - | - | - | - | - | - |
| More involvement of the hospital nursing staff | .9 | - | 1 | 1 | - | 1 | - | 1 | - | - |
| A combination of regional and sessional pharmacy | 5.3 | 6 | - | 6 | - | 4 | 1 | 6 | - | - |

Six hospitals indicated a preference for regional pharmacy. They are public hospitals, all except one have a local community pharmacist and their location is not specifically delineated by base hospital proximity. One hospital indicated a preference for greater involvement by nursing staff. Six hospitals indicated a preference for a regional pharmacy involving the participation of a community pharmacist. They included four hospitals in towns located less than thirty five miles from a Victorian base hospital and with a community pharmacy.

Table 10.14 shows that 56.4% of hospitals with the traditional mode of pharmaceutical patient care service, indicated a preference for this system rather than regional or sessional pharmacy. Further, 69.6% of hospitals felt that change from the traditional service mode was not necessary. Hence, acceptance of the traditional mode of pharmaceutical patient care service in small Victorian hospitals may inhibit the development of regional and sessional pharmacy, these services being implemented, so far, in seventeen survey hospitals.

Table 10.14 presents a paradox when considering the manager or secretaries' viewpoint and service rationalisation. The question called for one response only and 57.4% of these from hospitals with the traditional service mode are for the present system. When considering service rationalisation with other than a pharmacist's involvement, then hospital nursing staff and the attending medical practitioner are necessarily involved.

When looking towards the future, one may well ask in what direction will the energies of health care planners be directed when the current alternative service modes have been implemented in all small Victorian hospitals requesting change. It became evident following the literature survey that such matters have never been aired in the Australian literature.

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# C H A P T E R  X I

# CHARACTERISTICS AND MODES OF ALTERNATIVE PHARMACEUTICAL PATIENT CARE SERVICES

## INTRODUCTION

Chapter ten revealed that the quality of pharmaceutical patient care service in small Victorian hospitals is related to three primary factors. Within the bounds of an acceptable level of confidence other factors are considered not to be related to the quality of this service. Firstly, one cannot assume that a particular mode of pharmaceutical patient care service is universally available to all hospitals in this survey, and secondly that all forms of service rationalisation received consideration. Other service ideals may exist that have not received attention by those writers avowing change to the traditional service mode.

## HOSPITAL PHARMACY'S RELATIONSHIP WITH PHARMACEUTICAL PATIENT CARE SERVICES IN SMALL VICTORIAN HOSPITALS

The development of a hospital pharmacy service may depend upon many factors, for example the interest shown by administrators in the pharmacy service, and the initiatives of the incumbent pharmacist in charge. However, whether or not hospital pharmacists perform a 'means' or an 'ends' function, pharmaceutical patient care services are still accomplished. In Victoria, pharmacy services vary markedly between hospitals and there appears to be no real standardisation of practice procedures. For example, clinical pharmacy may only be a reality in one or two Victorian hospitals.

The non standardisation of practice is further emphasized by variation in definitions of the hospital pharmacist's role, elucidated in the Australian pharmacy literature. Older definitions are not applicable to the role of the clinical pharmacist; however they remain applicable to the majority of practising hospital pharmacists.

The pharmacists' intervention into the ward brought new ideals such as ward pharmacy and the unit dose drug distribution system. As well, development of drug information services lent support to the structures created enabling

the pharmacists' ward intervention. These ideals have been promoted with great vigour by leaders of the hospital pharmacy profession. Contributing authors, whilst demonstrating much writing zeal, may have ignored their own inadequacies when pushing more fashionable pharmaceutical systems into the hospital ward.

Hospital drug committees are a relatively new concept, and when active provide hospital pharmacists the opportunity to participate in matters above the department level. However, this committee has not been constituted in all hospitals employing pharmacists.

Patient medication recording supports the pharmacists' ward involvement. This system obviates the need for ancilliary recording mechanisms such as card recording, order for treatment charts, inpatient and discharge prescriptions, by providing in the prescriber's original hand writing medication orders for nursing, pharmacy and medical personnel. This system makes obsolete medication order transcription performed by other than medical practitioners.

Physicians recognised the potential benefits of pharmacists participating in adverse drug reaction monitoring and services providing medication information for patients, ahead of involvement in hospital clinical pharmacy activities. (1) Not withstanding developments in clinical pharmacy, the supply and distribution of drugs in hospitals remains an important function of the hospital pharmacist.

Hospital clinical pharmacy services for ambulatory patients were proposed and predicted in the future to be more likely an outgrowth of hospital activities, rather from developments in community pharmacy. Liaison between hospitals and community health centres is an example of this outgrowth.

The reality of hospital pharmacy practice in small Victorian hospitals

utilising part-time pharmacists may be far from the ideals proposed by the occupation's leaders. Services involving medication administration recording, the provision of drug information, involvement in the hospital ward, the supply of a broad inventory of drugs and pharmaceutical preparations and a drug distribution system imparting a control mechanism would accord with systems operated by pharmacists in many Victorian hospitals. These could be implemented and operated by semi-skilled persons.

The preparation of intravenous additive solutions and patient counselling may require the presence of personnel such as a pharmacist; however these services are not necessarily provided by pharmacists in larger Victorian hospitals. The conduct of these activities by a pharmacist may not necessarily be vital, and may not necessarily require further consideration in small Victorian hospitals. If attention is thought essential to the proper exercising of these activities, then pharmacist or medical practitioner involvement could be sought; or alternatively when qualified personnel are not available, hospital nursing staff could be trained in the proper manner as determined by the qualified occupations.

Without a full-time hospital pharmacy service, small hospitals will never provide clinical pharmacy services. Thus there can be no outgrowth of clinical pharmacy from small hospitals to ambulatory patients in associated Victorian towns. The services of a community pharmacist are available in 86.5% of hospital towns in this survey and therefore a mechanism for hospital patient and pharmacist interaction already exists.

The need for ambulatory patients to receive community based clinical pharmacy services has not been substantiated in the Australian pharmacy literature. However the wants of the leaders of the pharmacy professional associations are frequently aired. A prima facie issue remains and this is whether or not community pharmacists are capable of delivering clinical pharmacy

services in the community.

## COMMUNITY PHARMACY'S RELATIONSHIP WITH PHARMACEUTICAL PATIENT CARE SERVICES IN SMALL VICTORIAN HOSPITALS

The literature survey in chapter five revealed that there is no conformity of opinion to what is the current role of the community pharmacist. However, from this writer's experience, it is evident that this role is known by community pharmacists. To date it has neither been recognised nor fully described by the leaders of the pharmacy professional associations and other contributors in the Australian pharmacy literature. The community pharmacists' traditional skill involves manual work and encompasses a drug custodian and distribution function.

The traditional prescription recording book using sequential entry accords with the pharmacists' traditional role. The current method of prescription reimbursement has promoted a merchandising aspect in dispensing.

The patient medication recording system is person based and provides a chronological medication history for the dispensing pharmacist. The Pharmaceutical Society of Australia called for information from Australian community pharmacists operating this system. The response by very few Australian pharmacists may not have been due to a lack of interest but to the very few community pharmacists utilising this system.

Chapter five recorded that American community pharmacists failed miserably in a test to elucidate a common drug interaction when using the patient medication recording system. In Victoria, no real interest has been shown in the use of patient medication records, and one therefore cannot expect any pharmacist involvement in clinically oriented activities. When such interest lags in the community pharmacy, one may then ask what interest would be shown by a community pharmacist working part-time in an hospital environment.

The use of patient medication recording systems in community pharmacy cannot be used to substantiate any association between the community pharmacist and clinical pharmacy, and between the community pharmacist and the provision of part-time pharmacy services in small Victorian hospitals.

Patient counselling received considerable attention in the pharmacy literature. Presently only a small number of community pharmacists offer this service. Pharmacy education has undergone considerable change over the last fifteen years, and continuing education is now an established activity of the pharmacy professional associations. However these changes appear to have had little impact on remoulding the dispensing function of the community pharmacist.

Pharmacists have not been trained to perform patient counselling. The Australian Medical Association (2) considered it totally undesirable for a pharmacist to ask, for any reason, and to question a patient about diagnosis in order to give advice which a doctor could give. Before pharmacists leap into patient counselling, guidance and support from the medical profession should first be obtained.

Presently, patient counselling is an issue that cannot be used to substantiate any association between the community pharmacist and the provision of part-time pharmacy services in small Victorian hospitals.

In this survey population, 14.5% of hospital towns do not have a community pharmacy, whilst 49.2% are served by a sole proprietor pharmacist. The case for amalgamation of pharmacy outlets applies to 14.6% of hospital survey towns at June 1978. When pharmacy amalgamation creates the time for specialist pharmacy activities and more leisure time for the partners, then either pharmacist could undertake to visit the local hospital.

The introduction of the Restrictive Trade Practices Act ended restrictions governing the sale of certain pharmaceutical and general merchandise solely

through community pharmacies.

Traditionally the community pharmacist merchandised a vast array of goods, to the extent that business viability depended upon these sales. Supermarkets may affect this activity by, firstly inspiring sales discounting and secondly stimulating the formation of larger buying groups. As well, the amalgamation of pharmacies may be forced when merchandising activities are threatened by supermarkets.

The issue of open selling pharmaceutical preparations in Victoria is confined to the Melbourne metropolitan area and large rural cities. In this survey this relates firstly to community pharmacies located near the eight participating metropolitan hospitals, and secondly to approximately fifteen rural towns with three or more community pharmacies. However the latter service will remain viable even though the number of community pharmacies may change. Other survey towns have either no community pharmacy, a depot pharmacy, a sole proprietor or two community pharmacies.

This writer believes that the open selling of pharmacy merchandise is not an issue related to the provision of a part-time pharmacist in small Victorian hospitals. However, in general there may be an association between this issue and the declining number of community pharmacies located throughout Victoria.

Many community pharmacists have resisted change to traditional practice, and this is exemplified by the majority of community pharmacists neither utilising patient medication recording systems, nor offering a patient counselling service. There appears to be confusion in the pharmacy literature as to what role the community pharmacist will play in the future. Presently the future role appears to be guided by the fictions of the pharmacy professional associations, and in reality, not as an extension of actual day to day practice. The professional associations have had little impact

when promoting alternative community pharmacy work styles.

The pharmacist's community health role has been under-played when compared with the literature potential of the clinical community pharmacist. In recent years the allied health field has blossomed, reducing the community pharmacists' ability to encroach into the territories of other health care workers. Community and district nurses, health education officers, social workers specialising in drug counselling and medical technologists are a few occupations that may confine the community pharmacist's activity to within the community pharmacy.

Two issues support the notion that the primary health care role of the community pharmacist might be preserved in survey hospital towns. Firstly, the allied health care work force is not evenly distributed throughout Victoria, to the degree that base hospitals often have difficulty attracting allied health care workers. Secondly, the development of this role will be hampered most where community pharmacists and allied health care workers are concentrated, in the Melbourne and outreaching metropolitan area. Hence in 49.2% of survey hospital towns, the sole community pharmacist will maintain this role as long as the practice remains viable.

Rural community pharmacists are least affected by the expanding allied health care workforce; however like their metropolitan counterparts, they remain fairly resistant to changes in work style. The primary health care role of the community pharmacist serves the local ambulant population. This role is independent of hospital practice and is an issue not associated with the provision of a part-time pharmacist in small Victorian hospitals.

The distribution of community pharmacies in Victoria is such that 10.5% of towns in this survey do not have a community pharmacy, and 4.0% have a depot pharmacy arrangement. A sole proprietor operates the pharmacy

in another 49.2% of survey hospital towns. Much consideration needs to be given in this situation if part-time employment of the pharmacist by the local hospital is sought. There is one partnership pharmacy in 2.4% of survey towns, and this provides the circumstance enabling participation of one community pharmacist in part-time hospital practice.

There are two sole proprietor pharmacies in 9.8% of survey hospital towns. This situation would least likely provide an interested hospital service by a community pharmacist. Reasons supporting this notion are;
- if amalgamation is not achieved, then one pharmacy may gain an advantage over the other when one pharmacist is appointed to serve the hospital;
- both proprietors may truly be entrepreneurs and in their own interests, refrain from being appointed part-time to the local hospital; and
- they agree to share a sessional pharmacy arrangement and this would least likely provide a genuine interest and orientation by both pharmacists to hospital pharmacy practice.

It is evident in this circumstance that pharmacy amalgamation would enable the local hospital to gain the interested service of a part-time pharmacist.

There is one sole proprietor and one partnership pharmacy in 10.5% of survey hospital towns. The remaining 13.6% of survey hospital towns are served by a minimum of two partnership community pharmacies. Therefore 24.1% of survey hospital towns have a community pharmacy arrangement capable of providing part-time pharmacy services in small Victorian hospitals. Such employment should take into consideration that;
- an unnecessary advantage not be gained by any one pharmacy when this service is provided by one community pharmacist;
- the community pharmacist's working day is not unduly extended; and
- the community pharmacy remains open during normal shop trading hours.

The latter two issues require in depth consideration in the hospital towns serviced by a sole proprietor community pharmacist.

A submission by the Pharmaceutical Society of Victoria to a rural health working party detailed the need to encourage local pharmacists to seek positions on the board of management of local hospitals not employing a part-time pharmacist. Chapter Ten revealed the presence of the community pharmacist on the boards of management of thirty five small Victorian hospitals, and that this presence is not related to the quality of the pharmaceutical patient care service.

Relieving hospital pharmacists in Victoria indicated that community pharmacists appeared not to care greatly about activities within the local hospital, and that transactions with the hospital merely involved an exchange of goods and money. It has not been established in the Australian pharmacy literature whether community pharmacists have a role to play external to the community pharmacy.

The American literature provided an insight into the activities of community pharmacists in small hospitals. Francke et al. (1964) made the following points;

- Community pharmacists require a better understanding of their duties and responsibilities when providing services in an hospital environment.
- Community pharmacists provide the narrowest scope for pharmacy service in small hospitals.
- Even in the presence of a community pharmacist, hospital nursing staff retained control of the pharmacy service.
- The community pharmacist's services were valued by the small hospital.

This situation may or may not have changed in the intervening fifteen years since the publication of Mirror to Hospital Pharmacy; however the provision of pharmaceutical services in small Victorian hospitals is a

process still in its infancy. It is clear that the points raised by Francke in 1964 are applicable to sessional pharmacy in Victoria, and may require further attention by those avowing sessional pharmacy development and pharmaceutical service rationalisation.

PHARMACEUTICAL PATIENT CARE SERVICE DEVELOPMENT

(a) Part-time pharmacy service.

American experiences revealed that the stimulus provided by hospital administrators achieved better results in terms of the ensuing arrangements that enabled implementation of an alternative pharmaceutical patient care service. Other ventures incorporated a multidisciplinary team in the planning process. The participation of the medical practitioner in this team was considered most desirable.

In Victoria, two forms of intervention have occurred in seventeen survey hospitals. At June 1978, fifteen of these hospitals had pharmacy departments approved under the Pharmacists Act 1974. However this act does not ensure the provision of approved premises when the services of a pharmacist are not available to a small Victorian hospital.

The question of who in actual practice controls the pharmacy service, when an hospital employs a part-time pharmacist, remains unanswered in Victoria. Hospital nursing staff may threaten the autonomy of a part-time pharmacist even in unintentional circumstances. A part-time pharmacist may not secure all pharmaceutical patient care activities performed by medical and nursing staff when commencing hospital employment. On the other hand, a part-time pharmacist may delegate tasks to nursing staff.

Initiative, interest and innovation are not guaranteed when part-time community pharmacists are appointed to small Victorian hospitals. This is more likely to be associated with services provided by an hospital pharmacist. Part-time services do not entrust full-time control to any one

particular service provider. This experience was revealed in the American literature. It has yet to be denied that the provision of a part-time community pharmacist or hospital pharmacist in small Victorian hospitals is not a service that firstly imparts unidisciplinary control, and secondly prevents multidisciplinary participation in an hospital pharmaceutical patient care service.

(b) The development of alternative services.

Francke advocated that a pharmacist should always be in charge of an hospital pharmaceutical patient care service, whether employed full-time or part-time. A need for direct professional service was advocated, even if limited to a few hours per week. The source of this service would be dependent upon the local hospital (and regional) environment. When communicating with this writer, base hospital chief pharmacists demonstrated an awareness of regional and sessional pharmacy, and indicated a need for these services in small hospitals. In a submission to the rural health working party in 1975, the Pharmaceutical Society of Victoria advocated sessional pharmacy for small hospitals.

The Pharmacists Act and Regulations relate to hospital pharmaceutical services. When it is desirable for an hospital not to have an approved pharmacy department is not stated in these enactments. The Poisons Act recognised the multidisciplinary nature of pharmaceutical patient care services in hospitals by the appropriation of regulations allowing the participation of authorised personnel other than medical practitioners and pharmacists.

The Australian Council on Hospital Standards recognises the multidisciplinary nature of this service by including reference to the pharmacist, medical practitioner and nurse in standards set out under pharmaceutical services and nursing services, in the council's schedule of hospital standards.

When communicating with this writer, base hospital chief pharmacists indicated that hospital matrons are aware that they are not equipped to handle pharmaceutical activities, and in the hospitals concerned, they welcomed the service and advice of a regional pharmacist.

In 1976, Naismith, Feehan and Hookey stated that sessional pharmacy would be ideal in hospitals with approximately forty beds. (3) Base hospital chief pharmacists indicated that in hospitals with less than ten beds, neither regional pharmacy nor a drug supply service are warranted. They suggested that these hospitals would benefit most from the periodic visits by a regional pharmacist. Hence the type of system applicable in small Victorian hospitals is considered to be a function of bed size.

Much concern has been shown for the livelihood of sole community pharmacists practising in rural Victoria. The supply of pharmaceutical and medicinal preparations to a local hospital is associated with the viability of a sole proprietor rural pharmacy and the provision of an alternative supply service may precipitate closure of the town community pharmacy. A base hospital chief pharmacist stressed the importance of the doctor- pharmacist- local hospital relationship in country Victorian towns.

In the event of the resident medical practitioner leaving, the local hospital would require a visiting medical service and the townfolk would need to travel to a neighbouring town to obtain additional medical attention and the service of a community pharmacist. The hospital's pharmaceutical patient care service would then be placed in a position of greatest need. This emphasizes that consideration should be given to the type of service required in survey hospitals when change from the traditional pharmaceutical patient care service mode is desired.

The ideal part-time pharmacy service would include those activities undertaken by hospital pharmacists in Melbourne teaching hospitals. E.G. Kirk advocated that the regional pharmacist could provide a ward pharmacy service in regional hospitals. This writer doubts this contention and further doubts whether community pharmacists have the necessary hospital experience to participate in ward pharmacy programs. It may not be possible for small hospitals to receive highly developed pharmacy services, especially when operated by pharmacists lacking substantial hospital pharmacy experience.

It cannot yet be stated why regional and sessional pharmacy may be a significant improvement over the traditional pharmaceutical patient care service; however the pharmacist's part-time involvement may eradicate situations described in the literature as being undesirable in the eyes of pharmacists, and within the pharmacists interpretation of the appropriate acts and regulations.

Chapter Seven (5) raised the issue that professionals lack power in organisations since they are not organisational supervisors or negotiators. A newly employed part-time pharmacist may lack power within the hospital, and pharmaceutical tasks may remain in the nursing staff's domain. One question yet to be aired in the Australian literature is whether or not hospital nursing staff should be recognised as pharmacy technicians in small Victorian hospitals, in the presence or absence of an employed part-time pharmacist. Furthermore, should recognition be accorded when a small hospital is not served by any part-time pharmacist ?

The questionnaire survey in Chapter Ten revealed that the traditional mode of pharmaceutical patient care service differed marginally from regional and sessional pharmacy. It is evident that redevelopment of the traditional service mode may be a viable alternative in hospitals where the services

of a regional or sessional pharmacist cannot be obtained. The American literature recorded the participation of nurse technicians in unit dose drug distribution services and in medication dispensing activities, the latter when supervised by a pharmacist.

Planning for alternative modes of pharmaceutical patient care service in Victoria involved the supply of a part-time pharmacist. Planning has been ad hoc due to the limited action of the Hospitals and Charities Commission. No real assessment has been undertaken of the pharmaceutical patient care service needs of all small Victorian hospitals. This is essential before governments will consider total funding for service rationalisation. Governments rarely challenge the expertise of health professionals; however they can make decisions concerning funding arrangements that could promote, modify or limit the autonomy, authority, prestige and monopoly of any health care occupation.

The requirements for future pharmaceutical services in small hospitals must be recognised today. Pharmacists and medical practitioners may need to accept alternative services to that provided by the pharmacist. The pharmacist's involvement is cost based, and when funds are unavailable this service cannot be provided, unless offered free by a community pharmacist. The cost of a regional pharmacy service is borne by the associated Victorian base hospital.

Hospital management could seek alternative services that bear minimal cost, such as the training of nursing staff to perform pharmaceutical activities. This alternative could serve those small Victorian hospitals indicating a preference for the traditional service mode. There are many areas where pharmacy has either not gained control of, or has lost control of the drug. Medical detailers, research workers, drug trafficking and its control, drug addict counselling and the dispensing

doctor are examples outside pharmacy control.

It is evident that the traditional mode of pharmaceutical patient care service in small Victorian hospitals may be a service where pharmacy control will be avoided if a more open minded approach to development is not engaged.

(c) Regional pharmacy.

The American literature recorded the proposal by Francke et al. (6) for satellite pharmacy services as an alternative to those provided by part-time community pharmacists in smaller American hospitals. Naismith (7) considered the development of regional pharmacy services in small hospitals as a matter of importance. Regional pharmacy could be offered to all small hospitals regardless of size and location; the prime determinants are the initiative and interest of the service provider and the willingness of hospitals to participate in the scheme. Regional pharmacy planning in Victoria involved a number of disciplines. However town community pharmacists were treated in a manner that in reality gave no consideration to their association with the local hospital and the town population. Following the withdrawal of their service, they were merely reimbursed for hospital drugs held in the community pharmacies.

The Sector One regional pharmacy scheme showed firstly the lack of assistance supplied by the Hospitals and Charities Commission, secondly the amount of effort generated by base hospital chief pharmacists and the regional councils, and thirdly the ease with which small hospitals could waive participation in the scheme. The tailoring of the pharmaceutical and medication requirements for the participating hospitals involved the local doctor, hospital matron and the base hospital pharmacist.

Chapter Six revealed that all Victorian base hospitals supply pharmaceutical and medicinal preparations to other hospitals and health care facilities.

This distribution service has been extended into a regional pharmacy service in two other hospitals outside Sector One in Victoria.

In hospitals with regional pharmacy, the matron retains the status of an authorised person within the meaning of the Drugs of Addiction and Restricted Substances Regulations in the Poisons Act 1962; and the hospital nursing staff retain the burden of the pharmaceutical patient care service workload. The regional pharmacy concept is applicable to the metropolitan area. Teaching hospitals could develop an association with neighbouring small public hospitals.

Regional pharmacy services incorporating the community pharmacist have also been advocated. Regional/ sessional pharmacy allows the necessary input from hospital pharmacy and preserves the important relationship between the hospital and the community pharmacist. Regional pharmacy is the most economical avenue for the supply of pharmaceutical goods and services to small Victorian hospitals. However consideration of the community pharmacist must be given, and a shared hospital service arrangement may be the most amicable alternative for all involved parties. More importantly, regional pharmacy services remain as the only alternative service offering the input of a part-time pharmacist in hospital towns not served by a community pharmacist.

Regional pharmacy developed in Victoria prior to the implementation of sessional pharmacy. In America, the reverse situation occurred due to the inadequacies of services provided in small hospitals by community pharmacists. Regional pharmacy development in Victoria is at a standstill for reasons that may have included a lack of funds from the Hospitals and Charities Commission, a lack of interest in regional pharmacy by base hospital chief pharmacists and small Victorian hospitals. Even with sessional pharmacy development, regional pharmacy remains a viable

alternative, and its value may not be realised until the avowers of sessional pharmacy recognise constraints facing its global application.

(d) Sessional pharmacy.

In Victoria, sessional pharmacy emerged without a published regional or sector based planning exercise. However it was evident that negotiations proceeded between each hospital, the Hospitals and Charities Commission and the service provider.

The Australian pharmacy literature recorded that sessional pharmacy grew from the desire of hospital administrators for a more professional pharmaceutical service. Such interest is vital for the implementation and ongoing evaluation phases of the service. The generation of this interest was not stated to be due to any particular person or discipline. Thirty five small Victorian hospitals have a community pharmacist as a member of the hospital board of management; and yet only ten survey hospitals have seen the need for, and developed, a more professional pharmaceutical service utilising the community pharmacist. Sessional pharmacy implementation could be determined by the availability of a community pharmacist to visit the hospital; the provision of funds from the Hospitals and Charities Commission; the availability of space for an hospital pharmacy department; the location and size of the hospital; the types of hospital care provided; and the attitudes of the hospital administrator, matron and resident doctor towards changing the traditional mode of pharmaceutical patient care service.

Hospitals provide a structured service environment, and participation of a community pharmacist could be beneficial to the nature of the pharmacist's community practice. The Pharmacists Act 1974 stipulates that an approved pharmacy department must be provided for a community pharmacist choosing to enter a sessional pharmacy arrangement. A pharmacist can only practice in premises approved within the meaning of the Pharmacists Act, and the

onus is therefore on small hospitals to provide a pharmacy department.

The sessional pharmacist could provide drug information relevant to the needs of hospital inpatients, prompt solutions to drug distribution problems, and an environment conducive to promoting nursing staff interest in pharmaceutical activities. When the sessional pharmacy arrangement is rotated between two or more community pharmacists, then doubt arises as to whether full interest would be retained in the hospital service by the part-time pharmacists. This writer believes that a rotating sessional pharmacy scheme would depress potential development of hospital pharmacy activities. On the other hand, a rotating scheme provides a satisfactory arrangement when more than one community pharmacist is willing to attend the hospital, and when the hospital size and inpatient population type indicate that ward and clinical pharmacy are not warranted. Small hospitals with a geriatric medical population are a pertinent example.

When an hospital has an acute medical and surgical inpatient population, then an environment more conducive to the development of ward pharmacy exists. An extension of the community pharmacist's knowledge in this environment may be hampered by outside commercial interests. Situations including those of a financial and workload nature; and conjuring a consciousness oriented to an opposition community pharmacy, may hamper the development of the community pharmacist's role in the hospital.

A problem facing small hospitals with sessional pharmacy occurs when this activity is given a low priority by the attending community pharmacist. In this situation the service may not guarantee anything more than the daily attendance of a community pharmacist. A process of ongoing evaluation should be instituted by hospital administration following sessional pharmacy implementation. Involvement of the attending doctor, hospital nursing staff, a base hospital pharmacist, sessional

pharmacist and hospital manager are recommended in this process. Another forum providing a medium for similiar interaction is the pharmacy and therapeutics committee. These forums should promote an awareness of the benefits and shortfalls of sessional pharmacy.

Sessional pharmacy has been implemented in ten small Victorian hospitals. Development has not been supported by a broad based evaluation. Without a systematic planning process one cannot comment on the likelihood of an association between the wants of an hospital for this service and the willingness of local community pharmacists to provide it. No thought has been given to the variation in the initiative existing between community pharmacists, and their individual needs for education and work experience in hospital pharmacy practice.

In Victoria, sessional pharmacy has been pursued by the Hospitals and Charities Commission pharmacy consultant. The pharmacy professional associations recorded opinions implicating the global development of sessional pharmacy. Those persons representing the interests of the community pharmacist recorded their non receptiveness to other modes of pharmaceutical patient care services in small Victorian hospitals.

In formalising sessional pharmacy, a minimum of two hours was recommended as the basic sessional payment. Sessional pharmacists revealed that the demarcation of time by pharmacy bodies avowing this service is not the most practical arrangement for the attending community pharmacist. The sessional pharmacy ideal presented in the literature may well be the fictions of the contributors if one considers that such an arrangement may only involve relocating the community pharmacist in the hospital.

The literature presentation of sessional pharmacy is an example of the pharmacy professional associations endeavour to gain support from the rank and file membership. Sessional pharmacy may be a new definition of

success for the community pharmacist who has achieved little, or may not be satisfied with the current practice. For the successful community pharmacist, sessional pharmacy may not provide an arrangement that suits the prevailing business interest and therefore a concern for sessional pharmacy may not be generated.

The leaders of the pharmacy bodies who have promoted sessional pharmacy are unaware of the aspirations of the majority of Victorian community pharmacists. Sessional pharmacy consideration applies to 42.4% of all Victorian country pharmacies at June 1978. Approximately twelve schemes have commenced in Victoria. This writer believes that the power of the status quo has not been felt, and neither this writer nor the professional associations can predict the aspirations of the rank and file community pharmacists, nor can the future of sessional pharmacy be predicted.

(e) Traditional pharmaceutical patient care service.

The literature review detailed concern for inadequacies in this service, in small Victorian hospitals. Doctors and nurses have been involved in a system lacking both standardisation and the necessary supervision for delivering a satisfactory service (in the eyes of pharmacists).

Community pharmacists were said to lack an appreciation of the special requirements of small hospitals when offering a pharmaceutical supply service. The hospital drug room is a facility that has been subjected to scrutiny and criticism. Generally, the Australian pharmacy literature is highly critical of the traditional mode of pharmaceutical patient care service in small hospitals.

The leaders of the pharmacy profession on one hand advocate the use of pharmacy trained technicians in hospital pharmacy departments (in procedures including the preparation and packaging of pharmaceutical preparations), and on the other hand cry wolf when involvement in dispensing and

repackaging of pharmaceutical preparations by nurses in small hospitals is brought to their attention.

A consideration of pharmacy technicians, whether nursing personnel or otherwise, has not been aired in the pharmacy literature, with respect to teaching hospitals and small Victorian hospitals. Pharmacists in Melbourne teaching hospitals advocated the need for technicians in hospital pharmacy practice. The provision of a sanctioned nurse technician in the pharmaceutical patient care service represents an important role; that is a full-time service provider. The pharmacy technician could be drawn from within the hospital nursing establishment, and this arrangement would minimise the service rationalisation cost.

The questionnaire assessment in Chapter Ten provided information detailing the traditional pharmaceutical patient care service mode, a subject not previously documented in the Australian literature.

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# C H A P T E R  X I I

## PROPOSALS AND CONCLUSIONS

PHARMACEUTICAL SERVICE- ENVIRONMENTAL CONSIDERATION

In a study of small Victorian hospitals in 1968, Kirk (1) noted that rural Victorian hospitals were serving a declining population; as the distance away from Melbourne increased, the ratio of beds per head of population also increased; hospital bed usage was related to bed availability and hospitals can function independently from marked population changes; during times of recession in rural towns, patients can be hospitalised for longer periods, leading to the trend of an increasing length of hospital stay; medical practitioners have not participated in the planning and development of regional health care services; small hospital reconstruction has been carried out without any inquiry into whether it is required or even whether the small hospital should exist; and an accreditation system may limit the range of activities that can be carried out in small country hospitals.

This writer noted that the hospitals studied by Kirk in 1968 still operate today and are included in this survey population. Since Kirk's survey, there has been little evidence of change in the organisation and development of small hospitals in rural Victoria.

Since 1971 the number of community pharmacies in Australia has been gradually declining. The concept of pharmacy rationalisation by amalgamating neighbouring practices is an issue applicable to 14.6% of survey hospital towns. A major proportion (49.2%) of community pharmacists in survey hospital towns are operated by sole proprietors, and since no options for business amalgamation exist, then pharmacy closure may become a grim reality when business viability declines. Presently eighteen survey hospitals are located in towns not serviced by a full-time community pharmacist.

Over the last decade, hospital pharmacy enjoyed marked growth in Victoria. In country Victoria, hospital pharmacy is practised in eleven base hospitals

employing one or more pharmacists. Development in base hospitals has been dependent upon the initiatives of the incumbent chief pharmacist; and the interest and acceptance by hospital administrators, nursing and medical personnel of new pharmaceutical procedures.

Development has proceeded in the institutional setting, where services are shielded from the economic forces encountered by community pharmacists. Even when a ceiling is imposed upon hospital pharmacy staff establishment, the nature of the service can always be adjusted, altered or rationalised by those pharmacists in pursuit of change. It is evident that small Victorian hospitals, base hospitals and other hospitals employing one or more pharmacists, are capable of operating regardless of the state of the economy and the population change in country Victoria.

The community medical practitioner and pharmacist are two service providers supporting small Victorian hospitals. Even though these services may be supplied in the absence of competition in a majority of survey hospital towns, they remain subject to economic change and to population change in country Victoria. The stability of the survey hospital population is typified by five hospital towns neither serviced by a full-time community pharmacist nor a resident medical practitioner. In 1968 Kirk (2) remarked that a small hospital without a doctor is virtually useless and appropriate only to the care of nursing home type patients. Presently, these five hospitals are still classified as public or bush nursing hospitals.

Hence one may conclude that the hospital population under study is stable, and has been subjected to little change in the past. It is upon this consideration that planning proposals for the development of pharmaceutical patient care services in small Victorian hospitals will partly be based.

Consideration of the future organisation of Victorian hospitals and the new Health Commission also needs to be given. A prior knowledge, or at least a

reasonable prediction of what impact the new commission will have on the present organisation of Victorian hospitals is not entirely beyond reach. Following assessment of the Syme Townsend report, this writer's concern is not for what new direction and control may in future be brought to bear on Victorian hospitals. It is primarily whether the outcome of the new system under the Health Commission will be radically different from the previous system operated by the Hospitals and Charities Commission.

This system of hospital organisation was characterised by the autonomy of individual hospitals and an apparent deficiency in control mechanisms (other than those of finance) exercised by the Hospitals and Charities Commission. The Syme Townsend report proposed hospital committee organisation similiar to the existing hospital boards of management, and therefore the current status of hospital autonomy may not change in the near future.

Syme Townsend proposed development of a centralised body, termed 'integrated regional administration', as a mechanism for rationalising the present tripartite administration organisation of the Victorian health care system. This may provide better coordination of existing health care services; however it does not mention or consider rationalisation of those services generated by small Victorian hospitals.

The integrated regional administration may not curb the autonomy of small Victorian hospitals. However it may generate a forum for the consideration of health care matters, but not guarantee global participation by regional hospitals in proposed developments. It is clear that the future impact of the Victorian Health Commission on regional hospital organisation and the quality of service delivered by small Victorian hospitals, may not be felt in the immediate future.

Hence proposals regarding pharmaceutical patient care service development are also based upon the assumption that there will be little change in the former relationship between small hospitals and the Hospitals and Charities Commission, and these hospitals with the new Health Commission. If Victorian bush nursing hospitals are brought under the control of the Health Commission, then relationships similiar to those that existed between the Victorian Bush Nursing Association and the Hospitals and Charities Commission will prevail. Chapter Four confirmed that one could not significantly distinguish between small public hospitals and Victorian bush nursing hospitals.

Chapter Eight revealed that the active organisations concerned with the development of pharmaceutical services have in the past, been the pharmacy professional associations. The medical, nursing and administrative professional associations have not actively pursued pharmaceutical service development in small Victorian hospitals. The Hospitals and Charities Commission supported pharmaceutical service development programs. Regional and sessional pharmacy development generated at the regional and local hospital level. Regional pharmacy development depended upon local hospital authorities, hospital pharmacists, community pharmacists and members of the pharmacy professional associations.

When pursuing rationalisation, the pharmacy professional associations are guided by their own leaders, and have yet to form a multidisciplinary planning body incorporating the representation of nursing, medical and administrative professional associations. At the statewide level, pharmaceutical patient care service development in small Victorian hospitals has been a unidisciplinary affair. Sessional and regional pharmacy development has been infrequent and spasmodic in nature.

It is questionable whether or not one occupation should attempt to govern

pharmaceutical patient care service development in small Victorian hospitals when there has not been an investigation, and when the services provided have traditionally been of a multidisciplinary nature. The Pharmaceutical Society of Victoria and the Society of Hospital Pharmacists of Australia have shown concern for developing and implementing the highest standards of pharmacy practice.

However, professional associations tend to over rate the value of their service and the differential between academic training and actual practice is marked. Professional associations frequently interpret the occupation's position and this can often be misleading, as evidenced in this survey. Professional fictions are rampant in the literature generated by spokesmen promoting community pharmacy practice.Professional associations promote the law which best suits their own interests. These associations do not as a matter of common practice examine their avoidance of accountability to the public; manipulation of political power to promote monopoly; and the restriction of services to create scarcities and increase costs.

Community pharmacists have not demonstrated major support for any of the ideals superimposed upon the occupation by the professional associations. When such ideals are divorced from the realities of everyday practice, then what grounds support the unidisciplinary planning of pharmaceutical patient care services in small Victorian hospitals ? It is evident that the associations representing the interests of community pharmacists are further divorced from the actual practice and pharmaceutical service needs of small Victorian hospitals.

The planning mechanism supporting sessional pharmacy has been successful, although confined to a handful of survey hospitals. Where regional or state wide planning is envisaged, then a multidisciplinary planning approach would include the pharmacy professional associations and the inactive nursing,

medical and administrative professional associations. A multidisciplinary planning effort may restrain professional cajolery, allowing the needs of all hospitals to be considered equally; thus realising local hospital organisational and environment constraints.

The Australian Council on Hospital Standards accreditation surveys are open to all Australian hospitals. Participation is voluntary. This scheme considers the nature of hospital inpatient and outpatient service provision. The implementation of higher standards of service or the maintenance of the current service standards, as detailed in 'standards for Australian hospitals' are carried out at the institutional level. This writer considers that hospital accreditation is presently associated with the individual hospital, rather than with regional or state wide hospital service evaluation.

In Victoria, the two principal acts relating to pharmaceutical patient care services in small Victorian hospitals are the Poisons Act 1962 and the Pharmacists Act 1974. These acts purport to regulate pharmaceutical practice by clauses governing how and by whom certain activities are to be performed. The Poisons Act incorporates a multidisciplinary consideration of pharmaceutical patient care services, whilst the Pharmacists Act incorporates unidisciplinary consideration since it purports to regulate the activities of registered pharmacists.

PHARMACEUTICAL SERVICE- INSTITUTIONAL CONSIDERATION

The pharmaceutical patient care service model presented in Chapter Three is by definition independent of any one specific service provider. This accords with the Poisons Act 1962 and with the multidisciplinary nature of the traditional mode of pharmaceutical patient care service in small Victorian hospitals. The attending medical practitioner and the hospital nursing staff participate in this latter service. The Australian pharmacy literature recorded the inadequacies of this service, and has yet to record

any praise for the many hospital employees who have provided this service in some hospitals for over fifty years. When alternatives such as regional or sessional pharmacy are pursued, benefits to the hospital pharmaceutical patient care service may accrue; however when global desire for rationalisation is stressed and these alternatives are not available, then some hospitals are disadvantaged.

Regional pharmacy is provided in hospitals when the full-time attendance of a pharmacist is not required and where exotic drug distribution systems are neither a reality nor a necessity. The importance of the pharmacist in the hospital, was related by Madden and Thomas (3) to the supply and distribution function. During the regional pharmacist's absence from the hospital, nursing staff participate in drug distribution, and this forms part of the regional pharmacy concept. Clinical pharmacy is not even a reality in all teaching hospitals where pharmacists are clustered with clinical support departments. Thus clinical pharmacy is far displaced from the realities of actual practice in small Victorian hospitals.

Today, hospital pharmacists are passing traditional skills on to technicians, enabling greater time involvement in drug information services and in the rationalising of drug distribution services. Rank and file hospital pharmacists have been criticized for their lack of concern with hospital pharmacy change programs. Small hospitals provide a basic pharmaceutical patient care service and the necessity for a more elaborate system, when neither the support facilities nor the attendance of personnel endowed with 'teaching hospital' pharmacy skills are not available, is an issue that has not been aired in the Australian pharmacy literature.

Regional pharmacy services include nursing staff involvement during the absence of the regional pharmacist. The pharmacy literature has not associated this involvement with the drug distribution function in small hospitals. Potential development of regional pharmacy should not only entail

the supply of improved systems and equipment; but should also involve the training of any other participating hospital personnel.

With regard to sessional pharmacy, the literature describing present day community pharmacy has been primarily concerned with the pharmacist's future clinical role in the community. Available information concerning patient medication recording systems and patient counselling does not support any alternative role for the community pharmacist. The community pharmacist is isolated from the medical and allied health occupations, and from details in a patient's medical history.

Community pharmacists have traditionally resisted change, and much of the pharmacy literature appears divorced from the realities of everyday community pharmacy practice. The duality problem, described as the clash between a business and a professional orientation may be a reason for the community pharmacists' lack of acceptance of new practices as publicized in the Australian pharmacy literature.

Open selling issues are divorced from the majority of community pharmacies in survey hospital towns, and these pharmacies are well situated to maintain a community health role. The rationale supporting the community pharmacists' intervention into small Victorian hospitals is meagre. However, this may provide the community pharmacist institutional support services and the necessary working environment to promote a clinical orientation in pharmacy practice, within the hospital and then in the community.

A limitation that could negate any development of a clinical role for the community pharmacist is the prevailing low level of sophistication of the support services in small Victorian hospitals. Other determinants may be the level of interest, initiative, commitment and activity of the community pharmacist in the hospital. Sessional pharmacy will not develop into an alternative practice if it plays second to, and is not separated from the

community pharmacy. The pharmacist's commercial orientation may stifle the birth and growth of an hospital pharmacy orientation.

One may only see the pharmacist transferring the community pharmacy role into the hospital if these limitations act in unison. In this case sessional pharmacy will not be an alternative practice, but merely a transition of working environment for the community pharmacist. The counter view would see the community pharmacist fulfilling an hospital pharmacy role in the small hospital, differing from that associated with community pharmacy practice.

Sessional pharmacy implementation affirms an association between the community pharmacist and the small hospital. This is important in smaller towns where there may be an association between the presence of a community pharmacist and a resident medical practitioner. The views presented concerning sessional pharmacy identify one pharmacist per hospital. It is clear that a rotating sessional pharmacist scheme would offer no more than the situation described previously with all limitations acting together.

The existing acts and regulations facilitate the prevailing modes of pharmaceutical patient care services in small Victorian hospitals. The Pharmacists Act 1974 firmly established the pharmacy profession leaders' philosophy associating pharmacy practice with hospitals; but this act did not repeal the Poisons Act 1962. The Pharmacists Act sets standards for hospital pharmaceutical practice, and prior to its proclamation the Pharmacy Board of Victoria did not have regulatory control over hospital pharmacy.

The very nature of the pharmacists part-time employment is likely to enable other hospital employees to participate in pharmaceutical patient care services in small Victorian hospitals. The delegation of professional responsibility by pharmacists to other personnel is an issue in all hospitals where pharmacists are involved. This is not an issue in hospitals where

pharmacists neither attend nor are employed.

Laws may be enacted for the convenience of an occupation and the Pharmacists Act 1974 accords with this notion. Approved pharmacy departments cannot be incorporated in hospitals where pharmacists are not employed, even though all hospitals provide pharmaceutical patient care services.

This survey revealed that the quality of the pharmaceutical service process component for the regional and traditional service modes could not be significantly distinguished. The mean process score for the sessional pharmacy sample, the regional and sessional pharmacy sample, the accredited hospital sample and the sample of accredited hospitals with regional or sessional pharmacy, are significantly higher than the population mean process score. These results may have arisen since the community pharmacist's sessional practice involves a new service ideal; the community pharmacist's employment promotes a greater awareness to the pharmaceutical service in the minds of the hospital manager or secretary and matron; the service provided by regional and sessional pharmacists are similiar; and hospital accreditation promotes a greater awareness to the pharmaceutical patient care service.

The process mean score for the sample of hospitals located in towns without a community pharmacy and without a resident doctor is significantly lower than the population mean process score. The pharmaceutical service score for hospital towns with neither a community pharmacy nor a resident doctor could not be distinguished from the population mean pharmaceutical service score. However isolation of the lesser process pharmaceutical service component may be a reflection of comments by Kirk in 1968 relating hospitals not serviced by a resident medical practitioner to nursing homes.

Pharmaceutical service quality is distinguished by the structure and process model components. The provision of facilities and equipment may promote and support a more orderly pharmaceutical service, and this does not necessarily

depend upon the process model component. The provision of facilities and equipment are not guaranteed in all small Victorian hospitals. The prevailing acts and regulations support hospitals able to employ a part-time pharmacist; but are an obstruction for hospitals not able to procure the services or attendance of a part-time pharmacist.

PHARMACEUTICAL SERVICE- INTERVENTION

(a) Service change.

Following consideration of the Australian and overseas surveys, and more recent literature, two clear distinctions can be drawn related to the pharmaceutical service change process. Firstly, the development of regional pharmacy in Victoria lagged well behind the thrust for change in small American hospitals. Secondly, and perhaps more suprisingly, the pattern of change occurred in the reverse order to that occurring in small American hospitals.

Francke recorded that community pharmacists provided part-time services in these American hospitals. Due to the inadequacy of the provided service, and the standard of services in hospitals not attended by pharmacists, Francke proposed 'auxiliary pharmacy service' as a solution. This is termed regional pharmacy in Australia. In Victoria, community pharmacy involvement (sessional pharmacy) followed the development of regional pharmacy.

The sequence of development in Victoria may have been influenced by the available literature in 1968. (4) (5) Naismith's publication closely followed the American publication by Francke et al. Up to October 1978, change from the traditional mode of pharmaceutical patient care service was recorded in seventeen hospitals (12.9%) in the survey population. Table 12.1 compares the status of service development in this survey with that presented representing a similiar hospital population, by Francke et al. in 1964. (6)

Table 12.1 Classification of pharmacist involvement in small hospitals comparing responding hospitals in this survey and a similiar population from Francke et al. 1964.

| Status of the pharmacists' involvement in the hospital pharmaceutical patient care service | Francke 1964 (a) | | Allan 1978 | |
|---|---|---|---|---|
| | no. | % | no. | % |
| Person other than a pharmacist involved | 573 | 42.9% | 82 | 68.4% |
| Person other than a pharmacist plus an arrangement with a community pharmacist | 571 | 42.8% | 21 | 17.5% |
| Local community pharmacist personally supervises hospital pharmaceutical service | 164 | 12.3% | 10 | 8.3% |
| Regional pharmacist supervises hospital pharmaceutical service | - | - | 7 | 5.8% |
| Other methods | 27 | 2.0% | - | - |
| Total | 1335 | 100.0% | 120 | 100.0% |

(a) Short term American hospitals with less than fifty beds.
(Source:-adapted from Francke et al. 1964, Table 113 p171.)

Change from the traditional mode of pharmaceutical patient care service occurred in 14.1% of responding hospitals at October 1978. This increment of change compares with the 12.3% of small American hospitals (in 1964) utilising the local community pharmacists supervision. A higher proportion of hospitals in this survey have no pharmacist involvement, compared with the corresponding figures from Francke et al. in 1964.

From the American hospital administrators' point of view, the rationale for change is based upon an awareness that there are qualified personnal available, other than medical and nursing staff, to perform hospital pharmaceutical services. The Australian pharmacy literature recorded that the rationale for changing the traditional service mode is based on the inadequate, incompetent and dangerous pharmaceutical practices carried out by personnel other than pharmacists in small Victorian hospitals. The questionnaire assessment in this survey revealed that the rationale for change is based upon the provision of a qualified pharmacist practising in an approved pharmacy department. Service intervention may promote a more orderly pharmaceutical patient care service and may eradicate irregular

practices brought to this writer's attention by relieving hospital pharmacists in Victoria.

Literature generated by spokesmen for the pharmacy professional associations, dealing with achievement or success related to pharmaceutical patient care services in small Victorian hospitals, associated success with the participation of a pharmacist and not more generally with service intervention. Any systems model can include a statement of objectives, and achievement or success (as opposed to model outcome) could be measured in relation to these terms. Outcome measures related to the pharmaceutical patient care service model presented in Chapter Three, have yet to be undertaken in small Victorian hospitals. Medication error studies and manpower cost effective studies are still being nurtured in Australian teaching hospitals.

Achievement or success cannot therefore be related to model outcome. The rating of achievement in terms of legally qualified personnel is based upon the assumption that they provide a higher quality process service component than could be provided by non qualified personnel. The model used in this survey does not assume that an association exists between any specific service provider and the quality of the work process. The participation of medical practitioners in pharmaceutical services is a subject that has never been aired in the pharmacy literature, although an assumption is made associating pharmaceutical service responsibility with a medical practitioner when a part-time pharmacist is not employed in an hospital. This assumption is supported by provisions in the Poisons Act 1962.

Therefore achievement in terms of changing the traditional mode of pharmaceutical patient care service in small Victorian hospitals has been associated with the participation of a pharmacist. Achievement can be readily predetermined by this mechanism when a decision is made to utilise a pharmacist's services in a small Victorian hospital. This rationale

remains independent of the service provider's quality of work.

The pharmaceutical service model used in this survey is independent of any one specific service provider, and achievement or success relative to this model is a function associated with a desirable service outcome. However, outcome measures encompassing pharmaceutical services have not been undertaken in small Victorian hospitals. Within this model, one cannot assume the existence of a specific relationship between process and structure components with the model outcome. The alternative remaining is to promote these components, and therefore achievement or success could be defined in terms of circumstances that may lead to a more desirable service outcome.

The assessment of pharmaceutical patient care service composition and quality is of major concern in this survey. The consideration of achievement or success in terms of the participation of a pharmacist is inconsistent with the survey model. If one is to construe the need to define success or achievement in relation to service change, then it is clear that such a definition would be less specific than that solely including the participation of a pharmacist in an hospital pharmaceutical patient care service.

Hence it is clear that the development of hospital pharmaceutical patient care services should begin as a rationalisation of the traditional service mode. An exception to the global implementation of desirable pharmaceutical patient care service components is a legally sanctioned pharmacy department. This is necessary for the employment of a part-time pharmacist, and it cannot be provided when a pharmacist does not attend an hospital. This situation is not compatible with the survey model.

The pharmacy literature recorded that the participation of a pharmacist is desirable in all hospital pharmaceutical patient care services. Regional and sessional pharmacy are of the highest ideal; however Chapter Ten revealed

that in practice very few structural characteristics distinguish regional and sessional pharmacy from the traditional mode of pharmaceutical patient care service. The incorporation of pharmaceutical service structure components deficient in all service modes is desirable and could proceed independently from the nature of the service provider.

Chapter Ten revealed that hospitals utilising a regional or sessional pharmacist have a pharmacy department. This is related to the provision of structural components; however the majority of these components assessed in the questionnaire process are located within the hospital and not specifically within the pharmacy department. This department provides the necessary security and support for the very nature of the pharmacist's skills, as a drug custodian and a compounder and dispenser of medications. Other pharmaceutical service structure components are located within the hospital walls, within the ambits of other hospital personnel and generally within the nature of the hospital's operations.

(b) Service quality.

Judgements relating to pharmaceutical service quality in this survey are based upon the questionnaire responses submitted by one hundred and twenty hospitals. The survey model provides the foundation upon which the criteria involving service quality are based. A statement relating to quality and the service components are included in Appendix A.

The pharmaceutical patient care service process component differed significantly on five occasions, following the consideration of many characteristics that distinguised survey hospitals. The process component specifically relates to the service provider, and many variables could be used to describe the service provider's activity. For example, the degree of obsession with the work process could be associated with an active or an inactive service provider; the execution and delivery of the service could

be associated with the commitment or non commitment of the service provider to the hospital; and the development of a different service ideal could be associated with the initiative or non initiative of the service provider.

The evaluation technique used in this survey has not been used previously in the Australian pharmacy literature. The judgement of quality is independent of the prevailing Victorian legislation regulating pharmacy practice in small Victorian hospitals, the activities and philosophy of the pharmacy professional associations, and the presence or absence of any specific service provider in any hospital town. This judgement may therefore differ from that framed to be inclusive of the above factors.

Two issues that need to be considered in this survey are;

1. Is the present mechanism of pharmaceutical service change in small Victorian hospitals associated with a significant increase in the quality of the provided service? and

2. What factors or characteristics associated with small Victorian hospitals are more likely to be associated with the development of a significantly higher pharmaceutical service quality ?

Firstly, Chapter Ten revealed that service intervention in the form of regional and sessional pharmacy,and hospital accreditation are associated with a higher quality pharmaceutical patient care service. Secondly, primary factors indicated in Chapter Ten associated with significantly higher quality structure and process components, and higher quality pharmaceutical service are, accredited small Victorian hospitals; service intervention; accredited hospitals with regional or sessional pharmacy; and sessional pharmacy.

Victorian hospitals at a distance greater than thirty five miles from base hospitals recorded a lesser quality structure component, although their pharmaceutical service score could not be significantly distinguished from

Table 12.2 Consideration of hospital population characteristics, pharmaceutical service quality and pharmaceutical service intervention.

| Characteristic delineating small Victorian hospitals and pharmaceutical service | Service quality associated agent | Service intervention associated agent | Service quality and/or service intervention affirmed agent | Agent discounted as being associated with service intervention |
|---|---|---|---|---|
| Hospital accreditation (a) | Manager | Manager | Manager | - |
| Service intervention (a) (regional or sessional pharmacy) | Base hospital pharmacist<br>Community pharmacist | Manager<br>Base hospital pharmacist<br>Pharmacy consultant (H.& C.C.)<br>Pharmacy professional associations | Manager<br>Base hospital pharmacist<br>Pharmacy consultant (H.& C.C.) | Community pharmacist<br>H.& C.C.<br>Pharmacy professional associations |
| Sessional pharmacy (a) | Community pharmacist | Manager<br>Pharmacy consultant (H.& C.C.)<br>H.& C.C.<br>Pharmacy professional associations | Manager<br>Pharmacy consultant (H.& C.C.) | Community pharmacist<br>H.& C.C.<br>Pharmacy professional associations |
| Accredited hospitals with service intervention (a) (regional or sessional pharmacy) | Base hospital pharmacist<br>Community pharmacist | Manager<br>Base hospital Pharmacist<br>H.& C.C.<br>Pharmacy professional associations | Manager<br>Base hospital pharmacist<br>Pharmacy consultant (H.& C.C.) | Community pharmacist<br>H.& C.C.<br>Pharmacy professional associations |

(a) Also refers to process and structure components.

the mean population pharmaceutical service score. Hospital towns with neither a community pharmacy nor a resident general practitioner recorded a lesser quality process component, although their pharmaceutical service score could not be distinguished from the mean population pharmaceutical service score. When considering the service provider and pharmaceutical service quality, the community pharmacist, sessional pharmacist, base hospital pharmacist, regional pharmacist and medical practitioner are associated with the previously listed characteristics. The regional and sessional pharmacist provide a service whilst the medical practitioner may be a participant in all modes of pharmaceutical patient care services.

It is evident that the regional pharmacist, sessional pharmacist, community pharmacist and the medical practitioner are not associated with pharmaceutical service intervention. The base hospital pharmacist's commitment to pharmaceutical service intervention in small Victorian hospitals is documented in Chapter Six. Factors associated with events preceding the service intervention process include; the hospital accreditation process; the activity of the pharmacy professional associations; the activities of the medical practitioner, community pharmacist, base hospital pharmacist, hospital manager and the Hospitals and Charities Commission pharmacy consultant; and the activity of the Hospitals and Charities Commission.

It is clear that the pharmacy professional associations, the attending medical practitioner and community pharmacist, and the Hospitals and Charities Commission can be discounted as having a primary association with the initiation of pharmaceutical service change in small Victorian hospitals. Tables 12.2, 12.3 and 12.4 delineate these contentions.

Table 12.3 Consideration of hospital population characteristics and pharmaceutical service structure.

| Characteristic delineating small Victorian hospitals and pharmaceutical service structure | Service quality associated agent | Agent not located in small Victorian hospitals | Agent located in, or nearby small Victorian hospitals |
|---|---|---|---|
| Location more than thirty five miles from a Victorian base hospital (including the Latrobe Valley Community Hospital, Moe) | Community pharmacist<br>Base hospital pharmacist<br>Medical practitioner | Base hospital pharmacist | Community pharmacist<br>Matron<br>Medical practitioner |

Table 12.4 Consideration of hospital population characteristics and pharmaceutical service process.

| Characteristic delineating small Victorian hospitals and pharmaceutical service process | Service quality associated agent | Agent not located in small Victorian hospitals | Agent in small Victorian hospital |
|---|---|---|---|
| Hospital town with neither a community pharmacist nor a resident medical practitioner | Matron | Community pharmacist<br>Base hospital pharmacist<br>Medical practitioner | Matron |

N.B. Table 12.3 relates to characteristics associated with a significantly lesser mean structure score.
Table 12.4 relates to characteristics associated with a significantly lesser mean process score.

Table 12.5 Hospital accreditation status and pharmaceutical patient care service intervention

| Hospital status | Pharmaceutical service mode | | Totals |
|---|---|---|---|
| | Regional or sessional pharmacy (intervention) | Traditional service (non- intervention) | |
| Accredited | 8 | 7 | 15 |
| Non accredited | 9 | 108 | 117 |
| Totals | 17 | 115 | 132 |

Table 12.5 poses the following question: Is pharmaceutical service intervention associated with the hospital accreditation process ? The null hypothesis states that no such association exists. This hypothesis was tested using the chi-square analysis applying the Yates correction factor. This is a test of goodness of fit of the hypothesis and does not measure the strength of an association between two variables. It only serves to indicate an association. Significance testing led to the rejection of the null hypothesis. ($\chi^2 = 22.6$, n= 1, $P < .001$) Pharmaceutical service intervention is therefore associated with accredited small Victorian hospitals.

There are nine occasions of pharmaceutical service change in the one hundred and seventeen non accredited hospitals in Table 12.5. Accreditation is not directly implicated here; however other variables including the initiative of the hospital manager, the activity of the Hospitals and Charities Commission pharmacy consultant, and base hospital pharmacists may be associated with service change in non accredited small Victorian hospitals.

The chi- square analysis directs this writer's attention to the accreditation process. The initiative of the hospital manager ( and the hospital board of management) are directly associated with the accreditation process. Situations preceding pharmaceutical service intervention in accredited hospitals are:

1. Hospital management pursue development of the hospital's services.

Rationalisation of the traditional mode of pharmaceutical patient care service precedes the accreditation survey of the hospital.
2. The Australian Council on Hospital Standards forward the survey report, (that includes recommendations for the development of the pharmaceutical patient care service) following the accreditation process.

In an hospital environment where accreditation is being prepared for, then pharmaceutical patient care service intervention is more likely to occur, than in hospitals divorced from a knowledge of the recommended pharmaceutical service standards and the accreditation process. It is evident that the accreditation process is linked with the quality of pharmaceutical patient care service in small Victorian hospitals and with the process of pharmaceutical service intervention. A more fundamental process could be the initiatives of the hospital board of management, manager and matron, this team being the prime movers within an hospital seeking accreditation.

Within the one hundred and eight (non accredited, non intervention) hospitals in Table 12.5, the sample of bush nursing hospitals is represented. These thirty five private hospitals have yet to participate in the accreditation process, have yet to implement an alternative mode of pharmaceutical patient care service, and presently have no affirmed association with Victorian base hospitals. This supports reasoning involving the base hospital pharmacist in pharmaceutical service change programs.

It is evident that the base hospital pharmacist is the other primary factor associated with the quality of pharmaceutical patient care services in small Victorian hospitals and with the process of pharmaceutical service intervention. The base hospital pharmacist's association with small Victorian hospitals is recorded in Chapter Six.

PLANNING CONSIDERATIONS

(a) Introduction.

The survey hospital population is considered to be stable and therefore an ideal base for the development of proposals for maintaining or rationalising pharmaceutical patient care services. Another established feature of the Victorian hospital system is the allocation of base hospitals on a regional basis.

The association between the local resident medical practitioner and the small hospital is established but is less stable in smaller towns where the viability of the community pharmacy is threatened. Medical practitioners working in isolated areas are guaranteed a minimum salary of $30,000 by the Victorian Department of Health. Community pharmacists practising in remote areas are eligible to apply for an isolated pharmacy allowance of $2,500 per annum also from the Department of Health. The community pharmacy service in country towns with two or more pharmacies will remain, even though the number of pharmacies in each town may decline.

Planning proposals should consider the following findings:

1. The alternative modes of pharmaceutical patient care service already implemented are not universally available to all small Victorian hospitals.

2. The current methods of pharmaceutical service rationalisation in small Victorian hospitals have yet to be thoroughly investigated.

Finance is a central issue in any change program. However this survey revealed that in the minds of hospital managers or secretaries, there is not one dominant reason restraining service change.

(b) Discussion.

The first characteristic clearly delineated is the episodic nature of the development of pharmaceutical patient care services in small Victorian hospitals. The term episodic, refers to spasmodic, infrequent and

unpredictable circumstances, involving one or more hospitals. The advantage of this development is that local hospital and environmental problems can more readily be considered and overcome than when similiar consideration is given on a state wide basis. This situation accords with service providers who are ready, willing and able to participate in an hospital pharmaceutical patient care service. This development does not account for organisational and environmental problems requiring state wide consideration.

Situations that may prevent this development are hospital towns either not serviced by a community pharmacist, situated far from a Victorian base hospital, or situated in a region where the base hospital pharmacist does not envisage any further regional pharmacy development.

Presently, a number of mechanisms support the episodic hospital service development concept. The Hospitals and Charities Commission pharmacy consultant's activity has more recently been associated with sessional pharmacy. The Hospitals and Charities Commission regional development program has been marking time for nearly five years, and it may be another five or ten years before this philosophy materialises again following the creation of the Victorian Health Commission.

Some Victorian base hospital pharmacists actively pursued pharmaceutical service development in small hospitals; however these developments have yet to encompass all small hospitals in any one Victorian region. The pharmacy professional associations recently advocated heavy support in the pharmacy media for the development of sessional pharmacy. (7) These aspirations may be generalised; however not all pharmacists wish to undertake sessional pharmacy, and the service is not available in all survey hospital towns.

The accreditation program conducted by the Australian Council on Hospital standards is oriented to the individual hospital and participation is

voluntary. Hence the episodic development of pharmaceutical patient care services in small Victorian hospitals is well founded and supported, although change has occurred in only a minority of survey hospitals.

The second characteristic is universal service development. Universal infers state, region or area wide consideration, and parallel service development in a predetermined number of hospitals. The advantage of this development is that consideration could be given to what service entities may best be incorporated in all hospitals, with respect to the present availability of pharmaceutical service providers. The failure to isolate local organisational and environment problems is a disadvantage of this development.

Factors supporting this development include the activity of the Hospitals and Charities Commission; however their association with the initiation of regional pharmacy development has been discounted in this study. In the past, base hospital pharmacists pursued regional pharmacy development in Victoria. However all small hospitals in one region have yet to participate in any one scheme. Even though the Sector One pilot scheme was well received by the participating hospitals, similiar schemes have yet to commence in other regions. The only universal aspect elucidated is the nature of the traditional mode of pharmaceutical patient care service prior to 1972.

The third characteristic is the unidisciplinary nature of service intervention. The Society of Hospital Pharmacists of Australia pursued regional pharmacy prior to implementation in 1972. This was publicized in the pharmacy literature and received much support and enthusiasm from the involved base hospital chief pharmacists, the regional councils and interested small Victorian hospitals. The community pharmacist received little consideration in the development of regional pharmacy.

The Pharmaceutical Society of Victoria has pursued sessional pharmacy. This has been well publicized in the pharmacy literature. The Pharmacists Act

1974 purports to regulate the activities of pharmacists and is the legislation supporting the community pharmacists' intervention into small Victorian hospitals. Regulations made under this act require that approved pharmaceutical service facilities and the practice of a pharmacist be concomitant, when a pharmacist is employed on a part-time or full-time basis.

The advantage of a unidisciplinary approach to rationalisation is that each hospital development would proceed with much enthusiasm, at the local hospital level. The disadvantage of this approach is that overall only a proportion of hospital pharmaceutical services will be developed; the professional associations avoiding to publicize hospitals or regions where this concept cannot be implemented.

The fourth characteristic is the multidisciplinary nature of the traditional mode of pharmaceutical patient care service. The Poisons Act 1962 purports to regulate pharmaceutical patient care services in hospitals where pharmacists are not employed; and the accreditation program of the Australian Council on Hospital Standards provides more recent evidence recognising the multidisciplinary nature of hospital pharmaceutical services.

The advantage of a multidisciplinary service development approach is that proceedings can be undertaken without any bias or cajolery by any specific organisational or professional associate involved in the planning process. The disadvantage of this approach may be the curbing of unidisciplinary professional predjudices to the extent of minimising the proposed service development.

The four phases shown in Figure 12A contribute to a cycle of development. However this writer believes that phase four is an unobtainable practice mode in small Victorian hospitals, and is designated an occupation's utopia. Phases one, two and three therefore describe a cyclic process when considering pharmaceutical patient care service development in small

Figure 12A Theoretical relationship between characteristics isolated as being associated with the pharmaceutical service intervention process in small Victorian hospitals. (7)

| | Hospital pharmaceutical service intervention pattern | |
|---|---|---|
| Occupation involvement status | Episodic | Universal |
| Unidisciplinary | 3 | 4 |
| Multidisciplinary | 2 | 1 |

Explanation of the designated areas in Figure 12A.

| Area | Associated processes | Comments |
|---|---|---|
| 1 | Traditional mode of pharmaceutical patient care service<br>Poisons Act 1962 | Traditionally not recognised and avoided as an issue |
| 2 | Regional pharmacy<br>Hospital accreditation | Recognised and obtainable services |
| 3 | Sessional pharmacy<br>Pharmacists Act 1974 | Services attained and guarded |
| 4 | None | Unreachable utopian ideal |

Victorian hospitals. The survey hospital population is evidence of the chronological progression of pharmaceutical service development through phases one, two and three. The cycle will be completed when multidisciplinary and universal development characteristics are regenerated in future planning proposals.

Figure 12B Pharmaceutical service intervention and pharmaceutical service development cycle associated with small Victorian hospitals.

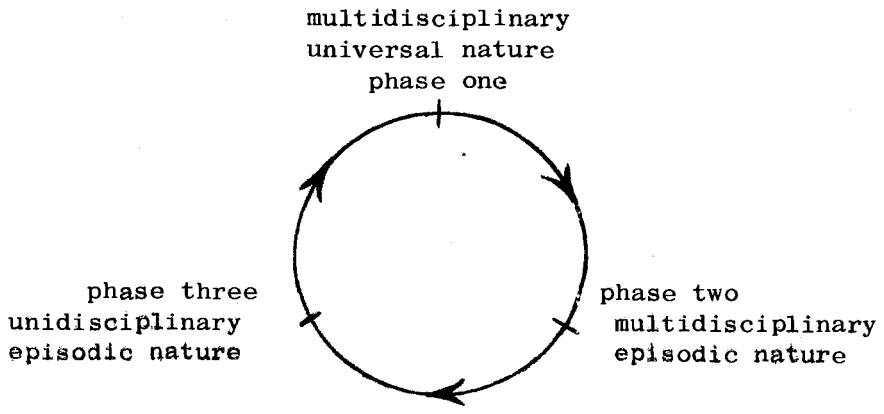



Figure 12B delineates a theoretical process associated with Figure 12A. These figures are independent of quantitative considerations.

Approaches to pharmaceutical service planning used in the past have been far from a deductive or normative style. This style simply and clearly calls for a plan derived from current experiences. However the universal current experiences of small Victorian hospitals have never been investigated, and therefore this planning mode has not been previously possible.

Regional pharmacy development in Sector One involved an intensive planning phase. The current experiences of small regional hospitals were detailed; however a more idealistic planning approach was undertaken since the sole aim was to institute the regional pharmacy scheme. Sessional pharmacy evolved following the identification of local experiences. The planning foresight involved an extension of these isolated experiences to other hospital towns. However this process has been impressionistic because an ad hoc nature has crept into sessional pharmacy development.

The pharmacy literature detailed by bed size, the pharmaceutical requirements for small hospitals. Regional pharmacy may not be required in hospitals with less than ten beds. Less frequent visits may suit these hospitals. Sessional pharmacy was considered to be ideal in hospitals with approximately forty beds. It is clear that specifying service requirements by hospital bed size is not a major planning consideration.

Many other situations could restrain the provision of alternative services in small Victorian hospitals. These constraints need to be identified before the implementation of a pharmaceutical service rationalisation plan. A universal proposal has yet to be formulated detailing pharmaceutical requirements for small Victorian hospitals. Regional pharmacy planning encompassed an explorative and normative nature and bordered on a total plan. Today, this service remains more closely linked with the traditional service, than does sessional pharmacy.

The prime concern in a planning exercise is the after consequences when

something vital is overlooked. The community pharmacist was overlooked in Sector One's plan, and this oversight may have led to a number of small Victorian hospitals rejecting participation in the scheme.

Presently sessional pharmacy borders on an ideal rather than on a firm plan for service development. Development has been incremental and spasmodic. While this scheme is being nurtured, many survey hospital towns remain where sessional pharmacy cannot be implemented. The planning scheme lacks comprehensive data, and there are many uncertainties facing the future of the sixty one sole community pharmacists located in survey hospital towns.

The traditional mode of pharmaceutical patient care service is long established and has been subjected to little organisational change. Even with professional publicity supporting alternative pharmaceutical service modes, a majority of small Victorian hospitals do not see the need to participate in these programs. Detailing the want is of prime concern when a small hospital opts for pharmaceutical service change. Presently, small Victorian hospitals undergoing service change may be satisfying the needs and ambitious philosophies of the pharmacy professional associations.

The traditional mode of pharmaceutical patient care service received little attention in the pharmacy literature. In this survey, sessional pharmacy is distinguised significantly from the hospital population mean pharmaceutical service quality rating. Regional pharmacy and the traditional service mode could not be significantly distinguished from the hospital population mean pharmaceutical service quality rating.

An issue treated with almost reflex emotionalism (rather than wisdom) by the pharmacy professional associations is whether or not the services of a pharmacist are required in small Victorian hospitals. Within the context of pharmaceutical service planning, the following is raised; are the necessary facilities for pharmaceutical service change associated with the provision

of a pharmacy department in small Victorian hospitals ?

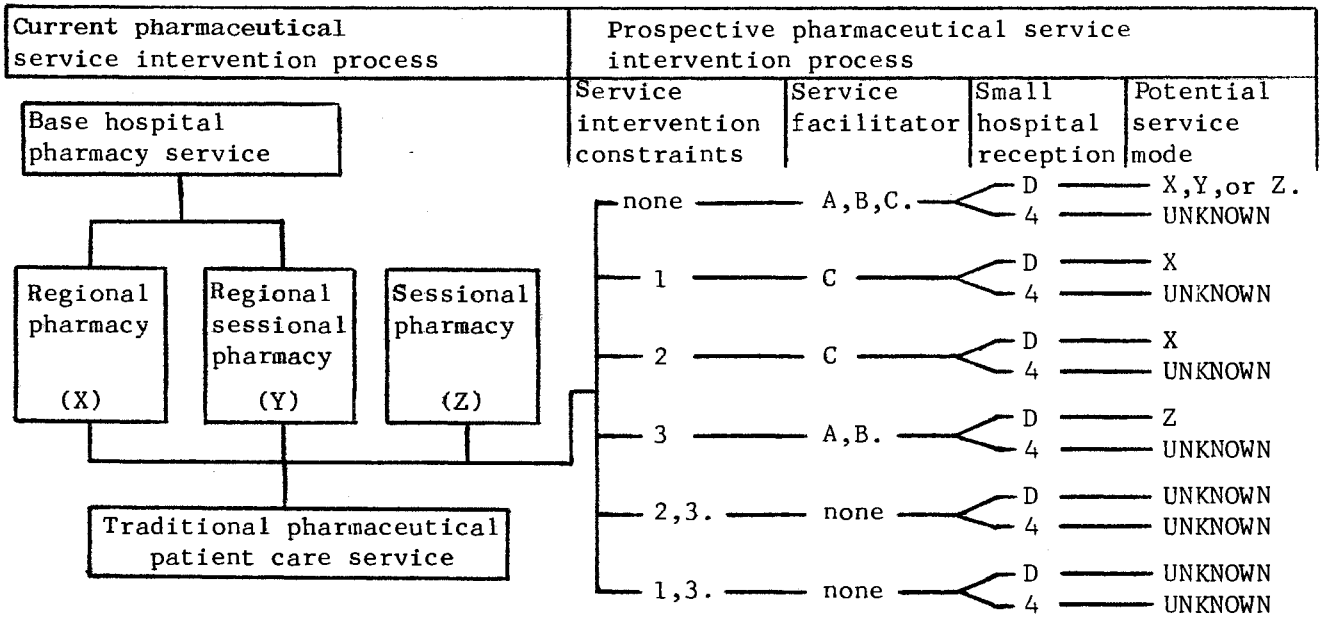
The pharmacy literature portrayed that change is associated with the provision of a pharmacist and a pharmacy department. The Pharmacists Act 1974 dictates that the service provider and pharmacy department be provided together. They cannot be separated. This survey revealed that service intervention is associated with a significantly higher service quality; but not necessarily with an unobtainable quantum of structure components.

The pharmacy department aids the pharmacist's role of drug custodian and dispenser of medications. The hospital drug room and narcotic safe facilitate drug storage and security in hospitals not attended by pharmacists. In fifty percent of responding hospitals with the traditional mode of pharmaceutical patient care service, nursing staff and medical practitioners undertake drug dispensing when required.

The structure facilities differentiating hospitals where service intervention has been undertaken are not solely associated with the provision of a pharmacy department. The majority of structure facilities assessed in the questionnaires are not associated with the pharmacy department. Hence the provision of additional structure facilities may be associated with an awareness that is generated during service change, and is not necessarily promoted by the nature of any one specific service provider. The traditional service mode could be developed in isolation from the alternative regional and sessional pharmacy modes.

Hospital doctors and nursing staff have retained involvement in the pharmaceutical patient care service following the implementation of regional and sessional pharmacy. When the services of a part-time pharmacist are not available, then the pharmacy professional associations may have to yield to a more rational and realistic consideration of the needs of small hospitals and the conduct of pharmaceutical patient care services.

FIGURE 12C The current organisational and service development network for pharmaceutical patient care services in small Victorian hospitals.




| Situations that may restrain development of pharmaceutical patient care services | Situations that may facilitate the development of pharmaceutical patient care services |
|---|---|
| 1. No community pharmacist in hospital town | A. Community pharmacist present in hospital town. |
| 2. Community pharmacist not willing to participate | B. Community pharmacist willing to participate. |
| 3. Base hospital pharmacist unable to support pharmaceutical service intervention. | C. Base hospital pharmacist will support pharmaceutical service intervention. |
| 4. Small hospital satisfied with the traditional mode of pharmaceutical patient care service. | D. Small hospital wants to develop the pharmaceutical patient care service. |

(c) Current pharmaceutical service intervention network.

Figure 12C shows the present alternatives for change and the potential development network for intervention into pharmaceutical patient care services in small Victorian hospitals. Presently two change programs involve a part-time pharmacist. Figure 12C isolates a quantum of hospitals where these two service modes cannot be implemented.

The growth of sessional pharmacy has been incremental and spasmodic, encompassing hospitals in towns with suitably available community pharmacists. To date, six schemes have commenced in towns with two or more pharmacies, and four schemes have commenced in towns serviced by a sole community pharmacy. The complex issues facing the future of the sole proprietor community pharmacist have been discussed.

The Pharmaceutical Society of Victoria recently associated impending business failure with success, by linking declining community pharmacy viability with remunerated intervention in small Victorian hospitals. (8) Towns with two or more community pharmacies may not be faced with a pharmacy service viability problem; however the sessional pharmacy ideal may be exploited when the services of rotating community pharmacists are used.

Regional pharmacy development is currently in limbo. Chapter Six revealed a consensus of feeling amongst base hospital chief pharmacists that the scheme's development could be limited for a variety of reasons. These included a lack of base hospital pharmacy staff, lack of support from the Hospitals and Charities Commission and other views oriented towards promotion of sessional pharmacy. Dedication to regional pharmacy development varied markedly between base hospital chief pharmacists. An association between base hospitals and small Victorian hospitals is firmly established, and although regional development as coordinated by the Hospitals and Charities Commission is in hibernation, base hospitals continue to offer pharmaceutical supply services to small Victorian hospitals, and thus a

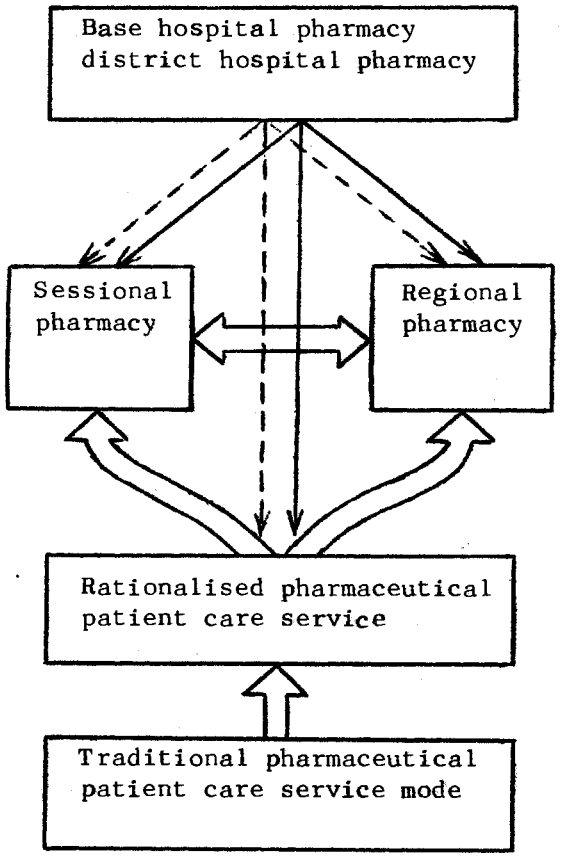
viable base exists for further development.

Presently there are no other options for developing the traditional mode of pharmaceutical patient care service in small Victorian hospitals. If one accepts regional and sessional pharmacy as the only alternative service modes, then a large percentage of survey hospitals may never be availed the opportunity for any appraisal or rationalisation of the pharmaceutical patient care service. In reality, Figure 12C shows that a percentage of hospitals will never acquire the services of a part-time pharmacist.

For the universal appraisal, maintenance or rationalisation of current pharmaceutical patient care services, ways and means need to be examined (within the survey model definition), whereby the presently available service providers are utilised. This applies to all survey hospitals; but more importantly to hospitals where the services of a pharmacist cannot be immediately acquired. This contention is supported by the following points relating to Figure 12C;

1. The probability is small of universal development of pharmaceutical patient care services in small Victorian hospitals involving a pharmacist.
2. The present intervention program is episodic in nature and the development path is full of uncertainties.
3. Short term benefits may accrue for hospitals involved in pharmaceutical service change; however only hopes and professional ideology can be offered to the remaining hospitals in the long term.
4. Professional recognition is accorded in hospitals where change has occurred; all other hospitals have been omitted from discussions in the pharmacy literature.
5. Development has been unidsiciplinary in nature, even though all service modes are of a multidisciplinary nature.

FIGURE 12D Proposed organisational, developmental and service provider network for pharmaceutical patient care services in small Victorian hospitals.




Code
Service transition
Supply service (goods)
Supervisory and consultant function

| Service level classification | Service providers and supervisors |
|---|---|
| Three | District hospital pharmacist<br>Base hospital pharmacist<br>Community pharmacist<br>Nurse/pharmacy technician<br>Medical practitioner |
| Two | District hospital pharmacist<br>Base hospital pharmacist<br>Nurse/pharmacy technician<br>Medical practitioner |
| One | Hospital nursing staff<br>Medical practitioner |

(d) Proposed pharmaceutical service intervention network.

Figure 12D is proposed as an alternative to the existing development network. In theory this process may provide;

1. Universal service development involving two service levels.

2. A service change network within a region or specified area that may curb the present episodic nature of service development.

3. Short term service benefits for all hospitals without any issues being clouded by professional ideology and fiction.

4. Recognition of service development in all hospitals, regardless of the nature of the service provider.

The rationale behind Figure 12D is;

1. The process component of pharmaceutical patient care services delivered by pharmacists in small Victorian hospitals is significantly different from the mean hospital population process rating.

2. The supervision and or involvement of a pharmacist in all hospital pharmaceutical patient care services is advocated.

3. The development of pharmaceutical service structure facilities is associated with service intervention and not necessarily with the employment of a pharmacist.

4. The structure component of pharmaceutical service quality is associated with the structural facilities located within the hospital and not specifically within a pharmacy department.

5. The pharmaceutical patient care service in small Victorian hospitals is of a multidisciplinary nature.

6. Pharmaceutical service evaluation and rationalisation is independent of the availability of any one specific pharmaceutical patient care service provider.

7. One cannot significantly distinguish between small public hospitals and Victorian bush nursing hospitals.

8. The present system of hospital organisation and control will continue following creation of the Victorian Health Commission.

The philosophy in Figure 12D embodies a set of solutions for the procedures of evaluating, maintaining or rationalising pharmaceutical services in small Victorian hospitals. Altogether these solutions provide the universal intervention mechanism. This multidisciplinary philosophy opposes that expressed by the pharmacy professional associations. Their publicized ideas are based upon legislation that has been enacted following intense professional and political manoeuvring. Their interpretation of the current legislation should not override practical hospital patient care ideals.

The Poisons Act 1962 and the Pharmacists Act 1974 are compatible with Figure 12D. This network includes a short term consideration of all small Victorian hospitals. It includes the occupational groups necessary to stimulate pharmaceutical service intervention.

In the past service intervention occurred either at the local hospital level or at the regional level. It is evident that universal pharmaceutical service rationalisation could only be supported by a stimulus that encompasses all survey hospitals. History has recorded that such an influence is beyond the capability and control of any one occupational group. A multidisciplinary effort is required to bring pharmaceutical service rationalisation proposals to the forefront of the minds of the manager or secretary, and the matron in small Victorian hospitals.

The accreditation program conducted by the Australian Council on Hospital Standards provides an analogous situation for multidisciplinary service development. Seven accredited small Victorian hospitals conduct the traditional service mode, whilst the other eight accredited hospitals have implemented regional or sessional pharmacy.

(e) Planning levels.

The accreditation program and sessional pharmacy intervention are dependent upon the expressed desires of individual hospitals. This consideration is denoted as the primary planning level.

Syme and Townsends' integrated regional administration may function to coordinate health care services at the regional level. This philosophy parallels the development of regional pharmacy in Sector One. Following assessment by the Hospitals and Charities Commission, this pilot project could have been initiated in other Victorian regions. Regional development is denoted as the secondary planning level.

The tertiary planning level involves a statewide consideration. The pharmacy professional associations whilst implicating global pharmaceutical service change in small Victorian hospitals, do not have the necessary power to instigate such change. This service has been the subject of little attention from the nursing, medical and administrative professional associations.

Table 12.6 Proposed planning levels- application to the current pharmaceutical service intervention mechanism in small Victorian hospitals.

| | Promotion of pharmaceutical patient care service development | | |
|---|---|---|---|
| | Primary level<br>The hospital | Secondary level<br>The region | Tertiary level<br>The state |
| Current support variables | Public hospitals<br>Manager or secretary<br>Accreditation<br>H.& C.C. pharmacy consultant<br>Sessional pharmacist<br>Regional pharmacist | Base hospital pharmacist<br>Regional pharmacist | Pharmacy professional associations |
| Support variables absent | Private hospitals<br>Community pharmacist | Health Commission<br>V.B.N.A.<br>Base and district hospital pharmacist | Health Commission<br>V.B.N.A.<br>Nursing, medical and administrative professional associations |

Table 12.6 shows that major pharmaceutical support variables are associated with the primary planning level. This is associated with the episodic nature of pharmaceutical service intervention in survey hospitals. The stimulation for pharmaceutical service evaluation, maintenance or rationalisation should be provided by the three planning levels, in order to promote global hospital participation.

Table 12.7 Proposed planning levels- prospective relationship with pharmaceutical service intervention in small Victorian hospitals.

| Planning level support variables | | |
|---|---|---|
| Primary level<br>The hospital | Secondary level<br>The region | Tertiary level<br>The state |
| Manager or secretary<br>Public Hospitals<br>Private hospitals<br>Hospital accreditation<br>Nursing staff<br>Medical practitioner<br>Community pharmacist<br>Base hospital pharmacist | Base Hospital<br>Base hospital pharmacist<br>District hospital pharmacist<br>Health Commission<br>Integrated regional administration | Health Commission<br>V.B.N.A.<br>Pharmacy, medical, administrative and nursing professional associations<br>Department of Health<br>Pharmacy Board of Victoria |

A planning scenario based upon Table 12.7 can readily be associated with Figure 12D, which incorporates two levels of pharmaceutical service development. The service change philosophy is based upon intervention being a function independent of the availability of any one specific pharmaceutical patient care service provider.

(f) Planning levels and the proposed intervention network.

This survey revealed that pharmaceutical service quality is likely to be associated with the provision of adequate pharmaceutical structure facilities, the supply of these being associated with service intervention. Figure 12D separates three service entities and two transition phases. Service classification one is the traditional mode of pharmaceutical patient care service. Rather than neglecting this service when regional or sessional pharmacy cannot be instituted, important developments can still proceed.

This writer believes that a rationalised traditional service mode is a

feasible proposition and is described as service level classification two in Figure 12D. Implementing this would require the incorporation of selected structural facilities and the recognition and training of a nurse/ pharmacy technician to participate in the pharmaceutical patient care service.

Support for the implementation of structure facilities would require promotion at planning level three in Table 12.7. A process leading to the official recognition of nursing responsibilities in the pharmaceutical patient care service will require interaction also at planning level three. The transition from the traditional service mode to service classification two is applicable to all small Victorian hospitals. This could proceed in hospitals already served by regional and sessional pharmacists.

This survey revealed that the part-time employment of a pharmacist in small Victorian hospitals does not revoke nursing staff involvement in the pharmaceutical patient care service. Official recognition of the nurse/ pharmacy technician would support a pharmacist's part-time employment. The pharmacist would also act as a supervisor and consultant within the hospital to the nurse/ pharmacy technician and the attending doctor.

In Figure 12D, the first transition phase and system operation is proposed to be directly associated with regional pharmacy supervision, when the services of a regional or sessional pharmacist cannot be routinely acquired. Victorian base hospitals undertake distribution services to small Victorian hospitals; they are long established and are appropriately located for regional service development.

Regional pharmacy supervision and the goods supply function are located at the apex of Figure 12D. District hospital pharmacists are included since they could be utilised when located closer ( than the base hospital) to small Victorian hospitals.

The second transition phase incorporates regional or sessional pharmacy following the first level of development. The second phase would then operate in an atmosphere where a level of service intervention has already been incorporated, and where the hospital manager and matron have a prior awareness of pharmaceutical service rationalisation. One may argue that the second phase of development could proceed without the first; however a network displaying current development and prospective potential development and this contention, are recorded in Figure 12C.

A radical change in philosophy is required by the pharmacy professional associations before they will accept the first level of service development. Without a change in philosophy, then many small Victorian hospitals may be deprived of an opportunity for pharmaceutical service development in the absence of regional or sessional pharmacy. This writer believes that the current philosophy may not necessarily be tempered by results displayed in this survey; but by the formation of a multidisciplinary study group to further examine pharmaceutical services in small Victorian hospitals. Without such an awakening, the pharmacy profession may lose control associated with the development of these services in hospitals not attended by pharmacists.

Involvement of the nurse/ pharmacy technician in small Victorian hospitals is based upon the following;

1. The process component of pharmaceutical service delivered in hospitals with traditional and regional pharmacy service modes are not significantly different.

2. Hospital nursing staff are involved in the traditional service mode and in regional and sessional pharmacy.

3. The facilities required to promote the structure component of the pharmaceutical service can be provided independently from the provision of a pharmacy department.

4. Nurse/ pharmacy technician involvement has been pioneered in small remote American hospitals.

5. Technician pharmacists are advocated in the Australian pharmacy literature and are extensively used in Melbourne teaching hospitals.

6. The Poisons Act 1962 encompasses requirements when persons other than pharmacists are involved in an hospital pharmaceutical patient care service.

7. The accreditation program conducted by the Australian Council on Hospital Standards recognises the multidisciplinary nature of pharmaceutical patient care services.

8. Seven accredited small Victorian hospitals conduct the traditional mode of pharmaceutical patient care service.

9. Pharmacists have shown a willingness to participate in nurse education programs. The following recommendation appeared in a study assessing the role of the hospital pharmacist in nurse education;

"The concept of a teaching/clinical pharmacist merits examination. One such person could be employed per region to cover hospitals employing small pharmacy staffs, or no pharmacists at all and possibly one such person per teaching hospital. This person would be responsible for pharmacy education programs and maintain a degree of clinical commitment." (9)

The first eight issues relate to previous discussion. The ninth issue involves nurse education. At the outset this would entail practical pharmaceutical service education as opposed to purely theoretical pharmacy education. In rural Victoria, this can be immediately associated with regions and sectors, and district and base hospitals. These hospitals could develop nursing education liaison with small Victorian hospitals. This activity could firstly be developed as an extension to regional pharmacy. However support for this intervention should first be gathered at the tertiary planning level. This service commitment would firstly involve the base hospital pharmacist and a nominated full time member of the nursing staff

in small Victorian hospitals. This proposal is presented in Figure 12D as the transition from the traditional mode of pharmaceutical patient care service to the nurse/ pharmacy technician service provider level.

Following an educational commitment, the base hospital pharmacist's role would then be that of supervisor and consultant. Chapter Six indicated that base hospital chief pharmacists visit small hospitals not receiving regional or sessional pharmacy. These developments would be preceded by planning at the regional level. It is clear that base hospital participation in pharmaceutical patient care service development is essential for promoting global participation by small Victorian hospitals. This development may overcome the constraints working against universal pharmaceutical patient care service development. These constraints include hospital towns not serviced by a community pharmacy; a non willingness by the community pharmacist to participate in the hospital service; hospital towns without a resident doctor; remote small Victorian hospitals; and where there are conflicting opinions between doctor, matron and the manager regarding the service to be provided.

However involvement of the base hospital pharmacist is not clear cut since;
1. Base hospital pharmacists presented an uncertain future for regional pharmacy. These views were based on a lack of pharmacy staff and that sessional pharmacy appeared to be an equally viable and available alternative.
2. The tempered initiatives of some base hospital chief pharmacists. Their lack of enthusiasm may be associated with disenchantment, following dealings with the Hospitals and Charities Commission.

The base hospital pharmacy service could coordinate the development process. The additional service provider proposed, the nurse/ pharmacy technician, is a development of the role presently fulfilled by matron and other members of the hospital nursing staff.

(g) The base hospital pharmacist's involvement.

Figures 12C and 12D delineate the contention that the base hospital pharmacist is the only existing service provider who could support on a regional basis, pharmaceutical patient care service development in small Victorian hospitals.

The base hospital pharmacist is associated with; higher quality pharmaceutical services in small Victorian hospitals; pharmaceutical service intervention in small Victorian hospitals; an established service operating externally to economic market forces; an area wide service development mode; and planning considerations at the secondary planning level. These findings support the involvement of the base hospital pharmacist.

The advantages of involving the base hospital pharmacist in pharmaceutical service development in small Victorian hospitals are;

1. Victorian base hospital status accords with past and future regional development philosophy.
2. Pharmaceutical patient care service rationalisation implicitly involves hospital pharmaceutical service development.
3. The supply of services from base hospitals to small Victorian hospitals could be of a universal nature.
4. The current service status, regional pharmacy and regional hospital visits on a less frequent basis could be extended, preserving and not disrupting the present regional service ideal.
5. Service development stimulus could be provided at this level, when support is lacking from an hospital's governing authority.
6. The regional service could be incorporated at two service levels in Figure 12D, forming the skeleton for service development.
7. The base hospital pharmacists' involvement is more likely to promote service uniformity between small Victorian hospitals.
8. Regional pharmacy and supervision services are more akin to the

traditional mode of pharmaceutical patient care service. The base and and regional hospital pharmacist are oriented to service provision involving nursing staff.

9. The base hospital pharmacist's initiatives and influences are independent of the prevailing voluntary development nature of the accreditation process.

The disadvantage of involving the base hospital pharmacist in pharmaceutical service development in small Victorian hospitals is that the base hospital pharmacist is remotely situated from small Victorian hospitals, when not delivering the regional pharmacy service.

The 1972 Sector One regional development program did not consider the participation of community pharmacists. However developments in Sector Five incorporating regional-sessional pharmacy indicate a turn around in the philosophy of the base hospital pharmacist. Regional pharmacy development could precede sessional pharmacy intervention.

(h) Pharmaceutical service providers in small Victorian hospitals.

Table 12.8 Intervention into the traditional mode of pharmaceutical patient care service in small Victorian hospitals: prospective service providers.

| Service provider | Service role | Service provider's association with small Victorian hospital |
|---|---|---|
| Base hospital pharmacist | Consultant visits only | Non employed, occasional regular attendance |
| Base hospital pharmacist | Regional pharmacy | Non employed, weekly attendance |
| Community pharmacist | Sessional pharmacy | Employed, daily to weekly attendance |
| Nurse/ pharmacy technician | Pharmacy technician | Employed within present nursing establishment |
| Medical practitioner | Service provider | Non employed, frequent attendance |

In Table 12.8, the pharmacist, nurse and medical practitioner constitute the available manpower necessarily associated with pharmaceutical patient care services in small Victorian hospitals.

Table 12.9 Intervention into the traditional mode of pharmaceutical patient care service: prospective service provider's association with small Victorian hospitals.

| Service type (see Figure 12C) | Service provider | Time involvement in small hospital | Additional staff establishment cost |
|---|---|---|---|
| Rationalised traditional service | Nurse/pharmacy technician | Full time | Nil |
| | Base hospital pharmacist | Regular visits | Nil |
| Regional pharmacy | Nurse/ pharmacy technician | Full time | Nil |
| | Regional Pharmacist | Weekly attendance | Nil |
| Sessional pharmacy | Nurse/ pharmacy technician | Full time | Nil |
| | Sessional pharmacist | Daily to weekly attendance | Increase |

Table 12.9 shows an increase in staff establishment costs associated with sessional pharmacy. The other staff costs are born by the associated Victorian base hospital and the medical practitioner, where appropriate. Base hospitals also bear the costs of pharmaceutical and medicinal preparation supply to small Victorian hospitals. The small hospital would bear the capital costs associated with the physical reorganisation of facilities necessary to support the pharmaceutical patient care service.

(i) Requirements for the promotion of the development network proposed in Figure 12D

A. Requirements at the tertiary planning level.

1. The Victorian Health Commission should pursue rationalisation in small Victorian hospitals via a reorganised regional administrative structure.

2. The pharmacy professional associations should become aware of the limitations of unidisciplinary support for pharmaceutical patient care service development, and generally become more responsive to the needs of small Victorian hospitals, as well as the needs of community pharmacists.

3. The Victorian Bush Nursing Association should actively promote pharmaceutical patient care service rationalisation in bush nursing hospitals.

4. The administrative, medical and nursing professional associations

together with the Victorian Bush Nursing Association and the Victorian Health Commission, should share involvement in pharmaceutical patient care service development proposals.

B. Requirements at the secondary planning level.

1. The Victorian Health Commission develop firm policies relating to regional hospital pharmaceutical service development.

2. The Victorian Health Commission supply renewed support to Victorian base hospital chief pharmacists. The base hospital pharmacist's association with regional pharmacy may have been stullified during the phasing out of the Hospitals and Charities Commission.

3. Base hospital chief pharmacists continue to provide pharmaceutical and medicinal supply services to small Victorian hospitals, and continue to promote and develop regional pharmacy.

C. Requirements at the primary planning level.

1. The hospital accreditation program continues to attract the voluntary participation of small Victorian hospitals.

2. The Hospitals and Charities Commission pharmacy consultant continues to assist small hospitals indicating a need for pharmaceutical patient care service rationalisation.

3. The managers or secretaries of small Victorian hospitals gain an awareness of contemporary pharmaceutical services.

4. Community pharmacists be encouraged to accept appointments as sessional pharmacists in small Victorian hospitals.

5. The managers and matrons of small Victorian hospitals promote the pharmaceutical patient care service by supporting the involvement of a full time member of the nursing establishment in the role of nurse/pharmacy technician.

The proposal to promote the traditional mode of pharmaceutical care service

as the first level of service development requires consideration of how this change program could best be instituted in each small Victorian hospital. It is clear that if the factors necessary for pharmaceutical patient care service development at the primary, secondary and tertiary planning levels are achieved, then development of the nurse/ pharmacy technician's role would initially be at the service level and not at a specific pharmaceutical or nursing education college.

Since the distribution of hospitals in rural Victoria reflects past social and economic development, and not necessarily today's community needs, it is clear that pharmaceutical patient care service rationalisation in small Victorian hospitals should be dependent upon regional support schemes rather than individual hospital development. In towns where population and economic activity are declining, the injection of additional government funds may not be justified.

The provision of regional services by base hospitals enables the supply of additional patient care services to small Victorian hospitals. Regional services developed in environments conducive to cooperation between hospitals. Table 12.6 shows that support for pharmaceutical service rationalisation has been dependent upon variables described in the primary and secondary planning levels. These variables are associated with voluntary service development. However during the period 1972 to 1978, pharmaceutical service rationalisation occurred in only 12.9% of survey hospitals.

If the new Health Commission supports the need for pharmaceutical patient care service rationalisation in small Victorian hospitals ( as the Hospitals and Charities Commission did ), further consideration will need to be given beyond those variables supporting voluntary service development. The

current process of rationalisation has by no means been hasty, and the impetus for change abated with the declining involvement of the Hospitals and Charities Commission in regional development programs. Two schemes have been tried and they only appear to be a partial solution.

The tertiary planning level in Tables 12.6 and 12.7 describe support variables that could be associated with compulsory rationalisation. Where regional development has foundered, then new directives from the Health Commission may be required to compel development. If compulsory rationalisation is not considered by the Health Commission or they perpetuate the impotent function of the Hospitals and Charities Commission, then the process of change evidenced to date may not progress beyond this equilibrium point, since individual institutional initiatives may have attained saturation point in the survey hospital population.

This writer believes that Figures 12B and 12D describe firstly a prospective and predictable path, and secondly a pattern of organisation for the supervision and provision of pharmaceutical patient care services in small Victorian hospitals.

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# GLOSSARY

## METROPOLITAN AREA

This area is defined by the Melbourne and Metrolpolitan Board of Works as being within the urban spread of Melbourne.

## COUNTRY VICTORIA

This is the area outside the Melbourne metropolitan area and within the state of Victoria.

## PUBLIC HOSPITAL

An hospital registered with the Hospitals and Charities Commission within schedule two of the Hospitals and Charities Act 1958.

## BASE HOSPITAL

This is a public hospital nominated by the Hospitals and Charities Commission for the purposes of coordinating health care delivery in each Victorian region.

## BUSH NURSING HOSPITAL

An hospital conducted by an organisation under the auspices of the Victorian Bush Nursing Association. These hospitals are registered under part three, division X of the Health Act 1958, and are classified as private hospitals.

## SMALL VICTORIAN HOSPITALS

For the purposes of this survey, these include all Victorian hospitals with daily bed average less than sixty. They provide acute inpatient care facilities, and are either public or bush nursing hospitals. This category includes five hospitals with greater than sixty beds. All hospitals were categorised according to their status at June 1977 as published in the annual report of the Hospitals and Charities Commission, and at March 1977 as published in the annual report of the Victorian Bush Nursing Association.

COMMUNITY PHARMACIST

A registered pharmacist who conducts a pharmacy on a full time basis. The pharmacist is registered by the Pharmacy Board of Victoria and the practice is conducted in accordance with the provisions of the Pharmacists Act 1974.

SESSIONAL PHARMACIST

A community pharmacist who by arrangement visits a small hospital either on a daily basis or for an agreed number of sessions per week in order to, deliver drugs and pharmaceutical preparations, maintain storage and stock control of all pharmaceutical and medicinal preparations, dispense and distribute drugs to inpatients and outpatients where appropriate, and provide any other service that pharmacists can offer whilst present in the small hospital. The sessional pharmacist is renumerated by the small hospital.

REGIONAL PHARMACIST

An hospital pharmacist employed by a Victorian base hospital who visits small hospitals in order to, deliver drugs and pharmaceutical preparations, maintain storage and stock control of all pharmaceutical and medicinal preparations, dispense and distribute drugs to inpatients and outpatients where appropriate, and provide any other service that pharmacists can offer whilst present in the small hospital. These visits may be made on a weekly basis, or more often or less frequently as required. (For the purposes of assessing the questionnaires in this survey, a small hospital is considered to receive regional pharmacy when a minimum of one visit per week is made by the regional pharmacist.)

PHARMACEUTICAL PATIENT CARE SERVICE

This encompasses the handling, storage, preparation and distribution within the hospital of all pharmaceutical and medicinal preparations from the time they are delivered until the time just prior to their use, administered to inpatients or used for the care of inpatients by the

nursing staff in the small hospital. This service also includes the actions of persons necessary for maintaining this service. These facilitators and providers could include any of the following, the general practitioner, the community pharmacist, hospital nursing staff, the hospital manager and the regional pharmacist, where appropriate. . This may also be termed pharmaceutical service, pharmaceutical procedures, pharmaceutical inpatient service or drug inpatient service.

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# APPENDIX A

## HOSPITAL QUESTIONNAIRES

### QUESTIONNAIRE COMPOSITION

The sections in each questionnaire are allocated according to the type of response desired. In the managers' or secretaries' questionnaire;

- section A required one response per answer,
- section B required a minimum of one response per answer.

This questionnaire was distributed to all hospitals.

In matrons' questionnaire;

- section A required one response per answer,
- section B required a minimum of one response per answer,
- section C required the allocation of two preferences per answer,
- section D required one response per answer (and was circulated to hospitals in townships serviced by a full-time community pharmacist),
- section E required one response per answer ( and was circulated to hospitals serviced by a regional pharmacist).

Sections A, B and C were circulated to all hospitals.

### DISCUSSION

Regardless of the many constraints imposed by a questionnaire evaluation of pharmaceutical patient care service quality, this writer has undertaken such an assessment incorporating a basic philosophy that supports questionnaire answer alternatives indicating the maintenance or promotion of an adequate pharmaceutical patient care service ideal.

The statistical analysis of the questionnaire mean scores utilises the commonly accepted .05 probability level, in the hypothesis significance testing. This probability level is used in both one- tailed and two- tailed significance tests.

45 Pope Rd.
Blackburn Victoria 3130
22/2/78

ar

am writing to seek your assistance in conjunction with a project that I am dertaking as part of the Master's degree in Health Administration (M.H.A.), fered in the University of New South Wales.

y project is titled; 'Pharmacy practice and small Victorian hospitals'. he part of the study involves the circulation of two questionnaires to the opulation of Victorian hospitals with daily bed average of less than sixty.

am seeking the hospital manager/ secretary's approval and assistance for nswering questionnaire no. 1, and further, approval by the hospital matron/ ister in charge and assistance for answering questionnaire no. 2.

he study is a broad evaluation, (of Victorian public and bush nursing hospitals ith daily bed average of less than sixty), and the questions range from general olicy, the type of inpatient pharmacy service, through to the interactions etween members of the health care team.

he questionnaire evaluation will endeavour to seek general trends and therefore roups of hospitals will be considered on the following basis (for example), verage stay data, bed day data, proximity to other hospital facilities etc., and individual hospitals by name will not be focussed upon.

verall the project includes analysis of the Victorian hospital system, community nd hospital pharmacy, regional and sessional pharmacy development, the role of the nursing staff with respect to pharmaceutical services, legal aspects, the concept of professionalism and a discussion of the interactions between bodies associated with small Victorian hospitals and pharmacy services. Equal emphasis will be placed on the various providers of pharmaceutical inpatient services in small hospitals in Victoria.The questionnaire is an analysis of current practice and the conclusions drawn from the evaluation will result from the amalgamation of thoughts from all the mentioned topics.

I would be extremely grateful if your hospital could participate in this survey. All information supplied by questionnaire will remain strictly confidential. The project supervisor is Professor John Dewdney from the School of Health Administration (see attached document).

I have sought to have the project approved by the professional associations and regulatory bodies that you and your hospital matron would be most familiar with (see attachments).

I have enclosed two copies of each questionnaire. The second copy will provide you a duplicate to maintain on your hospital records. If you have any queries regarding this survey, I may be contacted at;

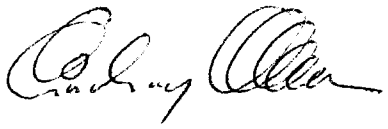
Lindsay ALLAN phone 41 0221 ext 788
Administrative Officer
c/o St. Vincent's Hospital Melbourne

I would be most grateful if you could pass this correspondence and the attached documents to matron, following your consideration of my request.
It would be advantageous to me, if you choose to participate, to have all questionnaires returned as soon as possible in the enclosed stamped/self addressed envelope. If annual leave or similiar circumstances delay the responding procedure, could both questionnaires still be returned together, at a date not to distant but convenient to you.

ıld completed returns be forwarded to the following address before
st March 1978.

Mr. L. Allan
45 Pope Rd.
BLACKBURN VICTORIA 3130

anking you for your cooperation, in anticipation



Lindsay ALLAN

.B. METROPOLITAN HOSPITALS

he two questionnaires have been designed to cater for all small Victorian ospitals with daily bed average of less than sixty. Therefore the concept of he regional hospital pharmacist is not appropriate to your hospital. The uestionnaires that have been forwarded to your hospital are the same as those irculated to all country hospitals.

nswer alternatives inappropriate to metropolitan hospitals are coloured pink, nd will therefore not be considered in the questionnaire evaluation. The lternative was to omit such answer alternatives; however the presentation of wo standardised questionnaires to all hospitals in the survey population is ost essential, as well as allowing you to peruse the same questionnaire ramework presented to the managers of Victorian country hospitals.

QUESTIONNAIRE NO. 1 RESPONDENT - MANAGER/SECRETARY

HOSPITAL

Directions

Please answer the questions according to the instructions at the beginning of each section.

Definition of Terms

A. DRUG- INPATIENT SERVICE.

This includes the handling, storage, preparation and distribution of all PHARMACEUTICAL and MEDICINAL PREPARATIONS from the time they are delivered to your Hospital until the time just prior to their use, administered to Inpatients or used for the care of Inpatients by the Nursing Staff at your Hospital. These activities may also be termed 'pharmaceutical procedures'.

B. COMMUNITY PHARMACIST.

A Registered Pharmacist who conducts a PHARMACY or CHEMIST SHOP on a full-time basis in your Hospital's town. There may be ONE, or more COMMUNITY PHARMACISTS in your Hospital's town.

C. SESSIONAL COMMUNITY PHARMACIST.

This is a COMMUNITY PHARMACIST, who by arrangement, visits a Hospital either on a daily basis or for an agreed number of SESSIONS per week to;

a. Deliver drugs and Pharmaceutical Preparations
b. Maintain storage and stock control of all Pharmaceutical and Medicinal Preparations
c. Dispense and distribute drugs to Inpatients and Outpatients where appropriate
d. Provide any other service that Pharmacists can offer whilst present at the Hospital

The Sessional Community Pharmacist receives remuneration from the Hospital.

D. REGIONAL HOSPITAL PHARMACIST.

A Hospital Pharmacist employed by a Victorian BASE HOSPITAL who visits SMALL HOSPITALS to;

a. Deliver drugs and Pharmaceutical Preparations
b. Maintain storage and stock control of all Pharmaceutical and Medicinal Preparations
c. Dispense and distribute drugs to Inpatients and Outpatients where appropriate
d. Provide any other service that Pharmacists can offer whilst present at the Hospital.

These visits may either be made on a weekly basis or more often as required.

PRELIMINARY QUESTIONS.

Your responses to these questions will highlight where the answer alternatives
COMMUNITY DOCTOR
COMMUNITY PHARMACIST
are either relevant or inappropriate to the group of answer alternatives in which they appear throughout the questionnaire.

QA Does your Hospital's township have a COMMUNITY DOCTOR ?

☐ YES ☐ NO

QB Does your Hospital's township have at least one FULL-TIME COMMUNITY PHARMACIST ?

☐ YES ☐ NO

---

Before progressing to the Questionnaire, I would be most grateful if you could supply the following expenditure figures for your Hospital.

| | 1975/76 $ | 1976/77 $ |
|---|---|---|
| Classification. Medical and Surgical Expenditure | ..... | ..... |
| Sub -Classification. Expenditure on Drugs only | ..... | ..... |

Could you now please proceed to commence answering the Questionnaire.

ECTION A. (Q1 to Q10 inclusive)

These questions all require only ONE response. Please tick ☑ only ne box per answer.

1 Does your Hospital employ a PART-TIME PHARMACIST ?

☐ YES ☐ NO

If you answered NO could you proceed directly to Q2.
If you answered YES, could you answer Q1a and Q1b before proceeding to Q2.

1a How many hours per week does the PART-TIME PHARMACIST attend your HOSPITAL ?

☐ Less than FOUR HOURS per week.
☐ Between FOUR and EIGHT HOURS per week.
☐ Greater than EIGHT HOURS per week.

1b How would you categorise the PART-TIME PHARMACIST'S employment ?

☐ Part-time HOSPITAL PHARMACIST.
☐ REGIONAL HOSPITAL PHARMACIST.
☐ SESSIONAL COMMUNITY PHARMACIST.

---

2 Does your HOSPITAL have an area designated as a DRUG ROOM ? (This would be used solely for the storage of DRUGS and PHARMACEUTICAL PREPARATIONS.)

☐ YES ☐ NO

If your answer was YES, could you record the approximate area of this room.

.....square feet.

Q3 How often do you take a physical inventory of your HOSPITAL'S DRUGS and other PHARMACEUTICAL SUPPLIES ?

- ☐ Never
- ☐ Infrequently
- ☐ Half Yearly
- ☐ Yearly

Q4 Does a COMMUNITY PHARMACIST have membership on your HOSPITAL'S BOARD OF MANAGEMENT ?

☐ YES ☐ NO

Q5 Is a COMMUNITY PHARMACIST available to visit your HOSPITAL ?

☐ YES ☐ NO

If your answer was NO could you proceed directly to Q6 on the next page.
If your answer was YES, could you answer Q5a before proceeding to Q6.

Q5a Is the availability of a COMMUNITY PHARMACIST to visit your HOSPITAL classified as a FORMAL ARRANGEMENT ?

☐ YES ☐ NO

Q6 How much time per month would you spend dealing with the following activities: Procuring Drugs, Invoicing and authorising payment for Drugs, Drug Inventory control, Drug Committee involvement, and receiving visits from Medical Representatives ?

- ☐ No time
- ☐ Less than FIVE hours per month
- ☐ Between FIVE and TEN hours per month
- ☐ Greater than TEN hours per month.

Q7 Does your Hospital hold any meetings to discuss PHARMACY and THERAPEUTIC MATTERS ?

☐ YES ☐ NO

If you answered NO could you please proceed to Q8.
If you answered YES, could you answer Q7a before proceeding to Q8.

Q7a How frequently are these meetings held ?

- ☐ Only when required
- ☐ Monthly
- ☐ Quarterly
- ☐ Half Yearly

---

Q8 Do you think change from the present DRUG- INPATIENT SERVICE in your Hospital is necessary ?

☐ YES ☐ NO

If you answered NO could you answer Q9 before proceeding to Q10.
If you answered YES, could you answer Q8a and Q8b before proceeding to Q10.

a Which ONE of the following situations could prevent implementing a change in your Hospital's system of DRUG- INPATIENT SERVICE ?

- ☐ Hospital is to remote from a BASE HOSPITAL for REGIONAL PHARMACY SERVICE.
- ☐ There is no COMMUNITY PHARMACIST.
- ☐ COMMUNITY PHARMACIST is to busy to participate.
- ☐ Nursing Staff are satisfied with the current system.
- ☐ COMMUNITY DOCTOR supports the current system.
- ☐ Many as yet unconsidered cost factors.
- ☐ OTHER REASON (please specify).....

  .....

Q8b What ONE of the following reasons do you consider to be your major obstacle in establishing a new service ?

- ☐ Establishing relationships with a BASE HOSPITAL.
- ☐ Gaining acquisition of a COMMUNITY PHARMACIST'S services
- ☐ Resistance to change by the Nursing Staff.
- ☐ Resistance to change by the COMMUNITY DOCTOR.
- ☐ OTHER REASON (please specify).....

  .....

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Q9 Which ONE of the following situations makes the current DRUG- INPATIENT SERVICE ideal in your Hospital ?

- ☐ The Hospital is already served by a SESSIONAL PHARMACIST.
- ☐ The Hospital is already served by a REGIONAL PHARMACIST.
- ☐ NURSING STAFF have developed a well organised system.
- ☐ COMMUNITY DOCTOR actively supports the current service.
- ☐ COMMUNITY PHARMACIST actively supports the current service.
- ☐ OTHER REASON (please specify).....

  .....

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Q10 As your Hospital's MANAGER or SECRETARY, what arrangement of DRUG SERVICE to INPATIENTS would you be most satisfied with ?

- ☐ The PRESENT SYSTEM.
- ☐ System involving the COMMUNITY PHARMACIST'S participation.
- ☐ System involving a REGIONAL PHARMACIST'S participation.
- ☐ System with more MEDICAL STAFF involvement.
- ☐ System with more NURSING STAFF involvement.
- ☐ OTHER SYSTEM (please specify).....

  .....

Please now proceed to SECTION B.

SECTION B. (Q11 and Q12)

These questions require multiple responses. Please tick ☑ at least ONE BOX and any other boxes indicating alternatives appropriate to your answer.

Q11 Which of the following avenues does your Hospital utilise to procure DRUGS and PHARMACEUTICAL PREPARATIONS for HOSPITAL INPATIENTS ?

- ☐ From the COMMUNITY PHARMACIST using Hospital Order Forms.
- ☐ From the COMMUNITY PHARMACIST via National Health and Pensioner Medical Service prescriptions, and by direct purchasing.
- ☐ Distribution from the BASE HOSPITAL.
- ☐ REGIONAL PHARMACY service from the BASE HOSPITAL.
- ☐ Direct ordering from DRUG COMPANIES.
- ☐ Direct ordering from V.H.A. PHARMACY DIVISION.
- ☐ OTHER METHOD (please specify).....

  .....

Q12 Which of the following ORGANISATIONS or ASSOCIATIONS have communicated policies to your Hospital concerning PHARMACEUTICAL PROCEDURES ?

- ☐ Royal Victorian Nursing Council
- ☐ The Association of Directors of Nursing of Victoria
- ☐ The Victorian Bush Nursing Association
- ☐ The Hospitals and Charities Commission
- ☐ The Royal Australian College of General Practitioners
- ☐ Society of Hospital Pharmacists (Victorian State Branch)
- ☐ Pharmaceutical Society of Victoria
- ☐ Australian Council on Hospital Standards
- ☐ OTHERS (please specify).....

  .....

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QUESTIONNAIRE NO. 2 RESPONDENT - MATRON/SISTER IN CHARGE

HOSPITAL

Directions

Please answer the questions according to the instructions at the beginning of each section.

Definition of Terms

A. DRUG- INPATIENT SERVICE

This includes the handling, storage, preparation and distribution of all PHARMACEUTICAL and MEDICINAL PREPARATIONS from the time they are delivered to your Hospital until the time just prior to their use, administered to Inpatients or used for the care of Inpatients by the Nursing Staff at your Hospital. These may also be termed 'pharmaceutical procedures'.

B. COMMUNITY PHARMACIST

A Registered Pharmacist who conducts a PHARMACY or CHEMIST SHOP on a full-time basis in your Hospital's town. There may be ONE, or more COMMUNITY PHARMACISTS in your Hospital's town.

C. SESSIONAL COMMUNITY PHARMACIST

This is a COMMUNITY PHARMACIST, who by arrangement, visits a Hospital either on a daily basis or for an agreed number of SESSIONS per week to;

a. Deliver drugs and Pharmaceutical Preparations
b. Maintain storage and stock control of all Pharmaceutical and Medicinal Preparations
c. Dispense and distribute drugs to Inpatients and Outpatients where appropriate
d. Provide any other service that Pharmacists can offer whilst present at the Hospital

The Sessional Community Pharmacist receives remuneration from the Hospital.

D. REGIONAL HOSPITAL PHARMACIST

A Hospital Pharmacist employed by a Victorian BASE HOSPITAL who visits SMALL HOSPITALS to;

a. Deliver drugs and Pharmaceutical Preparations
b. Maintain storage and stock control of all Pharmaceutical and Medicinal Preparations
c. Dispense and distribute drugs to Inpatients and Outpatients where appropriate
d. Provide any other service that Pharmacists can offer whilst present at the Hospital.

These visits may either be made on a weekly basis or more often as required.

PRELIMINARY QUESTIONS.

Your responses to these questions will highlight where the answer alternatives
COMMUNITY DOCTOR
COMMUNITY PHARMACIST
are either relevant or inappropriate to the group of answer alternatives in which they appear, throughout the questionnaire.

QA Does your Hospital's township have a COMMUNITY DOCTOR ?

☐ YES ☐ NO

QB Does your Hospital's township have at least one FULL-TIME COMMUNITY PHARMACIST ?

☐ YES ☐ NO

---

Could you now please proceed to commence answering the Questionnaire.

SECTION A. (Q1 to Q22 inclusive)

These questions all require ONE response. Please tick ☑ only one box per answer.

Q1 Does your HOSPITAL have an area specifically designated as a DRUG ROOM ?

☐ YES ☐ NO

If you answered NO could you proceed directly to Q2.
If you answered YES, could you answer Q1a, Q1b, Q1c, and Q1d before proceeding to Q2.

Q1a Who is assigned in charge of the DRUG ROOM at your Hospital ?

☐ Manager or Secretary
☐ Matron
☐ Deputy Matron
☐ Ward Sister
☐ Community Doctor
☐ Nursing Aide
☐ Community Pharmacist
☐ Regional Pharmacist
☐ OTHER (please specify).....

Q1b During periods of absence of the person assigned IN-CHARGE of the DRUG ROOM, who would take temporary responsibility for this position ?

☐ Manager or Secretary
☐ Matron
☐ Relieving Matron
☐ Deputy Matron
☐ Ward Sister
☐ Community Doctor
☐ Relieving Doctor
☐ Community Pharmacist
☐ Regional Pharmacist
☐ OTHER (please specify).....

1c Is special provision made for the storage of NARCOTIC PREPARATIONS in the DRUG ROOM ?

☐ YES ☐ NO

1d Do you repack any MEDICATIONS or LOTIONS in the DRUG ROOM ?

☐ YES ☐ NO

Q2 Is special provision made for the storage of NARCOTIC PREPARATIONS at the Ward Sister's Station ?

☐ YES ☐ NO

If you answered NO to both Q1c and Q2, could you specify in which area special provision is made for the storage of NARCOTIC DRUGS in your Hospital;

.....

Q3 How often do you or your Nursing Staff perform activities such as repacking TABLET BOTTLES or RELABELLING MEDICINAL CONTAINERS ?

☐ Never
☐ Sometimes
☐ Frequently but not on a regular basis
☐ Regularly as a matter of common procedure

Q4 Have you ever been required to dispense MEDICATIONS to OUTPATIENTS or STAFF MEMBERS of your Hospital ?

☐ YES ☐ NO

Q5 Do you provide your Ward Nursing Staff with references such as M.I.M.S., AUSTRALIAN DRUG COMPENDIUM, P.P. GUIDE, MERCK MANUAL or similiar material presenting DRUG INFORMATION ?

☐ YES ☐ NO

Q6 Are PATIENTS requested to bring their own TABLETS and other MEDICATIONS to Hospital when being admitted as INPATIENTS ?

☐ YES ☐ NO

Q7 How frequently do PATIENTS bring their own TABLETS and other MEDICATIONS to Hospital when being admitted as INPATIENTS ?

☐ Very rarely
☐ Infrequently
☐ Regularly
☐ Very Regularly

Q8 Following admission, do INPATIENTS continue to receive the MEDICATIONS which they brought to the Hospital ?

☐ YES ☐ NO

Q9 In the case where a PATIENT presents for admission with his/her own supply of TABLETS, and during Hospital stay the DRUG REGIMEN is changed, what happens to the CEASED MEDICATIONS when the PATIENT is discharged ?

☐ Drugs are repacked for future use.
☐ Drugs are destroyed in the Hospital.
☐ The Community Doctor takes custody of the drugs.
☐ The Community Pharmacist takes custody of the drugs.
☐ The Regional Pharmacist takes custody of the drugs.
☐ OTHER (please specify).....

.....

10 Which ONE of the following normally guides your NURSING STAFF in the preparation of DRUG DOSES to be administered to INPATIENTS in your Hospital ?

- ☐ Directions from the PATIENT'S own medication containers.
- ☐ Directions from a card system (e.g. Kardex)
- ☐ Directions from the 'Order for Treatment' Chart.
- ☐ Directions from the 'Drug Therapy' Chart.
- ☐ OTHER(please specify).....

11 Which ONE of the following systems for recording medications administered to INPATIENTS, is normally used in your Hospital ?

- ☐ Card system (e.g. Kardex) where each PATIENT'S medication doses are recorded.
- ☐ Daily record is kept in the Treatment Notes in the Patient's History.
- ☐ The 'Order for Treatment' Chart is used.
- ☐ The 'Drug Therapy' Chart is used.
- ☐ OTHER (please specify).....

12 How would you describe the frequency of INTRAVENOUS THERAPY in your Hospital ?

- ☐ Used only in EMERGENCIES.
- ☐ Used in EMERGENCIES and infrequently in other cases.
- ☐ Used frequently.
- ☐ Used very frequently.

13 How would you describe the frequency of ADDING DRUGS to INTRAVENOUS SOLUTIONS in your Hospital ?

- ☐ Never
- ☐ Only in EMERGENCIES
- ☐ In EMERGENCIES and infrequently in other cases
- ☐ Regularly

14 Which ONE person of the following is normally involved with the PREPARATION of any INTRAVENOUS SOLUTION containing DRUG ADDITIVES ?

- ☐ Matron
- ☐ Community Doctor
- ☐ Ward Sister
- ☐ Community Pharmacist
- ☐ Regional Pharmacist
- ☐ OTHER( please specify).....

15 Have you ever experienced difficulty in trying to procure the supply of EMERGENCY DRUGS during;

a. The Day Shift working hours ?

☐ YES ☐ NO

b. The Evening or Night Shift working hours ?

☐ YES ☐ NO

How frequently in the past have you sought elsewhere the supply of EMERGENCY DRUGS at night, because these drugs were out of stock at your Hospital ?

- ☐ Never
- ☐ Very Rarely
- ☐ Infrequently
- ☐ Regularly

Which ONE of the following avenues would be your FIRST PRIORITY when in need of EMERGENCY DRUGS of which your Hospital and the Community Doctor were out of stock ?

- ☐ Community Pharmacist
- ☐ Doctor in neighbouring town
- ☐ Nearest District or Base Hospital
- ☐ Regional Pharmacist
- ☐ Appropriate Pharmaceutical Company
- ☐ V.H.A. Pharmacy Division
- ☐ OTHER (please specify).....

8 Do MEDICAL REPRESENTATIVES visit your Hospital ?

☐ YES ☐ NO

If you answered NO could you proceed to Q19.
If you answered YES, could you answer Q18a before proceeding to Q19.

8a How helpful are MEDICAL REPRESENTATIVES in providing information to you, which you consider relevant to the needs of the HOSPITAL'S INPATIENTS ?

- ☐ Very helpful
- ☐ Some help
- ☐ Not helpful at all

---

9 Does your Hospital have a policy that DRUGS be administered only on the written orders of a Doctor ?

☐ YES ☐ NO

0 Does your Hospital have a policy for the reporting of ADVERSE DRUG REACTIONS ?

☐ YES ☐ NO

1 When you wish to present the COMMUNITY DOCTOR a problem (related to your DRUG- INPATIENT SERVICE) for either consideration or recommendation, which ONE of the following methods do you most frequently use ?

- ☐ Communicate during normal hospital conversation with the DOCTOR.
- ☐ By memorandum to the COMMUNITY DOCTOR.
- ☐ By asking the MANAGER to present the problem to the DOCTOR
- ☐ By firstly discussing the problem with the MANAGER and then conversing with the COMMUNITY DOCTOR.
- ☐ Through a formal Committee process.
- ☐ OTHER METHOD (please specify).....

.....

2 How satisfactory do you feel your communications in general are with the COMMUNITY DOCTOR ?

- ☐ Very satisfactory
- ☐ Satisfactory
- ☐ Unsatisfactory

TION B. (Q23 to Q28 inclusive)

Questions in this section require MULTIPLE RESPONSES to their answers. Please tick ☑ at least ONE box and any other boxes appropriate to your answer.

Which of the following PERSONNEL are involved in DISTRIBUTING DRUGS within your Hospital ?

- ☐ Matron
- ☐ Ward Sisters
- ☐ Nursing Aides
- ☐ Community Doctor
- ☐ Visiting Doctors
- ☐ Community Pharmacist
- ☐ Regional Pharmacist
- ☐ OTHERS (please specify).....

24 Please indicate from the following, areas in which DRUGS and other PHARMACEUTICAL PREPARATIONS are stored in your Hospital.

- ☐ Drug Room
- ☐ Bulk Store
- ☐ Ward Sister's Station
- ☐ Ward Utility Room
- ☐ Matron's Office
- ☐ Doctor's Consulting area
- ☐ Hospital Theatre
- ☐ X- Ray
- ☐ Casualty
- ☐ OTHERS (please specify).....

25 Which of the following personnel are involved directly with the ADMINISTRATION of DRUGS to INPATIENTS in your Hospital ?

- ☐ Matron
- ☐ Ward Sister
- ☐ Community Doctor
- ☐ Visiting Doctors
- ☐ Community Pharmacist
- ☐ Regional Pharmacist
- ☐ OTHERS (please specify).....

26 Which of the following criteria are used for deciding the STOCKS of ANTIVENENES to be held at you Hospital ?

- ☐ Matron's advice considering her local knowledge
- ☐ Community Doctor's advice
- ☐ Community Pharmacist's advice
- ☐ A consensus of the Matron, Doctor and Pharmacist
- ☐ Policy circulated by the Victorian Nursing Council
- ☐ Information from Commonwealth Serum Laboratories
- ☐ OTHER (please specify).....

Which of the following PERSONNEL have been beneficial to your Hospital's staff in on-going EDUCATION concerning DRUGS, DRUG ADMINISTRATION and DRUG REGIMENS ?

- ☐ Community Doctor
- ☐ Community Pharmacist
- ☐ Visiting Doctors
- ☐ New Nursing Staff
- ☐ Regional Pharmacist
- ☐ Medical Representatives
- ☐ Visiting Nursing Staff
- ☐ OTHERS (please specify).....

28 Which of the following ORGANISATIONS have been beneficial to you and your Hospital's Staff in on-going EDUCATION concerning DRUGS, DRUG ADMINISTRATION, and DRUG REGIMENS ?

- ☐ Victorian Nursing Council
- ☐ Victorian Bush Nursing Association
- ☐ The Association of Directors of Nursing of Victoria
- ☐ Society of Hospital Pharmacists (Victorian State Branch)
- ☐ Pharmaceutical Society of Victoria
- ☐ Pharmaceutical Drug Companies
- ☐ Royal Australian College of General Practitioners

OTHERS (please specify).....

.....

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Please now proceed to SECTION C.

ECTION C. (Q29 and Q30)

These two questions require the allocation of PREFERENCES in your RESPONSE. Please use figure 1 to indicate your FIRST CHOICE [1] , and figure 2 to indicate your SECOND CHOICE [2].

29 Which TWO of the following people do you choose to consult when needing information or advice concerning DRUG ADMINISTRATION to INPATIENTS in your Hospital ?

Please indicate your FIRST PRIORITY with figure 1, and your SECOND PRIORITY with figure 2.

- ☐ Community Doctor
- ☐ Community Pharmacist
- ☐ Hospital Nursing Staff
- ☐ The Patient
- ☐ Hospital Manager
- ☐ Regional Pharmacist
- ☐ OTHER (please specify).....

Which of the following people provide (without request) for your staff, information concerning DRUG ADMINISTRATION relevant to INPATIENTS at your Hospital ?

Please indicate the MOST HELPFUL person with figure 1, and the SECOND MOST HELPFUL with figure 2.

- ☐ Community Doctor
- ☐ Community Pharmacist
- ☐ Ward Charge Sister
- ☐ Regional Pharmacist
- ☐ Hospital Manager
- ☐ Medical Representatives
- ☐ OTHERS (please specify).....

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CTION D. (Q31 and Q32)

These two questions require ONE RESPONSE each. Please tick ☑ only ONE box per answer.

1 About how many hours per week does a COMMUNITY PHARMACIST spend at your Hospital ?

- ☐ None
- ☐ Less than FOUR hours per week
- ☐ Between FOUR and EIGHT hours per week
- ☐ Greater than EIGHT hours per week

2 How satisfactory do you feel your Hospital's association with the COMMUNITY PHARMACIST is ?

- ☐ Very satisfactory
- ☐ Satisfactory
- ☐ Unsatisfactory

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CTION E. (Q33 and Q34)

These two questions require ONE RESPONSE each. Please tick ☑ only ONE box per answer.

3 About how many hours per week does a REGIONAL PHARMACIST spend at your Hospital ?

- ☐ Less than FOUR hours per week
- ☐ Between FOUR and EIGHT hours per week
- ☐ Greater than EIGHT hours per week

4 How satisfactory do you feel is the service of the REGIONAL PHARMACIST to your Hospital ?

- ☐ Very satisfactory
- ☐ Satisfactory
- ☐ Unsatisfactory.

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QUESTIONNAIRE CIRCULATION LIST

Metropolitan public hospitals

1. Altona District Hospital
2. Burwood and District Community Hospital
3. Essendon and District Memorial Hospital
4. Mordialloc- Cheltenham Community Hospital
5. Oakleigh District Community Hospital
6. Southern Memorial (Brighton Community) Hospital
7. Springvale and District Community Hospital
8. Sunshine and District Community Hospital

Country public hospitals

9. Alexandra District Hospital
10. Apollo Bay and District Memorial Hospital
11. Bacchus Marsh and District War Memorial Hospital
12. Ripon Peace (Beaufort) Memorial Hospital
13. Beeac and District Hospital
14. Ovens (Beechworth) District Hospital
15. Benalla and District Memorial Hospital
16. Birregurra and District Community Hospital
17. Boort District Hospital
18. Shelly (Bunyip) Memorial Hospital
19. Camperdown District Hospital
20. Casterton Memorial Hospital
21. Castlemaine District Community Hospital
22. Clunes District Hospital
23. Cobram District Hospital
24. Cohuna District Hospital
25. Coleraine and District Hospital
26. Corryong District Hospital
27. Creswick District Hospital
28. Daylesford District Hospital
29. Dimboola District Hospital
30. Donald District Hospital
31. Dunolly District Hospital
32. Edenhope and District Memorial Hospital
33. Eildon and District Community Hospital
34. Elmore District Hospital
35. South Gippsland (Foster) Hospital
36. Goroke Hospital

37. Healesville and District Hospital
38. Heathcote District Hospital
39. Heywood and District Memorial Hospital
40. Inglewood District Hospital
41. Jeparit Hospital
42. Kaniva District Hospital
43. Kerang and District Hospital
44. Kilmore Hospital
45. Westernport (Kooweerup) Memorial Hospital
46. Koroit and District Memorial Hospital
47. Korumburra District Hospital
48. Kyneton District Hospital
49. Woorayl (Leongatha) District Memorial Hospital
50. Lismore and District Hospital
51. Lorne Community Hospital
52. Macarthur and District Memorial Hospital
53. Maffra District Hospital
54. Maldon Hospital
55. Manangatang and District Hospital
56. Mansfield District Hospital
57. Minyip and District Hospital
58. Mortlake District Hospital
59. Morwell and District Community Hospital
60. Tawonga (Mount Beauty) District General Hospital
61. Murtoa Hospital
62. Myrtleford District War Memorial Hospital
63. Nathalia District Hospital
64. Nhill Hospital
65. Numurkah and District War Memorial Hospital
66. Omeo District Hospital
67. Orbost and District Hospital
68. Ouyen and District Hospital
69. Penshurst and District Memorial Hospital
70. Port Fairy Hospital
71. Portland and District Hospital
72. Red Cliffs District Hospital
73. Robinvale and District Hospital
74. Rochester and District War Memorial Hospital
75. Southern Peninsula (Rosebud) Hospital

76. Rupanyup and District Hospital
77. Waranga (Rushworth) Memorial Hospital
78. Rutherglen District Hospital
79. Seymour District Memorial Hospital
80. Skipton and District Memorial Hospital
81. Stawell District Hospital
82. Tallangatta Hospital
83. Tatura Annexe Hospital
84. Terang and District (Norah Cosgrave) Community Hospital
85. Timboon and District Hospital
86. Werribee District Hospital
87. Willaura and District Hospital
88. Winchelsea and District Hospital
89. Upper Goulburn (Woods Point) District Hospital
90. Wycheproof District Hospital
91. Yarram and District Hospital
92. Yarrawonga District Hospital
93. Yea and District Memorial Hospital

c. Victorian bush nursing hospitals.

94. Avoca and District Bush Nursing Hospital
95. Ballan and District Soldiers Memorial Bush Nursing Hospital
96. Berwick Bush Nursing Hospital
97. Beulah and District Pioneer Memorial Bush Nursing Hospital
98. Birchup and District Bush Nursing Hospital
99. Bright District Bush Nursing Hospital
100. Charlton Bush Nursing Hospital
101. Chelsea Bush Nursing Hospital
102. Chiltern and District Bush Nursing Hospital
103. Cobden and District Bush Nursing Hospital
104. Warley (Cowes) Bush Nursing Hospital
105. Euroa Bush Nursing Hospital
106. Gisborne and District Bush Nursing Hospital
107. Hastings and District Bush Nursing Hospital
108. Heyfield Bush Nursing Hospital
109. Hopetoun and District Bush Nursing Hospital
110. Lancefield and District Bush Nursing Hospital
111. Lilydale and District Bush Nursing Hospital
112. Merino Bush Nursing Hospital
113. Mirboo North and District Bush Nursing Hospital

114. King George V (Mornington) Memorial Bush Nursing Hospital
115. Murchison Bush Nursing Hospital
116. Murrayville Memorial Bush Nursing Hospital
117. Nagambie Bush Nursing Hospital
118. Natimuk Bush Nursing Hospital
119. Neerim District Soldiers Memorial Hospital
120. Nyah West Bush Nursing Hospital
121. Pakenham Bush Nursing Hospital
122. Pyramid Hill Bush Nursing Hospital
123. Rainbow Bush Nursing Hospital
124. Sea Lake and District Bush Nursing Hospital
125. Tongala Bush Nursing Hospital
126. Toora Bush Nursing Hospital
127. Trentham Bush Nursing Hospital
128. Violet Town Bush Nursing Hospital
129. Walwa and District Bush Nursing Hospital
130. Korong (Wedderburn) Bush Nursing Hospital
131. Yackandandah Bush Nursing Hospital
132. Upper Yarra (Yarra Junction) Bush Nursing Hospital

# QUESTIONNAIRE SCORING CLASSIFICATION

Questionnaire number one

| Question number | Structure | | Process | | Input | |
|---|---|---|---|---|---|---|
| | Scored | Not scored | Scored | Not scored | Scored | Not scored |
| 1 | | x | | | | |
| 1a | | x | | | | |
| 1b | | x | | | | |
| 2 | | x | | | | |
| 3 | | | x | | | |
| 4 | | x | | | | |
| 5 | x | | | | | |
| 5a | | x | | | | |
| 6 | | | x | | | |
| 7 | x | | | | | |
| 7a | | | x | | | |
| 8 | | | | x | | |
| 8a | x | | | | | |
| 8b | | | | x | | |
| 9 | x | | | | | |
| 10 | x | | | | | |
| 11 | | | x | | | |
| 12 | | | x | | | |

Questionnaire number two

| Question number | Structure | | Process | | Input | |
|---|---|---|---|---|---|---|
| | Scored | Not scored | Scored | Not scored | Scored | Not scored |
| 1 | x | | | | | |
| 1a | x | | | | | |
| 1b | x | | | | | |
| 1c | x | | | | | |
| 1d | | | x | | | |
| 2 | x | | | | | |
| 3 | | | x | | | |
| 4 | | | x | | | |
| 5 | x | | | | | |
| 6 | | | | | | x |
| 7 | | | | | | x |
| 8 | | | x | | | |
| 9 | | | x | | | |
| 10 | | | x | | | |
| 11 | x | | | | | |
| 12 | | | | x | | |
| 13 | | | x | | | |
| 14 | x | | | | | |
| 15a | | | x | | | |
| 15b | | | x | | | |

| Question number | Structure | | Process | | Input | |
|---|---|---|---|---|---|---|
| | Scored | Not scored | Scored | Not scored | Scored | Not scored |
| 16 | | | x | | | |
| 17 | | | x | | | |
| 18 | | | | | | x |
| 18a | | | | | | x |
| 19 | x | | | | | |
| 20 | x | | | | | |
| 21 | | | x | | | |
| 22 | | | x | | | |
| 23 | | | x | | | |
| 24 | x | | | | | |
| 25 | | | x | | | |
| 26 | | | x | | | |
| 27 | | | x | | | |
| 28 | | | x | | | |
| 29 | | | x | | | |
| 30 | | | | | | x |
| 31 | x | | | | | |
| 32 | | | x | | | |
| 33 | x | | | | | |
| 34 | | | x | | | |

STANDARDISED QUESTIONNAIRE SCORES

| Hospital code | Structure | Process | Pharmaceutical service score |
|---|---|---|---|
| 1 | 7.4 | 21.5 | 29.0 |
| 2 | 11.0 | 20.6 | 31.6 |
| 3 | 11.0 | 18.9 | 29.9 |
| 4 | 9.5 | 18.5 | 27.9 |
| 5 | 8.4 | 20.5 | 29.0 |
| 6 | 7.4 | 20.5 | 27.9 |
| 7 | 8.4 | 16.4 | 24.8 |
| 8 | 11.0 | 22.6 | 33.5 |
| 9 | 8.4 | 20.5 | 29.0 |
| 10 | 8.4 | 22.5 | 31.1 |
| 11 | 9.1 | 19.7 | 28.7 |
| 12 | 10.5 | 16.7 | 27.2 |
| 13 | 8.0 | 16.0 | 24.1 |
| 14 | 11.0 | 20.7 | 31.6 |
| 15 | 12.8 | 19.9 | 32.7 |
| 16 | 6.3 | 16.4 | 22.8 |
| 17 | 9.5 | 17.4 | 26.9 |
| 18 | 8.4 | 19.5 | 27.9 |
| 19 | - | - | - |
| 20 | 11.0 | 18.9 | 29.9 |
| 21 | 12.8 | 22.7 | 35.5 |
| 22 | 11.6 | 23.6 | 35.2 |
| 23 | 10.0 | 20.7 | 30.6 |
| 24 | 8.4 | 21.5 | 30.0 |
| 25 | 9.1 | 17.0 | 26.2 |
| 26 | 7.4 | 21.5 | 29.0 |
| 27 | 5.3 | 17.4 | 22.8 |
| 28 | 11.0 | 20.7 | 31.6 |
| 29 | 10.3 | 18.9 | 29.2 |
| 30 | 7.4 | 21.5 | 29.0 |
| 31 | 10.8 | 23.6 | 34.3 |
| 32 | 10.0 | 18.7 | 28.7 |
| 33 | - | - | - |
| 34 | 11.7 | 19.5 | 31.2 |
| 35 | 7.8 | 19.7 | 27.5 |
| 36 | - | - | - |
| 37 | 12.8 | 20.8 | 33.6 |
| 38 | 9.5 | 20.5 | 30.0 |
| 39 | 8.4 | 20.5 | 29.0 |
| 40 | 11.0 | 21.6 | 32.6 |
| 41 | 9.1 | 18.5 | 27.7 |
| 42 | 7.4 | 15.4 | 22.8 |
| 43 | 8.4 | 18.5 | 26.9 |
| 44 | 10.5 | 17.4 | 27.9 |
| 45 | 9.5 | 15.7 | 25.2 |
| 46 | 10.0 | 20.8 | 30.8 |
| 47 | 9.1 | 19.5 | 28.5 |
| 48 | 12.8 | 19.9 | 32.7 |
| 49 | 9.5 | 19.9 | 29.0 |
| 50 | 10.5 | 17.7 | 28.2 |
| 51 | 6.3 | 16.4 | 22.8 |
| 52 | 9.1 | 20.3 | 29.5 |
| 53 | 11.1 | 19.1 | 30.3 |
| 54 | - | - | - |
| 55 | 6.3 | 19.5 | 25.9 |
| 56 | - | - | - |
| 57 | 9.5 | 16.4 | 25.9 |
| 58 | 8.4 | 21.5 | 30.0 |
| 59 | 5.9 | 18.7 | 24.6 |
| 60 | 6.3 | 20.5 | 26.9 |
| 61 | - | - | - |
| 62 | 10.5 | 18.7 | 29.2 |
| 63 | 9.5 | 19.7 | 29.2 |
| 64 | 11.9 | 23.7 | 35.5 |
| 65 | 7.4 | 21.5 | 29.0 |
| 66 | 10.0 | 21.6 | 31.6 |
| 67 | - | - | - |
| 68 | 11.0 | 19.9 | 30.8 |
| 69 | 8.4 | 20.5 | 29.0 |
| 70 | 13.7 | 23.7 | 37.4 |
| 71 | 8.2 | 19.7 | 27.8 |
| 72 | 9.1 | 18.7 | 27.8 |
| 73 | 9.5 | 19.7 | 29.2 |
| 74 | 9.5 | 21.6 | 31.2 |
| 75 | 10.0 | 18.7 | 28.7 |
| 76 | 11.7 | 21.5 | 33.3 |
| 77 | 9.5 | 19.7 | 29.2 |
| 78 | 9.8 | 20.7 | 30.4 |
| 79 | 8.4 | 17.4 | 25.9 |
| 80 | 10.5 | 21.5 | 32.1 |
| 81 | 7.3 | 20.7 | 27.8 |
| 82 | 10.5 | 20.5 | 31.1 |
| 83 | 9.1 | 20.7 | 29.7 |
| 84 | 11.9 | 18.9 | 30.8 |
| 85 | 12.8 | 22.6 | 35.4 |
| 86 | 7.3 | 19.9 | 27.1 |
| 87 | 8.4 | 20.5 | 29.0 |
| 88 | 8.4 | 20.5 | 29.0 |
| 89 | - | - | - |
| 90 | 11.0 | 18.7 | 29.7 |
| 91 | 9.4 | 22.7 | 31.9 |
| 92 | 8.4 | 17.7 | 26.2 |
| 93 | 4.2 | 23.6 | 27.9 |
| 94 | 10.8 | 20.5 | 31.2 |
| 95 | - | - | - |
| 96 | 10.0 | 22.6 | 32.6 |
| 97 | 9.1 | 21.4 | 30.6 |
| 98 | 11.0 | 16.7 | 27.8 |
| 99 | 10.0 | 19.7 | 29.7 |
| 100 | - | - | - |
| 101 | - | - | - |
| 102 | 8.0 | 15.0 | 23.0 |
| 103 | 9.5 | 18.5 | 27.9 |
| 104 | 9.1 | 20.7 | 29.7 |
| 105 | 9.1 | 17.7 | 26.8 |
| 106 | 7.4 | 20.5 | 27.9 |
| 107 | 11.0 | 20.7 | 31.6 |
| 108 | 7.4 | 18.5 | 25.9 |
| 109 | 10.0 | 22.6 | 32.6 |
| 110 | 9.1 | 18.2 | 27.4 |
| 111 | 11.0 | 19.9 | 30.8 |
| 112 | 9.1 | 19.5 | 28.7 |
| 113 | 13.7 | 22.7 | 36.4 |
| 114 | 5.3 | 18.5 | 23.8 |
| 115 | 9.5 | 18.2 | 27.7 |
| 116 | 10.8 | 19.5 | 30.2 |
| 117 | 8.4 | 18.5 | 26.9 |
| 118 | 6.3 | 16.4 | 22.8 |
| 119 | - | - | - |
| 120 | 6.3 | 19.5 | 25.9 |
| 121 | 7.4 | 15.4 | 22.8 |
| 122 | 7.4 | 18.5 | 25.9 |
| 123 | 11.0 | 19.9 | 30.8 |
| 124 | 6.3 | 15.4 | 21.7 |
| 125 | 5.3 | 19.5 | 24.8 |
| 126 | 9.5 | 20.5 | 30.0 |
| 127 | 8.8 | 19.4 | 28.2 |
| 128 | 9.8 | 17.1 | 26.9 |
| 129 | 9.8 | 19.5 | 29.2 |
| 130 | 7.4 | 20.5 | 27.9 |
| 131 | 7.3 | 21.6 | 28.7 |
| 132 | 9.1 | 22.6 | 31.6 |

HOSPITAL POPULATION DESIGNATED CHARACTERISTICS

| Hospital code number | Manager status | | Base hospital proximity | | Workload (per annum) | | Town community pharmacy | | Town resident doctor | | Length of patient hospital stay | | Hospital pharmaceutical patient care service classification | | | Accreditation status | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Full-time | Part-time | < 35 miles | ⩾35 miles | < 5000 bed days | ⩾5000 bed days | Yes | No | Yes | No | <10 days | ⩾10 days | Traditional | Regional | Sessional | Yes | No |
| 1 | x | | | | | x | x | | | x | x | | x | | | | x |
| 2 | | x | | | x | | x | | x | | x | | x | | | | x |
| 3 | x | | | | | x | x | | x | | x | | x | | | x | |
| 4 | x | | | | | x | x | | x | | x | | x | | | | x |
| 5 | | x | | | x | | x | | x | | x | | x | | | | x |
| 6 | x | | | | x | x | x | | x | | x | | x | | | | x |
| 7 | x | | | | x | | x | | x | | x | | x | | | | x |
| 8 | x | | | | | x | x | | x | | x | | x | | | | x |
| 9 | x | | | x | | x | x | | x | | x | | x | | | | x |
| 10 | | x | | x | x | | x | | x | | x | | x | | | | x |
| 11 | x | | x | | x | | x | | x | | x | | x | | | | x |
| 12 | | x | x | | x | | x | | x | | x | | x | | | | x |
| 13 | | x | | x | x | | | x | | x | | x | x | | | | x |
| 14 | x | | x | | | x | x | | x | | | x | x | | | | x |
| 15 | x | | | x | | x | x | | x | | x | | | | x | | x |
| 16 | | x | | x | x | | x | | x | | | x | x | | | | x |
| 17 | | x | | x | | x | x | | x | | | x | x | | | | x |
| 18 | | x | | x | | x | x | | x | | x | | x | | | x | |
| 19 | x | | | x | | x | x | | x | | | x | x | | | | x |
| 20 | x | | | x | | x | x | | x | | | x | x | | | | x |
| 21 | x | | x | | | x | x | | x | | | x | x | | | | x |
| 22 | x | | | x | x | | x | | x | | | x | x | | | | x |
| 23 | x | | | x | | x | x | | x | | | x | x | | | | x |
| 24 | x | | | x | | x | x | | x | | | x | x | | | | x |
| 25 | x | | x | | | x | x | | x | | | | x | | | | x |
| 26 | x | | | x | | x | x | | x | | | | x | | | | x |
| 27 | x | | x | | | x | x | | x | | | | x | | | | x |
| 28 | x | | x | | | x | x | | x | | | | x | | | | x |
| 29 | x | | x | | | x | x | | x | | | | x | x | | | x |
| 30 | x | | | x | x | | x | | x | | x | | x | | | | x |
| 31 | | x | x | | x | | | x | x | | | x | x | | | | x |
| 32 | x | | | x | | x | x | | x | | | x | x | | | | x |
| 33 | x | | | x | x | | x | | x | | x | | x | | | | x |

| 66 | 65 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | Hospital code number | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| × | × | × | | × | | × | × | | | × | | × | × | | | | × | × | × | × | × | × | × | × | | | | | × | | × | | Full-time | Manager status |
| | | | × | | × | | | × | × | | × | | | × | × | × | | | | | | | | | × | × | × | × | | × | | × | Part-time | |
| | × | | × | × | × | | × | × | × | | | × | × | × | | | | | | × | | | | | | × | × | | × | × | | | × | < 35 miles | Base hospital proximity |
| × | | × | | | | × | | | | × | × | | | | × | × | × | × | × | | × | × | × | × | | | × | | | × | × | | ⩾ 35 miles | |
| × | | | × | | × | × | × | × | × | | × | | × | × | × | × | | | | | | × | | | × | × | | × | × | × | × | | × | < 5000 bed days | Work load (per annum) |
| | × | × | | × | | | | | | × | | × | | | | | × | × | × | × | × | | × | | | × | | | | | × | | ⩾ 5000 bed days | |
| × | × | × | × | × | × | × | × | × | × | × | × | | × | | × | × | × | × | × | × | × | × | × | × | | × | × | × | × | × | | × | | Yes | Town community pharmacy |
| | | | | | | | | | | | | × | | × | | | | | | | | | | | × | | | | | | × | × | | No | |
| × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | | × | × | × | × | × | × | × | × | × | × | × | × | × | | Yes | Town resident doctor |
| | | | | | | | | | | | | | | | | | | | × | | | | | | | | | | | | | | | No | |
| | × | | | × | | × | × | | | × | | | × | × | | × | × | | × | | | × | × | | | | | × | × | | × | | | < 10 days | Length of patient hospital stay |
| × | | × | × | | × | | | × | × | | × | × | | | × | | | × | | × | × | | | × | × | × | × | | | | × | | ⩾ 10 days | |
| × | × | | × | × | × | × | | × | × | × | × | × | | × | × | × | × | | | | × | × | × | × | × | × | × | × | | × | | × | | Traditional | Hospital pharmaceutical patient care service classification |
| | | | | | | | × | | | | | | × | | | | | | × | | | | | | | | | | | | × | | | Regional | |
| | | × | | | | | | | | | | | | | | | | × | | × | | | | | | | | | × | | | | | Sessional | |
| | | × | | × | | × | | × | | | | | × | | | | × | × | × | × | | | | | | | | | | | | | | Yes | Accreditation status |
| × | × | | × | | × | | × | | × | × | × | × | | × | × | × | | | | | × | × | × | × | × | × | × | × | × | × | × | × | | No | |

| 99 | 98 | 97 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | Hospital code | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | × | × | × | × | × | × | | | × | | × | | × | × | × | | × | | | × | × | × | | × | × | | × | × | Full-time | Manager status |
| × | × | × | × | × | | | | | | | × | × | | × | | × | | | × | | × | × | × | | | | × | | | × | | Part-time | |
| | | | | × | × | | × | | | × | × | | × | × | × | × | × | | | × | | × | × | × | × | | | × | | × | × | | < 35 miles | Base hospital proximity |
| × | × | × | | | × | × | | × | × | × | | × | | | | | × | × | | × | | | | | × | × | | × | | × | × | ⩾ 35 miles | |
| × | × | × | × | × | × | × | | | | × | × | × | | | | × | | | × | | × | × | × | | | × | | | | × | | < 5000 bed days | Work load (per annum) |
| | | | | | | | × | × | × | | | | × | × | × | | × | × | | × | | | | × | × | | × | × | × | | × | ⩾ 5000 bed days | |
| × | × | | × | × | | × | × | × | | | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | Yes | Town community pharmacy |
| | | × | | | × | | | | | × | | | | | | | | | | | | | | × | | | | | | | | No | |
| × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × | Yes | Town resident doctor |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | No | |
| | | | × | | | × | × | | | × | | × | × | × | × | | × | × | × | × | | | | × | × | × | × | × | × | | × | | < 10 days | Length of patient hospital stay |
| × | × | × | | × | × | | | × | × | × | | × | | | | × | | | | | × | × | × | | | | | | × | | × | | ⩾ 10 days | |
| × | × | × | × | × | × | × | × | | × | × | × | × | | | | × | × | × | × | × | × | × | × | × | × | × | × | × | | × | × | × | Traditional | Hospital pharmaceutical patient care service classification |
| | | | | | | | | × | | | | | | | | | | | | | | | | | | | | | | | | | Regional | |
| | | | | | | | | | | | | | × | × | × | | | | | | | | | | | | | | × | | | | Sessional | |
| | | | | | | | | × | | | | | | × | | | | × | | | | | | | | | | | × | | | | Yes | Accreditation status |
| × | × | × | × | × | × | × | × | | × | × | × | × | × | | × | × | × | | × | × | × | × | × | × | × | × | × | × | | × | × | × | No | |

| Hospital code number | Manager status | | Base hospital proximity | | Work load (per annum) | | Town community pharmacy | | Town resident doctor | | Length of patient hospital stay | | Hospital pharmaceutical patient care service classification | | | Accreditation status | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Full-time | Part-time | < 35 miles | ⩾35 miles | <5000 bed days | ⩾5000 bed days | Yes | No | Yes | No | <10 days | ⩾10 days | Traditional | Regional | Sessional | Yes | No |
| 100 | | x | | x | x | | x | | x | | | x | x | | | | x |
| 101 | | x | | x | | x | x | | x | | | | x | | | | x |
| 102 | | x | x | | x | | | x | | x | | x | x | | | | x |
| 103 | x | | | x | x | | x | | x | | x | | x | | | | x |
| 104 | | x | | x | x | | x | | x | | x | | x | | | | x |
| 105 | | x | x | | x | | x | | x | | | x | x | | | | x |
| 106 | | x | | x | x | | x | | x | | | | x | | | | x |
| 107 | | x | | x | x | | x | | x | | | | x | | | | x |
| 108 | | x | | x | x | | x | | x | | | | x | | | | x |
| 109 | | x | | x | x | | x | | x | | | | x | | | | x |
| 110 | | x | | x | x | | | x | x | | | | x | | | | x |
| 111 | x | | | x | | x | x | | x | | | | x | | | | x |
| 112 | | x | | x | x | | | x | x | | | | x | | | | x |
| 113 | x | | | x | x | | x | | x | | | | x | | | | x |
| 114 | x | | | x | | x | x | | x | | | | x | | | | x |
| 115 | | x | | x | x | | x | | | x | | | x | | | | x |
| 116 | | x | | x | x | | | x | | x | | | x | | | | x |
| 117 | | x | | x | x | | x | | x | | | | x | | | | x |
| 118 | x | | x | | x | | x | | x | | | | x | | | | x |
| 119 | x | | | x | x | | x | | x | | | | x | | | | x |
| 120 | | x | | x | x | | x | | x | | | | x | | | | x |
| 121 | | x | x | | x | | x | | x | | | | x | | | | x |
| 122 | | x | | x | x | | x | | | x | | | x | | | | x |
| 123 | x | | | x | x | | x | | x | | | | x | | | | x |
| 124 | x | | | x | x | | x | | x | | | | x | | | | x |
| 125 | | x | x | | x | | x | | x | | | | x | | | | x |
| 126 | | x | | x | x | | x | | x | | | | x | | | | x |
| 127 | | x | | x | x | | | x | | x | | | x | | | | x |
| 128 | | x | | x | x | | | x | | x | | | x | | | | x |
| 129 | | x | | x | x | | | x | x | | | | x | | | | x |
| 130 | | x | | x | x | | x | | x | | | | x | | | | x |
| 131 | x | | | x | x | | x | | x | | | | x | | | | x |
| 132 | | x | | x | x | | x | | x | | | | x | | | | x |

# APPENDIX B

## QUESTIONNAIRE CIRCULATION

### ASSOCIATIONS, ORGANISATIONS AND AUTHORITIES

The Royal Australian Nursing Federation (Victorian branch)
431 St. Kilda Rd., Melbourne 3000

The Association of Directors of Nursing, Victoria
c/o Miss J.D. Newton
Preston and Northcote Community Hospital
Preston Victoria 3072

The Society of Hospital Pharmacists of Australia (Victorian branch)
P.O. Box 1233L, G.P.O. Melbourne 3001

The Pharmaceutical Society of Victoria
381 Royal Parade, Parkville Victoria 3052

The Hospitals and Charities Commission (Pharmacy Consultant)
555 Collins St. Melbourne Victoria 3000

The Victorian Bush Nursing Association
130 Little Collins St Melbourne 3000

The Australian Institute of Hospital Administrators (Victorian branch)
c/o the Royal Childrens Hospital
Parkville Victoria 3052

The Royal Australian College of General Practitioners (Victorian faculty)
Trawalla, 22 Lascelles Ave. Toorak Victoria 3142

The Department of Health (Poisons Division)
555 Collins St. Melbourne 3000

The Australian Council on Hospital Standards
P.O. Box 144, St. Leonards New South Wales 2065

The Victorian Hospitals Association
Miles St. Mulgrave Victoria 3170

45 Pope Rd
Blackburn Victoria
3130
9/6/78

Dear

I am writing to seek your assistance concerning a project that I am undertaking, titled 'Pharmacy practice and small Victorian hospitals', in order to fulfil the requirements for the Master's degree in Health Administration from the University of New South Wales.

The project covers many areas including community pharmacy practice, hospital pharmacy practice, the Victorian hospital system, professionalism and professional associations, acts and regulations related to these services in small hospitals, and an analysis of current practice. This writer stands in a neutral position and equal emphasis is being placed upon all possible service providers in small Victorian hospitals.

I would be most grateful if you could fill out the attached questionnaire on behalf of your organisation, and return it in the stamped/ self addressed envelope.

The questions relate retrospectively to a time period that will be governed by your own memory and by the records of your organisation. I am most interested in activities dating from 1972 onwards; however if you can supply any information at all, even if only related to the preceding twelve months then I would be most indebted to you.

The information supplied in the questionnaire answers will remain strictly confidential. The project supervisor is Dr. John Dewdney (see attached document) from the School of Health Administration.

Thanking you in anticipation,
Yours sincerely,

Lindsay ALLAN

The following questions specifically relate to pharmaceutical (patient care) services in small Victorian hospitals, with daily bed average of less than sixty. This population of hospitals includes both public and bush nursing hospitals.

DEFINITION -Pharmaceutical service (in a small hospital)

This encompasses the handling, storage, preparation and distribution (within the hospital) of all pharmaceutical and medicinal preparations from the time they are delivered to the hospital until the time just prior to their use-administered to inpatients, or used for the care of inpatients in the hospital. This service also includes, the actions of people necessary for the maintenance of the service. These service facilitators and providers could include any of the following: the general practitioner, the community pharmacist, the hospital's nursing staff, the hospital manager, and the regional hospital pharmacist, where appropriate.

INFORMATION CODE

Please utilise the following reference numbers where indicated.

1. The Royal Australian Nursing Federation. (Victorian Branch)
2. The Association of Directors of Nursing of Victoria.
3. The Society of Hospital Pharmacists of Australia. (Victorian Branch)
4. The Pharmaceutical Society of Victoria.
5. The Hospitals and Charities Commission.
6. The Victorian Bush Nursing Association.
7. The Australian Institute of Hospital Administrators. (Victorian Branch)
8. The Royal Australian College of General Practitioners.(Victorian Faculty)
9. The Department of Health. (Poisons Division)
10. The Australian Council on Hospital Standards.
11. The Victorian Hospitals Association.

All questions relate to pharmaceutical services in small Victorian hospitals.

Please tick the appropriate box.

| YES | NO | |
|---|---|---|
| | | Q 1a. Has your organisation initiated and undertaken any correspondence with; |
| ☐ | ☐ | - any of the listed associations or organisations ? if your answer was YES, could you list these by code number: No. ..... |
| ☐ | ☐ | - any small Victorian hospital ? |
| ☐ | ☐ | - any country community (retail) pharmacy ? |
| ☐ | ☐ | - any country general practitioner ? |
| | | Q 1b. Has your organisation initiated and formed any committees involving; |
| ☐ | ☐ | - members of your own association/ organisation ? |
| ☐ | ☐ | - members of your own and other associations/ organisations ? if your answer was YES, could you list these by code number: No. ..... |
| | | Q 2a. Has your organisation received any correspondence from; |
| ☐ | ☐ | - any of the listed associations or organisations ? if your answer was YES, could you list these by code number: No. ..... |
| ☐ | ☐ | - any small Victorian hospital ? |
| ☐ | ☐ | - any Victorian base hospital ? |
| ☐ | ☐ | - any country community (retail) pharmacy ? |
| ☐ | ☐ | - any country general practitioner ? |
| | | Q 2b. Has your organisation ever been invited to participate on committees established by; |
| ☐ | ☐ | - any of the listed associations or organisations ? if your answer was YES, could you list these by code number: No. ..... |

All questions relate to pharmaceutical services in small Victorian hospitals. Please tick the appropriate box.

| YES | NO | |
|---|---|---|
| ☐ | ☐ | Q 3a. Has your organisation formulated written policies related to pharmaceutical services in small hospitals where full-time pharmacists are not employed ? |
| | | if your answer was YES, please continue: |
| | | Has your organisation ever communicated these written policies to; |
| ☐ | ☐ | - any of the listed associations or organisations ? |
| | | if your answer was YES, could you list these by code number: No. ..... |
| ☐ | ☐ | - any small Victorian hospital ? |
| ☐ | ☐ | - any Victorian base hospital ? |
| ☐ | ☐ | - any country community (retail) pharmacy ? |
| ☐ | ☐ | - any country general practitioner ? |
| | | Q 3b. |
| | | Has your organisation received any written policy statements from; |
| ☐ | ☐ | - any of the listed associations or organisations ? |
| | | if your answer was YES, could you list these by code number: No. ..... |

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# APPENDIX C

## STATISTICS

### PUBLIC AND BUSH NURSING HOSPITALS- A COMPARISON

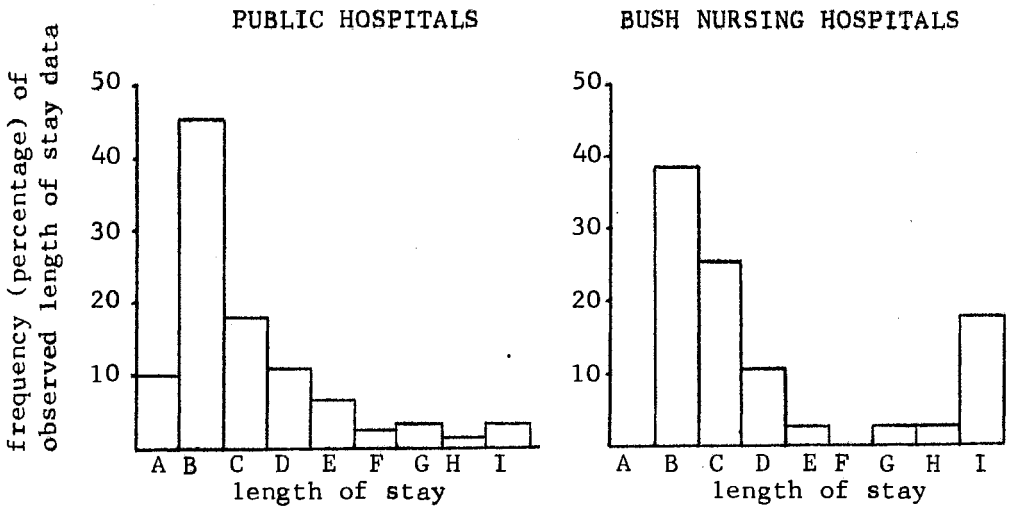
Source documents for hospital activity statistics are the 1975-76 annual reports of the Hospitals and Charities Commission and the Victorian Bush Nursing Association.

(a) Length of patient stay.

Average length of stay frequency table for small public and bush nursing hospitals.

| Length of patient stay class interval (days) | | Hospital category | | | |
|---|---|---|---|---|---|
| | | Public | | Bush nursing | |
| | | Frequency | % | Frequency | % |
| A | 0 - 4 | 9 | 9.7 | 0 | 0 |
| B | 5 - 9 | 42 | 45.2 | 15 | 38.5 |
| C | 10 - 14 | 17 | 18.3 | 10 | 25.6 |
| D | 15 - 19 | 10 | 10.8 | 4 | 10.3 |
| E | 20 - 24 | 6 | 6.4 | 1 | 2.6 |
| F | 25 - 29 | 2 | 2.1 | 0 | 0 |
| G | 30 - 34 | 3 | 3.2 | 1 | 2.6 |
| H | 35 - 39 | 1 | 1.1 | 1 | 2.6 |
| I | 40 and above | 3 | 3.2 | 7 | 17.8 |

Histograms of the distribution of length of stay data for small public and bush nursing hospitals.




These histograms are skewed to the right and each has the same modal interval. Hospitals with length of stay of less than fifty days are considered; this range excluding five bush nursing hospitals and one

public hospital. Another two public hospitals treated no inpatients. A significance test carried out between the two sample means for length of stay of public and bush nursing hospitals revealed that there is no significant difference between each hospital sample at the .05 probability level.

Ungrouped length of stay data for public and bush nursing hospitals in the survey population. (length of stay = days)

| Measure | Public | Bush nursing | Population |
|---|---|---|---|
| Sample size (n) | 90 | 34 | 124 (N) |
| Sum of the variables ($x_i$) | 1053.1 | 479.6 | 1532.7 |
| Mean | 11.7 ($\bar{x}$) | 14.1 ($\bar{x}$) | 12.4 (u) |
| Median | 9.1 | 11.2 | 9.8 |

| | |
|---|---|
| Sum of the square of the variables ($\Sigma x_i^2$) | 27,186 |
| Standard deviation ($\sigma$) | 8.2 |
| $\sigma_{(x_p - x_{bn})}$ | 1.65 |
| z value | 1.47 |

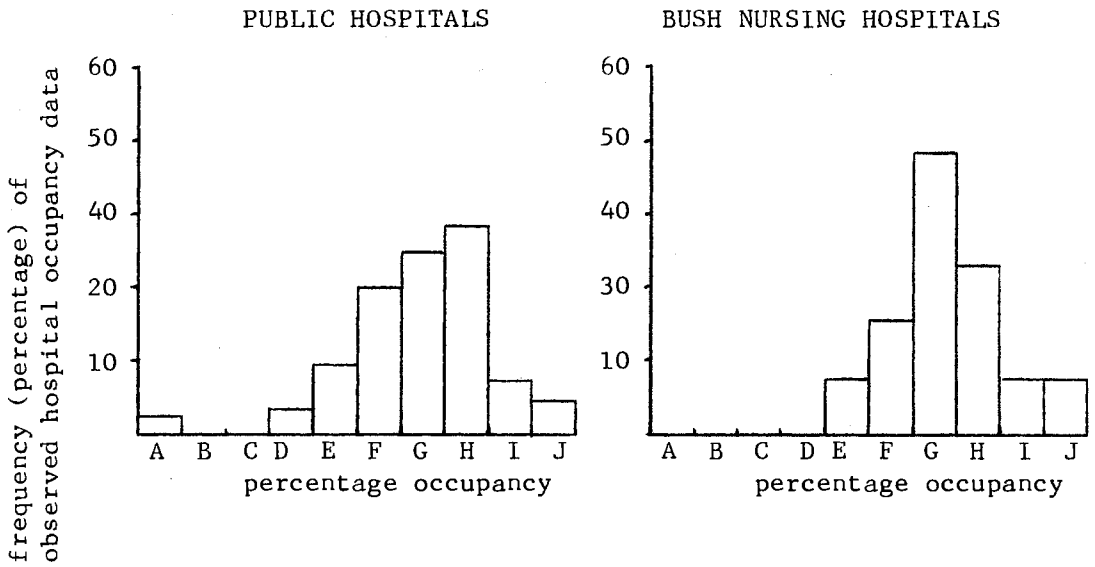
(b) Hospital bed occupancy.

Average percentage occupancy frequency table for small public and bush nursing hospitals.

| Percentage occupancy class interval | Hospital category | | | |
|---|---|---|---|---|
| | Public* | | Bush nursing | |
| | Frequency | % | Frequency | % |
| A 0 - 9 | 2 | 2.6 | 0 | 0 |
| B 10 - 19 | 0 | 0 | 0 | 0 |
| C 20 - 29 | 0 | 0 | 0 | 0 |
| D 30 - 39 | 3 | 3.5 | 0 | 0 |
| E 40 - 49 | 8 | 9.4 | 3 | 7.6 |
| F 50 - 59 | 17 | 20.0 | 6 | 15.4 |
| G 60 - 69 | 21 | 24.7 | 15 | 38.5 |
| H 70 - 79 | 24 | 28.2 | 9 | 23.1 |
| I 80 - 89 | 6 | 7.1 | 3 | 7.7 |
| J 90 and above | 4 | 4.7 | 3 | 7.7 |

(*metropolitan hospitals excluded)

Histograms of the distribution of occupancy data for small public and bush nursing hospitals.




These histograms show the characteristics associated with a normal distribution. A test of significance carried out between the two sample means of hospital occupancy for public and bush nursing hospitals revealed that there is no significance difference between each hospital sample at the .05 probability level.

Ungrouped occupancy data for public and bush nursing hospitals. (occupancy = average daily bed census per annum as a % of total beds)

| Measure | Public | Bush nursing | Population |
|---|---|---|---|
| Sample size (n) | 93 | 39 | 132 (N) |
| Sum of the variables ($x_i$) | 5983 | 2643 | 8626 |
| Mean | 64.3 ($\bar{x}$) | 67.8 ($\bar{x}$) | 65.3 (u) |
| Median | 65.8 | 66.8 | 66.0 |

| | |
|---|---|
| Sum of the square of the variables ($\Sigma x_i^2$) | 608,332 |
| Standard deviation ($\sigma$) | 18.4 |
| $\sigma_{(x_p - x_{bn})}$ | 3.51 |
| z value | .98 |

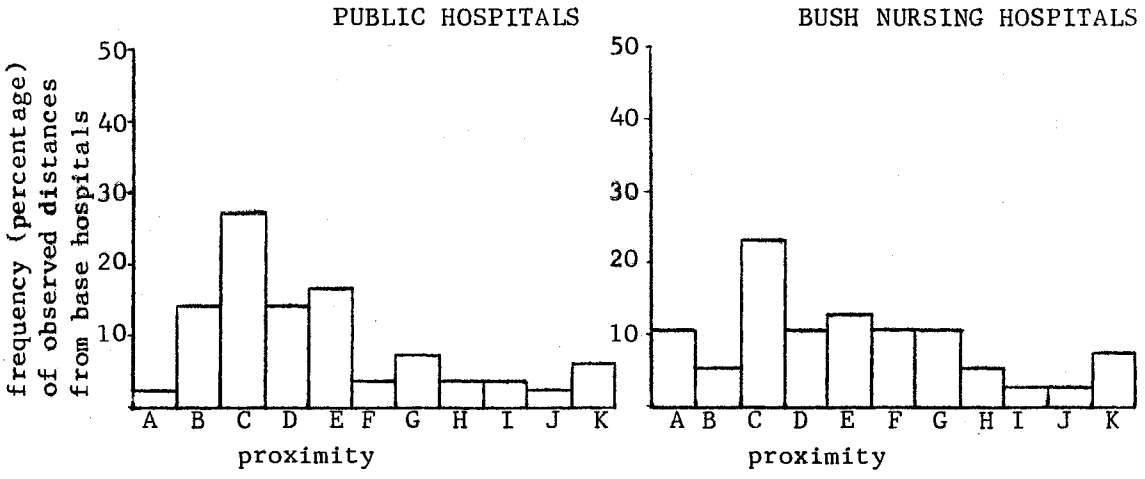
(c) Proximity to other hospital facilities.

Proximity of small public and bush nursing hospitals to Victorian base hospitals.

| Distance from Victorian base* hospitals (miles) class interval | | Hospital category | | | |
|---|---|---|---|---|---|
| | | Public** | | Bush nursing | |
| | | Frequency | % | Frequency | % |
| A | 0 - 9 | 2 | 2.3 | 4 | 10.3 |
| B | 10 - 19 | 12 | 14.1 | 2 | 5.1 |
| C | 20 - 29 | 23 | 27.1 | 9 | 23.1 |
| D | 30 - 39 | 12 | 14.1 | 4 | 10.3 |
| E | 40 - 49 | 14 | 16.5 | 5 | 12.8 |
| F | 50 - 59 | 3 | 3.5 | 4 | 10.3 |
| G | 60 - 69 | 6 | 7.1 | 4 | 10.3 |
| H | 70 - 79 | 3 | 3.5 | 2 | 5.1 |
| I | 80 - 89 | 3 | 3.5 | 1 | 2.6 |
| J | 90 - 99 | 2 | 2.3 | 1 | 2.6 |
| K | 100 and above | 5 | 6.0 | 3 | 7.5 |

(* the South and West Gippsland region includes Warragul and Moe hospitals)
(** excludes metropolitan hospitals)

Histograms of the distribution of small public and bush nursing hospital proximity to Victorian base hospitals.




The frequency distribution covers the entire range of class intervals. Class intervals C, D and E represent the highest frequencies. A test of significance carried out between the sample means of proximity of public and bush nursing hospitals to neighbouring Victorian base hospitals revealed that there is no significant difference between each sample of hospitals at the .05 probability level.

Ungrouped proximity data (miles) for public and bush nursing hospital locations with respect to Victorian base hospitals.

| Measure | Public | Bush nursing | Population |
|---|---|---|---|
| Sample size (n) | 85 | 39 | 124 (N) |
| Sum of the variables ($x_i$) | 1799 | 3655 | 5454 |
| Mean | 43.0 ($\bar{x}$) | 46.1 ($\bar{x}$) | 44.0 (u) |
| Median | 40 | 37 | 37 |

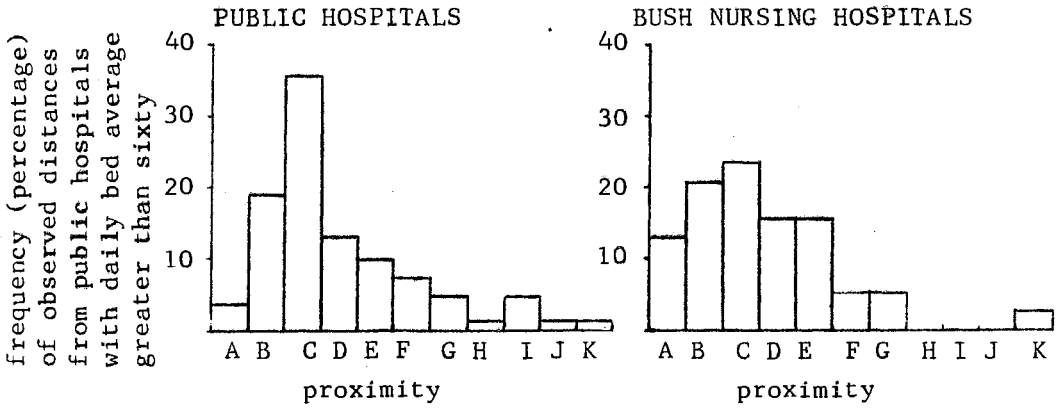
| | |
|---|---|
| Sum of the square of the variables ($\Sigma x_i^2$) | 345,244 |
| Standard deviation ($\sigma$) | 29.1 |
| $\sigma_{(\bar{x}_p - \bar{x}_{bn})}$ | 5.6 |
| z value | .58 |

Proximity of small public and bush nursing hospitals to Victorian base hospitals, or district hospitals with daily bed average greater than sixty.

| Distance from Victorian base hospitals and district hospitals with daily bed average more than sixty class interval(miles)* | Hospital category | | | |
|---|---|---|---|---|
| | ** Public | | Bush nursing | |
| | Frequency | % | Frequency | % |
| A 0 - 9 | 3 | 3.5 | 5 | 12.8 |
| B 10 - 19 | 16 | 18.8 | 8 | 20.5 |
| C 20 - 29 | 30 | 35.3 | 9 | 23.1 |
| D 30 - 39 | 11 | 12.9 | 6 | 15.4 |
| E 40 - 49 | 8 | 9.4 | 6 | 15.4 |
| F 50 - 59 | 6 | 7.1 | 2 | 5.1 |
| G 60 - 69 | 4 | 4.7 | 2 | 5.1 |
| H 70 - 79 | 1 | 1.2 | 0 | 0 |
| I 80 - 89 | 4 | 4.7 | 0 | 0 |
| J 90 - 99 | 1 | 1.2 | 0 | 0 |
| K 100 and above | 1 | 1.2 | 1 | 2.6 |

(*whichever facility is closer) (** excludes metropolitan hospitals)

Histograms of the distribution of small public and bush nursing hospital proximity to Victorian base hospitals, or district hospitals with daily bed average greater than sixty.



Significance testing revealed that the sample means of the proximity of public and bush nursing hospitals to other public hospitals with daily bed average greater than sixty are not significantly different at the .05 probability level.

The latter two histogram presentations show for;

(i) public hospitals

- the frequency distribution has shifted to the left;
- the mean distance in miles has fallen from 43.0 to 34.8;
- and the modal interval remains the same.

(ii) bush nursing hospitals

- the frequency distribution has shifted to the left;
- the mean distance in miles has fallen from 46.1 to 32.6;
- and the modal interval remains the same.

Ungrouped proximity data (miles) for public and bush nursing hospital locations with respect to other Victorian public hospitals with daily bed average greater than sixty.

| Measure | Public | Bush nursing | Population |
|---|---|---|---|
| Sample size (n) | 85 | 39 | 124 (N) |
| Sum of the variables ($x_i$) | 2962 | 1270 | 4232 |
| Mean | 34.8 ($\bar{x}$) | 32.6 ($\bar{x}$) | 34.1 (u) |
| Median | 30 | 28 | 29.5 |

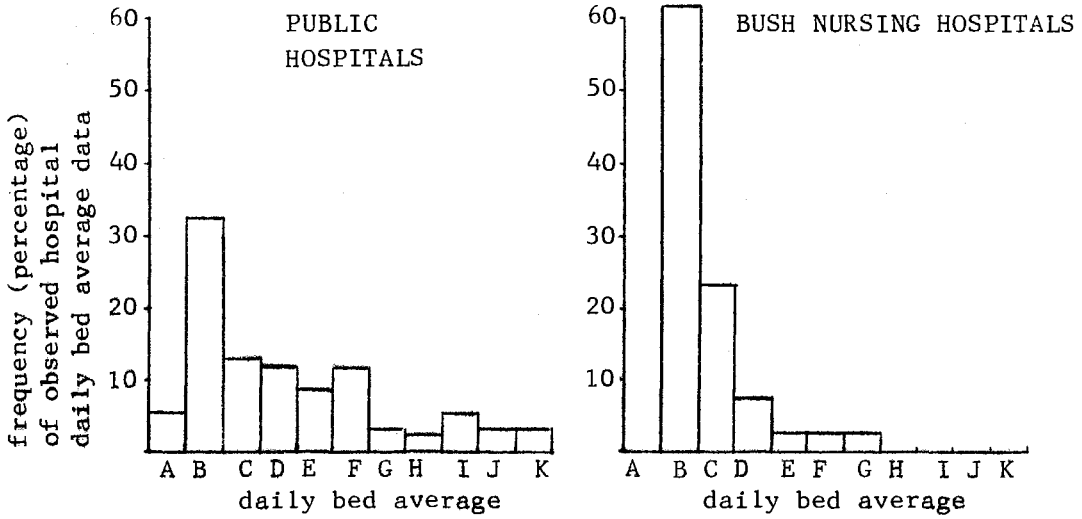
| | |
|---|---|
| Sum of the square of the variables ($\Sigma x_i^2$) | 203,344 |
| Standard deviation ($\sigma$) | 21.8 |
| $\sigma(x_p - x_{bn})$ | 4.2 |
| z value | .54 |

(d) Hospital daily bed average.

Daily bed average of small public and bush nursing hospitals.

| Daily bed average class interval | Hospital category | | | |
|---|---|---|---|---|
| | Public | | Bush nursing | |
| | Frequency | % | Frequency | % |
| A 0 - 4 | 5 | 5.4 | 0 | 0 |
| B 5 - 9 | 30 | 32.3 | 24 | 61.5 |
| C 10 - 14 | 12 | 12.9 | 9 | 23.1 |
| D 15 - 19 | 11 | 11.8 | 3 | 7.7 |
| E 20 - 24 | 8 | 8.6 | 1 | 2.6 |
| F 25 - 29 | 11 | 11.8 | 1 | 2.6 |
| G 30 - 34 | 3 | 3.2 | 1 | 2.6 |
| H 35 - 39 | 2 | 2.2 | 0 | 0 |
| I 40 - 44 | 5 | 5.4 | 0 | 0 |
| J 45 - 49 | 3 | 3.2 | 0 | 0 |
| K 50 and above | 3 | 3.2 | 0 | 0 |

Histograms of the distribution of daily bed average for small public and bush nursing hospitals.




A test of significance carried out between the two sample means for daily bed average of small public and bush nursing hospitals revealed that the two sample means are significantly different at the .05 probability level.

Ungrouped daily bed average data for public and bush nursing hospitals in the survey population.

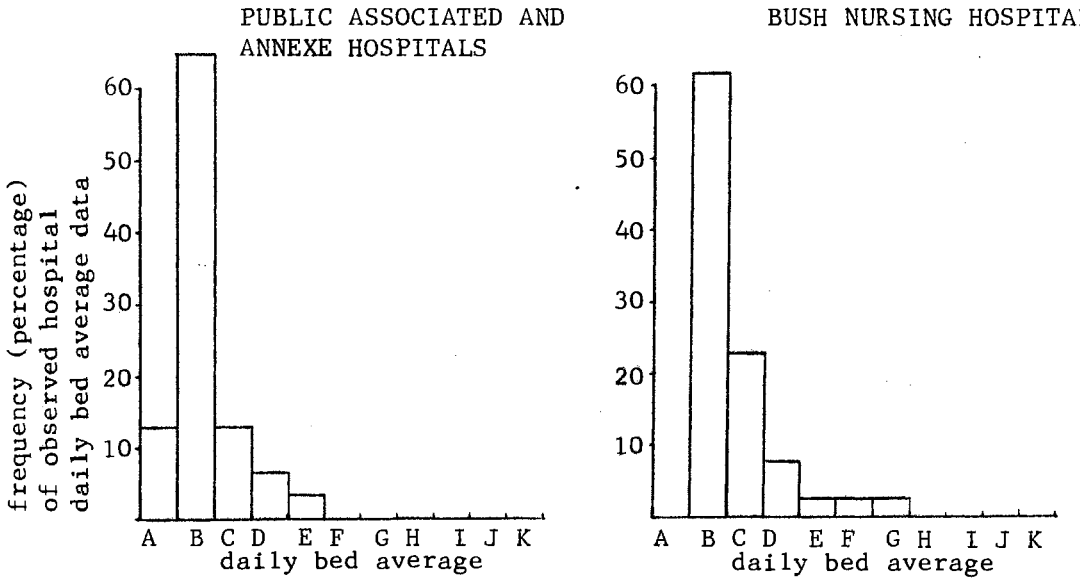
| Measure | Public | Bush nursing | Population |
|---|---|---|---|
| Sample size (n) | 93 | 39 | 132 (N) |
| Sum of the variables ($x_i$) | 1737.4 | 326.2 | 2063.6 |
| Mean | 18.68 ($\bar{x}$) | 8.36 ($\bar{x}$) | 15.63 (u) |
| Median | 14.5 | 9.2 | 10.8 |

| | |
|---|---|
| Sum of the square of the variables ($\Sigma x_i^2$) | 54,561.7 |
| Standard deviation ($\sigma$) | 13.0 |
| $\sigma_{(x_p - x_{bn})}$ | 2.48 |
| z value | 4.16 |

Daily bed average of small public associated and annexe hospitals, and bush nursing hospitals.

| Daily bed average class interval | Hospital category | | | |
|---|---|---|---|---|
| | Public (annexe and associated) | | Bush nursing | |
| | Frequency | % | Frequency | % |
| A 0 - 4 | 4 | 12.9 | 0 | 0 |
| B 5 - 9 | 20 | 64.5 | 24 | 61.5 |
| C 10 - 14 | 4 | 12.9 | 9 | 23.0 |
| D 15 - 19 | 2 | 6.5 | 3 | 7.7 |
| E 20 - 24 | 1 | 3.2 | 1 | 2.6 |
| F 25 - 29 | 0 | 0 | 1 | 2.6 |
| G 30 - 34 | 0 | 0 | 1 | 2.6 |
| H 35 - 39 | 0 | 0 | 0 | 0 |
| I 40 - 44 | 0 | 0 | 0 | 0 |
| J 45 - 49 | 0 | 0 | 0 | 0 |
| K 50 and above | 0 | 0 | 0 | 0 |

Histograms of the distribution of daily bed average for small public associated and annexe hospitals, and bush nursing hospitals.



A test of significance carried out between the two sample means for daily bed average of small public associated and annexe hospitals, and bush nursing hospitals revealed that there is no significance difference between these hospital samples at the .05 level of probability. This confirms that the daily bed average data for bush nursing hospitals is more akin with the group of smaller public hospitals. The significant difference elucidated in the former test was expected due to the weighting of public hospitals in higher daily bed average class intervals. Between daily bed average of 16.0 and 59.9, four bush nursing hospitals and forty three public hospitals are represented.

Ungrouped daily bed average data for public associated and annexe hospitals, and bush nursing hospitals in the survey population.

| Measure | Public | Bush nursing | Population |
|---|---|---|---|
| Sample size (n) | 31 | 39 | 132 (N) |
| Sum of the variables ($x_i$) | 264.9 | 326.2 | 2063.6 |
| Mean | 8.55 ($\bar{x}$) | 8.36 ($\bar{x}$) | 15.63 (u) |
| Median | 7.9 | 9.2 | 10.8 |

| | |
|---|---|
| Sum of the square of the variables ($\Sigma x_i^2$) | 54,561.7 |
| Standard deviation ($\sigma$) | 13.0 |
| $\sigma_{(x_p - x_{bn})}$ | 3.13 |
| z value | .06 |

STATISTICAL DATA RELATED TO TABLE 10.4

Mean pharmaceutical service score

| Measure | Hospital category | | |
|---|---|---|---|
| | Public | Bush nursing | Population |
| Sample size (n) | 85 | 35 | 120 (N) |
| Sum of the square of the variables ($\Sigma x_i^2$) | 73,692.6 | 28,151.2 | 101,843.8 |
| Mean score | 29.29 ($\bar{x}$) | 28.18 ($\bar{x}$) | 28.97 (u) |
| Standard deviation ($\sigma$) | 2.97 | 3.20 | 3.07 |

Mean structure score

| | | | |
|---|---|---|---|
| Sample size (n) | 85 | 35 | 120 (N) |
| Sum of the square of the variables ($\Sigma x_i^2$) | 7,815.9 | 2,879.2 | 10,695.1 |
| Mean score | 9.41 ($\bar{x}$) | 8.89 ($\bar{x}$) | 9.26 (u) |
| Standard deviation ($\sigma$) | 1.85 | 1.82 | 1.86 |

Mean process score

| | | | |
|---|---|---|---|
| Sample size (n) | 85 | 35 | 120 (N) |
| Sum of the square of the variables ($\Sigma x_i^2$) | 33,882.9 | 13,194.4 | 47,077.3 |
| Mean score | 19.87 ($\bar{x}$) | 19.31 ($\bar{x}$) | 19.71 (u) |
| Standard deviation ($\sigma$) | 1.94 | 2.03 | 1.98 |

STATISTICAL DATA RELATED TO TABLE 10.4

| Code | Sample n or $\gamma$ | Pharmaceutical service score | | | Structure score | | | Process score | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Statistic | Probability range | Null hypothesis | Statistic | Probability range | Null hypothesis | Statistic | Probability range | Null hypothesis |
| a1 | n=59 | Z = .25 | Z < 1.64 | accept | Z = .82 | Z < 1.64 | accept | Z = .77 | Z < 1.64 | accept |
| a2 | n=61 | - | - | accept | Z = .41 | Z < 1.64 | accept | Z = .78 | Z < 1.64 | accept |
| * | | Z = .03 | Z < 1.64 | accept | Z = .16 | Z < 1.64 | accept | Z = .15 | Z < 1.64 | accept |
| b1 | n=70 | Z = 1.36 | Z < 1.64 | accept | Z = 1.35 | Z < 1.64 | accept | Z = .80 | Z < 1.64 | accept |
| b2 | n=50 | Z = 1.38 | Z < 1.64 | accept | Z = 1.14 | Z < 1.64 | accept | Z = 1.07 | Z < 1.64 | accept |
| * | | Z = .34 | Z < 1.64 | accept | Z = .32 | Z < 1.64 | accept | Z = .25 | Z < 1.64 | accept |
| c1 | n=85 | Z = .90 | Z < 1.64 | accept | Z = .50 | Z < 1.64 | accept | Z = .90 | Z < 1.64 | accept |
| c2 | n=35 | Z = 1.54 | Z < 1.64 | accept | Z = 1.27 | Z < 1.64 | accept | Z = 1.20 | Z < 1.64 | accept |
| * | | Z = .36 | Z < 1.64 | accept | Z = .27 | Z < 1.64 | accept | Z = .30 | Z < 1.64 | accept |
| d1 | n=63 | Z = .51 | Z < 1.64 | accept | Z = .40 | Z < 1.64 | accept | Z = .40 | Z < 1.64 | accept |
| d2 | n=57 | Z = .70 | Z < 1.64 | accept | Z = .80 | Z < 1.64 | accept | Z = .38 | Z < 1.64 | accept |
| * | | Z = .16 | Z < 1.64 | accept | Z = .16 | Z < 1.64 | accept | Z = .10 | Z < 1.64 | accept |
| e1 | n=52 | Z = 1.17 | Z < 1.64 | accept | Z = 1.62 | Z < 1.64 | accept | Z = .36 | Z < 1.64 | accept |
| e2 | n=60 | Z = 1.26 | Z < 1.64 | accept | Z = 1.70 | Z $\geqslant$ 1.64 | reject | Z = .39 | Z < 1.64 | accept |
| * | | Z = .33 | Z < 1.64 | accept | Z = .48 | Z < 1.64 | accept | Z = .10 | Z < 1.64 | accept |
| f1 | $\gamma$=7 | t = .20 | t < .50 | accept | - | - | accept | t = .27 | t < .50 | accept |
| f2 | n=112 | - | - | accept | - | - | accept | - | - | accept |
| * | $\gamma$=118 | t = .18 | t < .50 | accept | - | - | accept | t = .13 | t < .50 | accept |
| g1 | n=105 | - | - | accept | Z = .55 | Z < 1.64 | accept | Z = .51 | Z < 1.64 | accept |
| g2 | $\gamma$=14 | - | - | accept | t = .80 | .50<t<.10 | accept | t = .75 | .50<t<.10 | accept |
| * | $\gamma$=118 | - | - | accept | t = .59 | t < .50 | accept | t = .91 | .50<t<.10 | accept |

(* Paired analysis) (In the statistical tables used as $\gamma \to \infty$, at the .10 probability level t=1.645.)

STATISTICAL DATA RELATED TO TABLE 10.4

| Code | Sample n or $\delta$ | Pharmaceutical service score | | | Structure score | | | Process score | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Statistic | Probability range | Null hypothesis | Statistic | Probability range | Null hypothesis | Statistic | Probability range | Null hypothesis |
| h1 | n=35 | Z = .96 | Z < 1.64 | accept | Z = .95 | Z < 1.64 | accept | Z = .59 | Z < 1.64 | accept |
| h2 | n=85 | Z = .60 | Z < 1.64 | accept | Z = .50 | Z < 1.64 | accept | Z = .46 | Z < 1.64 | accept |
| * | | Z = .22 | Z < 1.64 | accept | Z = .22 | Z < 1.64 | accept | Z = .15 | Z < 1.64 | accept |
| i1 | n=85 | Z = 1.20 | Z < 1.64 | accept | Z = 1.50 | Z < 1.64 | accept | Z = .46 | Z < 1.64 | accept |
| i2 | $\delta$ = 2 | t = .69 | t < .50 | accept | t = .88 | .5 < t < .1 | accept | t = .21 | t < .50 | accept |
| * | $\delta$ =86 | t = .82 | .5 < t < .1 | accept | t = .17 | t < .50 | accept | t = .61 | t < .50 | accept |
| j1 | $\delta$ = 9 | t = 1.31 | t < .10 | accept | t = 1.25 | t < .50 | accept | t = .82 | t < .50 | accept |
| j2 | $\delta$ = 4 | t = 1.15 | t < .10 | accept | t = .21 | t < .50 | accept | t = 2.33 | .10 < t < .05 | reject |
| * | $\delta$ =13 | t = .23 | t < .50 | accept | t = .17 | t < .50 | accept | t = .27 | t < .50 | accept |
| k1 | $\delta$ =14 | t = 2.33 | .05 < t < .02 | reject | t = 1.80 | .10 < t < .05 | reject | t = 2.07 | .10 < t < .05 | reject |
| k2 | n=70 | - | - | accept | - | - | accept | - | - | accept |
| * | $\delta$ =83 | t = .62 | t < .50 | accept | t = .48 | t < .50 | accept | t = .56 | t < .50 | accept |
| k3 | | as for c2 | - | - | as for c2 | - | - | as for c2 | - | - |
| L1 | $\delta$ =16 | t = 2.88 | .02 < t < .01 | reject | t = 2.91 | .02 < t < .01 | reject | t = 1.82 | .1 < t < .05 | reject |
| L2 | n=103 | Z = 1.30 | Z < 1.64 | accept | Z = 1.63 | Z < 1.64 | accept | Z = .50 | Z < 1.64 | accept |
| * | $\delta$ =118 | t = .34 | t < .50 | accept | t = .65 | t < .50 | accept | t = .19 | t < .50 | accept |
| m1 | $\delta$ = 6 | t = .08 | t < .50 | accept | t = .26 | t < .50 | accept | t = .25 | t < .50 | accept |
| m2 | $\delta$ = 9 | t = 3.70 | .01 < t < .001 | reject | t = 3.95 | .01 < t < .001 | reject | t = 2.12 | .1 < t < .05 | reject |
| * | $\delta$ =15 | t = .25 | t < .50 | accept | t = .49 | t < .50 | accept | t = .38 | t < .50 | accept |
| n1 | $\delta$ = 7 | t = 3.30 | .02 < t < .01 | reject | t = 2.87 | .05 < t < .02 | reject | t = 2.41 | .05 < t < .02 | reject |
| n2 | $\delta$ = 6 | t = .24 | t < .50 | accept | t = .66 | t < .50 | accept | t = .25 | t < .50 | accept |
| * | $\delta$ =13 | t = .26 | t < .50 | accept | t = .48 | t < .50 | accept | t = .15 | t < .50 | accept |

(* Paired analysis) (In the statistical tables used as $\delta \to \infty$, at the .10 probability level t=1.645.)

# APPENDIX D

## ACKNOWLEDGEMENTS

I wish the acknowledge the sincere support given by the managers, secretaries and matrons of public and bush nursing hospitals opting to participate in the questionnaire survey.

I am indebted to the secretaries of the eleven associations, organisations and authorities for responding to the questionnaire that formed the skeleton of Chapter Eight.

I wish to thank Mr E.W.R. Grace and Sr. Maureen Walters for consent to use St. Vincent's Hospital printing facilities for the production of the hospital questionnaire.

I am grateful for the comments and time spent on reading draft material by the project supervisors Professor J.C.H. Dewdney and Professor G.R. Palmer, School of Health Administration, University of New South Wales.

## LETTERS OF TRANSMISSION

I am indebted to the pharmacy, nursing and administrative professional associations for responding to my request for support, by supplying the following communications that were included in the hospital questionnaire circulation. I also wish to thank the Victorian Bush Nursing Association for their letter of support.

THE UNIVERSITY OF NEW SOUTH WALES

P.O. BOX 1 • KENSINGTON • NEW SOUTH WALES • AUSTRALIA • 2033
TELEX AA26054 • TELEGRAPH: UNITECH, SYDNEY • TELEPHONE 663 0351
EXTN. 2177

PLEASE QUOTE
JD.MW

SCHOOL OF HEALTH ADMINISTRATION

7th December, 1977.

TO WHOM IT MAY CONCERN:

Mr. Lindsay C. Allan.

Mr. Allan is a candidate for the degree of Master of Health Administration in this School.

In order to qualify for the award of this degree he is required to complete a research project in some area of health service or hospital practice. His study is concerned with the pharmaceutical procedures relating to non-teaching hospitals in Victoria.

Any assistance you may provide him will be greatly appreciated.

John Dewdney

John Dewdney M.D., S.M., D.P.H.,
Acting Head,
SCHOOL OF HEALTH ADMINISTRATION.

**THE VICTORIAN BUSH NURSING ASSOCIATION** (INCORPORATED)
130 LITTLE COLLINS STREET, MELBOURNE, 3000

PRESIDENT: Mr. K.H. Harrison

TELEPHONE: 63-5688

HON. SECRETARY: Mr. D.G. Collings

DCT:MAW

16th January, 1978.

Mr. Lindsay C. Allan,
45 Pope Road,
BLACKBURN. 3130.

Dear Mr. Allan,

Re: HOSPITALS ARRANGEMENTS RELATING TO PHARMACEUTICAL MATTERS

I confirm your consultation with me relating to the proposed circulation by you of questionnaires in connection with your research project for the Degree of Master of Health Administration.

I see no difficulty in the circulation and completion of such questionnaire's by staff employed in the Bush Nursing Hospitals.

Yours sincerely,

D.C. TREVASKIS, Dip. Nsg. Admin. F.C.N.A.
Superintendent

**ROYAL AUSTRALIAN NURSING FEDERATION (Victorian Branch)**

431 St Kilda Road, Melbourne 3004 Telephone 267 4833

1st February, 1978

TO WHOM IT MAY CONCERN

Mr. Lindsay C. Allan

Mr. Lindsay C. Allan has sought the support of Royal Australian Nursing Federation (Victorian Branch) for his research project into pharmaceutical procedures relating to non-teaching hospitals in Victoria.

The Council of this organisation fully supports his study and commends it to members who are invited to participate.

Shirley M. Maddocks

Shirley M. Maddocks
SECRETARY.

PHARMACEUTICAL
SOCIETY
OF VICTORIA

381 Royal Parade, Parkville, Victoria, Australia 3052

EXECUTIVE DIRECTOR
H. V. FEEHAN

TELEPHONE: 380 6254
387 5633

OUR REF. SNL/GT

February 6, 1978

Mr. L. Allan,
45 Pope Road,
Blackburn,
VICTORIA, 3130.

Dear Mr. Allan,

Council of the Pharmaceutical Society of Victoria at the February meeting considered the questionnaire which you propose to distribute to the manager/secretary and matron/sister-in-charge of selected hospitals in Victoria.

Council resolved that it had no objection to the questionnaire.

Yours sincerely,

S. N. LEYSHON,
Acting Executive Director

The Society of Hospital Pharmacists of Australia

(Registered and Incorporated in Victoria)

Victorian State Branch

P.O. Box 1233 L, G.P.O., Melbourne, 3001

PEN/MS

Mr Lindsay Allan,
45 Pope Road,
BLACKBURN VIC 3130

16th February, 1978

Dear Lindsay,

The Victorian State Branch considered your proposed study of pharmaceutical procedures related to non teaching hospitals in Victoria at its recent committee meeting.

The committee considers your project a most interesting an worthwhile study and wishes you success with your research.

Yours sincerely,

Pam Nieman

PAM NIEMAN
Secretary.

*The Association of Directors of Nursing, Victoria*

C/o Preston and Northcote Community Hospital,
205 Bell Street,
PRESTON. VIC. 3072.

10th February, 1978.

Mr. Lindsay C. ALLAN
45 Pope Rd.
BLACKBURN VICTORIA 3130

Dear Mr. Allan,

At its recent meeting the Executive of this Association received your request for members' support in connection with your research project concerned with pharmaceutical procedures relating to non-teaching hospitals in Victoria.

This Association will be pleased to strongly support you in your project and will encourage Matrons to give maximum co-operation by completing your questionnaire and returning it as soon as possible.

I enclose the remaining copy of the questionnaire which we retained until the minutes of our meeting had been compiled.

Yours sincerely,

Newton

(Miss) J.D. Newton
HONORARY SECRETARY

Enc.

# AUSTRALIAN INSTITUTE OF HOSPITAL ADMINISTRATORS

INCORPORATED IN CANBERRA

VICTORIAN BRANCH

c/o ROYAL CHILDREN'S HOSPITAL, FLEMINGTON ROAD, PARKVILLE, 3052 • TELEPHONE 347 5522


15th February, 1978.

EGH:MP

Mr. Lindsay C. Allan
45 Pope Road
BLACKBURN VIC. 3130

Dear Mr. Allan,

Further to your letter of the 19th January, 1978, and to your discussions with me, the details of your M.H.A. project were submitted to the State Council meeting held on Wednesday, 8th February, 1978.

State Councillors considered your letter, the details of the proposed questionnaires and the supporting letter from Dr. John Dewdney, of the School of Health Administration.

The State Council acknowledged the details of your project and requested me to advise you that it would raise no objection to the circulation of the questionnaires.

Yours sincerely,

E. G. Hale
State Registrar

## APPENDIX E

## PROJECT- TIME FRAME OF REFERENCE

During the time spanned by this project, important changes occurred in the Victorian health care system. The following list specifies how these changes related the hospital questionnaire survey, communications undertaken, and the writing of the dissertation.

| Date | Activity/ Report/ Communication |
|---|---|
| 1st March 1977 | Hospitals and Charities Commission Annual Report 1975-76. Hospital activity statistics research. |
| 1st June 1977 | Questionnaire research commenced. |
| 1st July 1977 | Victorian Bush Nursing Association Annual Report 1976-77. Hospital activity statistics research. |
| 1st December 1977 | Communication with the Pharmaceutical Society of Victoria. Information supplied. |
| 22nd December 1977 | Communication circulated to the Chief Pharmacists of eleven base hospitals. Information requested. |
| 12th January 1978 | Communication circulated to five professional associations and the Victorian Bush Nursing Association requesting support for the questionnaire survey. |
| 25th January 1978 | Communication with the Australian Council on Hospital Standards. Information supplied. |
| 2nd February 1978 | Communication with the administrator, Member Services, Victorian Hospitals Association. |
| 16th February 1978 | Correspondence for inclusion in the questionnaire circulation received from five professional associations and the Victorian Bush Nursing Association. |
| 16th February 1978 | Information return completed from eleven base hospital Chief Pharmacists. |
| 21st February 1978 | Communication with the Chief Executice Officer of eleven base hospitals. |
| 22nd February 1978 | Questionnaire circulated to one hundred and thirty two small Victorian hospitals. |
| 1st March 1978 | Hospitals and Charities Commission Annual Report 1976-77. |
| 30th March 1978 | Communication with the Executive Director of the Pharmaceutical Society of Australia. Information supplied. |
| 29th May 1978 | Communication with the Executive Director of the Australian Council on Hospital Standards. Information supplied. |
| 29th May 1978 | Communication with relieving hospital pharmacists formerly employed by the Hospitals and Charities Commission. Information supplied. |

| Date | | | Activity/ Report / Communication |
|---|---|---|---|
| 2nd | June | 1978 | Communication with the Pharmacy Board of Victoria. Information supplied. |
| 9th | June | 1978 | Questionnaire circulated to eleven organisations, associations and authorities. |
| 20th | June | 1978 | Communication with the Poisons Division, Department of Health. Information supplied. |
| 1st | July | 1978 | Hospitals and Health Services Year Book 1978-79. |
| 1st | July | 1978 | Victorian Bush Nursing Association Annual Report 1977-78. |
| 31st | October | 1978 | One hundred and twenty hospital questionnaires returned completed. |
| 31st | October | 1978 | Eleven questionnaires from organisations, associations and authorities, returned completed. |
| 30th | November | 1978 | Assessment and evaluation of questionnaires completed. |
| 1st | December | 1978 | Draft of project report submitted. |
| 8th | December | 1978 | * Proclamation of the Health Commission Act 1977. |
| 8th | December | 1978 | * The Victorian Health Commission assumed the responsibilities of the Hospitals and Charities Commission, the Department of Health and the Mental Health Authority. |
| 1st | March | 1979 | Hospitals and Charities Commission Annual Report 1977-78. Statistics related to the hospital questionnaire survey period. |
| 1st | May | 1979 | * The Australian College of Health Service Administrators succeeds the Australian Institute of Hospital Administrators. |
| 1st | July | 1979 | Hospitals and Health Services Year Book 1979-80. |
| 1st | July | 1979 | Victorian Bush Nursing Association Annual Report 1978-79. |
| 31st | December | 1979 | Dissertation completed. |

The notated changes (*) follow the hospital questionnaire survey time period. The statistics used in this report relating to hospitals and the questionnaire evaluation are relevant to the hospital questionnaire survey time period. General statistics used are the most recent available at 1st December 1979.