

8504459

8048

~~FX 81~~
~~H/3/p~~
~~1962~~
~~no. 3~~
~~copy 2~~

KFH 421.5

L35
A25
1962

no. 3
copy 2

NURSING and NURSING EDUCATION IN HAWAII

MILDRED D. KOSAKI

Assistant Researcher

LEGISLATIVE REFERENCE BUREAU

MAR 30 1962

STATE OF HAWAII

Report No. 3, 1962

LEGISLATIVE REFERENCE BUREAU

**UNIVERSITY OF HAWAII
Honolulu 14, Hawaii**

FOREWORD

During the 1961 general session of the First State Legislature, the House of Representatives adopted H.R. 187 which requests the legislative reference bureau to undertake a study of the nursing situation in Hawaii. This report, by Mrs. Mildred D. Kosaki of the bureau's staff, has been prepared in response to that request.

The legislative reference bureau acknowledges its appreciation to those individuals, too numerous to enumerate, who responded to the bureau's questionnaires and with whom interviews were held. Special thanks are due to the following individuals who gave invaluable assistance by serving as a panel of consultants for this study:

Mrs. Marjorie Elliott, Chairman, Practical Nursing
Department, Kapiolani Technical School
Mr. Will Henderson, Administrator, Queen's Hospital
Mrs. Hazel Kim, Director, School of Nursing, St. Francis
Hospital
Miss Virginia Jones, Dean, College of Nursing,
University of Hawaii
Dr. Toru Nishigaya, President, Oahu Health Council
Mrs. Rose Ann Poyzer, Executive Secretary, Hawaii
Nurses Association
Mrs. Alice Scott, Chief, Public Health Nursing
Branch, Department of Health
Dr. Robert S. Spencer, Executive Officer, Mental
Health Division, Department of Health
Mrs. Mary Walsh, Executive Secretary, Board of
Nursing, Department of Treasury and Regulation

Their cooperation and assistance made it possible for the bureau to undertake its work with greater efficiency and understanding. The report, however, is a bureau, not a panel, product.

Tom Dinell
Acting Director

February 1962

SUMMARY

Legislative concern about a possible shortage of nurses in the next decade was evidenced by the House of Representatives in adopting House Resolution No. 187. The resolution specifies that the legislative reference bureau (1) ascertain the demand for nurses in the various specialties during the coming years through 1970, (2) determine whether existing facilities for nursing education are adequate to meet the demand, (3) identify means of helping nurses to seek further education, and (4) explore ways of attracting more nurses from the mainland.

This report summarizes data on the present professional and practical nurse population (Chapter II) and on nursing education facilities (Chapter III). It attempts to assess the need for nurses and nursing education in 1970 by examining past trends, exploring expansion plans of various institutions and programs, and considering predictions of Hawaii's civilian population in 1970 (Chapter IV). Some matters for legislative deliberation are presented in Chapter V, and several significant problems facing the nursing profession are discussed in the concluding chapter.

Nurses in 1961

At the present time, Hawaii is fortunate in having enough professional and practical nurses so that no acute shortage exists. This is especially true for Oahu where the great majority of professional nurses are employed. It is less true for the remaining counties which employ a higher proportion of practical nurses than of professional nurses. Hawaii is also fortunate in (1) having a high percentage of graduates from both the professional and practical nursing schools successful in becoming licensed, (2) having most of its nursing educators with educational backgrounds which meet the minimum standards set by the nursing profession, and (3) being able to attract out-of-state nurses so that inbreeding has been curbed and a shortage averted.

There are also a few problems: (1) nurse supervisors and administrators, as well as nurses in special departments, need further training, and (2) the practical nursing school and two of the professional nursing schools are finding it difficult to find qualified students. Although no assessment was made of the need for in-service training for both professional and practical nurses serving as general duty, office, private duty, industrial, or public health nurses, it is very probable that nurses need such opportunities to be informed of new and recent advances. Such refresher courses would also be helpful to nurses who are returning to active status after a period of inactivity.

Numbers alone are not enough to insure a satisfactory level of nursing care in a community; nurses should meet certain standards set by the profession and should be encouraged to continue their education throughout their career.

Nursing Needs in 1970

Future nursing needs in Hawaii are very difficult to predict. Among the problems encountered in making predictions of need in 1970 are the following: (1) planning is either inadequate or non-existent in many institutions and programs which require professional and/or practical nursing personnel; and (2) Hawaii seems to be in the process of initiating new programs (home care, home-maker services, intensive care) and medical facilities (nursing homes) and expanding certain programs (geriatric units), so that requirements for additional personnel involve quantitative and qualitative aspects. Compounding these local problems are those of national character: the lack of consensus in the nursing profession regarding nursing education and the need for standards of nursing service for different types of medical facilities.

The legislative reference bureau, while cognizant of these difficulties, attempted to make predictions of need by considering (1) present proportions of nurses in the various fields of nursing in Hawaii, (2) recommended nurse-population ratios as found in the professional literature, and (3) an annual attrition of 5 per cent. Based on these factors, Hawaii in 1970 will need a total of 1,678 additional professional nurses: 1,000 nurses in general duty, 133 in office nursing, 100 as head nurses, 107 in public health, 125 in private duty, 185 in administration and supervision, and 28 in nursing education. Based on the present professional-practical nurse ratio (10 to 7), Hawaii will need an additional 1,175 practical nurses in 1970. This is probably an underestimate for there are many indications that there will be a sharp increase in the need for practical nurses and other nonprofessional personnel (aides, orderlies, attendants).

On the basis of the above predictions of need for professional nurses, Hawaii needs an additional 200 nurses during each of the next eight years. During the last five years the collegiate program yearly had an average of 24 graduates and the two diploma schools jointly had an average of 73 graduates; a total of 97. This is far below the number of nurses needed annually. This gap can be filled if Hawaii continues to attract nurses from the mainland and if it is able to encourage more high school students and mature women returning to employment to prepare for the nursing profession. Should greater numbers of students enter nursing, the collegiate program will need to expand; the physical facilities of the diploma schools are large enough to accommodate a total of 340 students. There are presently 218 enrolled.

Although the Western Interstate Commission for Higher Education has described Hawaii's nursing needs in terms of the educational preparation recommended by the National League for Nursing for each of three groups of nurses, this study makes no attempt to indicate the number of nurses that should be graduates of collegiate programs, of diploma schools, or of master's programs. Decisions in this area depend in part upon the future role of the nurse in patient care, including the relationships of the nurse to other professionals and nonprofessionals. Such decisions, if they are to be well made, require that nurses themselves develop consensus and offer leadership.

On the basis of the present enrollment in the practical nursing school, Hawaii will not be able to meet its practical nursing needs in 1970. Enrollments will need to be nearly doubled to meet the future demand since relatively few practical nurses come from out-of-state. During the period 1955 through 1961, for example, of 728 licensed practical nurses, 117 (16 per cent) were by endorsement. The seriousness of the problem is further increased by the fact that the practical nursing school is presently finding it extremely difficult to find qualified applicants.

Matters for Legislative and Professional Consideration

Several courses of action are open to the Legislature should it decide to act positively to avert a nursing shortage and to improve nursing in Hawaii. Probably legislative action to promote nursing education would be most effective. Scholarships can be established for students to enter nursing schools, for graduate nurses to work for baccalaureate degrees, and for degree nurses to work for master's or doctor's degrees. If the state decides to give greater support to nursing education, it must determine what type of programs should receive public aid. Since there is some controversy within the nursing profession about the type of educational program or programs which best prepare nurses for their different responsibilities, a legislative decision to grant state aid to nursing education will require consultation with the profession, probably through the board of nursing since one of its functions is to prescribe curricula and standards for nursing education in the state. The board can also render aid to the Legislature in studying the possibilities of initiating associate degree programs in nursing.

Helpful as legislative action may be to improve nursing education and nursing services in Hawaii, there are certain problems which only the nursing profession, working in conjunction with the other health professions, can solve. The profession should (1) clarify what nursing is and what functions should be performed by professional nurses, practical nurses, or other nonprofessional personnel; and (2) work for consensus on what is desirable nursing education and improve articulation between existing educational

programs. As progress is made in these two areas, the status of the profession will be improved and the likelihood of a rise in the economic status of nurses will be enhanced for the public and other health professions will appreciate more fully the significant contributions that nurses can make to improve patient care and to promote community health.

While the internal problems of the nursing profession require the careful attention and concerted efforts of those in the health professions, there still remains the need for making adequate provisions to meet future nursing demands. Hawaii will probably encounter a shortage of professional and practical nurses in 1970 unless the state takes appropriate steps to insure an adequate nurse population from the standpoint of numbers and educational preparation.

TABLE OF CONTENTS

	<u>Page</u>
Foreword	ii
Summary	iii
Chapter	
I. Introduction	1
Setting of the Problem	3
Scope of the Study	6
II. Nurse Population in 1961	8
Registered Professional Nurses	8
Licensed Practical Nurses	16
Professional and Practical Nurses in Hospitals	19
III. Nursing Education in 1961	34
Professional Nursing Education in the United States	34
Professional Nursing Education in Hawaii	41
Practical Nursing Education in the United States	52
Practical Nursing Education in Hawaii	53
Graduate Education in Nursing	57
General Comments on Nursing Education in Hawaii	60
IV. Nursing Needs: 1961-1970	62
The WICHE Estimate of 1970 Needs	62
Problems Affecting Predictions	65
Scope and Methodology	67
"Group A" Nursing Needs	68
"Group B" Nursing Needs	74
"Group C" Nursing Needs	77
Needs in Nursing Education	79
V. Matters for Legislative Consideration	82
Nursing Education	82
Other Areas	88
VI. Matters for Consideration by the Profession	93
Nursing Education and Nursing Services	93
Status of the Nursing Profession	96
Economic Status of the Nursing Profession	99

	<u>Page</u>
APPENDIX A. A copy of H.R. 187 Adopted by the House of Representatives, First State Legislature, Hawaii, 1961	102
APPENDIX B. Letter and Questionnaire Sent to Hospitals	104
APPENDIX C. Letter and Questionnaire Sent to Nursing Schools	111

Figures

1. Number of Registered Professional Nurses and Licensed Practical Nurses in Hawaii 6
2. Per Cent Distribution of Professional Nurses, Registered and Employed, By Age Group 9

Tables

1. Number and Per Cent of Professional Nurses, Registered and Employed, By Sex and Marital Status 10
2. Number and Per Cent of Professional Nurses, Registered and Employed in Hawaii, By Location of Nursing School and Date of Graduation. 12
3. Number and Per Cent of Professional Nurses, Registered and Employed, By Field of Nursing 13
4. Number and Per Cent of Professional Nurses, Registered and Employed, By Type of Position 14
5. Number and Per Cent of Professional Nurses, Registered and Employed in Hawaii, By Island of Employment 15
6. A Summary of Selected Characteristics of Practical Nurses, Licensed and Employed in Hawaii 17
7. Patient Census and Nursing Staff in General and Special Hospitals in Hawaii, By Hospital. 21
8. Number and Percentage of Professional and Nonprofessional Nurses Engaged in Various Responsibilities in General and Special Hospitals in Hawaii. 23

Tables (continued)

Page

9.	Average Daily Hours of Bedside Nursing Care Per Patient and Percentage of Professional Nursing Care in Six General Hospitals in Hawaii, With Patient Census Close to or over 100	26
10.	Turnover Rate of Professional and Practical Nurses in General and Special Hospitals in Hawaii, By Type of Reason	28
11.	Educational Preparation of Professional Nurses in Administrative and Supervisory Positions Employed in General and Special Hospitals in Hawaii	31
12.	Number of Professional Nurses Employed in Special Departments Who Have Taken Post-Graduation Work in Their Specialties in General and Special Hospitals in Hawaii	33
13.	Educational Requirements for Professional Nursing Personnel as Recommended by the National League for Nursing	37
14.	Number of Schools of Nursing Offering Basic Professional Programs in the United States, by Type of Support and Control	40
15.	Selected Data on Three Schools of Nursing in Hawaii .	42
16.	Academic Preparation of Full-Time Faculty Members in Hawaii's Schools of Nursing	43
17.	Selected Characteristics of Students Enrolled in Hawaii's Schools of Nursing	46
18.	Number of Student Withdrawals and Withdrawal Rate in Hawaii's Schools of Nursing	47
19.	Reasons for Student Withdrawals from Hawaii's Schools of Nursing	49
20.	Data on Admission, Graduation, and Alumnae Licensure for Students from Hawaii's Schools of Nursing	50
21.	Capacity and Present Use of the Physical Plant of Hawaii's Schools of Nursing	51

Tables (continued)

Page

22.	Age and Geographical Distribution of Students Enrolled in Hawaii's Practical Nursing School.	55
23.	Reasons for Student Withdrawals from Hawaii's Practical Nursing School.	56
24.	Ratio of Professional Nurses to Civilian Population in Hawaii, By County	63
25.	The Western Interstate Commission for Higher Education's (WICHE's) Original and Revised Estimates of Nursing Needs in Hawaii in 1970.	64
26.	The Present Needs for Additional Nursing Personnel and the Expansion Plans of Hospitals in Hawaii	69
27.	Estimated Needs of New Institutions for Professional and Nonprofessional Nurses in Hawaii in 1970, By Institution	70
28.	Existing and Desirable Number of Beds in Hospitals in Hawaii	71
29.	Number of Office Nurses and Physicians in Hawaii . .	75
30.	Pay Rates of Nurses and Related Personnel in Hawaii, By Employing Agency	100

CHAPTER I

INTRODUCTION

The need for more nurses in the United States has increased in recent years because of the growth in population, changes in the nature of that population, advances in medical science, and the public's greater use of medical facilities. National interest in nursing and, more particularly, national concern about a nursing shortage have been evidenced since the end of World War II. By 1950 at least 20 states had completed surveys of nursing needs.¹ Federal legislation since 1956 has provided larger sums of money for both professional and practical nursing education; discussion of these Acts is found in Chapter III of this report. The Western Interstate Commission for Higher Education (WICHE) recently published Nurses for the West which (1) presents facts on nursing needs, present supply, and training facilities in the West, (2) identifies five areas in which the West needs to act if nursing needs are to be met, and (3) makes recommendations for the improvement of nursing education in the West.

In 1956 there were approximately 430,000 active professional nurses or 258 nurses per 100,000 people in the United States. It has been suggested that a ratio of 300 nurses per 100,000 population represents a conservative standard and that a higher ratio of 350 nurses per 100,000 population would be a more desirable standard for adequate nursing care.² These ratios were determined by examining the present ratio of nurses to population in various regions of the nation. The North Atlantic region had 336 nurses per 100,000 population, the West had 277, the Midwest had 254, and the South had not yet achieved 200.

Based on an estimated population of 177 million in 1970, there should be 600,000 professional nurses to attain the 300 goal and 700,000 to attain the higher goal. The lower goal requires an increase of 40 per cent in the nurse population over the present; the higher, an increase of 60 per cent. Such demands require a doubling of nursing school applicants and an era of expansion for nursing schools which are already short of trained teachers. It is evident that the problems are many and varied and that their solution requires careful planning.

Of particular interest to Hawaii, is the WICHE publication, which attempts to obtain the best information on future nursing

¹North Carolina Committee to Study Nursing and Nursing Education, Nursing and Nursing Education in North Carolina, Sponsored by North Carolina Medical Care Commission and University of North Carolina at Chapel Hill (November 1950), p. 36.

²National League for Nursing, Committee on the Future, Nurses for a Growing Nation (New York: the League, 1957), p. 2.

needs in the West and to make systematic plans for meeting these needs.³ Although data on Alaska and Hawaii are not included in all instances, the findings of this study are noteworthy: (1) by 1970 there will be 10 million more people and disproportionately high increases in the below-21 and 65-and-over age groups; (2) the West's 1957 nurse ratio was 275 nurses per 100,000 people; (3) present graduations from Western nursing schools provide less than half the nurses needed by 1970 to maintain the present nurse-population ratio; (4) there is a discrepancy between the educational preparation of many nurses and the preparation recommended by the profession; and (5) present recruitment from recent high school graduates as the primary source is unrealistic--mature women entering the labor force comprise another valuable source.

WICHE concludes that "four striking points" emerge from its analysis:

First, there is a mandate to existing schools to be more realistic in their planning. Few members of the general public, legislators, or educators have appreciated the magnitude of the demands being made upon nursing and the inadequacy of present programs to meet these demands. Plainly every college and junior college with a school of nursing should consider plans for major expansion.

Second, Western colleges and universities without nursing programs should appraise their own potential for moving into this scarcity area. The great strength of the public colleges and universities is in their willingness to respond quickly and imaginatively to felt needs.

Third, the magnitude of the task ahead imposes a special responsibility on schools with graduate programs and schools contemplating starting such programs. Progress on all other fronts depends on breaking the bottleneck of the nurse-teacher shortage.

Finally, and basic to these three points, public officials responsible for budgeting for public higher education should take stock of nursing needs and educational resources of the state. They should decide on the relative priority that should be given to nursing--in essence, on the kind of nursing care the state wants for the next decade.⁴

WICHE's final point seems to have struck a responsive chord in Hawaii, for this study of nursing education and needs was undertaken at the request of the Legislature.

³Western Interstate Commission for Higher Education, Nurses for the West (Boulder, Colorado: the Commission, 1959), 112 pp.

⁴Ibid., p. 11.

SETTING OF THE PROBLEM

An earlier and similar interest in nursing and nursing education was evidenced by the Legislature in 1949. During the 1949 special session, H.R. 42 was introduced, requesting the holdover committee to investigate and report on the problem of maintaining adequate nursing and medical services with particular emphasis on the following question: whether or not the Territory of Hawaii should subsidize schools for the training of nurses. This resolution was referred to the holdover committee's subcommittee on hospitals, medical care, health and welfare, which appointed an advisory committee of professional men and women to study this matter and other related legislative problems. Although the bureau was not able to locate any reports of the advisory committee, one participant reported that the advisory group rejected the idea of subsidies for hospital schools for the training of nurses and recommended that a survey be made to determine whether a school of nursing should be established at the University. The subcommittee recommended the adoption of a joint resolution which authorized the governor to appoint a commission on nursing education and nursing services to survey and evaluate existing facilities for nursing education and service; an appropriation of \$3,000 was provided to cover the cost of any survey made by a U.S. Public Health Service consultant.

Legislative Action: 1951-1961

During the 1951 session of the Legislature, the joint resolution (J.R. 18) proposed by the holdover committee was passed; a sum of \$6,000 was appropriated, and the period of operation for the commission was limited to 1951-53. This action led to a study of the nursing situation by a nursing study committee, aided by a nurse consultant from the division of nursing resources, Federal Security Agency. Based on this study, the commission on nursing education and nursing services published its report, The Nurse of Tomorrow, which presented data on the supply of nurses in 1951, discussed the meeting of needs for nurses in various fields, examined nursing education facilities, and defined steps which should be taken to improve nursing in Hawaii.⁵ Among these steps were the following: (1) encourage development of "more awareness of the potential contribution of the professional nurse to the whole medical picture"; (2) provide more opportunities for Hawaii students to receive the best of preparation by developing fully the University of Hawaii school of nursing (which was established in 1951 by the Legislature), by creating more scholarships for local nurses to prepare for work in supervision, instruction, and administration,

⁵Territorial Commission on Nursing Education and Nursing Services, The Nurse of Tomorrow. Based on the survey for the Nursing Study Committee by Ruth I. Gillan (Honolulu: July 1952), 20 pp.

and by improving conditions at the practical nursing school; and (3) offer more opportunities for local nurses to improve their skills and to learn new techniques.⁶

The Legislature in 1951 enacted legislation to establish (1) a school of nursing at the University of Hawaii (Act 174) and (2) a "scholarship fund for graduate nurses" (Act 315). Act 174 provided a sum of \$25,000 for the 1951-53 biennium and specified that "the school of nursing shall conduct a complete course in nursing leading to the conferring of an appropriate bachelor's degree upon graduation therefrom and sufficient to qualify its graduates as registered nurses". A sum of \$10,000 was appropriated for the scholarship fund; it was to be administered by the board for the licensing of nurses. Scholarships were to be awarded to local born professional nurses who would accept supervisory, teaching, or administrative positions in the Territory for a period of at least two years following the completion of training leading to a bachelor's or higher degree.

In 1953 the Legislature (1) extended the period of functioning for the commission on nursing education and nursing services to June 30, 1955 (Act 49) and (2) appropriated a sum of \$15,000 for the scholarship fund established by Act 315 of the 1951 session (Act 277). During 1953-55, the territorial commission on nursing education and nursing services sponsored a sociological study of the nursing service personnel in six Oahu hospitals.⁷ The objectives of this project were "to develop . . . an understanding of the social position, functions, and relationships of the nursing personnel in the social system of modern Hawaiian hospitals; and to identify, in that system, the attitudes of various classes of nursing personnel toward the functions they perform and the social and organizational factors related to the job satisfaction of the nursing personnel."⁸ Such a study was in line with national interest to make the best possible use of available professional nursing skills in the light of increasing demands.

During the legislative sessions of 1955 and 1957, several measures affecting nurses were introduced; some laws were enacted in 1955 which dealt with licensing practices and licensing board funds. One Senate Concurrent Resolution was adopted in 1955 (SCR 25) which requested the civil service departments of the Territory and the various counties to review classification and pay grades of nursing positions. In 1959 the Legislature passed legislation (Act 268) which amended in entirety Chapter 67 of the

⁶*Ibid.*, p. 19.

⁷Douglas S. Yamamura, *Functions and Role Conceptions of Nursing Service Personnel*, Sponsored by the Territorial Commission on Nursing Education and Nursing Service (Mimeographed; Honolulu: University of Hawaii, Romanzo Adams Social Research Laboratory, December 1955), 148 pp.

⁸*Ibid.*, p. 4.

Revised Laws of Hawaii, dealing with regulations for the practice of professional and practical nursing in Hawaii.

In 1961, a bill to create a temporary committee to study nursing needs and resources in Hawaii (H.B. 905) was introduced in the Legislature. H.R. 187 was later introduced and adopted by the House of Representatives; this action led to the present study by the legislative reference bureau.

Nurses in 1950-1960

According to the 1960 census, Hawaii had a population of 632,772 people, an increase of 26.6 per cent over 1950. In 1960-61 there was a total of 2,509 registered professional nurses in Hawaii, an increase of 22.4 per cent over 1950-51 figures.⁹ However, the percentage of nurses employed during this period was not determined. Data on registered and employed professional nurses in Hawaii were available for 1956-58: there were an estimated 1,681 nurses, representing a ratio of 305 nurses per 100,000 population.¹⁰

Figure 1 illustrates the growth in the number of registered professional nurses for the period 1950-60 as well as in the number of licensed practical nurses. Data on employed personnel in both groups were not available. The number of licensed practical nurses in 1960 reflected an increase of 18.6 per cent over 1950 figures. It should be noted that this percentage is less than that for professional nurses during the last decade.

The above data indicate that Hawaii does not presently have an acute shortage of nurses. Furthermore, a workshop on "Nursing Care--1970" sponsored by the Hawaii Nurses Association and the Hawaii board of nursing in 1960 concluded that

... while the over-all figures for Hawaii show a fair potential to meet the state's minimum needs in 1970, there is little or no information to show whether certain areas are unable to meet their needs and whether nurses are prepared for the positions they are now holding or for which they are needed. It was the general opinion that personnel in head nurse, supervision, and administrative positions did not in general meet the qualifications recommended in Nurses for the West.¹¹

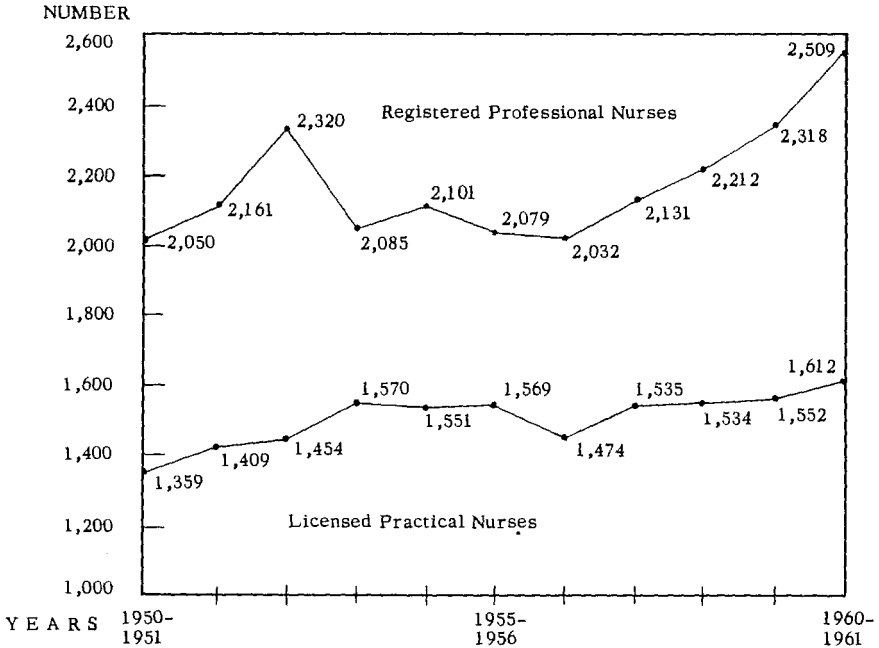
⁹State of Hawaii, Board of Nursing.

¹⁰American Nurses' Association, Facts About Nursing: A Statistical Summary (1961 ed.; New York: the Association, 1961), p. 14; and Western Interstate Commission for Higher Education, op. cit., p. 98.

¹¹Hawaii Nurses Association and State of Hawaii, Board of Nursing, "Progress Report on Action on Nurses for the West" (Typewritten; [1961]).

Figure 1

Number of Registered Professional Nurses and
Licensed Practical Nurses in Hawaii
1950-1961



Source: State of Hawaii, board of nursing.

As a result of one of the recommendations of this workshop, legislation to study nursing needs and resources was introduced in the 1961 session of the Legislature.

SCOPE OF THE STUDY

H.R. 187, adopted by the House of Representatives, requests the legislative reference bureau to undertake a study of the nursing situation in Hawaii so as to ascertain:

- (a) the demand for nurses during the coming years through 1970, including an analysis as to the relative need for nurses in the various areas, specialties, and programs;
- (b) the existing facilities for nursing education, the need for additional facilities, where and how such facilities shall be established;

- (c) means of assisting nurses in seeking further training on the mainland, especially in those special fields where facilities for training are not obtainable locally; and
- (d) means of attracting more nurses from the mainland to serve in Hawaii.

(See Appendix A for a copy of this resolution.)

The legislative reference bureau planned its study of nursing so as to provide data about the areas specified in the resolution. Chapter II of this report furnishes information on essential characteristics of the professional and practical nurse population in 1961. Data for this chapter were gathered from the files of the board of nursing. In addition, questionnaires (see Appendix B) were sent to the various hospitals in the state to determine nurse staffing patterns and to assess the educational preparation of nurses in supervisory, instructional, or administrative positions.

A brief historical survey and description of professional and practical nurse education in the United States, and descriptions of the three professional nursing schools and the one practical nursing school in Hawaii are found in Chapter III. School bulletins furnished some information on Hawaii's nursing education facilities. More data were gathered on their faculty, student body, alumni, and future plans through questionnaires (see Appendix C). Interviews were also held with the heads of all four schools.

An assessment of nursing needs in 1961 and predictions of nursing needs in 1970 are discussed in Chapter IV. Predictions of this type must usually be considered as tentative and interpreted with caution. This is especially true of these predictions since they are based on data furnished by various institutions and programs; oftentimes planning was in the initial stages only and in some instances non-existent. In spite of these shortcomings, it was felt that some attempt to predict needs in 1970 would be helpful to persons involved in planning for the future. Such planning may be undertaken in the near future, for some groups in Hawaii seem to be on the brink of initiating state-wide planning in certain areas affecting nursing and of providing a greater variety of medical facilities for the population of this state.

Chapter V sets forth a few suggestions for legislative consideration. Many of them deal with nursing education since this is an area where legislative action is oftentimes helpful. However, the sphere for legislative activity is relatively limited. The nursing profession must itself resolve many of the problems. Chapter VI discusses such problems and others the profession must solve in cooperation with doctors and related persons engaged in the promotion of good health in the community.

CHAPTER II

NURSE POPULATION IN 1961

The first two sections of this chapter summarize significant findings on professional and practical nurses, registered and employed in Hawaii, in terms of the following factors: (1) sex and marital status, (2) age, (3) place of education, (4) date of graduation, (5) field of nursing, (6) type of position, and (7) island of employment.

The third section is devoted to further descriptions of nurses, both professional and practical, who are employed in general and special (e.g., mental, tuberculosis, pediatric, etc.) hospitals in Hawaii. It was decided to study this group more intensively because (1) it represents the largest occupational group in nursing and (2) information on the educational preparation of professional nurses in administration and supervision and of those in special departments would be helpful in indicating needs in nursing education.

When comparable national figures are available, they are cited. Unless otherwise indicated, these figures come from the 1961 edition of Facts About Nursing. In some cases, data on the nurse population in Hawaii during the last decade are available; they are presented to indicate changes in the local situation.

Data on professional and practical nurses were taken from the files of the board of nursing which maintains records on registration applications for all nurses registered as professional nurses or licensed as practical nurses. Since both professional and practical nurses who wish to maintain their registration are required by law to renew their licenses by July 1 each year, it was possible for the bureau to obtain figures which describe the nurse population as of October 1961. However, bureau figures will be below the total 1961-62 registration figures since registrations during the period November 1, 1961, through June 30, 1962, cannot be included. Data on nurses in hospitals were taken from the responses of hospitals to the bureau's questionnaire.

REGISTERED PROFESSIONAL NURSES

In October 1961, there were 2,374 registered professional nurses. However, there was no evidence of employment for 180 nurses with renewed licenses and 194 nurses with new licenses. Furthermore, 117 of the employed nurses were working out-of-state. The number of professional nurses, registered and employed in Hawaii, is thus 1,883, and the data below deal only with this group.

Sex and Marital Status: Table 1

There are very few (2) male professional nurses employed in Hawaii. While this is true of the national nurse population, Hawaii's proportion is extremely low. In 1956-58, Missouri had the greatest proportion of male nurses in the nation--6.6 per cent of its professional nurses were males.

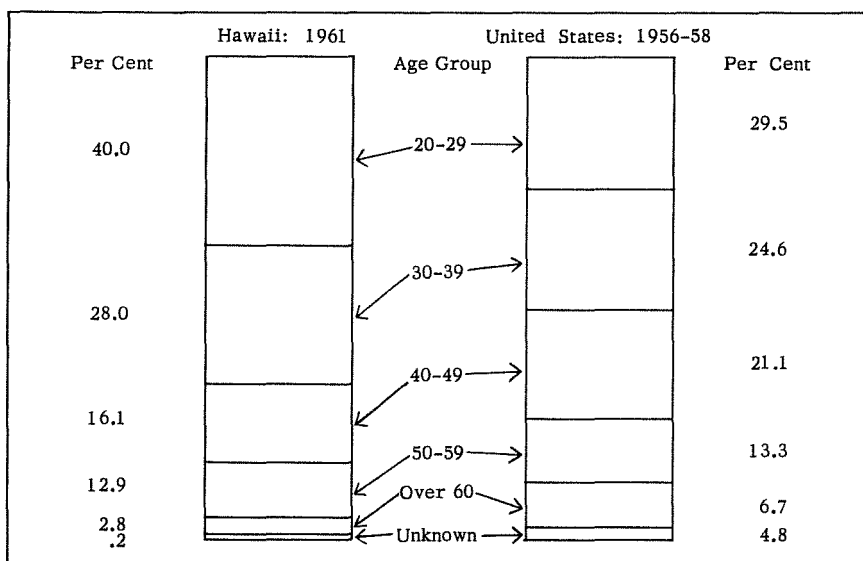
Almost two-thirds of professional nurses employed in Hawaii are married; this is somewhat above the national average and shows an increase in Hawaii of 9 per cent since 1956-58.

Age: Figure 2

About 40 per cent of Hawaii's employed professional nurses are 20-29 years old. In 1956-58, the proportion of nurses in this age group was 45.3 per cent for Hawaii and 29.5 per cent for the nation. In general, Hawaii's professional nurses are younger than their national counterparts; the median age in Hawaii is 30-34 years. See Figure 2 for a graphic presentation of differences in the age of Hawaii's 1961 nurse population with the nation's 1956-58 nurse population.

Figure 2

Per Cent Distribution of Professional Nurses,
Registered and Employed, by Age Group
Hawaii: October 1961
United States: 1956-58



Source: Developed from records of the State of Hawaii, board of nursing.

Table 1

Number and Per Cent of Professional Nurses, Registered
and Employed, By Sex and Marital Status
Hawaii: 1956-58 and October 1961
United States: 1956-58

Feature	Hawaii: 1961		1956-58		Per Cent Change in Hawaii
	Number	Per Cent	Hawaii N=1,681 Per Cent	United States* N=440,355 Per Cent	
TOTAL	1,883	100.0			+12.0
<u>Sex</u>					
Male	2	.1	.4	1.0	- .3
Female	1,881	99.9	99.6	98.8**	+ .3
<u>Marital Status</u>					
Single	563	29.9	38.7	31.1	- 8.8
Married	1,194	63.4	54.3	55.4	+ 9.1
Widowed, Divorced or Separated	123	6.5	6.9	9.8	- .4
Unknown	3	.2	.1	3.7	+ .1

Sources: 1961 data on Hawaii computed from records of the State of Hawaii, board of nursing.
1956-58 figures taken from: American Nurses' Association, Facts About Nursing;
A Statistical Summary (1961 ed.; New York: the Association, 1961), pp. 16-17.

*Includes the 50 states, the District of Columbia, and Puerto Rico.

**Sex of 0.2 per cent of professional nurses in the nation was not reported.

Schooling: Table 2

Only half of professional nurses employed in Hawaii received their professional nurse education in Hawaii. About 40 per cent received their education on the mainland, the remaining 10 per cent in a foreign country.¹

Slightly over 40 per cent of employed professional nurses graduated from schools of nursing during the period 1953-61; about that same proportion graduated during 1933-52; the remaining graduated before 1933 or at an unknown date.

Field of Nursing: Table 3

Close to two-thirds of Hawaii's professional nurses are employed in hospitals or other institutions. This figure is above the 1956-58 national percentage. Compared to the nation, Hawaii has a smaller proportion of its nurses engaged in private duty and a larger proportion engaged as office nurses.

Type of Position: Table 4

About 20 per cent of Hawaii's nurses are in administration, supervision, or instruction. Slightly more than 50 per cent are general duty or staff nurses. This figure shows a decline from 1956-58, however, at which time Hawaii had 12 per cent more of its nurses than those in the nation engaged in general duty. The head nurse-general duty nurse ratio was 1:7.5 in 1956-58; it was 1:6.9 in 1961. A large discrepancy between Hawaii's 1956-58 and 1961 figures is found for nurses engaged in (1) other specified types of positions (executive secretary of nurse associations, the board of nursing, etc.) and (2) positions which are unknown (not reported). The 1961 tabulation rated as "unknown" those nurses who failed to indicate their type of position on the registration application forms.

Island of Employment: Table 5

Unfortunately, no information on island of employment was available for about 10 per cent (175) of professional nurses employed in Hawaii. Percentages in Table 5 are therefore based on 1,708, the number of nurses, registered and employed in Hawaii, for whom information on island of employment is available.

¹Out of 194 newly-licensed professional nurses, for whom no information on employment was available, 31 per cent received their education in Hawaii, 50 per cent on the mainland, and 19 per cent in a foreign country. These proportions are quite different from those of the present nurse population.

Table 2
Number and Per Cent of Professional Nurses, Registered
and Employed in Hawaii, By Location of
Nursing School and Date of Graduation
October 1961

Feature	Number	Per Cent
Location of Nursing School		
Hawaii	946	50.2
Mainland U.S.	757	40.2
Foreign Country	178	9.5
Unknown	2	.1
Date of Graduation		
1961	2*	.1
1960	130	6.9
1959	125	6.6
1958	133	7.1
1953-1957	419	22.3
1948-1952	320	17.0
1943-1947	197	10.5
1938-1942	130	6.9
1933-1937	136	7.2
1928-1932	96	5.1
1923-1927	38	2.0
Before 1923	21	1.1
Unknown	136	7.2
TOTAL	1,883	100.0

Source: Computed from records of the State of Hawaii,
board of nursing.

*In addition, there are 194 newly-registered professional nurses who have been omitted from this tabulation because data on employment are missing. Many of these newly-registered nurses are 1961 graduates.

Table 3

Number and Per Cent of Professional Nurses, Registered
and Employed, By Field of Nursing
Hawaii: 1956-58 and October 1961
United States: 1956-58

Field of Nursing	Hawaii: 1961		1956-58		Per Cent Change in Hawaii
			Hawaii N=1,681	U.S.* N=440,355	
	Number	Per Cent	Per Cent	Per Cent	
TOTAL	1,883	100.0			+ 12.0
Hospital or other institution	1,168	62.0	68.3	58.5	- 6.3
School of nursing	37	2.0	1.7	3.1	+ .3
Public health and school	135	7.2	6.9	7.3	+ .3
Private duty	171	9.1	7.2	15.4	+ 1.9
Industrial	66	3.5	4.0	3.9	- .5
Office	231	12.3	9.4	8.0	+ 2.9
Other specified	40	2.1	2.4	1.0	- .3
Dual fields	25	1.3	-	-	+ 1.3
Unknown	10	.5	.1	2.8	+ .4

Sources: 1961 data on Hawaii computed from records of the State of Hawaii, board of nursing. 1956-58 figures taken from: American Nurses' Association, Facts About Nursing; A Statistical Summary (1961 ed.; New York: the Association, 1961), pp. 16-17.

*Includes the 50 states, the District of Columbia, and Puerto Rico.

Table 4

Number and Per Cent of Professional Nurses, Registered
and Employed, By Type of Position
Hawaii: 1956-58 and October 1961
United States: 1956-58

Type of Position	1956-58					Per Cent Change in Hawaii
	Hawaii: 1961		Hawaii		U.S.*	
	Number	Per Cent	N=1,681	N=440,355	Per Cent	
TOTAL	1,883	100.0				+ 12.0
Administrator or assistant	44	2.3	2.4	2.8	-	.1
Consultant	8	.4	.5	.3	-	.1
Supervisor or assistant	138	7.3	8.1	8.5	-	.8
Instructor	43	2.3	1.8	2.5	+	.5
Head nurse or assistant	142	7.5	7.7	10.6	-	.2
General duty or staff nurse	983	52.2	57.4	45.4	-	5.2
Other specified type	107	5.7	21.9	26.6	-	16.2
Dual positions	16	.9	-	-	+	.9
Unknown	402	21.4	.2	3.3	+	21.2

Sources: 1961 data on Hawaii computed from records of the State of Hawaii, board of nursing. 1956-58 figures taken from: American Nurses' Association, Facts About Nursing; A Statistical Summary (1961 ed.; New York: the Association, 1961), pp. 16-17.

*Includes the 50 states, the District of Columbia, and Puerto Rico.

Table 5
Number and Per Cent of Professional Nurses, Registered and
Employed in Hawaii, By Island of Employment*
October 1961

Island of Employment	Professional Nurses	
	Number	Per Cent
Hawaii	139	8.2
Kauai**	50	2.9
Lanai	5	.3
Maui	92	5.4
Molokai	14	.8
Oahu	1,408	82.4
TOTAL	1,708	100.0

Source: Computed from records of the State of
Hawaii, board of nursing.

*Percentages are based on 1,708 nurses for whom
information on places of employment was avail-
able. Omitted from this tabulation are 175 nurses,
registered and employed in Hawaii, for whom in-
formation on place of employment was not avail-
able.

**Includes Niihau's one nurse.

All but 300 of the 1,708 professional nurses or 82 per cent are employed on Oahu. In 1961, 78.6 per cent of the state's estimated civilian population lived on Oahu.

LICENSED PRACTICAL NURSES

In October 1961, there were 1,525 licensed practical nurses in Hawaii. Since there was no evidence for employment for 129 and evidence of out-of-state employment for 22, the number of practical nurses, licensed and employed in Hawaii, is 1,374. Data found in Table 6 deal with this group. In this discussion, comparisons are made between professional and practical nurses in Hawaii. No national data on the characteristics of licensed practical nurses are available.

Sex and Marital Status

About 17 per cent of practical nurses employed in Hawaii are males; this is in sharp contrast to the less than 1 per cent of professional nurses in Hawaii who are males. As with professional nurses, about two-thirds of practical nurses are married.

Age

Practical nurses tend to be older than professional nurses. While 40 per cent of professional nurses are 20-29 years old, the proportion of practical nurses in this group is 21 per cent. The median age for practical nurses is 35-39 years.

Schooling

About 40 per cent of practical nurses in Hawaii undertook pre-service practical nurse education, and most of those who did received their education in Hawaii. Only 3.5 per cent of the employed practical nurses in Hawaii obtained their preservice training on the mainland. Of the 718 practical nurses who received no preservice training, an unknown number took extension courses which involved 450 hours of training.

Approximately 30 per cent of employed practical nurses graduated from training programs between 1953-61 and 1.6 per cent graduated between 1923-52. The remaining either did not graduate or the date of graduation is unknown.

Field of Nursing

While 62 per cent of professional nurses are employed in hospitals or other institutions, 75 per cent of practical nurses are.

Table 6

A Summary of Selected Characteristics of Practical Nurses,
Licensed and Employed in Hawaii
October 1961

Feature	Number	Per Cent
TOTAL	1,374	100.0
<u>Sex</u>		
Male	236	17.2
Female	1,129	82.2
Unknown	9	.6
<u>Marital Status</u>		
Single	278	20.2
Married	932	67.8
Widowed, Divorced	142	10.4
Unknown	22	1.6
<u>Age Groups</u>		
Under 20	6	.4
20-24	147	10.7
25-29	138	10.0
30-34	226	16.5
35-39	196	14.3
40-44	163	11.9
45-49	187	13.6
50-54	172	12.5
55-59	72	5.2
60-64	33	2.4
65 or over	9	.7
Unknown	25	1.8
<u>Location of Training Course</u>		
Hawaii	486	35.4
Mainland U.S.	48	3.5
Foreign Country	5	.3
Unknown	117	8.5
No Course	718*	52.3
<u>Date of Graduation</u>		
1961	24	1.7
1960	46	3.3
1959	69	5.0
1958	56	4.1
1953-1957	202	14.7

Table 6 (continued)

Feature	Number	Per Cent
1948-1952	8	.6
1943-1947	4	.3
1938-1942	3	.2
1933-1937	2	.2
1928-1932	1	.1
1923-1927	2	.2
Before 1923	0	.0
Unknown	104	7.6
No graduation	853	62.1
<u>Field of Nursing</u>		
Hospital or other institution	1,025	74.6
Private duty	78	5.7
Office	162	11.8
Industrial	23	1.7
Other	50	3.6
Dual	24	1.7
Unknown	12	.9
<u>Island of Employment**</u>		
Total	1,257	
Hawaii	170	13.5
Kauai	68	5.4
Lanai	6	.5
MauI	121	9.6
Molokai	11	.9
Niihau	0	0.0
Oahu	881	70.1

Source: Computed from records of the State of Hawaii, board of nursing.

*An unknown number of this group who were originally licensed by waiver have taken extension courses which involved approximately 450 hours of training, spread over a two-year period.

**Percentages for island of employment are based on the number of practical nurses, licensed and employed in Hawaii, for whom information on place of employment was available. Omitted from this tabulation are 117 practical nurses for whom no such information was reported.

The next most popular field is office nursing (12 per cent), followed by private duty (5.7 per cent). The remaining practical nurses are employed in other fields.

Island of Employment

Unfortunately, no information on island of employment was available for about 8 per cent (117) of practical nurses employed in Hawaii. Percentages for this feature in Table 6 are therefore based on 1,257, the number of practical nurses, licensed and employed in Hawaii, for whom information on island of employment is available.

While 82 per cent of professional nurses are employed on Oahu, only 70 per cent of practical nurses are; this proportion for practical nurses is less than the proportion of the state's estimated civilian population on Oahu (78.6 per cent).

Practical Nurses with Limited Licenses

In addition to licensed practical nurses, there are practical nurses with limited licenses. These limited licenses are issued only when there is no licensed practical nurse available, and an individual with such a license must work in the institution which requested the board of nursing to issue a limited license. In October 1961, there were 143 practical nurses with limited licenses; 130 renewed their licenses and 13 had new licenses. Some of these nurses had had their limited licenses renewed as many as seven times; the average for renewals is close to 4. Close to 70 per cent are males. All but a few of the practical nurses with limited licenses work in hospitals; 131 work on the island of Oahu. The median age is 35-39 years.

PROFESSIONAL AND PRACTICAL NURSES IN HOSPITALS

This section deals with: (1) patterns in nurse staffing, (2) patterns in nurse distribution, (3) nursing care of patients, (4) rate of nurse turnover, (5) educational preparation of nurse administrators and supervisors, and (6) educational preparation of nurses in special departments. Responses to portions of the legislative reference bureau's questionnaire sent to hospitals are summarized in this section.

Patterns in Nurse Staffing

In November 1961, there were 2,318 professional and nonprofessional nurses employed in 20 general and 11 special hospitals in Hawaii.² Of this total 51.6 per cent (1,197) are professional nurses, 37.4 per cent (866) are practical nurses and 11.0 per cent (255) are other nonprofessional personnel (aides, orderlies, attendants). Since general and special hospitals have different functions and serve different clientele, nurse staffing patterns for each of these types will be discussed separately.

General Hospitals.--The data in Table 7 indicate that the daily average patient census varies considerably (from 1 to 339) among the 20 general hospitals that responded to the bureau's questionnaire. There are 4 with an average of more than 100 patients daily, 2 with about 80, 2 with about 40, 8 with 10-25, and 4 with fewer than 10.

There is also considerable variation in the nature of the nursing staff from hospital to hospital. Although 59.2 per cent of the total nursing staff employed in general hospitals are professional nurses, there is a range among hospitals from 28.6 to 74.2 per cent. In 8 general hospitals, the number of practical nurses exceeds that of professional nurses by a small margin. The hospitals with higher patient censuses tended to have larger proportions of professional nurses on their staffs.

In view of the large difference in patient census among hospitals, and the effect of patient census on nursing staff patterns, a study was made of the staffing patterns among those 8 general hospitals with 25 or more patients daily. Even among general hospitals with more than 100 patients daily, the proportion of professional nurses varies from 46.5 to 74.2 per cent and the proportion of practical nurses varies from 12.9 to 53.5 per cent. The range is about the same for professional nurses in hospitals with a daily average patient census of 25-100; the range for practical nurses is 17.1 to 70 per cent. Furthermore, the proportion of other nonprofessional personnel varies from no use in 5 hospitals to 53.3 per cent in a small hospital; the proportion for all general hospitals is 10.2 per cent.

Special Hospitals.--The data in Table 7 indicate that the 11 special hospitals in Hawaii vary considerably in their daily average patient census--from 18 to 1,190. There is 1 special hospital with a patient census of more than 1,000, 3 with 100-300, 4 with 50-99, and the remaining 3 with fewer than 50.

²One small general hospital failed to respond to the bureau's questionnaire. According to the latest guide issue of Hospitals (August 1, 1961), this hospital has a daily average patient census of 9.

Table 7
Patient Census and Nursing Staff in General and
Special Hospitals in Hawaii, By Hospital
1961

Hospital	Daily Average Patient Census*	Nursing Staff						
		Total	Professional		Practical		Other**	
			Number	Per Cent	Number	Per Cent	Number	Per Cent
G- 1	243	198	92	46.5	106	53.5	0	0.0
G- 2	17	24	8	33.3	14	58.3	2	8.3
G- 3	16	18	8	44.4	8	44.4	2	11.1
G- 4	24	19	8	42.1	9	47.4	2	10.5
G- 5	10	12	5	41.7	5	41.7	2	16.7
G- 6	2	15	6	40.0	1	6.7	8	53.3
G- 7	10	16	7	43.8	5	31.3	4	25.0
G- 8	81	164	114	69.5	28	17.1	22	13.4
G- 9	122	166	85	51.2	54	32.5	27	16.3
G-10	17	14	4	28.6	9	64.3	1	7.1
G-11	339	310	224	72.3	40	12.9	46	14.8
G-12	183	205	152	74.2	31	15.1	22	10.7
G-13	46	84	60	71.4	24	28.6	0	0.0
G-14	18	23	8	34.8	13	56.5	2	8.7
G-15	42	51	24	47.1	20	39.2	7	13.7
G-16	84	115	50	43.4	64	55.7	1	0.9
G-17	1	6	4	66.7	2	33.3	0	0.0
G-18	7	10	3	30.0	7	70.0	0	0.0
G-19	2	8	4	50.0	2	25.0	2	25.0
G-20	10	17	8	47.1	9	52.9	0	0.0
Sub-Total	1,274	1,475	874	59.2	451	30.6	150	10.2
S- 1	1,190	247	54	21.9	140	56.7	53	21.5
S- 2	267	157	64	40.8	93	59.2	0	0.0
S- 3	68	30	16	53.3	14	46.7	0	0.0
S- 4	100	44	12	27.3	30	68.2	2	4.6
S- 5	75	16	9	56.3	5	31.3	2	12.5
S- 6	85	116	75	64.7	38	32.8	3	2.6
S- 7	50	61	39	63.9	22	36.1	0	0.0
S- 8	186	95	27	28.4	50	52.6	18	19.0
S- 9	48	40	11	27.5	11	27.5	18	45.0
S-10	30	21	9	42.9	9	42.9	3	14.3
S-11	18	16	7	43.8	3	18.8	6	37.5
Sub-total	2,117	843	323	38.3	415	49.2	105	12.5
TOTAL	3,391	2,318	1,197	51.6	866	37.4	255	11.0

Source: Computed from responses to the legislative reference bureau's questionnaire sent to hospitals.

*Excludes newborn.

**Other nonprofessional personnel (nursing aides, orderlies, etc.).

While the proportion of professional nurses in general hospitals is 59 per cent, it is only 38 per cent in special hospital staffing; this proportion ranges from 21.9 to 64.7 per cent. Almost half of all nurses in special hospitals are practical nurses; the range is from 18.8 to 68.2 per cent. The use of other nonprofessional personnel varies from no use in 3 special hospitals to 45 per cent of the total staff being composed of such personnel in 1 hospital. It is interesting to note that the total nursing staff is less than the patient census in 9 special hospitals (exceptions are S-6 and S-7) and in only 4 general hospitals.

Patterns in Nurse Distribution: Table 8

Professional nurses in hospitals engage in one of three responsibilities: (1) supervision and administration (including head nurses), (2) general duty, or (3) nursing in a special department. Practical nurses work in either of the last two capacities.

In general hospitals, the proportion of professional nurses engaged in administration and supervision is 20.9 per cent (range from 12.5 to 62.5 per cent in a hospital which employs proportionately more practical nurses); in special hospitals, the proportion is 33.9 per cent (range from 18.2 to 57.4 per cent). Of all professional nurses employed in hospitals in Hawaii, 24.4 per cent are administrators or supervisors.

In general hospitals, the proportion of professional nurses engaged in general duty is 41.8 per cent (range from 25 to 80 per cent); in special hospitals, the proportion is 33.9 per cent (range from 0 to 77.8 per cent). Of all professional nurses employed in hospitals in Hawaii, 39.7 per cent are staff nurses. In general hospitals, the proportion of practical nurses in general duty is 80.3 per cent; in special hospitals, it is 82.7 per cent.

In general hospitals, the proportion of professional nurses engaged in a special department is 37.3 per cent; in special hospitals, the proportion is 32.2 per cent. In general hospitals, the proportion of practical nurses in special departments is 19.7 per cent; in special hospitals, it is 17.3 per cent.

About three-fourths of other nonprofessional personnel in both general and special hospitals are engaged in general duty, while the remaining work in special departments.

Table 8

Number and Percentage of Professional and Nonprofessional Nurses Engaged in
Various Responsibilities in General and Special Hospitals in Hawaii
1961

Note: Percentages for professional nurses are based on 874 for general and 323 for special hospitals.
Percentages for practical nurses are based on 451 for general and 415 for special hospitals.
Percentages for other nonprofessional personnel are based on 150 for general and 105 for special hospitals.

Hospital	P r o f e s s i o n a l						P r a c t i c a l				O t h e r *			
	Admin. & Superv.		General Duty		Special Depart.		General Duty		Special Depart.		General Duty		Special Depart.	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
G- 1	25	27.2	27	29.4	40	43.5	68	64.2	38	35.9	0	0.0	0	0.0
G- 2	1	12.5	5	62.5	2	25.0	7	50.0	7	50.0	1	50.0	1	50.0
G- 3	1	12.5	6	75.0	1	12.5	8	100.0	0	0.0	2	100.0	0	0.0
G- 4	1	12.5	6	75.0	1	12.5	9	100.0	0	0.0	2	100.0	0	0.0
G- 5	1	20.0	4	80.0	0	0.0	5	100.0	0	0.0	2	100.0	0	0.0
G- 6	1	16.7	4	66.7	1	16.7	0	0.0	1	100.0	7	87.5	1	12.5
G- 7	2	28.6	5**	71.4	0	0.0	5	100.0	0	0.0	4	100.0	0	0.0
G- 8	18	15.8	51	44.7	45	39.5	28	100.0	0	0.0	4	18.2	18	81.8
G- 9	21	24.7	33	38.8	31	36.5	46	85.2	8	14.8	21	77.8	6	22.2
G-10	1	25.0	3	75.0	0	0.0	9	100.0	0	0.0	1	100.0	0	0.0
G-11	40	17.9	92	41.1	92	41.1	30	75.0	10	25.0	28	61.0	18	39.1
G-12	35	23.0	53	34.9	64	42.1	21	67.7	10	32.3	22	100.0	0	0.0
G-13	8	13.3	22	36.7	30	50.0	23	95.8	1	4.2	0	0.0	0	0.0
G-14	5	62.5	2	25.0	1	12.5	10	76.9	3	23.1	2	100.0	0	0.0
G-15	7	29.2	12	50.0	5	20.8	15	75.0	5	25.0	7	100.0	0	0.0
G-16	10	20.0	30	60.0	10	20.0	60	93.8	4	6.3	1	100.0	0	0.0
G-17	1	25.0	1	25.0	2	50.0	1	50.0	1	50.0	0	0.0	0	0.0
G-18	1.5	50.0	1.5	50.0	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
G-19	1	25.0	3	75.0	0	0.0	2	100.0	0	0.0	2	100.0	0	0.0
G-20	2	25.0	5	62.5	1	12.5	8	88.9	1	11.1	0	0.0	0	0.0
Sub-Total	182.5	20.9	365.5	41.8	326	37.3	362	80.3	89	19.7	106	70.7	44	29.3

Table 8 (continued)

Hospital	P r o f e s s i o n a l						P r a c t i c a l				O t h e r *			
	Admin. & Superv.		General Duty		Special Depart.		General Duty		Special Depart.		General Duty		Special Depart.	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
S- 1	31	57.4	21	38.9	2	3.7	136	97.1	4	2.9	53	100.0	0	0.0
S- 2	23	35.9	36	56.3	5	7.8	91	97.8	2	2.2	0	0.0	0	0.0
S- 3	8	50.0	0	0.0	8	50.0	13	92.9	1	7.1	0	0.0	0	0.0
S- 4	3.5	29.2	6.5	54.2	2	16.7	28	93.3	2	6.7	2	100.0	0	0.0
S- 5	2	22.2	7	77.8	0	0.0	3	60.0	2	40.0	0	0.0	2	100.0
S- 6	17	22.7	14	18.7	44	58.7	20	52.6	18	47.4	0	0.0	3	100.0
S- 7	11	28.2	0	0.0	28	71.8	0	0.0	22	100.0	0	0.0	0	0.0
S- 8	7	25.9	20	74.1	0	0.0	50	100.0	0	0.0	18	100.0	0	0.0
S- 9	2	18.2	0	0.0	9**	81.8	0	0.0	11	100.0	0	0.0	18	100.0
S-10	3	33.3	0	0.0	6	66.7	0	0.0	9	100.0	0	0.0	3	100.0
S-11	2	28.6	5	71.4	0	0.0	2	66.7	1	33.3	6	100.0	0	0.0
Sub-Total	109.5	33.9	109.5	33.9	104	32.2	343	82.7	72	17.3	79	75.2	26	24.8
TOTAL	292	24.4	475	39.7	430	35.9	705	81.4	161	18.6	185	72.5	70	27.5

Source: Computed from responses to the legislative reference bureau's questionnaire sent to hospitals.

*Other nonprofessional personnel (nursing aides, orderlies, etc.).

**Nurses in general duty and special departments are not separated.

Nursing Care of Patients

Evaluating the adequacy of nurse staffing and supply in hospitals requires a standard of some sort. Although various standards on mental, tuberculosis, and other types of hospitals are available, this study confined its attention to general hospitals since the application of standards for special hospitals requires a detailed classification of patients in terms either of the type or the extent of service they require. Frequently used in the evaluation of nurse staffing in general hospitals are the following: (1) 3.5 hours as the average number for bedside care per patient during 24 hours, based on a 1948 study by the National League of Nursing Education, and (2) one professional nurse to one nonprofessional nurse or one professional nurse to one practical nurse.³ The accepted national standard for hospitals may be useful only as a guide or starting point in analyzing a specific staffing situation.

A more recent study conducted in 1956 under the auspices of the American Hospital Association concludes: "the 'ideal' staffing pattern turns out to be: 4.7 hours total nursing care per patient per day, of which 2.5 hours [or 53 per cent] are provided by professional nurses and 2.2 hours by other nursing personnel."⁴ The American Hospital Association (A.H.A.) study attempted to discover whether differences in numerical staffing of nursing personnel in general hospitals have an effect on feelings of inadequacy of staffing. Involved in this project were patients and personnel in 57 hospitals with a daily average patient census between 100 and 500. It was felt that hospitals outside this range are "too heterogeneous and introduce many additional variables that could not be easily controlled."⁵

In order to make comparisons of hospitals in Hawaii with those of the A.H.A. study, Table 9 was developed to indicate the average daily hours of bedside care per patient for general hospitals with a patient census close to 100 or above. Of the six hospitals, only one (G-8) meets the "ideal" pattern from the standpoint of average hours of nursing care per patient and percentage of professional care. Two others have high average hours of care, but only one-third of this care is furnished by professional nurses. On the other hand, of the three hospitals with low average hours of care, two have percentages of professional care that exceed the standard.

³As stated in: U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Nursing Resources, Design for Statewide Nursing Surveys; A Basis for Action (Washington, D.C.: Government Printing Office, 1956), p. 46.

⁴Faye G. Abdellah and Eugene Levine, Effect of Nurse Staffing on Satisfaction with Nursing Care, Hospital Monograph Series No. 4 (Chicago: American Hospital Association, 1958), p. 35.

⁵Ibid., p. 9.

Large general hospitals in Hawaii have staffing patterns quite different from those in the AHA study. This may not mean, however, that hospitals in Hawaii fail to provide patients with adequate nursing care.

Table 9

Average Daily Hours of Bedside Nursing Care Per Patient and Percentage of Professional Nursing Care in Six General Hospitals in Hawaii, With Patient Census Close to or over 100
1961

Note: Calculations on average daily hours of bedside care per patient are based on the model suggested in: U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Nursing Resources, Design for Statewide Nursing Surveys: A Basis for Action (Washington, D.C.: Government Printing Office, 1956), p. 60.

Hospital	Patient Census*	Nurses in General Duty			Daily Nursing Care Per Patient	
		Professional	Nonprofessional**	Total	Average Hours	Percentage of Professional Care
G- 1	243	27	68	95	2.06	28.4
G- 8	81	51	32	83	5.39	61.5
G- 9	122	33	67	100	4.31	33.0
G-11	339	92	58	150	2.33	61.3
G-12	183	53	43	96	2.76	55.2
G-16	84	30	61	91	5.70	33.0

Source: Computed from responses to the legislative reference bureau's questionnaire sent to hospitals.

*Excludes newborn.

**Includes practical nurses and other nonprofessional personnel (nursing aides, orderlies, etc.).

Rate of Nurse Turnover: Table 10

The turnover rate for professional nurses employed in all hospitals is 37.4 per cent; it is 39.8 per cent in general hospitals and 31.0 per cent in special hospitals.⁶ The turnover rate for practical nurses employed in all hospitals is 18.8 per cent; it is 23.3 per cent in general hospitals and 14.0 per cent in special hospitals. This means that 448 professional and 163 practical nurses left the employment of a hospital during the period June 30, 1960 to June 30, 1961.⁷

Among general hospitals, there were 2 which had no turnover in either professional or practical nurses; these hospitals had a patient census of less than 10. There were 6 with a turnover rate for professional nurses greater than 50 per cent; of these, 2 had no turnover in practical nurses and 1 had a turnover rate for professional nurses greater than 100 per cent. There were 10 general hospitals with no turnover in practical nurses and 2 had rates above 50 per cent.

Among special hospitals, there was 1 with no turnover in either professional or practical nurses. There were 3 with a turnover rate for professional nurses greater than 50 per cent with one of these being greater than 100 per cent. In addition to the one mentioned earlier, there were 3 special hospitals with no turnover of practical nurses and 2 with turnover rates greater than 50 per cent.

"Personal desire to move to another location" was the reason most frequently mentioned by professional nurses for leaving their employment in general and special hospitals. While "pregnancy", "husband's transfer", and "other reasons" were frequently mentioned; least mentioned was "further education". Only 12 professional nurses in general hospitals and 5 in special hospitals left their jobs to continue their education.

Practical nurses mentioned "other reasons" most frequently for leaving their jobs in general and special hospitals. Next in frequency were "personal desire to move to another location", "pregnancy", "further education", and "husband's transfer". There were 10 practical nurses in general hospitals and 2 in special hospitals who left their jobs to continue their education.

⁶A recent study of nurse turnover in six general hospitals ranging in size from 112 to 450 beds indicates that "two major areas are clearly related to voluntary turnover, i.e., pressure on nurses and hospital quality. The measures of pressure included: (1) the full-time nurse-patient ratio; (2) the total staff-patient ratio; (3) the daily occupancy rate; and (4) the average length of patient stay. . . . Hospitals with high percentages of voluntary turnover had lower nurse-patient and total staff-patient ratios and higher daily occupancy rates." (Joan S. Dodge, "Why Nurses Leave--And What to do About It", *Modern Hospital* 94 (May 1960), p. 120.)

⁷The 1951 study of nurses indicated that in 1950 the turnover rates were 34 per cent for professional nurses and 12 per cent for nonprofessional personnel.

Table 10

**Turnover Rate of Professional and Practical Nurses in General
and Special Hospitals in Hawaii, By Type of Reason
1960-1961**

Note: Turnover rate for each hospital is expressed in percentages computed by dividing the total number who left their positions during the period June 30, 1960 - June 30, 1961 by the total number of nurses of that type (professional or practical) in that hospital.

Professional Nurses						Practical Nurses						
Preg- nancy	Husband's Transfer	Personal Desire	Further Education	Other	Turnover Rate in Per Cent	Hospital	Turnover Rate in Per Cent	Preg- nancy	Husband's Transfer	Personal Desire	Further Education	Other
0	0	1	0	1	2.2	G- 1	2.8	0	2	0	0	1
0	0	0	0	1	12.5	G- 2	7.1	0	0	0	0	1
1	0	1	1	0	37.5	G- 3	0.0	0	0	0	0	0
0	1	3	0	1	62.5	G- 4	0.0	0	0	0	0	0
1	1	0	0	0	40.0	G- 5	0.0	0	0	0	0	0
1	3	0	0	0	66.7	G- 6	0.0	0	0	0	0	0
0	2	1	0	0	42.9	G- 7	0.0	0	0	0	0	0
--	2	--	--	--	36.8	G- 8*	71.4	--	--	--	--	--
11	6	15	2	9	50.1	G- 9	35.2	5	1	3	3	7
2	1	0	0	3	150.0	G-10	44.4	0	0	1	0	3
18	10	79	3	22	58.9	G-11	45.0	2	0	4	4	8
13	11	33	2	3	40.8	G-12	103.2	4	2	10	2	14
5	4	4	0	4	28.3	G-13	16.7	0	0	1	1	2
1	0	1	1	2	62.5	G-14	0.0	0	0	0	0	0
0	0	0	2	1	12.5	G-15	0.0	0	0	0	0	0
2	1	5	1	0	18.0	G-16	4.7	0	0	3	0	0
0	0	0	0	0	0.0	G-17	0.0	0	0	0	0	0
0	0	0	0	0	0.0	G-18	0.0	0	0	0	0	0
1	0	0	0	0	25.0	G-19	0.0	0	0	0	0	0
1	1	5	0	1	100.0	G-20	11.1	0	0	0	0	1
57	43	148	12	48	39.8	Sub-Total	23.3	11	5	22	10	37

Table 10 (continued)

Professional Nurses						Practical Nurses						
Preg-nancy	Husband's Transfer	Personal Desire	Further Education	Other	Turnover Rate in Per Cent	Hospital	Turnover Rate in Per Cent	Preg-nancy	Husband's Transfer	Personal Desire	Further Education	Other
3	3	0	2	1	16.7	S- 1	7.1	1	0	0	0	9
1	2	17	1	5	40.6	S- 2	10.8	1	0	4	0	5
0	0	0	0	0	0.0	S- 3	0.0	0	0	0	0	0
0	1	0	0	2	25.0	S- 4	0.0	0	0	0	0	0
0	0	0	1	0	11.1	S- 5	0.0	0	0	0	0	0
4	1	11	0	3	25.3	S- 6	31.6	3	1	5	0	3
7	6	1	0	6	51.3	S- 7	54.6	6	2	1	0	3
0	0	0	0	1	3.7	S- 8	12.0	0	2	0	1	3
0	2	4	1	7	127.3	S- 9	54.6	2	0	0	1	3
1	0	2	0	2	56.6	S-10	22.2	1	1	0	0	0
0	0	0	0	2	28.6	S-11	0.0	0	0	0	0	0
16	15	35	5	29	31.0	Sub-Total	14.0	14	6	10	2	26
73	58	183	17	77	37.4	TOTAL	18.8	25	11	32	12	63

Source: Computed from responses to legislative reference bureau's questionnaire sent to hospitals.

*Hospital G-8 reported its total turnover, but did not report reasons for the turnover.

Education Preparation of Nurse Administrators and Supervisors: Table 11

The data in Table 11 show that information on the educational preparation of nurse administrators and supervisors was furnished for 175 in general hospitals and 109 in special hospitals.

Of 284 nurse administrators and supervisors (including head nurses) in general and special hospitals, 226 had no collegiate degree, 43 had a bachelor's degree, and 15 had a master's degree. This means that only 20.4 per cent had a collegiate degree. This proportion varies very slightly in general and special hospitals.

Educational Preparation of Nurses in Special Departments: Table 12

In general hospitals, there are 340 professional nurses working in special departments; 31 of them or 9.1 per cent have taken post-graduation work in their specialties. In special hospitals, there are 125 professional nurses working in special departments; 7 of them or 5.6 per cent have taken post-graduation work in their specialties.⁸ Details on the number of professional nurses in each department and the number with post-graduation work in the specialty are given in Table 12.

⁸The numbers in special departments differ from those in Table 8 because one general hospital included supervisory and administrative personnel working in these departments and one special hospital included general duty nurses as working in a special department.

Table 11

**Educational Preparation of Professional Nurses in Administrative
and Supervisory Positions Employed in General and
Special Hospitals in Hawaii
1961**

Note: Included are professional nurses who are serving as directors of nursing service, assistant directors, supervisors, assistant supervisors, and head nurses.

Hospital	Total Professional Nurses	Educational Preparation			Percentage with Collegiate Degrees*
		R.N. Only	R.N. and Bachelor's Degree	R.N. and Master's Degree	
G- 1	25	24	1	0	4.0
G- 2	1	1	0	0	0.0
G- 3	1	1	0	0	0.0
G- 4	1	0	1	0	100.0
G- 5	1	1	0	0	0.0
G- 6	1	1	0	0	0.0
G- 7	2	2	0	0	0.0
G- 8	17**	9	6	2	47.1
G- 9	21	15	6	0	28.6
G-10	1	1	0	0	0.0
G-11	32**	25	3	4	25.0
G-12	34**	24	7	3	29.4
G-13	8	8	0	0	0.0
G-14	5	5	0	0	0.0
G-15	7	7	0	0	0.0
G-16	10	9	0	1	10.0
G-17	3	2	1	0	33.3
G-18***	2	1	1	0	50.0
G-19	1	1	0	0	0.0
G-20	2	2	0	0	0.0
Sub-total	175	139	26	10	20.6
S- 1	31	21	7	3	32.3
S- 2	23	20	3	0	13.0
S- 3	8	7	1	0	12.5
S- 4	3	3	0	0	0.0
S- 5	2	2	0	0	0.0
S- 6	17	15	2	0	11.8
S- 7	11	6	4	1	45.5
S- 8	7	7	0	0	0.0
S- 9	2	2	0	0	0.0
S-10	3	3	0	0	0.0
S-11	2	1	0	1	50.0
Sub-Total	109	87	17	5	20.2
TOTAL	284	226	43	15	20.4

Source: Computed from responses to the legislative reference bureau's questionnaire sent to hospitals.

*Includes those with bachelor's or master's degrees.

**Reported more professional nurses in administration and supervision, but gave educational preparation for only this number.

***Director of nursing serves two hospitals (general and special), each on a half-time basis. For the purposes of this table, the director was placed as full-time for the general unit.

Table 12

Number of Professional Nurses Employed in Special Departments Who Have
Taken Post-Graduation Work in Their Specialties in General
and Special Hospitals in Hawaii
1961

Note: Figures in parentheses indicate the number of professional nurses who have taken post-graduation work in their specialties.

Hospital	Total Professional Nurses	S p e c i a l D e p a r t m e n t s							Percentage with Post-Graduation Work
		Out- Patient	Operating Room	Obstetrics	Psy- chiatry	Pedia- trics	Geria- trics	Other	
G- 1	40	1(0)	12(2)	10(2)		5(0)	2(0)	10(0)	10.0
G- 2	2		1(0)					1(1)	50.0
G- 3	1		1(0)						0.0
G- 4	1		1(1)						100.0
G- 5	0								---
G- 6	1	1(0)							0.0
G- 7	0								---
G- 8	45	32(1)	7(0)	6(0)					2.2
G- 9	31	3(0)	10(0)	13(2)		5(0)			6.5
G-10	0								---
G-11	106*	10(0)	25(4)	34(6)	8(1)	15(1)		14(0)	11.3
G-12	64	7(0)	15(1)	22(2)		7(0)		13(0)	4.7
G-13	30	1(0)	5(2)	9(0)		5(0)		10(0)	6.7
G-14	1	1(0)							0.0
G-15	5		1(0)	4(2)					40.0
G-16	10	1(0)	4(0)	4(1)				1(1)	20.0
G-17	2	0.5(0)	0.5(0)			1(0)			0.0
G-18	0								---
G-19	0								---
G-20	1		1(1)						100.0
Sub-Total	340(31)	57.5(1)	83.5(11)	102(15)	8(1)	38(1)	2(0)	49(2)	9.1

Table 12 (continued)

Hospital	Total Professional Nurses	S p e c i a l D e p a r t m e n t s							Percentage with Post-Graduation Work
		Out- Patient	Operating Room	Obstetrics	Psychiatry	Pedia- trics	Geria- trics	Other	
S- 1	23		2(0)		21(1)				4.3
S- 2	5	2(0)	3(0)						0.0
S- 3	8	1(0)						7(0)	0.0
S- 4	2		2(1)						50.0
S- 5	0								---
S- 6	44	1(0)	5(1)	20(4)		17(0)		1(0)	11.4
S- 7	28	4(0)	6(0)			18(0)			0.0
S- 8	0								---
S- 9	9							9(0)	0.0
S-10	6							6(0)	0.0
S-11	0								---
Sub-Total	125(7)	8(0)	18(2)	20(4)	21(1)	35(0)	0(0)	23(0)	5.6
TOTAL	465(38)	65.5(1)	101.5(13)	122(19)	29(2)	73(1)	2(0)	72(2)	8.2

Source: Computed from responses to the legislative reference bureau's questionnaire sent to hospitals.

*More than reported in Table 8 because supervisory and administrative personnel included in general hospitals or general duty nurses with specialty included in special hospitals.

CHAPTER III

NURSING EDUCATION IN 1961

An understanding of the historical development of nursing education for professional nurses and for practical nurses is essential for an appreciation of current problems in Hawaii and for the formulation of plans for nursing education in the state. Although this report can only touch upon a few of the highlights in the history of nursing education and provide limited information on the variety of existing educational facilities, they should be sufficient to furnish the reader with an awareness of some of the basic issues in and alternative approaches to nursing education.

PROFESSIONAL NURSING EDUCATION IN THE UNITED STATES

A brief, historical account of the background of professional nurse education is found in Nurses for the West:

The concept of nursing as a specialized function requiring specific preparation is less than one hundred years old. A hundred years ago, most medical care was given in the home or in the doctor's office. Hospitals were primarily for indigents, for serious infectious cases, or as a last resort for those mortally ill. The attendants were untrained--they were classed as servants, and sometimes they were women prisoners. There were no trained nurses. In the United States it was not until the Civil War that there was recognition of the need for a trained corps of people to nurse the sick, and for an organized system of education for nursing.

The first schools of nursing education were established only 75 years ago--in 1873, under hospital auspices. The first school under college or university auspices was not established until 1909--36 years later, and no baccalaureate degree program in nursing was organized until 1916. Junior college nursing programs are a post-World War II development.¹

In 1923 the first significant evaluation of nursing education was made by Josephine Goldmark in her report, Nursing and Nursing Education in the United States. Among the problems which were identified were two which still plague nursing education: (1) the inherent difficulties of adjusting the conflicting claims of nursing

¹Western Interstate Commission for Higher Education, op. cit., p. 12.

service and nursing education in hospital schools and (2) the need for greater public support of nursing education. The Goldmark report led to the endowment of several nursing schools as integral parts of universities and to grants from foundations to aid the development of such programs.

Other reports were published later; one of major importance was Dr. Esther Brown's *Nursing for the Future* (1948) which states: "Almost without a dissenting voice those who are conversant with the trend of professional education in the United States agree that preparation of the professional nurse belongs squarely within the institution of higher learning."² The need for both academic and professional training of the nurse was emphasized by Dr. Brown as well as the need for enacting sound legislation relating to the training of practical nurses. One of the concluding recommendations of this report is that "official bodies--local, state, and federal--concern themselves at once with supplying whatever additional resources are necessary for the adequate support of nursing education on the professional, as well as the nonprofessional, level."³

Implicit in both the Goldmark and Brown reports is the principle that the education of the professional nurse has many qualities similar to those of education for the other professions. Their recommendations would result in colleges and universities providing nursing education as another type of professional education.

An interesting account of the fundamental differences between education for nursing at the present time and that for other occupations is given below:

1. The primary fundamental difference is in financing. The schools have not been supported by the general public through gifts and tax appropriations for educational purposes. They have been almost entirely financed by student labor and by hospital service funds derived from patient fees. . . .

2. The second difference, of employing agencies, explains the first. Employing agencies whose primary function is to provide service, not education, have been responsible for the schools. . . .

3. The third difference has been the isolation of nursing education from the general stream of educational development. Students and faculty members have had little opportunity to broaden their experience through sharing varied interests and

²Esther L. Brown, *Nursing for the Future*, A report prepared for the National Nursing Council (New York: Russell Sage Foundation, 1948), p. 138.

³*Ibid.*, p. 173.

activities outside their field with their peers in other educational programs. . . .⁴

The third difference, to some extent, is being lessened as nursing education becomes a part of collegiate programs.

Recent Developments

In view of the above reports, it is not surprising to see an increasing interest in and a growing support for the position that nursing education should be primarily provided in institutions of higher learning. An impetus to this movement may have been given very recently--in May 1960--by the committee on current and long-term goals of the American Nurses' Association when it set forth Goal 3 as follows:

To insure that, within the next 20-30 years, the education basic to the professional practice of nursing, for those who then enter the profession, shall be secured in a program that provides the intellectual, technical and cultural components of both a professional and liberal education. Toward this end, the American Nurses' Association shall promote the baccalaureate program so that in due course it becomes the basic educational foundation for professional schools.⁵

It is much too early to tell what effect this statement will have on nursing education in general. Some doubts exist that the change from hospital schools to baccalaureate programs can take place in one generation, particularly because of the great percentage of nurses who are presently being educated in hospital schools. Since 1946, however, a gradually rising proportion of nursing students has entered collegiate programs. In 1956, for example, 14.9 per cent of all professional nursing students were enrolled in college and university programs leading to a baccalaureate degree, and 85.1 per cent were enrolled in hospital schools or associate degree programs.⁶ Thus, after more than 50 years, the trend toward the assimilation of nursing education into the general educational system seems to be gathering momentum.

Another nursing organization is the National League for Nursing (NLN) whose membership includes professional and practical nurses, nursing aides, allied professional people and other citizens

⁴Margaret Bridgman, "Development and Purpose of Collegiate Programs in the Evolving System of Education for Nursing" in The Yearbook of Modern Nursing, 1958-59 (New York: G.P. Putnam's Sons, 1959), pp. 240-41.

⁵American Nurses' Association, Committee on Current and Long-Term Goals, Report (May 1960), p. 2.

⁶National League for Nursing, op. cit., pp. 22-23.

interested in nursing. It works primarily for the improvement of nursing services and nursing education. The NLN also supports baccalaureate degree programs but not at the exclusion of diploma or hospital schools. The League specifies the type of education which it recommends for various types of professional nursing personnel; these suggestions are summarized in Table 13. The American Nurses' Association has also developed "functions, standards, and qualifications" for various types of nursing personnel. Type of educational training is specified as part of the qualifications.

Table 13

**Educational Requirements for Professional Nursing
Personnel as Recommended by the
National League for Nursing**

Nature of Responsibility	Educational Requirements
<u>Group A:</u> Professional nurses who give direct care to patients under supervision.	Diploma or associate degree program.
<u>Group B:</u> Professional nursing personnel who hold positions ranging from hospital head nurse and public health staff nurse through service and education administrator.	Baccalaureate degree program which lays the foundation for such responsibilities and for graduate study.
<u>Group C:</u> The portion of Group B nurses who become teachers, supervisors, administrators, and consultants.	Master's or doctor's degree study in a functional or clinical area or both.

Source: National League for Nursing, Committee on the Future, Nurses for a Growing Nation (New York: the League, 1957), p. 23.

Types of Programs

As noted earlier, there are three distinct types of programs which provide beginning education for professional nurses: (1) diploma programs in hospital schools, (2) associate degree programs in junior colleges, and (3) baccalaureate programs in colleges and universities. Graduates from all three programs, if accredited by the state licensing agency in 49 states (Alaska is the exception), are eligible to take the state board licensing examinations for professional nursing and to become registered nurses.

DIPLOMA PROGRAMS are the original schools for nursing. These are hospital-sponsored schools with three-year programs; at the end of this period graduates are awarded diplomas.

Like the collegiate program, the diploma program consists of both academic studies and practice in a hospital. But unlike the collegiate program, the course of studies in hospital schools is often designed with service needs of the hospital in mind. Student nurses must live in nurses' residences provided by hospitals which may also furnish meals, uniforms, and a small stipend.⁷

Approximately 90 per cent of the nation's present professional nurse population are graduates from diploma programs.⁸

ASSOCIATE DEGREE PROGRAMS, the latest development in nursing education, are two-year nursing courses in community or junior colleges. The Western Council on Higher Education for Nursing describes associate degree or junior college nursing programs as follows:

Junior college nursing programs are so new that many misconceptions have sprung up about them. The junior college program is not the first two years of a four-year degree program. The junior college program is not the three-year hospital school program condensed into two years. The junior college program is a complete course designed to train a good registered nurse.

Many nurses wonder whether a training program which is a whole year shorter than the traditional hospital program can be as thorough. But a program designed for the education of individual students rather than to meet the service needs of hospitals involves a new educational philosophy in nursing and requires a new look at the traditional curriculum. It is an oversimplification to regard the junior college course as a shortened program. It is, rather, a new kind of program which offers fewer courses with broader groupings of related subject matter. In this way, much needless repetition is eliminated Courses are planned in such a way as to relate theory and practice. In the traditional curriculum, classroom theory and clinical practice are often separated by many months.⁹

These programs were initiated in 1952 under a pilot program sponsored by the American Association of Junior Colleges, the National

⁷Western Council on Higher Education for Nursing, *The Junior College Nursing Program*, The report of a seminar held in Boulder, Colorado, November 20-21, 1958 (Boulder, Colorado: Western Interstate Commission for Higher Education, April 1959), pp. 12-13.

⁸Western Interstate Commission for Higher Education, *op. cit.*, p. 14.

⁹Western Council on Higher Education for Nursing, *op. cit.*, p. 15.

League for Nursing, and Teachers College, Columbia University; several community junior colleges located in different regions of the United States were part of the pilot program.¹⁰

BACCALAUREATE PROGRAMS are four- or five-year college programs which combine a liberal arts program with professional education and are under the control of an institution of higher education. Educational standards are similar to those of other degree programs. The college or university oftentimes operates the hospital supplying clinical facilities for nursing students, but it may contract with other hospitals and community agencies for the use of their facilities.

In addition to the above three programs, there are programs that offer baccalaureate preparation for diploma graduates; these are usually three years in length. A nurse who graduates from a diploma school and then goes on to a collegiate program to obtain a baccalaureate degree devotes a total of six years to nursing education.

Present Enrollments and Facilities

An excellent summary of the students enrolled in professional nurse education is found in the 1961 edition of Facts About Nursing:

Enrollment in and admissions to basic programs of professional nursing education in the academic year 1959-60 are the highest recorded since the Cadet Nurse Corps Program had its impact in 1946. Despite this gain, nursing is not attracting the same proportion of potential students that it had been even in the early 1950's. At that time between 6 and 7 percent of the girls graduating from high school were being admitted to basic programs in nursing. This proportion has been declining steadily and by 1959 and 1960 the proportion reached 5 percent. At the same time the demand for qualified professional nurses has been increasing, especially in the area of administration, supervision and teaching. Here we see that the number of students enrolled in degree programs in nursing, at both the undergraduate and graduate level, comprises approximately 2 percent of the nation's entire degree-credit enrollment of women in 1960, compared to about 3 percent in 1955. . . .¹¹

Out of the 30,113 graduates in the United States and Puerto Rico in 1959-60, 25,188 (83.6 per cent) came from diploma pro-

¹⁰For further details on the pilot program, see: Mildred L. Montag, Community College Education for Nursing; An Experiment in Technical Education for Nursing, Report of the Cooperative Research Project in Junior-Community College Education for Nursing (New York: McGraw-Hill, 1959), 457 pp.

¹¹American Nurses' Association, op. cit., p. 80.

grams; 789 (2.6 per cent) from associate degree programs; and 4,136 (13.7 per cent) from baccalaureate programs.¹²

In October 1960 there were 1,123 schools of nursing, representing diploma, associate degree and baccalaureate degree programs, in 49 states (Alaska has none), the District of Columbia, and Puerto Rico--all accredited by the appropriate state licensing agency. (There were 508 schools which were not accredited.) The data in Table 14 indicate that much of nursing education is still conducted under hospital auspices and that the majority of these schools are supported by private funds. However, almost all schools in community or junior colleges are supported entirely or partially by public funds. Most independent nursing schools, which are not a part of hospitals or institutions of higher education, are supported by private funds.

Table 14

Number of Schools of Nursing Offering Basic Professional Programs
in the United States, by Type of Support and Control
October 15, 1960

Control	Total Number	Type of Support		
		Public	Private	Both
Hospital	856	150	538	168
University or senior college	190	85	91	14
Community or junior college	42	31	6	5
Independent	35	1	30	4
TOTAL	1,123	267	665	191

Source: American Nurses' Association, Facts About Nursing; A Statistical Summary (1961 ed.; New York: the Association, 1961), p. 97.

¹²Ibid., p. 88.

PROFESSIONAL NURSING EDUCATION IN HAWAII

There are presently three institutions which offer professional nurse education in Hawaii. Two are hospital schools of nursing (Queen's and St. Francis) and one is a college of nursing (University of Hawaii). All three institutions are located in Honolulu. Table 15 contains data on each of these three schools: date of establishment, requirements for admission, costs of education, and estimates of living expenses. Admission requirements for the three schools do not differ much, but educational costs vary greatly

Further information on these three schools of nursing, obtained through the bureau's questionnaires, is summarized in the ensuing tables. When comparable data for the nation are available, they are also presented.¹³

Faculty Members, 1961

Table 16 contains data that show that Hawaii's full-time faculty members in schools of nursing (omitting those in affiliating agencies, with which nursing schools contract for certain services) compare very favorably with their mainland counterparts in academic preparation. While all of the 16 faculty members in the collegiate program in 1961 have master's degrees in Hawaii, only 72.2 per cent of 1,940 nursing educators in similar programs in the United States possessed such degrees in 1960. Only 22.1 per cent of 5,342 faculty members in hospital and other noncollegiate professional nursing schools in the United States had master's degrees in 1960 compared to 30 per cent of 20 nursing educators in Hawaii in 1961.

One hospital school and the collegiate program have encountered problems in recruiting instructional personnel because they found it difficult to find qualified personnel with master's degrees who have also had experience in classroom and clinical teaching.

Student Recruitment

All three nursing schools participate in the Hawaii League of Nursing Careers Committee as part of their recruitment program. Each year one representative from each of the nursing schools is involved in the work of the Careers Committee which conducts recruitment by sending representatives to the different islands. When a representative goes to a particular island, she takes along the bulletins of all three schools of nursing.

¹³All mainland statistics are taken from the 1961 edition of Facts About Nursing.

Table 15

Selected Data on Three Schools of Nursing in Hawaii
1961

Feature	Queen's Hospital School of Nursing	St. Francis Hospital School of Nursing	University of Hawaii College of Nursing
Establishment	1916	1927	1931: program in public health nursing 1952: school of nursing 1959: college of nursing
Admission Requirements	<p>Age: 17-30 Sex: Male or female Physical requirements: pre-entrance exam dental exam</p> <p>General education require- ments: Graduation from high school Acceptable score on Uni- versity of Hawaii entrance exam</p> <p style="text-align: center;">---</p>	<p>Age: 17-35 Sex: Female Physical requirements: pre-entrance exam dental exam</p> <p>General education requirements: Graduation from high school Satisfactory score on Scholastic Aptitude Test of College Entrance Examination Board exam</p> <p>Character references</p> <p style="text-align: center;">- - -</p>	<p><u>For high school students:</u> <u>Graduation from high</u> school in upper third of class Acceptable score on University admission test Personal and health quali- fications</p> <p><u>Additional for graduate</u> <u>nurse students:</u> Graduation from accredited school of nursing with at least "C" average License to practice nursing in any state Acceptable score on National League of Nursing Graduate Nurse Examination</p>

Table 15 (continued)

Feature	Queen's Hospital School of Nursing	St. Francis Hospital School of Nursing	University of Hawaii College of Nursing
Length of Training Period	3 years	3 years	4 years
Educational Costs	1st year: \$263 (includes \$235 for preclinical)	1st year: \$542 (includes \$280 Chaminade College tuition and lab fees)	Educational expenses yearly: \$319.25 approximately
	2nd year: 83 3rd year: 78	2nd year: 158 3rd year: 125	
	TOTAL: \$424*	TOTAL: \$825**	TOTAL: \$1,277
Living Expenses	"Full maintenance is provided without cost. This includes room, board and laundry of school uni- forms."	"Students are encouraged to live at home although facili- ties are available to those wishing to live in the nurses' residence. During the first nine months of the first year, there is a charge of \$30 per month toward room and board to live in the residence. . . ."	Approximate estimates for nine-month period: \$900-\$1,100 for room and board \$490 for general living expenses

Sources: The Queen's Hospital School of Nursing Bulletin, 1960-1962; St. Francis Hospital, School of Nursing Announcement, 1961-1962; University of Hawaii, College of Nursing, Curriculum in Nursing, 1961-1962 (mimeographed). Interviews with the heads of each of these schools.

*Educational fees will be increased, but the total will probably be less than \$700.

**As of September 1962, the fees will be: \$679 for the first year, \$152 for the second, and \$140 for the third; total will be \$981.

Table 16

Academic Preparation of Full-Time Faculty
Members in Hawaii's Schools of Nursing
1961

Note: All full-time instructors are also registered nurses, with the exception of 1 instructor (science) at Queen's. One instructor on leave is included. Faculty members engaged in full-time liberal arts education are omitted as well as those in affiliating agencies.

Academic Preparation	Schools of Nursing							
	Queen's		St. Francis		Univ. of Hawaii		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Total Number	10	100.0	10	100.0	16	100.0	36	100.0
No college degree	0	0.0	1	10.0	0	0.0	1	2.8
Bachelor's degree	7	70.0	6	60.0	0	0.0	13	36.1
Master's degree	3	30.0	3	30.0	16	100.0	22	61.1
Doctor's degree	0	0.0	0	0.0	0	0.0	0	0.0

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

All schools also participate in career day visits in individual high schools. One of the nursing schools also holds a one-half day conference for school counselors. All schools work with guidance personnel in both public and private schools. Only one diploma school directs its efforts out-of-state, and reported that in August 1961, 46 students from the mainland had requested application forms; 11 completed partial requirements for application and 5 completed all requirements: 3 were rejected and 2 were accepted.

Student Scholarships

All three schools have a number of scholarships for their students; some of these are from the alumnae association, the professional nurse association, community organizations, or the school itself. State scholarships are available in the collegiate program, but they are not limited to nursing students. Federal scholarships are also available in the collegiate program for selected students.

Current Enrollments

There are presently 218 students enrolled in the two hospital schools of nursing and 143 (131 regular students and 12 graduate nurses) in the collegiate program or a total of 361 in the three schools. Hospital schools enroll 60 per cent of all students at the present time. In October 1960, 79.8 per cent of 118,849 students enrolled in nursing education programs in the United States were attending hospital schools. Table 17 contains information on Hawaii's nursing students: their sex, age, and geographical distribution.

All but one of the students are female. Slightly less than two-thirds of the students are below 20 years of age and one-third are between 20-24 years old. The nine students 30 years or older are in the collegiate program. All but 9 per cent of nursing students are from Hawaii; almost two-thirds come from the city and county of Honolulu.

Student Withdrawals, 1955-1960

During the period 1955-1960, 13.3 per cent (257) of 1,939 nursing students enrolled in the three nursing schools withdrew. Withdrawal rates were 10.9 per cent for Queen's, 16.6 per cent for St. Francis, and 12.0 per cent for the University. Withdrawal rates for each year in each of the three schools and for the total school enrollment are included in Table 18.

Table 17

Selected Characteristics of Students Enrolled in Hawaii's Schools of Nursing
1961-62

Characteristic	Schools of Nursing				Total	
	Queen's	St. Francis	Univ. of Hawaii Regular Studs.	Grad. Nurses	Number	Per Cent
<u>Total Enrollment</u>	122	96	131	12	361	100.0
<u>Sex</u>						
Male	1	0	0	0	1	.3
Female	121	96	131	12	360	99.7
<u>Age</u>						
Below 20	87	57	80	0	224	62.0
20-24	33	38	45	3	119	33.0
25-29	2	1	3	3	9	2.5
30-34	0	0	1	2	3	.8
35-40	0	0	1	3	4	1.1
Over 40	0	0	1	1	2	.6
<u>Geographical Distribution</u>						
Hawaii County	28	10	14	0	52	14.4
Honolulu City and County	70	57	89	4	220	60.9
Kauai County	4	6	1	1	12	3.3
Maui County	14	18	11	2	45	12.5
Sub-Total	116	91	115	7	329	91.1
Other States	5	5*	14	4	28	7.8
Foreign Country	1	0	2	1	4	1.1

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

*Includes 1 student from Samoa.

Table 18

Number of Student Withdrawals and Withdrawal Rate in Hawaii's Schools of Nursing*
1955-60

Period	S c h o o l s o f N u r s i n g											
	Queen's			St. Francis			Univ. of Hawaii			Total		
	Enrollment	Withdrawals No.	Per Cent	Enrollment	Withdrawals No.	Per Cent	Enrollment	Withdrawals No.	Per Cent	Enrollment	Withdrawals No.	Per Cent
1955-56	126	12	9.5	146	21	14.4	101	18	17.8	373	51	13.7
1956-57	132	13	9.9	137	36	26.3	118	16	13.6	387	65	16.8
1957-58	126	12	9.5	140	19	13.6	145	16	11.0	411	47	11.4
1958-59	130	19	14.6	128	25	19.5	125	6	4.8	383	50	13.1
1959-60	128	14	10.9	136	13	9.6	121	17	14.0	385	44	11.4
TOTAL	642	70	10.9	687	114	16.6	610	73	12.0	1,939	257	13.3

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

*Does not include data on graduate nurses attending the collegiate program.

Data on mainland student withdrawals show 32 per cent for the classes of 1955-57, 33 per cent for 1958-59, and 34 per cent for 1960. These figures are considerably higher than the withdrawal rate in Hawaii (13.3 per cent). Unfortunately it is not possible to tell, from the data presented, whether these mainland students were all enrolled in accredited nursing schools.

Reasons for withdrawal from school are presented in Table 19. Close to 50 per cent of the total student withdrawals were due to academic reasons. Next in frequency was "change of vocation" (17.1 per cent). Some variation is found among the three schools in terms of the numerical significance of the various reasons given for withdrawal, but in all three institutions academic factors were listed most frequently. Needs related to finances were cited for withdrawals also; these seem greatest at the University of Hawaii where costs are highest.

Admission, Graduation, and Licensure, 1950-1961

During the period 1950-1958, 1,241 students were admitted to schools of nursing. Of this number, 858 (69.1 per cent) graduated, and of these graduates, 836 (97.4 per cent) were licensed after passing the licensing exam the first time they took it. While the three schools of nursing show some variation in the percentage of admitted students who graduated, they are all highly successful in terms of the percentage of graduates who become licensed. Data on each of the three schools and for the total school enrollment are found in Table 20.

One hospital school estimated that approximately 90 per cent of its graduates during the last five years remained in Hawaii, the other reported approximately 80 per cent, and the collegiate program reported 61 per cent. Among the reasons which explain the fact that about one-third of graduates from the collegiate program are not in Hawaii are: (1) a greater proportion of students in the collegiate program may be from out-of-state (1961-62 figures show that about 15 per cent at the University are out-of-state, while about 5 per cent are in both hospital schools); (2) a greater proportion of graduates from the collegiate program go on to graduate work; and (3) collegiate students who qualify for the Navy or Army student reserve program go immediately after graduation into the nurse corps.

Expansion Plans, 1970

The data in Table 21 indicate that the physical plant of both hospital schools of nursing can accommodate about a third more students than their present enrollments. However, neither of these schools has present plans for expansion. This may be due to their

Table 19

Reasons for Student Withdrawals from Hawaii's Schools of Nursing*
1955-60

Reasons for Withdrawal	Schools of Nursing							
	Queen's		St. Francis		Univ. of Hawaii		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Academic record	34	48.6	58	50.9	27	37.0	119	46.3
Change of vocation	11	15.7	15	13.2	18	24.7	44	17.1
Personal or family needs	4	5.7	14	12.3	10	13.7	28	10.9
Marriage	12	17.1	9	7.9	0	0.0	21	8.2
Health	4	5.7	4	3.5	4	5.5	12	4.7
Change of nursing school	2	2.9	6	5.3	4	5.5	12	4.7
Unsuited to nursing	1	1.4	6	5.3	4	5.5	11	4.3
Other	2	2.9	2	1.7	6**	8.2	10	3.9
TOTAL	70	100.0	114	100.1	73	100.1	257	100.1

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

*Does not include data on graduate nurses attending the collegiate program.

**Financial reasons.

Table 20

Data on Admission, Graduation, and Alumnae Licensure for Students
from Hawaii's Schools of Nursing*
1950-61

Note: First date is date of admission; second date is date of graduation (second date in parenthesis indicates date of graduation for collegiate program). Number licensed is the number of graduates who passed the licensing exam the first time they took it.

Period	S c h o o l o f N u r s i n g									Total		
	Queen's			St. Francis			Univ. of Hawaii			Admis- sions	Gradu- ation	Li- censed
	Admis- sions	Gradu- ation	Li- censed	Admis- sions	Gradu- ation	Li- censed	Admis- sions	Gradu- ation	Li- censed			
1950-1953	55	56	55	68	54	54	--	--	--	123	110	109
1951-1954	60	54	53	58	36	36	--	--	--	118	90	89
1952-1955 ('56)	57	41	40	66	49	48	37	15	15	160	105	103
1953-1956 ('57)	50	42	42	66	35	35	36	19	18	152	96	95
1954-1957 ('58)	47	41	40	49	36	35	37	19	18	133	96	93
1955-1958 ('59)	42	36	35	61	40	39	37	30	29	140	106	103
1956-1959 ('60)	52	42	42	56	20	19	37	28	28	145	90	89
1957-1960 ('61)	42	29	28	65	46	44	58	21	20	165	96	92
1958-1961	54	43	41	51	26	22	--	--	--	105	69	63
TOTAL	459	384	376	540	342	332	242**	132	128	1,241	858	836
Percentages	83.7% of admis- sions were graduated	97.9% of gradu- ates were li- censed		63.3% of admis- sions were graduated	97.1% of gradu- ates were li- censed		54.6% of admis- sions were graduated	97.0% of gradu- ates were li- censed		69.1% of admis- sions were graduated	97.4% of gradu- ates were li- censed	

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

*Does not include data on graduate nurses attending the collegiate program.

**313 were accepted; 242 enrolled.

Table 21

Capacity and Present Use of the Physical Plant of Hawaii's Schools of Nursing
1961

School of Nursing	Capacity of Physical Plant		Present Use of Physical Plant		Extent of Present Use	
	Faculty	Students	Faculty*	Students	Faculty Per Cent	Students Per Cent
Queen's Hospital	24	180	10	122	41.7	67.8
St. Francis Hospital	16	160	10	96	62.5	60.0
University of Hawaii	16-20	150	16	143**	100.0-80.0	95.3
TOTAL	56-60	490	36	361	64.3-60.0	73.7

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

*Present faculty members include only full-time personnel.

**Includes regular students and graduate nurses.

recognition that the collegiate program will probably expand and their present difficulty in finding suitable applicants. It is also interesting to note that one of the hospital schools is presently exploring the possibility of making arrangements with an educational institution so as to convert to a baccalaureate program.

The collegiate program seems to be using its physical plant almost to capacity at the present time. Plans for expansion include the addition of a master's degree program which will require additional faculty members and the further development of clinical instruction facilities.

PRACTICAL NURSING EDUCATION IN THE UNITED STATES

Practical nurse education in the United States started in 1897 under private auspices; it was not until 1919 that public education authorities established such a program. Despite this, much of practical nurse education today is supported by public funds.

The practical nursing program is generally a 12-month course. Graduates from programs approved by the officially-designated licensing authority in the jurisdiction are eligible to take the state licensing examination. All 50 states, plus the District of Columbia and Puerto Rico, have enacted legislation on the licensure of practical nurses.

One of the significant characteristics of practical nurse education in recent years has been the rapid growth of programs. In 1951 there were 144 approved programs in the nation; in 1957 there were 479; in 1959-60 there were 661.¹⁴ Support by the federal government is oftentimes credited for this phenomenal growth. In 1956 Congress passed legislation which established a five-year program of federal matching grants to states for expanding and improving vocational educational training programs for practical nurses (P.L. 84-911). A ceiling was placed on appropriations; they could not exceed \$5 million annually. For the first two years of the program the states were required to use at least \$1 of state and/or local funds for each \$3 of federal funds; matching for the last three years was on a dollar for dollar basis. In 1961, this program was extended for a three-year period under P.L. 87-22, the Practical Nurse Training Extension Act. In the legislative history of this Act, the need for the continuation of aid was explored.¹⁵ It was pointed out that (1) the total current supply of practical nurses (approximately 200,000) is far below the number

¹⁴"Practical Nursing Programs in 1957," Nursing Outlook 6 (August 1958), reprint.

¹⁵ U.S., Congress, Senate, Committee on Labor and Public Welfare, Practical Nurse Training Extension Act of 1961, 87th Cong., 1st Sess., 1961, Senate Repr. No. 57 to accompany S. 278.

of registered nurses (approximately 300,000) employed in hospitals and related institutions, and (2) the Public Health Service and the National League for Nursing estimate, on the basis of their surveys of nursing services, that hospitals need a minimum of one practical nurse for each professional nurse employed.

Federal support for practical nurse education has contributed to the growth of programs in public schools rather than in service agencies. Facts About Nursing reports that in 1959-60, out of 661 approved programs, 415 (62.8 per cent) were under state or local boards of vocational education; 55 (8.3 per cent) were under a university, college, or junior college; 146 (22.1 per cent) were under hospitals; 31 (4.7 per cent) were under federal, state, county or city hospitals; and 14 (2.1 per cent) were under another independent agency.

PRACTICAL NURSING EDUCATION IN HAWAII

In Hawaii there is only one program for practical nurse education; it was started in 1947. This is offered at Kapiolani Technical School by the department of education. Admission requirements are: (1) age: 18 to 50 (some exceptions may be made); (2) education: high school graduation (exception may be made for applicant over 25 years of age) and satisfactory score on aptitude tests; (3) health: pre-entrance physical exam; (4) other requirements: references, personal interviews. Students are admitted in January, April, and September. The instruction is free, although students need approximately \$100 to pay for books, laboratory fees, uniforms, and graduation expenses.

Further information on the practical nurse programs, from responses to the bureau's questionnaire, is summarized below. Data on mainland programs come from the 1961 edition of Facts About Nursing.

Faculty Members

There are presently three full-time nurse instructors; all are R.N.s and two have B.S. degrees. (Four full-time instructors are in affiliating agencies.) The average length of service of the three instructors is 11.3 years.

Student Recruitment

Recruitment efforts are similar to those of the three professional schools of nursing.

Student Scholarships

In cases of special need the practical nursing school has requested funds from community organizations.

Current Enrollment

There are currently 65 students enrolled. All but one are from the state; 41 (63.1 per cent) are from Honolulu. All but 4 are females. Slightly more than two-thirds are below 20 years of age; 27.7 per cent are more than 30 years old. See Table 22 for more details on age and geographical distribution of students.

A comparison of Hawaii's student nurses in practical and professional nursing programs shows: (1) sex distributions are similar; (2) a greater proportion of students in schools of professional nursing are below 24 years of age while a greater proportion of students in the practical nursing school are above 30 years of age; and (3) more than 90 per cent of students in both programs are from Hawaii.

Student Withdrawals, 1955-1960

During this period, 34.1 per cent of 539 students enrolled in the practical nursing school, or 184, withdrew. This is a much higher withdrawal rate than that for professional nursing students. Slightly more than 50 per cent of students who withdrew did so because of academic reasons; this is not too different from the professional nurse student withdrawals. Other reasons for student withdrawals as well as the withdrawal rate for each year are shown in Table 23.

Admission, Graduation, and Licensure, 1955-1960

During this period, 542 students were enrolled; 342 graduated (63.1 per cent). Of the 340 graduates who took the exam, 331 passed the first time (97.4 per cent). National statistics indicate that in 1959, 92.5 per cent of candidates for the first time passed their state board licensing tests. Although these percentages are not directly comparable, they indicate that Hawaii's graduates are doing well.

Of Hawaii's practical nurse graduates, 3 went to a hospital school of nursing and 1 went on to a baccalaureate program. Approximately 95 per cent of the graduates remained in Hawaii.

Expansion Plans, 1970

If the present physical plant is used to full capacity, it is estimated that 7 faculty members and 100 students can be accommodated. The plant is not presently used to its fullest extent because of

Table 22
Age and Geographical Distribution of Students Enrolled
in Hawaii's Practical Nursing School
1961

Feature	Students	
	Number	Per Cent
Total	65	100.0
<u>Age</u>		
Below 20	44	67.7
20-24	3	4.6
25-29	0	0.0
30-34	8	12.3
35-40	5	7.7
Over 40	5	7.7
<u>Geographical distribution</u>		
Hawaii County	16	24.6
Honolulu City & County	41	63.1
Kauai County	4	6.2
Maui County	3	4.6
Sub-Total	64	98.5
Other States	1	1.5
Foreign Country	0	0.0

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

Table 23

Reasons for Student Withdrawals from Hawaii's Practical Nursing School
1955-60

Reasons	Number of Students Who Withdrew in:						Total	
	1955	1956	1957	1958	1959	1960	Number	Per Cent
Academic record	17	13	12	15	29	14	100	54.3
Personal or family needs	4	2	3	5	3	5	22	12.0
Other reasons	2	0	1	0	3	8	14	7.6
Health	0	0	2	5	2	5	14	7.6
Unsuited to nursing	3	4	2	1	2	1	13	7.1
Change of vocation	3	3	2	0	5	0	13	7.1
Marriage	2	1	0	0	1	2	6	3.3
No response	2	0	0	0	0	0	2	1.1
TOTAL	33	23	22	26	45	35	184	100.1
Enrollment	84	84	88	90	108	85	539	
Withdrawal rate	39.3%	27.4%	25.0%	28.9%	41.7%	41.2%		34.1%

Source: Computed from responses to the legislative reference bureau's questionnaire on nursing education facilities.

a lack of qualified applicants. For this reason also the school does not have any present plans for expanding its program.

GRADUATE EDUCATION IN NURSING

It is estimated that less than 2 per cent of the employed professional nurses in the United States have master's degrees. Great is the need for nurses with master's degrees to assume positions in administration, supervision, and instruction. But graduate education is costly, and few registered nurses can afford to pursue graduate studies on a full-time basis. Consequently a high proportion of nurses going on for advanced training do so on a part-time basis. During the period 1946-1955, "approximately two-thirds of the enrollees were part-time students. Some had been in the combined work-study situation for 5, 10, even 20 years."¹⁶

Recent Growth

The shortage of qualified nursing personnel for leadership positions is of great concern to the nursing profession and other health professions. Although legislation was introduced in Congress in 1955 to authorize a federal scholarship program for graduate nurses, no action was taken. In 1956, however, the Health Amendments Act of 1956 (P.L. 84-911) was passed. Title I provided for traineeships for graduate or specialized training for professional public health personnel; these traineeships were provided for a period of three years. Title II of this Act provided for the "advanced training of professional nurses" to "teach in the various fields of nurse training (including practical nurse training) or to serve in an administrative or supervisory capacity." Thus was established the professional nurse traineeship program for a three-year period. The program provides (1) long-term traineeships for full-time academic study in universities and colleges, and (2) traineeships for short-term study in intensive training courses sponsored by certain public and non-profit institutions. During the first two years of this program, 1,837 individual nurses benefited from the \$5 million available in traineeship funds.

During the period 1952-56 the number of graduates from master's programs in the United States averaged 526 annually; the 1960 number of graduates (1,197) is twice that. The passage of P.L. 84-911 in 1956, the Health Amendments Act, is oftentimes given partial credit for this sudden increase. The 1961 edition of Facts About Nursing indicates that in 1960 there were in the United

¹⁶U.S. Department of Health, Education, and Welfare, Public Health Service, Professional Nurse Traineeships, Part II: Facts About the Nurse Supply and Educational Needs of Nurses Based on Data Compiled for the National Conference to Evaluate Two Years of Training Grants for Professional Nurses, prepared under the direction of Apollonia O. Adams (Washington, D.C.: Government Printing Office, 1959), p. 2.

States: (1) 43 institutions with master's degree programs in nursing with a total enrollment of 2,175 graduate nurse students and (2) 5 institutions with doctorate degree programs with 136 students. Furthermore, during 1960 there were 6 graduates from doctorate degree programs. The number of full-time graduate nurse students has also increased since 1956.

In 1959, when Titles I and II of P.L. 84-911 were to expire, Congress passed P.L. 86-105 which extends both traineeship provisions for a period of five years; the expiration date is now 1964. It is estimated that \$16 million will be expended during the five-year period for the purposes of Title I and \$30 million for Title II.

In addition to these traineeships for public health personnel and for certain professional nurses is the Nurse Research Fellowships Program, established in 1955 by the Public Health Service to prepare nurses to do independent research and to collaborate in multidisciplinary research, as well as to stimulate nursing research in general. In March 1961 it was reported that 117 nurses had received full-time fellowships and over 100 had had part-time awards; total expenditure was 3/4 million dollars. At the present time full-time nurse fellowships are awarded to predoctoral candidates; stipends are set according to individual estimates of educational and living expenses.

Continuation Education in the West

Continuation education in nursing is designed "to update and improve skills of nurses in administrative, supervisory, or teaching positions who cannot undertake full-time study."¹⁷ This program was initiated in the West in 1957 by the Western Council on Higher Education for Nursing under a five-year grant from the Kellogg Foundation. The expansion of this program was made possible in 1959 with the five-year extension of the professional nurse traineeship program by Congress.

In January 1962 the Kellogg Foundation approved another grant for the purpose of continuing and extending the work of the Western Council. The grant amounts to \$191,000 and is to be expended during the period January 1962 through December 1966.

Graduate and Continuation Education in Hawaii

The 1952 report of the Territorial Commission on Nursing Education and Nursing Services states:

Development of graduate courses is not contemplated locally. It is estimated that only five per cent of a community's total

¹⁷Western Interstate Commission for Higher Education, 1960 Annual Report to the Governors and Legislators of the Western States (Boulder, Colorado: the Commission, January 1961), p. 11.

professional nurse supply need have preparation on a master's level for positions as administrators, supervisors, full time instructors and consultants in public health and hospital nursing service. This number is too small to permit organization of an efficient and economical graduate curriculum. Moreover, there are great advantages to be obtained from the variety of experience, exchange of information, and contact with new trends which can be obtained on the mainland.¹⁸

In contrast to the above is the position of Dr. Ira Hiscock, professor of public health at Yale University, who made a study of public health facilities and needs in Hawaii when he was Carnegie visiting professor of public health at the University of Hawaii.¹⁹ The study was conducted under the auspices of the Oahu Health Council, Inc. with the cooperation of many groups. Among Hiscock's major proposals for long term development was the following:

That encouragement and cooperation be given by appropriate bodies such as the Department of Health, the Oahu Health Council, and the Chamber of Commerce, to the University of Hawaii toward the development of a Department of Public Health for the purpose of graduate teaching, research and consulting services, allied closely with the University Health Program for students, and with the proposed Health Research Institute and the East-West Cultural Center, and cooperating fully with the State Department of Health.²⁰

This proposal for the development of a department of public health at the University has already been acted upon favorably. The University has now established such a department within its graduate school and a director has recently been appointed. Graduate work in this department will culminate in a master of science degree in public health.

The University is also exploring the possibility of initiating a master's program in nursing under the college of nursing. In 1961 a nursing consultant met with University and community leaders to discuss the need and feasibility of developing a master's program. The Legislature during the 1961 general session provided funds for the college of nursing to employ an individual to work on the development and implementation of a master's program. Recruitment for this position is currently underway.

The college of nursing is also in the process of establishing a short-term intensive training course under the professional nurse

¹⁸Territorial Commission on Nursing Education and Nursing Services, *op. cit.*, p. 17.

¹⁹Ira V. Hiscock, Public Health in Hawaii, 1960; Report of a Health Inventory (Reprint from the Hawaii Medical Journal, 20 (January-February 1961)).

²⁰*Ibid.*, proposal 8 [p. 16].

traineeship program. This training course will be offered under the sponsorship of the Western Council on Higher Education for Nursing.

The legislative reference bureau made a limited assessment of the extent to which graduates from nursing schools continue their education. In responses to the bureau's questionnaire, the two hospital schools reported that during the last five years approximately 3 and 9 per cent, respectively, of their graduates went on to baccalaureate degree programs. Less than 1 per cent of graduates from one hospital school and 7 per cent of graduates from the collegiate program went on to master's degree programs during the last five years.

In general, all three schools of nursing in Hawaii recognize the need for graduate education in nursing service, nursing education, and other nursing fields.

GENERAL COMMENTS ON NURSING EDUCATION IN HAWAII

The quality of any system of education is difficult to assess. A sound evaluation of nursing education requires some knowledge of the quality of care nurses give to their patients. This type of assessment is complex; some would argue that it is almost impossible to obtain anything other than a very subjective conclusion. However, nursing education can be evaluated, in part, by an examination of the educational preparation of faculty members, and alumnae success in achieving licensure. On both these counts, Hawaii scores favorably, although the proportion of faculty members with master's degrees in the hospital schools is only slightly above the national average.

The nature of Hawaii's nurse student population is changing; about 40 per cent are now attending the degree program--a greater proportion than their mainland counterparts. Neither hospital school is planning to expand its program and one is presently negotiating with an educational institution to establish a collegiate program; these indicate that Hawaii may see a trend toward the provision of nursing education by institutions of higher education.

Nursing education in Hawaii may further be changed in three ways. The first, the development of graduate degree programs, is already being considered very seriously and may well become a fact within a year or two. The second is still in an embryonic stage--the possible establishment of associate degree programs in nursing if and when community junior colleges are founded by the state or by independent agencies. The third is the establishment of associate degree programs by a four-year college or university.

A serious and difficult problem which needs study and action is the matter of student recruitment. Both professional and practical nursing schools point to a lack of qualified applicants. Some of the factors which might be considered are discussed in Chapter VI of this report.

CHAPTER IV

NURSING NEEDS: 1961 – 1970

The adequacy of nursing care in a community has generally been evaluated by computing the number of professional nurses per 100,000 population and comparing this to the conservative ratio of 300 nurses per 100,000 population or a higher ratio of 350 nurses, as set by the National League for Nursing. Both the NLN and WICHE prepared predictions of future needs based on these standards.

Table 24 was developed to indicate the ratio of professional nurses to population in Hawaii in 1961. Due to the following limitations of the data, these figures are underestimated: (1) data on total nurse population for the entire year 1961-62 are not yet available and (2) department of health estimates of civilian population have generally been slightly above the actual figures. The state, as a whole, has a ratio of at least 308 nurses per 100,000 population.¹ Oahu has at least 323 nurses per 100,000 population, while each of the remaining counties fails to meet the conservative ratio of 300 nurses per 100,000 population. Kauai especially has a low proportion of professional nurses--194 per 100,000 people.

THE WICHE ESTIMATE OF 1970 NEEDS

Hawaii is one of 13 Western states for which predictions of nursing needs in 1970 were made by WICHE in 1958 and revised in October 1960. Table 25 presents both estimates of nursing needs in 1970 in terms of average number needed annually and of type of program from which these nurses should graduate. The data in this table indicate that the annual number of nursing graduates is not sufficient to meet the demands for additional personnel if Hawaii is to maintain its present nurse-population ratio and certainly not enough if its present ratio is to be exceeded. Based on 1960 estimates, Hawaii's baccalaureate program for pre-service training is close to meeting the need for nurses with bachelor's degrees, for R.N.s in the baccalaureate program, while engaged in professional improvement, are generally employed and should not be considered as additions to the nursing force. Present graduations from diploma programs are exactly 50 per cent of what is the annual predicted need. Although Hawaii presently lacks a master's program in nursing, this situation may change within the next decade. The gap

¹According to WICHE, Hawaii had a ratio of 305 professional nurses per 100,000 in 1957 and 316 per 100,000 in 1960.

Table 24

Ratio of Professional Nurses to Civilian Population in Hawaii, By County*
1961

Note: Caution is necessary in interpreting this table because (1) data on total nurse population for 1961-62 are not yet available and (2) department of health estimates of civilian population have generally been above actual figures.

County	Civilian Population (est.)	Professional Nurses	Nurses Per 100,000 Population
Hawaii	59,833	153	256
Honolulu	480,524	1,552	323
Kauai	28,409	55	194
Maui	42,778	123	288
TOTAL	611,544	1,883*	308

Source: Estimated civilian population for 1961 from: State of Hawaii, Department of Health, Research, Planning and Statistics Office, "Estimated Civilian Population of the State of Hawaii by Geographic Area: July 1, 1960-July 1, 1961" (Mimeographed: September 27, 1961).

*The 175 nurses for whom island of employment is unknown (Table 5) have been distributed proportionately among the four counties.

Table 25

The Western Interstate Commission for Higher Education's (WICHE's)
Original and Revised Estimates of Nursing Needs in Hawaii in 1970

Feature	WICHE's Estimates Made In:			
	1958		1960	
Population (Civilian)	552,000	(1957)	578,000	(1960)
Number of Nurses	1,681	(1957)	1,830*	(1960)
Ratio of Nurses Per 100,000 Population	305	(1957)	316	(1960)
1970 Population (Civilian)*	748,000		801,000	
<u>Additional Nurses Needed in 1970:**</u>				
<u>Present Nurse-Population Ratio</u>	<u>Total</u>	<u>Annual</u>	<u>Total</u>	<u>Annual</u>
Junior College and Diploma	1,077	89	1,130	113
Baccalaureate	531	44	324	32
Master's	209	17	162	16
TOTAL	1,817	150	1,616	161
<u>300 Per 100,000 Population Ratio</u>				
Junior College and Diploma			1,041	104
Baccalaureate	None given		298	30
Master's			149	15
TOTAL			1,488	149
<u>350 Per 100,000 Population Ratio</u>				
Junior College and Diploma	1,303	108	1,322	132
Baccalaureate	642	53	378	38
Master's	253	21	189	19
TOTAL	2,198	182	1,889	189
<u>Annual Number of Graduates</u>				
Junior College		0		0
Diploma		78		66
Baccalaureate: Pre-service		19		29
Baccalaureate: RNs		11		12
Master's		0		0
TOTAL		108		107

Sources: Western Interstate Commission for Higher Education, Nurses for the West (Boulder, Colorado: the Commission, 1959), p. 98; and Memorandum to Participants in the Workshop "Nursing Care--1970?", Regarding "Correction of Statistics on Fact Sheet" (Mimeographed: October 1, 1960).

*Estimated.

**By 1970 half the nurses in the present work force will be inactive, based on annual attrition of 5 per cent. This rate was estimated by the National League for Nursing in Nurses for a Growing Nation (New York: the League, 1957), p. 11. Estimates made in 1960, for example, are based on the assumption that approximately 915 of the present 1,830 nurse population will be inactive in 1970.

between annual number of graduates and annual number of needed nurses may not be serious if Hawaii is able (1) to maintain its attraction for mainland nurses, (2) to send some of its nurses to the mainland for advanced training, and (3) to recruit more successfully so that a greater number will be enrolled in nursing schools. The significant feature to note about WICHE's prediction is the fact that for every professional nurse, currently registered and employed in Hawaii, one more is necessary to meet professional nursing needs in 1970 because of the increase in population and the attrition rate among nurses.

PROBLEMS AFFECTING PREDICTIONS

The approach used by WICHE and others in the formulation of predictions has recently been criticized:

Ten years ago many of us were naive enough in nursing to believe that we could determine the number of nurses needed in a given specialty, with a fair amount of objective accuracy, by projecting this need ten years ahead on estimated population increases. If one is only comparing number of nurses with numbers of people, this can be done and such a projection can be made. This may have no relationship with the number of nurses needed to give "adequate" nursing care or to the number and kind of patients or people involved. It is merely comparing two kinds of census--population and nursing.²

Unfortunately, the author did not go further to indicate how the process of making predictions could be improved. Recent developments in the American Nurses' Association, however, may be one clue. In its 1960 annual convention, the need for standards for nursing service was expressed. In that year ANA published "A Statement of Standards for Nursing Care in Nursing Homes." As the nursing profession develops such standards, and if research on the qualitative aspects of nursing care is conducted, a better base for the making of predictions will be developed.

Making predictions is seldom, if ever, easy. The legislative reference bureau, in its attempt to predict needs in professional and practical nursing in 1970, shares the sentiments expressed by WICHE several years ago when it presented its predictions of professional nursing needs:

There is no one standard for estimating the number of nurses needed in the next decade. There is no simple magical formula that will give the answer. In addition to the indefinite

²Apollonia Adams, "From Study to Action; Short Summary of Results of Past Surveys," in *Nurses for Tomorrow--Developing Action Programs*, Proceedings of the third annual conference of the Western Council on Higher Education for Nursing, Salt Lake City, March 24-25, 1960 (Boulder, Colorado: Western Interstate Commission for Higher Education, August 1960), p. 28.

factors of future medical advances that will require additional nurse personnel, the increasing longevity, and the larger proportion of the under-21 and 65-and-over groups which require more nursing service will also change the nursing needs of the West. However, plans must be made, and it is only reasonable to base such plans on the best estimates that can be developed.³

Sound predictions require the collection of certain basic data. Among such data are: (1) hospitals' plans for the future in terms of increasing or decreasing their number of beds, of adding special departments or units, of altering certain features of administration, of initiating new programs, and of improving the quantity and quality of nursing care given to patients; (2) the state's plans in health and social services in terms of predicting the health needs of the population in general and of medical indigents in particular, of modifying or expanding present programs which require nursing services, and of initiating new programs requiring nurses; and (3) the plans of other institutions and groups that have programs or are considering the development of programs which affect nursing.

The bureau met with some difficulty in attempting to obtain such basic data. In the first place, hospitals vary considerably in planning for the future; a few have no plans, others have vague plans, and some have plans which attempt to define the number and kind of nurses needed. One hospital administrator, in responding to the bureau's questionnaire, stated:

At this time I believe that attempting to answer any question regarding expansion that will take place by 1970 is impossible. The State Hospital Association is at present in the beginning phase of setting up areawide planning. Until the necessary studies have been made I don't believe any answers would be worth the paper they are written on.

In view of the nature of replies from individual hospitals, caution should be exercised in interpreting their predicted needs. In a few years perhaps planning for the development of hospitals and other medical facilities on a community basis will become a reality; the Hospital Association of Hawaii has made an initial application for a grant from Hill-Burton funds for this purpose.

The health department has expansion plans over the next six years. These spell out possible changes in present programs and estimate the number and kind of nursing personnel necessary. The social services department is presently in the process of studying its medically indigent population and intends, on the basis of these results, to make plans for the future. Although some felt needs have been defined, further data are necessary to quantify and qualify these needs.

³Western Interstate Commission for Higher Education, Nurses, p. 27.

The bureau's attempt to obtain information from other institutions and groups with programs requiring nursing services was not too fruitful because in many cases planning was either vague or non-existent.

Compounding the difficulty of obtaining the data basic to sound predictions is the nature of the times in Hawaii. While Hawaii is by no means unique in all respects, it may differ substantially in certain respects from other areas in the nation. For example, hospitals in Hawaii are like those in her sister states in considering progressive patient care as one means of improving patient care.⁴ Unlike certain areas, however, Hawaii presently has no organized home care program.⁵ St. Francis Hospital has filed an application for a grant from the Public Health Service to initiate a pilot program in organized home care. Hawaii is also becoming increasingly concerned about its growing proportion of people 65 years and over; there is more concern about the need for more and better nursing homes and for the development of homemaker services. All these programs require professional and/or practical nurses, and, in some cases, other nonprofessional personnel.

SCOPE AND METHODOLOGY

The determination of total needs in professional nursing in the future is a difficult enough task. This study, in attempting to respond to the request in H.R. 187, is required to go further, and attempts to make predictions of: (1) the number of professional nurses needed in the various nursing fields and specialties; (2) the number of practical nurses needed in 1970; and (3) the needs in nursing education. Nursing needs are discussed in terms of three groups of nurses:⁶

Group A nurses--those who give direct care to patients under supervision (general duty nurses and office nurses)--should be graduates of diploma or associate degree programs.

⁴"The central theme of the Progressive Patient Care concept is the organization of facilities, services, and staff around the medical and nursing needs of the patient. Patients are grouped according to their degree of illness and need for care, and the staff serving each group of patients is selected and trained to provide the kind of services needed by that group. There are five elements in the present concept of Progressive Patient Care. Four are contained within the general hospital. The fifth is an extension of services into the community. These elements are: Intensive Care, Intermediate Care, Self Care, Long Term Care, and organized Home Care." Jack C. Haldeman, *Elements of Progressive Patient Care*, U.S. Department of Health, Education, and Welfare, Public Health Service (Washington, D.C.: Government Printing Office, 1959), p. 1.

⁵Under an organized home care program, patients who need care but who need not be institutionalized are kept in their homes, if they desire and if the home environment is suitable. They are provided with the services of doctors, nurses, nutritionists, occupational therapists, physical therapists, social workers, and other professional personnel.

⁶National League for Nursing, *op. cit.*, pp. 20-21.

Group B nurses--those who function with a greater degree of independence than those in Group A and who may also direct other nursing workers (head nurses, public health nurses, private duty nurses, and industrial nurses)--should be graduates from baccalaureate degree programs.

Group C nurses--those in leadership positions (teachers, administrators, supervisors, and consultants)--should hold master's or doctor's degrees in a functional or clinical area or both.

Predictions of practical nursing needs are also included.

In making predictions, this study took into consideration the following factors related to the local nurse (professional and non-professional) population: (1) the proportion of nurses in the various fields of nursing, (2) the proportion of nurses in each type of position, (3) the educational preparation of selected groups of nurses, and (4) data on nurse instructors. Data on (5) needs for additional nursing personnel in hospitals and (6) plans for expansion by hospitals and nursing schools were also considered, as were (7) estimates of civilian population in Hawaii for 1970, (8) relevant data from the 1951-52 study of nurses in Hawaii, and (9) national data or recommended standards on the distribution of nurses among the various fields and in various types of positions.

While most of the data on the local nurse population came either from the files of the board of nursing or from the responses to the bureau's questionnaires and were presented in Chapters II and III, much information on present nursing needs and future problems was gained from interviews with various individuals in the community.

"GROUP A" NURSING NEEDS

General Duty Nurses

Data in Chapter II on the number of nurses engaged in general duty work, the adequacy of nursing care in selected hospitals, and the educational preparation of nurses, together with the following factors, were considered in defining needs in general duty nursing: (1) present needs of hospitals for additional personnel, (2) expansion plans of hospitals, (3) estimated needs of new programs and institutions, and (4) the state's construction plan for hospitals and medical facilities. See Tables 26, 27 and 28 for details.

Table 26

The Present Needs for Additional Nursing Personnel
and the Expansion Plans of Hospitals in Hawaii
1961

Feature	General Hospitals N = 20	Special Hospitals N = 11
<u>Present Needs for Additional Personnel</u>		
No needs	8	6
Needs exist*	5 (35 professional 30 practical 29 other nonprof.)	2 (5 professional 3 practical)
No reply	7	3
<u>Expansion Plans: Additional Personnel Needed</u>		
No plans	6	6
Plans exist**	10 (154 professional 95 practical 47 other nonprof.)	4 (26 professional 15 practical 28 nonprof.)
No reply	4	1
<u>Expansion Plans: New Departments or Programs</u>		
No plans	6	6
Plans exist**	10 (4 home care 4 psychiatric unit 4 intensive care 3 geriatric unit 1 chronic disease 1 convalescent care)	4 (2 home care 1 geriatric unit 1 chronic disease 2 nursing education affiliation)
No reply	4	1

Source: Computed from responses to the legislative reference bureau's questionnaire to hospitals.

*G-1, 9, 11, 12, 16 and S-1, 2.

**G-1, 2, 7, 8, 9, 11, 12, 15, 16, 19 and S-2, 3, 9. Personnel needs for S-1 are omitted and included in the health department's plans in Table 27.

Needs in general duty nursing are listed below:

1. In view of the recommendation of the Public Health Service and the National League for Nursing that hospitals need a minimum of one practical nurse for each professional nurse employed, Hawaii may need more practical nurses in hospitals.⁷

2. In view of the standards set for the evaluation of nursing care per patient, large general hospitals (and possibly small hospitals) in Hawaii may need to re-examine their staffing pattern for professional and nonprofessional nurses so that a sufficient number of each type will be employed to provide adequate nursing care.⁸

⁷The 1951 study of nurses in Hawaii also indicated that "the larger general hospitals make too little use of practical nurses. In many cases further employment of skilled practical nurses under professional supervision would result in greater efficiency." (Territorial Commission on Nursing Education and Nursing Services, *op. cit.*, p. 7.)

⁸The 1951 study showed the opposite: "The size of the staffs of general hospitals in proportion to the average number of patients is larger than the mainland average, and is more than enough to give the 3.5 hours of daily general nursing per patient for adults which has been an accepted standard." (*Ibid.*)

Table 27

Estimated Needs of New Institutions for Professional
and Nonprofessional Nurses in Hawaii
in 1970, By Institution

Institution	Number of Additional Personnel Needed in 1970:		
	Professional Nurses	Practical Nurses	Other Nonprof. Nurses
Hospital (150-bed)*	100-125	75-80	not known
Nursing Homes (4)**	19	18	not known
Health Department***	60	0	62

Sources: State of Hawaii, Department of Health, "Six-Year Expansion Plans, 1962-1968"; personal or telephone interviews with groups involved in construction or planning of new medical facilities.

*Original number of beds is approximately half of what is anticipated in the expansion plans.

**Includes 2 nursing units (one with 40 beds, the other with 16 beds) in retirement homes and 2 nursing homes (50 beds and 100 beds). A recent publication describes the number of full-time, paid staff needed in a nursing home of 40 beds: 1 resident superintendent, 1 RN as charge nurse, 2 additional RNs as shift nurses, 4 licensed practical nurses, 4 maintenance workers, 4 kitchen staff, 1 book-keeper. (Hirsh Kaplan, *A Community Nursing Home*, U.S. Department of Health, Education, and Welfare, Special Staff on Aging, Patterns for Progress in Aging, Case Study No. 1 (Washington, D. C.: Government Printing Office, June 1961), p. 10.)

***These are estimates for the period 1962-68. Included are: 1 nurse consultant, 10 public health staff nurses, 1 public health supervisor, 39 psychiatric nurses, 2 psychiatric nursing instructors, and 7 staff nurses.

Table 28

Existing and Desirable Number of Beds in Hospitals in Hawaii 1961

Note: Omitted from this table are the data on public health centers, diagnostic or treatment centers, and rehabilitation facilities.

Omitted from this table is the number of unsuitable beds: (1) 432 in general hospitals, (2) 0 in tuberculosis hospitals, (3) 0 in mental hospitals, and (4) 820 in chronic disease and nursing home facilities.

In order to meet the standards set for the various types of medical facilities, the following number of beds is necessary: (1) 642 additional beds in general hospitals, (2) 1,643 beds in mental hospitals, and (3) 1,017 beds in chronic disease and nursing home facilities. Present plans for construction, supported partially by the federal government (P.L. 79-725 and P.L. 83-482), provide for the construction of (1) 277 beds in general hospitals, (2) 128 beds in mental hospitals or in mental units of general hospitals, and (3) 48 beds in a nursing home.

Type of Facility	A r e a s							State Total
	B-1 Honolulu (Kailua)	I-1 Hawaii	I-2 Maui	I-3 Kauai	R-1 Rural Oahu	R-2 Molokai	R-3 Lanai	
1. General Hospitals: Ratio--4.5, 4.0, and 2.5 beds per 1,000 population in base, intermediate and rural areas, respectively								
Total Beds Allowed	1,622	243	145	114	208	13	6	2,596
Existing Suitable Beds	1,386	164	172	132	100	0	0	1,954
Per Cent of Needs Met	85.6%	60.7%	100%	100%	48.6%	0%	0%	83%
Additional Beds Proposed for Construction	236	109*	---	---	108	13	11	642**
2. Tuberculosis Hospitals: Ratio--1.5 times the average number of active and probably active new cases found annually during latest 2 year period: 251								
Total Beds Allowed								376
Existing Suitable Beds								648
Per Cent of Needs Met***								172%

Table 28 (continued)

Type of Facility	A r e a s							State Total
	B-1 Honolulu (Kailua)	I-1 Hawaii	I-2 Maui	I-3 Kauai	R-1 Rural Oahu	R-2 Molokai	R-3 Lanai	
3. Mental Hospitals: Ratio--5 per 1,000 population in state								
Total Beds Allowed								2,885
Existing Suitable Beds								1,242
Per Cent of Needs Met								43%
New Beds Provided in Construction Projects								138
Additional Beds Being Considered								125
4. Chronic Disease and Nursing Home Facilities: Ratio--3 per 1,000 population in state								
Total Beds Allowed								1,731
Existing Suitable Beds								714
Per Cent of Needs Met								35.8%
Additional Beds Needed	505	146	59	74	210	16	7	1,017

Source: State of Hawaii, Department of Health, Survey Planning and Construction of Hospitals and Medical Facilities, State of Hawaii, 1962 (Mimeographed; Honolulu: June 1961), pp. 38-39, 41, 46, 50, 60.

*Further study is required before construction is actually planned.

**Includes 155 beds in reserve.

***Some of the excess beds are being converted for use by mental patients and long-term care patients (chronic).

3. In view of the very small percentage of professional nurses in special departments who have undertaken post-graduation work in their specialties, more nurses in special departments need to undertake advanced work in their specialties.

4. In view of extremely conservative and incomplete estimates of nursing needs from existing hospitals and other "future" institutions, there is a need in 1970 for at least 400 additional professional nurses, 200 practical nurses, and 150 other nonprofessional personnel over present figures. Based on an annual 5 per cent attrition, there is a need for an additional 1,000 professional nurses and 632 practical nurses in 1970.

5. In view of the expansion plans of hospitals and other institutions, nurses trained in geriatrics, psychiatry, intensive care, and care of the chronically ill will be needed.

6. Although no study was made of recent in-service training opportunities for professional and practical nurses, there is probably a need for in-service training for most general duty nurses, both professional and nonprofessional.

7. In view of the future plans of the departments of health and social services, there may be a need for increased numbers of practical nurses and other nonprofessional personnel as well as for training opportunities for professional nurses who wish to be engaged in home care programs. The state's mental health program has made plans to keep the population in its mental hospital to the present capacity of 1,200 in spite of the expected population increase in the state. However, it points out the necessity for a "general expansion of other non-hospital mental health services (convalescent day-care services, mental health center activities, rehabilitation and nursing home services, etc.) if the number of inpatients is to be kept constant."⁹ The mental retardation program also has plans for the future; a community placement program for patients who do not need institutional care is being considered. Such a program would include provisions for medical care and for some aspects of home care.

The department of social services, presently engaged in making a study of recipients of its aid in nursing homes, points out several needs: (1) homemaker services, offered by practical nurses and other nonprofessional personnel, who would provide some aid in housekeeping, to those who may be only slightly ill or partially disabled; (2) home care programs, involving nursing personnel, who would provide medical and nursing care to patients in their homes if certain criteria are met; (3) special training in geriatrics

⁹State of Hawaii, Department of Health, Mental Health Division, "Hawaii Mental Health Program Related to the Final Report of the Joint Commission on Mental Illness and Health" (Mimeographed; October 1961), pp. 3-4.

for both professional and nonprofessional nurses; and (4) increased numbers of practical nurses and other nonprofessional personnel.

Office Nurses

There are 231 professional and 162 practical nurses employed as office nurses. The data in Table 29 indicate that the proportion of professional nurses presently engaged in office nursing has increased more than 100 per cent since 1951, while the proportion of practical nurses has increased less than 10 per cent. It should also be noted that the 1951 and 1961 estimated nurse-physician ratios are similar--1 nurse to 1.7 physicians. On the basis of the bureau's contact with two medical employment agencies which place many of Hawaii's office nurses, there is apparently neither a serious shortage nor a serious oversupply of office nurses at this time.

In attempting to make predictions of need for office nurses, the bureau contacted the Hawaii Medical Association which indicated that it has no prediction studies of physicians. It pointed out, however, that Hawaii exceeds the ratio of 1 doctor per 1,000 people--a standard to evaluate the adequacy of the supply of doctors. Currently, Hawaii has an estimated 678 physicians practicing in the state and an estimated civilian population of 611,544. With the expected increase in population in 1970, the Medical Association set an optimistic estimate of an additional 75-100 doctors. On the basis of the present office nurse-doctor ratio (1:1.7), and an annual 5 per cent attrition, there will be a need for an additional 225 office nurses in 1970, 133 of whom would be professional nurses.

In view of the fact that the number of doctors in Hawaii increased 50 per cent in the period 1951-1961, the estimate given above is very conservative, for it represents an increase of about 15 per cent in the next nine years. On the other hand, this estimate may be accurate in reflecting that Hawaii has more doctors than most other areas.

"GROUP B" NURSING NEEDS

Head Nurses

Of 134 professional nurses serving as head nurses in hospitals, 14 had bachelor's degrees, 2 had master's degrees, and 4 were working toward their bachelor's degrees. Only 12 per cent of Hawaii's head nurses possess the recommended educational background, namely, a bachelor's degree. There is a need to offer encouragement to head nurses to work towards bachelor's degrees. In evaluating the adequacy of the present number of head nurses, a standard of 1 head nurse per 25 daily average patient census was

Table 29

Number of Office Nurses and Physicians in Hawaii
1951 and 1961

Feature	1951*	1961	Per Cent Increase
Physicians practicing in state	450	678**	50.7
Office nurses: total	250	393	57.2
Professional nurses	100	231	131.0
Practical nurses	150	162	8.0
Office nurse-physician ratio: total	1:1.8	1:1.7	
Professional nurse-physician ratio	1:4.5	1:2.9	
Practical nurse-physician ratio	1:3.0	1:4.2	

Sources: Territorial Commission on Nursing Education and Nursing Services, The Nurse of Tomorrow; A Report on Nursing in Hawaii, Based on the survey for the Nursing Study Committee by Ruth I. Gillan (Honolulu: July 1952), p. 12; State of Hawaii, Department of Health, annual rosters of physicians; data on nurses computed from records of the State of Hawaii, board of nursing.

*As estimated in the 1951 study of nurses in Hawaii.

**Estimated on the basis of (1) 638 physicians in 1960 and (2) 40 new doctors in 1961 (annual increases during the last three years were 30, 22, and 38).

used.¹⁰ Based on a total daily average patient census of 3,391, Hawaii presently has 1 head nurse per 25.3 patients, a figure only slightly above the standard.

Based on the present ratios for patient census to total population and for head nurse to patient census, there will be a patient census of 4,405 in 1970 and a need for 174 head nurses. Allowing for a 5 per cent annual attrition among present head nurses, there will be a need for an additional 100 head nurses in 1970.

Public Health and School Nurses

Extensive data on 106 public health nurses in Hawaii in 1960 were available in a Public Health Service publication.¹¹ Of the 86 staff nurses, 84 (97.7 per cent) had completed 30 hours or more in approved public health nursing programs; only 37.1 per cent of their counterparts in the nation had done so. Of these 84, only 29 had collegiate degrees. In view of the League's standard for educational preparation, public health staff nurses should be encouraged to work for baccalaureate degrees.

In evaluating the supply of public health nurses, a ratio of at least 1 public health nurse per 5,000 population is nationally accepted. This standard is achieved on the neighbor islands but not on Oahu. According to the public health nursing branch of the department of health, the present ratios are: Hawaii, 1:4,647; Kauai, 1:4,651; Maui, 1:4,331; and Oahu, 1:9,478. Although the need for public health nurses on Oahu may not be as great as that of the neighbor islands because of the density of population and the provision of a variety of medical services, the present ratio is too low. If the existing ratio of public health nurses to population is kept, the health department indicates that there will be a need for 11 more public health nurses in 1968. Application of the standard indicates that 160 public health nurses will be needed or an additional 107 public health nurses will be needed in 1970 (if the annual attrition rate is considered). If home care programs are developed by the health department in the future, public health nurses, skilled in psychiatry and geriatrics, will be especially needed.

The department of education presently employs 33 health coordinators who are certificated teachers with additional work in health courses. Only 2 of these are R.N.s; 2 are normal school graduates, 5 have bachelor's degrees, 1 has a master's degree, and 23 have

¹⁰U.S. Department of Health, Education, and Welfare, Design, p. 45.

¹¹U.S. Department of Health, Education, and Welfare, Public Health Service, Nurses in Public Health; Number and Educational Preparation of Nurses Employed in Public Health Work in the United States, Puerto Rico and Virgin Islands on January 1, 1960, Publication No. 785 (Washington, D.C.: Government Printing Office, 1960).

professional teaching certificates. There are 29 health coordinators in Honolulu, 2 on Hawaii, 1 each on Kauai and Maui. At the present time the ratio of health coordinators to student population is about 1:4,500. The department of education estimates that it will need 67 health coordinators in 1970 for the estimated student population (kindergarten through grade 12) of 171,000; this means an additional 50 health coordinators will be needed. This would result in a ratio of 1 health coordinator per 2,550 students.

Private Duty Nurses

The data in Chapter II indicate that there are 171 professional and 78 practical nurses engaged in private duty. In view of the fact that slightly less than 10 per cent of all professional nurses in Hawaii are engaged in private duty in comparison to the national proportion of 15.4 per cent in 1956-58, information on current supply and demand was sought.

Two employment agencies which receive most of the requests for private duty nurses were contacted. One reported that it had 90 professional nurses and 30 practical nurses on its roster and that they were all kept very busy. This agency indicated that 10 more professional nurses and 10 more practical nurses are needed to meet current demands adequately. The second agency reported that its 60 professional nurses were likewise kept very busy, but did not indicate a need for more.

Both agencies report the need for inexpensive home nursing care --a combination of housekeeping and simple nursing services. One indicated that many requests came in for nurses to care for a new born baby or an older person but requestors could not afford to pay for such services if rendered by a professional or practical nurse. This agency felt that unlicensed nonprofessional personnel could render such services, if they were provided with short-term training in geriatrics or in other fields as the need arises, and at rates requestors could afford.¹²

Two needs in private duty nursing seem apparent: an estimated 125 additional professional nurses are needed for private duty nursing; and some provision for housekeeping services is needed.

Although this study did not make a survey of private duty nurses to discover needs in education,¹³ there may be a need for in-service training opportunities for both professional and practical

¹²The 1951 study of nurses also pointed out that "there may be a need for some type of trained housekeeping service and for a visiting nurse program, neither of which has been developed in Hawaii to date." (p. 14)

¹³The 1951 study states: "The greatest need among private nurses is an opportunity to keep up-to-date on current nursing and medical practice. Hospitals should include private practice nurses in staff education programs. Formal training is needed to bring some of the practical nurses up to present day standards." (p. 14)

nurses engaged in private duty. Furthermore, there may be a need for private duty nurses to be integrated more fully into hospital operations.

Industrial Nurses

No study was made of the present industrial nurse population since data for January 1, 1960, are available.¹⁴ The U.S. Public Health Service indicated that in 1960 there were 46 registered and 29 practical nurses employed in 33 industries in Hawaii. Only 5 of the registered nurses had had 30 hours or more of work in approved public health nursing programs. Industrial nurses need in-service training and opportunities for such training should be provided.

Although no effort was made by the bureau to survey the nursing plans of industries, two events are noteworthy: (1) the department of health is requesting funds to establish the position of occupational health consultant because it feels that industrial nursing will become more important as Oahu becomes further urbanized, and (2) the Industrial Nursing Service was initiated in June 1960 as a private organization whose purpose is to provide the professional services of experienced registered nurses to local industrial firms. It offers services in the following areas-- industrial dispensary nursing, home visitation service, and convalescent nursing service. The Industrial Nursing Service is also interested in expanding its services by offering a home care program.

"GROUP C" NURSING NEEDS

Nurse Administrators, Supervisors, and Consultants

At least 10 per cent of all employed professional nurses are in this group. In view of the bureau's survey in hospitals, the 1960 data on public health supervisors and administrators,¹⁵ and in view of the League's standard, nurse administrators and supervisors in hospitals and public health should be encouraged to pursue collegiate degrees.

It is estimated that an additional 185 nurse administrators and supervisors will be needed in 1970.

¹⁴U.S. Department of Health, Education, and Welfare, Nurses in Public Health, pp. 42-43.

¹⁵Ibid., pp. 14, 20, 24.

Nurse Educators

Few of Hawaii's present nurse educators need to undertake work toward master's degrees. In view of the lack of expansion plans in the two hospital schools and plans for a master's program at the University of Hawaii, it is estimated that an additional 28 nursing educators will be needed in Hawaii. If associate degree programs in nursing should flourish, there will be a greater need for nurse educators.

NEEDS IN NURSING EDUCATION

Needs in nursing education are varied and are discussed in terms of: (1) needs in continuation education; (2) new demands in nursing education; and (3) problems of recruitment.

Needs in Continuation Education

The need for both professional and practical nurses to engage in continuation education so as to upgrade themselves is repeated in most of the literature and in most of the interviews held locally with individuals whose work is related to nursing. Especially prominent is the need for continuation education for nurse administrators and supervisors and for nurses in special departments.

New Demands in Nursing Education

The need for further training in psychiatric nursing on both the professional and practical nurse level was emphasized in several interviews. More often emphasized, however, is the need for professional nurses trained in geriatrics and for practical nurses and other nonprofessional personnel trained to work with the aged. More broadly conceived is the need for training nurses in the care of long-term cases or chronically ill patients.¹⁶

A consideration of various approaches to nursing education should take place in Hawaii now, for within the next decade it will probably be confronted with the development of associate degree programs in junior colleges or in four-year colleges. In addition, Hawaii will probably see the emergence of a graduate program in nursing--a master's program at the University of Hawaii. Developments in this area were discussed in Chapter III.

¹⁶In attempting to provide for a similar need, the legislature in Massachusetts recently authorized a study to consider the possibility of establishing a nursing school at two institutions which provide care for the chronically ill. Although such a setting may result in professional nurses more oriented to the needs of the chronically ill, the report points out that the state needs to consider the advantages and disadvantages of a hospital school as an educational institution. Commonwealth of Massachusetts, Report Submitted by the Legislative Research Council Relative to Establishment of Nursing Course of Training at Soldiers' Home and Lemuel Shattuck Hospital, Senate No. 510 (January 25, 1961).

There is also the need for refresher courses for professional and practical nurses who return to employment after several, if not many, years away from nursing. Quite frequently stated was the need for some short-term, intensive courses for nonprofessional personnel below the licensed practical nurses. Such training would prepare individuals to serve as nursing aides, geriatric aides, and homemakers.

Problems of Recruitment

Present facilities in the two hospital schools of nursing are adequate to accommodate a sufficient number of nursing students to meet a very high percentage of the need for graduates from diploma programs--if nurse instructors can be found--and if qualified students can be recruited. The collegiate program at the University presently graduates enough students to meet most of the demand for nurses with bachelor's degrees. The physical plant of the Kapiolani Technical School can accommodate 100 students in practical nursing, but only 65 are enrolled at present--because there is a dearth of qualified applicants. Even if 100 practical nurses could be trained in the state locally each year, it is doubtful that they would be sufficient to meet future demands.

Basic to a consideration of Hawaii's ability to prepare a sufficient number of professional and practical nurses to meet its needs in 1970 is the problem of recruitment. Both hospital schools and the practical nursing school are finding it difficult to find qualified students. Part of this difficulty is related to the relatively small proportion of female high school graduates who indicate that they plan to go into nursing; the proportions of female graduates who showed such interest in 1957, 1958, 1959, and 1960 are: 7.5 per cent, 6.2 per cent, 7.5 per cent, and 5.6 per cent, respectively.¹⁷ This shows a noticeable decline in 1960. This may partly be rooted in sociological changes in Hawaii, namely, the improved socioeconomic status of the Japanese group which has led to a decrease in the proportion undertaking nursing--a relatively inexpensive, but respected program for girls in the Oriental culture.

In view of the relatively small percentage of female high school graduates who undertake nursing, Hawaii may need to re-examine its female labor force. Within the past two decades, an increasing proportion of women are working--many of them are mature women seeking jobs after their last child is of school age. WICHE indicates that:

The junior college nursing programs can be made particularly attractive to the mature woman since the junior

¹⁷Joint Committee on Guidance and Employment of Youth, The 1957 Graduate and His Future (Honolulu: mimeographed, August 1957), p. 14; The 1958 High School Graduates, Their Plans and Aspirations (August 1958), p. 7; Post-Graduation Plans of Hawaii's High School Graduates, 1952 to 1959, with Special Emphasis on the 1959 Graduate (May 1960), p. 6; Hawaii's 1960 High School Graduates (February 1961), p. 12.

college is often easily accessible in her home community and the program does not require payment of high tuition.

The idea of educating the mature woman in basic nursing programs is a clear departure from traditional thinking in nursing education. On first thought, it may seem impractical because it appears to be so radical. However, it can be done; a number of junior colleges have already pioneered in this area with success.¹⁸

¹⁸Western Interstate Commission for Higher Education, Nurses, p. 43.

CHAPTER V

MATTERS FOR LEGISLATIVE CONSIDERATION

The adoption of H.R. 187 by the House of Representatives reflects legislative concern about the possibility of a future shortage of both professional and nonprofessional nurses. Future nursing needs, as discussed in Chapter IV, are not related to numbers alone, however, for there are those which deal with nursing education and the educational preparation of certain groups of nurses for whom collegiate or advanced degrees are recommended.

It is in the area of nursing education, both pre-service and continuation, that legislative action seems most appropriate. But legislative action, no matter how extensive and carefully conceived, can not of itself solve the problems in nursing. Consideration of some of these problems by the nursing profession, either internally or in conjunction with others, is crucial; such problems are discussed in the final chapter.

Matters for legislative consideration are presented in two sections: (1) those dealing with nursing education and (2) those dealing with other areas--relationships between public health and school health programs, composition and functions of the board of nursing, and recruitment of nurses from the mainland.

NURSING EDUCATION

It is only in recent years that professional nursing education has begun to receive increasing public support, largely through the establishment of professional nursing schools within public institutions of higher education--junior colleges, four-year colleges, and universities. Practical nurse education, in contrast, is supported by public funds to a great extent.

The State of Hawaii currently supports a portion of professional nurse education through its appropriations for the college of nursing at the University of Hawaii. The State almost totally supports practical nurse education. The Legislature, in attempting to define its role in insuring adequate nursing care in the community, is faced with at least the following three choices:

1. Maintain the present arrangement.
2. Up-grade the present nursing profession.
3. Introduce a new pattern of nursing education.

The first would require no legislative action other than to increase appropriations for the college of nursing and the practical

nursing school as their enrollments increase. The second and third could each be undertaken separately or jointly.

Continuation Education

The second alternative, to up-grade the present nursing profession, would probably require some legislative action. Appropriations might be provided for: (1) scholarships limited to graduate nurses seeking baccalaureate degrees; (2) scholarships limited to degree nurses seeking master's degrees or undertaking post-master's work; (3) short-term, intensive courses for nurses, both professional and nonprofessional, in each of the various fields or specialties; and (4) refresher courses for professional and practical nurses returning to active status.

The need for scholarships limited to graduate nurses seeking baccalaureate degrees was mentioned frequently in interviews. Such scholarships would need to be provided for three years, the period of time required for graduate nurses to obtain baccalaureate degrees. On the basis of present costs at the University of Hawaii and in view of the fact that graduate nurses would be unemployed for three years, these scholarships would have to be reasonably large to be attractive. Since this training is available at the University, it is probably more economical--and possibly more attractive to nurses with families--to remain in Hawaii rather than to go to the mainland.

The need for scholarships of the above type has already been voiced on the national level. In fact there has been an attempt to obtain Congressional establishment and support of such traineeships.

The need for scholarships of the second type--to nurses seeking master's or post-master's work--may not be too great at the present time because of the professional nurse traineeship program supported by the federal government until 1964.¹ New York has established 30 state scholarships for advanced professional education in nursing. These are awarded annually to legal residents who are professional nurses licensed in that state to attend any ap-

¹Through this program, grants are made to public and other nonprofit institutions of higher education which offer training in the fields of teaching, supervision, or administration of nursing and which meet certain criteria. In 1957-58 there were 60 participating institutions on the mainland and in Puerto Rico. A formula is used to allocate traineeship units among these institutions, which, in turn, select the nurses to whom traineeships are to be awarded. Such selection is based on admission policies of the institution, personal qualifications and financial need of applicants, and is made in accordance with federal requirements. A traineeship unit represents the sum of money needed to cover tuition and fees, stipend for living expenses, travel expenses, and dependency allowance for one full-time student for one academic year. The cost of a traineeship unit varies from institution to institution; however, the average unit cost in 1956-57 was \$3,407 and in 1957-58 was \$3,753. The average length of traineeships during the first two years of this program was 8 months. (U.S. Department of Health, Education, and Welfare, Public Health Service, Professional Nurse Traineeships, Part I: A Report of the National Conference to Evaluate Two Years of Training Grants for Professional Nurses, prepared under the direction of Apollonia O. Adams (Washington, D.C.: Government Printing Office, 1959), p. 1; and Part II, p. 6.)

proved school in the state for the purpose of obtaining advanced education in teaching or administration of nursing. The scholarship is \$750 per year.

Should such scholarships be established in Hawaii, there might be some advantage in allowing recipients to study in Hawaii or out-of-state so long as the institution is accredited. This would tend to lessen in-breeding and, at the same time, make it possible for the University's master's program to develop at its own rate in terms of its own areas of strength.

Provisions for in-service and/or refresher courses for both professional and nonprofessional nurses can be made through (1) grants to the University and/or the practical nursing school, (2) contracts with hospitals and other institutions which would be willing and able to furnish such education. The Western Council on Higher Education for Nursing is presently engaged in establishing such courses in collegiate schools for professional nurses in certain fields for 1962-64.² Should the state decide to do the latter, at least two steps are necessary: (1) criteria must be established for the selection of institutions to conduct the training and (2) responsibility must be assigned, probably to the board of nursing, for administering this program.

A New Pattern of Nursing Education

The Legislature needs to consider two fundamental questions before it can soundly create a new pattern of nursing education in Hawaii: (1) To what extent should nursing education be supported by state funds and what priority should it be assigned in terms of the total needs of the state? (2) What types of nursing education programs should be the recipients of state aid? If the state decides to underwrite a greater portion of the costs of nursing education in the state, it must be able to make appropriations for an expanded program. A decision on the second question will determine what types of nursing schools are to be given state aid. Among the many possible actions the Legislature might take, in addition to those previously mentioned, are the following:³

²About 375 trainees were enrolled for continuing education in 1960-62 at 7 collegiate schools in the West. (Western Interstate Commission for Higher Education, 1960 Report to the Governors, p. 12.)

³Not discussed in this section are two innovations in nursing education:

1. a nurse-intern concept: "The program (St. Luke Hospital in Chicago) features a concentration of basic nursing education during the first two years and a third year of internship. During the third year students are to receive a modest wage sufficient to cover living expenses outside the school proper. They will work a 40-hour week during this final year under the supervision of clinical instructors." (Karl S. Klicka, "Salaried Nurse-Intern Concept Lending New Vigor to School of Nursing", Hospitals 32 (August 1, 1958), p. 49.)

2. a high school prenursing program: This proposed program makes it possible for students to be granted advanced standing in a nursing school and to reduce the training period in that school. "The senior year provides for as many as seven half-year courses in the nursing curriculum. It is also possible to include hospital clinical experience. If it is not feasible to allow time for clinical work during the senior year, it could be done during the summer immediately following graduation. The high school nursing faculty will be responsible for the supervision of students in the clinical area selected." (Nathan Smith and Sidney Silverman, "A Plan to Break the Nursing Shortage; A High School Prenursing Program to Develop Professional Nurses," New York State Journal of Medicine (September 1, 1960), p. 2710.

1. Assume the complete cost of practical nursing education in the state. This could be accomplished by (a) eliminating all fees at the practical nursing school; these presently amount to \$100 per student, and (b) providing for clinical instructors on the faculty of the practical nursing school. The latter would enable the department of education to select its own clinical instructors (who are presently employed and compensated by the hospitals in which clinical experience is provided). This may mean that the state will need to appropriate more funds for contractual arrangements with hospitals which serve as the setting for clinical experiences, but the advantages from an educational point of view would be two: (a) it is easier to integrate theory and practice when preclinical and clinical instructors are on the same faculty and (b) this type of program is education-centered and eliminates whatever aspects may have been service-centered.

2. Establish a special scholarship program for nursing students. The provisions of other states may be of interest: Minnesota since 1952 has appropriated funds to support the Nursing Scholarship program which is currently administered by the state board of nursing.

. . . The purpose of the law is to provide financial aid for nursing students on the basis of their need and ability and, thereby, add to the numbers of nurses available for this state. Awards are made only to students in schools of professional or practical nursing who are Minnesota residents and whose programs include clinical courses in rural hospitals or in state hospitals for the mentally ill. Recipients agree to practice nursing in Minnesota for one year immediately following graduation. The maximum award possible to a professional student has been \$600 but will be \$1000 as of July 1, 1961; the maximum for practical nursing students is \$300.⁴

Records of the scholarship program indicate that during the period 1959-61, 49 scholarships were awarded to degree students, 385 to diploma school students, and 24 to practical nursing students. The average scholarship, during this period, was \$350 per recipient; the state annually appropriated \$72,500.⁵

New York also provides Regents scholarships for basic professional education in nursing. The 300 scholarships, distributed among the counties, are awarded to legal state residents to attend nursing schools in the state approved by the Regents for the training of professional nurses. The amount of the scholarship is determined by the recipient's need measured by his and

⁴Minnesota Nurses Association and Minnesota Board of Nursing, Nursing in Minnesota: A Statistical Review, July 1961 (St. Paul: the Association and the Board, 1961), p. 32.

⁵Ibid.

his parents', or his guardian's, net income. The maximum is \$500 annually for a period not exceeding four years or until the completion of the training course.⁶

The Minnesota and New York scholarship programs make it possible for both degree and diploma students to profit from state aid. Hawaii can do likewise. Or it can, like the federal traineeship program, make grants to the institutions directly. In any event, some agent, like the board of nursing, should be assigned the responsibility for administering the program. More than administrative considerations enter into the decision of whether scholarships should be awarded directly to students or grants made to institutions to award scholarships. In the former case, the state, in supporting students in diploma programs, indirectly gives these programs further impetus and in so doing may be contributing to the preservation of such programs. If grants to institutions are made, the previous consideration also applies, but it is complicated further by the need for consideration of the public or private nature of institutions.

3. Aid professional nursing schools. What kinds of nursing education programs should the state endorse? Bearing in mind that approximately 67 per cent of all professional nurses work directly with patients in some kind of institution, 20 per cent are head nurses, public health nurses, and industrial nurses who function with a greater degree of independence than the former, and 13 per cent are in leadership positions, the National League for Nursing states:

The job responsibilities for professional nurses . . . indicate for the future a continuation of at least two types of basic preparation for professional nurses--the one to prepare nurses for direct patient care, the other to prepare nurses for any beginning nursing responsibility and concurrently to lay the educational foundations which will speed selected students on to advanced preparation for top level responsibility.⁷

Hawaii already has a collegiate program supported by public funds and there is the possible development of a private baccalaureate program. It has no publicly-supported program for the preparation of nurses primarily for direct patient care; this program is conducted by two of the hospital schools at present. Hawaii can decide to give some kind of aid to these existing institutions or it can explore the possibilities of initiating a new kind of program--the associate degree program.

⁶Massachusetts has a special scholarship board to administer awards to students in medicine, dentistry, or nursing.

⁷National League for Nursing, op. cit., p. 24.

4. Study the associate degree program. Such a program can be developed as part of a four-year college or of a junior college (when and if such institutions emerge during the next decade). In 1957, California authorized its board of nursing to accredit pilot associate degree programs and to conduct a continuing evaluation of them during a provisional period, ending in 1963. This was done because of a serious shortage of professional nurses prepared to do bedside nursing and in recognition of the need to study nursing education from the standpoint of curriculum, teaching methods, and length of training. The advantages of the associate degree program were discussed in Chapter III; of primary interest is the fact that such programs are education-centered and that they are largely supported by public funds.

A special commission in Massachusetts recommended that the licensing authority

. . . permit the development of a two-year program of education for Registered Nurses as an optional alternative to the present three-year program and to permit modification of the practical nurse program. The development of a two-year program might encourage state and private educational institutions to offer a junior college type program, thereby relieving hospitals of a substantial portion of the cost of nursing education and permitting the hospital to provide the desirable clinical experience on an internship basis with appropriate salary.⁸

5. Provide University extension services to hospital schools of nursing. Michigan set up university extension services so that hospital schools could be helped to evaluate personnel usage and policies and to improve their teaching functions.⁹ Hawaii can likewise provide such services to hospital schools by making provisions for the University of Hawaii, in conjunction with the board of nursing, to do so.

Other ways of assisting hospital schools were suggested by the Massachusetts special commission which recommended

That methods be developed whereby hospitals, agencies and industry which employ nurses, but do not bear the cost of nursing education, might contribute an equitable share of the cost of nursing education now borne by 51 hospitals and five other schools.

⁸Commonwealth of Massachusetts, Report of the Special Commission Established to Study the Shortage of Nurses in Massachusetts (May 1, 1957), p. 19.

⁹W. T. Sanger, Education in Medicine and Nursing in Michigan, Staff Study No. 3, The Survey of Higher Education in Michigan, Prepared for the Michigan Legislative Study Committee on Higher Education (December 1957), pp. 5-6.

That the State Legislature find ways by which state funds can be appropriated to support nursing education in non-profit institutions. One method might be to authorize state educational institutions to enter into contracts to purchase nursing education for students at full cost of that education from non-profit hospitals. Legislation to appropriate funds for construction of teaching and housing facilities for student nurses to be leased to approved schools of nursing might be considered.¹⁰

OTHER AREAS

Relationships Between Public Health and School Health Programs

Hawaii supports a public health program through the department of health and a school health program through the department of education. While public health nurses are registered professional nurses who have completed work in an approved program in public health, health coordinators in schools are certificated teachers who have taken specified courses in health.

In contrast to the education department's requirements for health coordinators are those set by the American Nurses' Association for school nurses. These stipulate that school nurses need "a sound educational background in a baccalaureate program in a collegiate school of nursing. Specialization in school nursing at the graduate level is essential for the nurse entering the school nursing field."¹¹ A 1956 study of certification of school nurses indicated that the "the constants in the certification requirements were graduation from high school or the equivalency, graduation from an approved school of nursing, and registration as a nurse in each respective state."¹² This study also reported that Connecticut issues two types of certificates: (1) to act as a school nurse and (2) to serve as a school nurse-teacher.

The Hawaii joint committee on organization of government health and welfare services stated in 1959:

. . . With regard to all services provided to school children, little advantage would be achieved by centralizing responsibility in either of the two departments (education and health) concerned. Rather, the most important consideration ap-

¹⁰Commonwealth of Massachusetts, Report of Special Commission, p. 20.

¹¹American Nurses' Association, Public Health Nurses Section, School Nurses Branch, Functions and Qualifications for School Nurses (New York: the Association, 1960), p. 8.

¹²Lula P. Dilworth, "Study of Certification of School Nurses by State Departments of Education," Journal of School Health 28 (March 1958), p. 67.

pears to be one of assuring that these health functions, wherever performed, are carried on under medical direction. This suggests that school health services provided by the Department of Public Instruction should be under the administrative supervision of a medically qualified person. It also seems appropriate to suggest that the respective responsibilities of the two departments be clearly drawn by statute and that legal provision be made for establishing some coordinating mechanism between the two.¹³

The State Government Reorganization Act of 1959 specified that the department of education has, among its many functions, the responsibility for "health education and instruction", excluding the dental health program which was transferred to the department of health. Whether the work of health coordinators is education-centered or service-centered may be important in making a decision as to where the responsibility for a school health program should be placed. However, there seems to be some confusion at the present time, as reflected in the following descriptions of programs found in the Manual of State Programs:

Department of Education, guidance, health and special education: One of the activities is "health services".

Department of Health, public health nursing: One of the activities is "to provide nursing services to schools."¹⁴

The need for some legislation clarifying the relationship between public health and school health programs in Hawaii becomes very important when one considers mainland experience:

. . . During the decade 1950-1960, the number of nurses engaged in school health services almost doubled, increasing by 89.0 per cent. During the same period, nurses in generalized public health services increased by only 6.0 per cent. During this same decade, the enrollment in public schools increased by 37.1 per cent, while the total population of the nation increased by 19.1 per cent.¹⁵

Since the education department plans to request that the Legislature provide more health coordinators in the next decade, the present may be an opportune time to delineate the responsibilities of the health and education departments. This can be done by requesting the department of education, the department of health,

¹³Joint Committee on Organization of Government Health and Welfare Services, Report on Organization of Health and Welfare Services in Hawaii (March 1959), pp. 25-26.

¹⁴State of Hawaii, Department of Budget and Review, Manual of State Programs, State of Hawaii, 1961-1962 (Mimeographed: January 1961), pp. 59, 139.

¹⁵Jeanne Richie, "School Nursing: A Generalized or a Specialized Service?" Journal of Public Health 51 (September 1961), p. 1252.

and the board of nursing to consider jointly the relationship between public health and school health programs and to make specific recommendations to the Legislature.

Composition and Functions of the Board of Nursing

Hawaii has a board of nursing consisting of five members who serve for four years.¹⁶ In addition to being American citizens and meeting state residence requirements, members are all registered professional nurses whose educational background and work experience meet certain standards. Among the functions of the board are those which deal with nursing education: "prescribe curricula and standards for educational programs preparing persons for licensure under this chapter; provide for surveys of such programs at such time as it may deem necessary; accredit such programs as meet the requirements of this chapter and of this board; deny or withdraw accreditation from educational programs for failure to meet prescribed curricula or other standards."

The following points are matters which the Legislature might consider:

1. Increase the membership of the board of nursing so as to provide for a number of members (possibly two) who are licensed practical nurses or establish a separate board for practical nurses. This should be explored in view of the (a) growing need for more practical and other nonprofessional nurses and (b) possible contributions that can be made by practical nurse representation on the board. Hawaii presently relies on an advisory committee of practical nurses. The New York state board of examiners of nurses, for example, is composed of 15 members--11 are registered professional nurses and 4 are licensed practical nurses.¹⁷ There is one limitation on the powers of the practical nurse members, however: "the licensed practical nurse members of the board shall not serve in matters relating exclusively to education, qualification, examination, licensure, registration, practice and discipline of registered professional nurses." California has two separate boards--one for the regulation of professional nursing and the other for the regulation of vocational nursing (practical).¹⁸ the board for professional nursing has 6 members--5 professional nurses and 1 "public member"; the board for vocational nursing has 9 members--1 physician, 1 professional nurse, 1 hospital administrator, 1 public school administrator, and 5 licensed vocational nurses.

¹⁶Hawaii, Revised Laws (1955), Ch. 67 as amended.

¹⁷The University of the State of New York, State Education Department, Nursing: Law, Rules, Information, Professional Education Handbook 13 (Albany: 1960), sec. 6903, pp. 20-21.

¹⁸California, Business and Professions Code (1960), secs. 2701, 2702, 2842.

2. Request the board of nursing to study the possibilities of initiating a two-year associate degree program in Hawaii. One of the areas for legislative action discussed under nursing education deals with the establishment of such a program. Prior to such consideration, the Legislature should be familiar with the progress and problems of associate degree programs on the mainland and furnished with a plan to guide the initiation and development of such programs in Hawaii, should the board feel that such programs would be desirable. This type of information would be especially helpful since public support of nursing education predicates public knowledge of what is being supported. Related to this is the study of higher education in Hawaii, being conducted by the U.S. Office of Education; its report will probably be ready in November 1962.

3. Request the board of nursing to examine the articulation between nursing education programs in hospital schools and the collegiate school. In Hawaii, as in most parts of the nation, graduate nurses from diploma programs are required to undertake a three-year program in a collegiate school to get their bachelor's degree (a total of six years, including their education in the hospital school). Although the NLN recommends that bedside nurses in hospitals and other institutions be graduates from hospital schools or associate degree programs and that positions which require more independence of thought (head nurses, public health nurses, private duty nurses, etc.) should be filled with graduates from baccalaureate programs, it is difficult to explain the six-year requirement in view of the fact that the board of nursing has accredited both hospital and collegiate schools to prepare professional nurses. Is the hospital school so service-centered that its three-year program is equivalent to only one year in a collegiate school? Is one year in a collegiate program sufficient to produce a professional nurse capable of doing bedside nursing? How long will graduates from associate degree programs, which are two years in duration, be required to study in a collegiate program to get their bachelor's degrees?

The board of nursing, which is the representative of the public interest and the regulator of the nursing profession, should assume the leadership for nursing education in the state. It should constantly strive to encourage hospital schools to be education-centered, just as it should continually evaluate the programs of hospital and collegiate schools to decide whether both should be accredited and whether the six-year requirement is justified. Hawaii may be a suitable place to conduct studies, under the direction of the board of nursing, which will produce evidence on the effectiveness of (a) hospital and collegiate (associate, if such develops) programs and (b) present diploma-collegiate program requirements. Such results will probably provide a direction for nursing education in Hawaii.

Recruitment of Nurses from the Mainland

H.R. 187 requests that the legislative reference bureau ascertain "means of attracting more nurses from the mainland to serve in Hawaii." This assumes that Hawaii does not have enough nurses from the mainland or that the present local-nonlocal proportion should be changed.

There were 4,131 new licenses issued during the 11-year period, July 1, 1950, to June 30, 1961.¹⁹ Of these new licenses, 1,038 (25.1 per cent) were issued on the basis of examinations and 3,093 (74.9 per cent) by endorsement. A license by endorsement to practice professional nursing is issued by the board of nursing to an "applicant who has been duly licensed as a registered professional nurse under the laws of another state, territory, or foreign country, if, in the opinion of the board, the applicant has met the qualifications required of professional nurses in the Territory of Hawaii at the time of the applicant's graduation."²⁰ Thus Hawaii during the last decade has licensed many professional nurses from out-of-state. Unfortunately, there are no data to indicate what portion of the present nurse population was licensed by endorsement or by examination, but there is great probability that the turnover among nurses from the mainland is fairly high since some of them are the wives of servicemen, others are attracted temporarily by the lure of the Islands. The remainder may decide to settle in Hawaii and to remain professionally active.

Although figures on the 1961-62 nurse population are not yet complete, as of November 15, 1961, there were 262 nurses newly licensed; 83 by examination and 179 by endorsement. In view of the data presented above, Hawaii seems to have recruited nurses from the mainland very successfully, even in the absence of a positive state-sponsored recruiting program. This phenomenon partially explains why there is no acute shortage of professional nurses at the present time.

¹⁹Figures were provided by the State of Hawaii, board of nursing.

²⁰Hawaii, Revised Laws (1955), sec. 67-7 as amended.

CHAPTER VI

MATTERS FOR CONSIDERATION BY THE PROFESSION

Many of the problems in nursing which bear directly on the adequacy of nursing services and the availability of nurses in Hawaii are problems which the nursing profession, both local and national, must solve, either by itself or in conjunction with others in the health professions. Two of these problems are discussed in this chapter: (1) nursing education and nursing services deals with two basic areas in which the public expects leadership from the nursing profession and (2) status of the nursing profession deals with the relationships of professional nurses with hospital administrators, physicians, and specialists involved in the care of patients. The final section discusses the economic status of the nursing profession and the public's willingness to pay for nursing services.

All these factors are important to nursing because they affect efforts to recruit new nurses and attrition among the present working force. These factors are also important to Hawaii for they will determine, at least in part, whether the future will bring a shortage of nurses, a level of nursing care similar to that of the present or an improvement in nursing services.

NURSING EDUCATION AND NURSING SERVICES

Nursing education and nursing services are two areas in which the public expects leadership from the nursing profession. The public needs to know what levels of responsibility there are in nursing, what kind of educational preparation each of these levels requires, how successfully the present nurse population meets these standards, etc. The public also needs guides to evaluate the adequacy of nursing services. In addition, information on staff requirements, in terms of numbers and types of professional and non-professional personnel, for hospitals and other medical facilities is needed.

Although leadership from the nursing profession is necessary, this does not mean that the profession alone decides its future, for the public's willingness to pay for nursing services is a factor. In the years ahead, the public may develop a willingness to assume a greater portion of the cost of nursing education.

Nursing Education

A review of the present state of nursing education reveals: (1) great discrepancies between the standards or guides set by the professional nurse organizations and the actual educational background of many nurses; (2) a pattern of nursing education composed of three types of educational programs lasting for 2, 3, and 4 years, respectively, but with all graduating students eligible to take the same licensing examinations and to be admitted to the same practice; (3) limited articulation between collegiate programs and the other two educational programs; (4) disagreement among nurses on the function of the collegiate programs; and (5) nursing education being supported by the state to a very limited extent and by the federal government to a somewhat greater extent.

There is usually a time lag between the enunciation of standards and the achievement of those standards in practice. Nursing may well be in that predicament at the present. The American Nurses' Association will probably give its support to baccalaureate programs; the National League for Nursing sees the continuation of two types of programs (one for nurses giving direct patient care, the other for nurses assuming beginning and advanced levels of administrative, supervisory, or instructional responsibility). While some may point to the very limited support of the public as one cause of difficulties in nursing, few will deny that the public needs to know what should be supported--and on this the nursing profession should develop consensus.

Among the questions the nursing profession in Hawaii should explore are the following:

1. Eventually, should all pre-service educational programs for nurses be affiliated with junior colleges, colleges, or universities? If hospital schools of nursing should be continued, how should their curricula compare to those of the other programs? Should associate degree programs be initiated in Hawaii?

2. Since hospital and collegiate schools presently exist, can the articulation between these two types of programs be improved so that graduate nurses from hospital schools will not need an additional three years to obtain baccalaureate degrees? What changes are necessary to improve articulation? How can channels of communication among nurse educators be constantly maintained so that mutual understanding of and mutual respect for each other's problems and progress will be enhanced?

3. How can continuation education be most effectively promoted? What kinds of courses are needed? Who should provide this education? Who should pay for it? What work arrangements are necessary?

Nursing Services

Both the ANA and the NLN have developed recommendations on the educational preparation of nurses in the various fields--administration and supervision, instruction, general duty, private duty, office nursing, industrial nursing, public health, and school health. As greater numbers of nurses achieve these standards, the level of nursing services in the nation should rise.

There are other factors, however, which should be considered in evaluating nursing services:

1. The relationship between professional and nonprofessional nurses. There seems to be a growing consensus that in the years ahead more nonprofessional nurses will be used. There is little question about an increase in number of nonprofessional personnel; there is some question as to what is the desirable ratio between the two groups. Basic to a consideration of this problem is a recognition of the effects of medical advances on the functions of nurses. As changes are introduced in medical practices, in hospital administration, in the public's demand for health services, the respective roles of professional and nonprofessional nurses probably should also be modified.

2. The establishment of a variety of medical facilities. The two common medical institutions today are the general and special hospitals. As more nursing homes, convalescent centers, home care programs, homemaker services, and other institutions or programs develop, standards for evaluating nursing services in each of these facilities are needed. Implicit in the development of these new programs is the awareness that patients require different degrees of nursing care; some may need intensive care, others may be almost able to care for themselves except for a minimum of nursing aid.

3. The growing need for nurses with special skills to care for the chronically ill and the aged. As the life span in the United States has been lengthened because of medical advances and a high standard of living, the proportion of people 65-years-and-over has increased. Aged people need nurses with technical skill and with an understanding of geriatrics. Standards are needed for nurses with specialties in geriatrics, chronic illnesses, and other developing areas.

The recent publication of the ANA on standards for nursing care in nursing homes is a beginning. As the ANA and the NLN develop standards for different kinds and degrees of nursing care in various medical facilities, they should also attempt to encourage, if not conduct, empirical research when appropriate. Although the pre-

sent literature includes relatively few studies in nursing which meet the requirements of good research designs, this situation will probably improve as more nurses go into master's and doctor's programs and as the results of research fellowships supported by the Public Health Service are published.

STATUS OF THE NURSING PROFESSION

Caring for a patient properly is a complex task, especially in an institution. Most frequently it involves doctors, registered nurses, practical nurses, other nonprofessional personnel, and dietitians. Other specialists in therapy and medicine are oftentimes included. Surrounding the patient and all those who care for him is the atmosphere of the hospital (or other institution) which is a function of administration, staff morale, and the adequacy of physical facilities. Within this setting has developed the stereotyped role of the nurse: a doctor's "Girl Friday"

The manner in which nurses are regarded by hospital administrators, physicians and other health co-workers is an important factor in determining the status of the nursing profession. Important as these relationships with others are, they must not assume greater significance than they deserve. For nurses themselves must begin to assert their roles as they see them--not only as others see them.

Relationships With Other Health Professions

Doctors' attitudes toward nursing vary considerably; negative views affect the nursing profession and detract from its value:

. . . Many doctors still act toward their nurses as if they were "genteel servants" with very limited thinking faculties. . . .

An indication of this problem of doctor-nurse relations is given by a recent survey, which disclosed that the majority of doctors at a famous institution did not know the names of the nurses with whom they were in daily contact. Unless doctors change their attitudes toward nurses and a more constructive relationship is established, little, if any, lasting benefit will result from reforms instituted within the nursing profession.¹

There appear to be significant differences of opinion and attitudes among doctors with respect to the functions and services of nurses. Some doctors wish to return to the older days

¹Committee on the Function of Nursing, A Program for the Nursing Profession (New York: Macmillan, 1948), p. 67.

when nurses provided only simple bedside care, seeing that good hygiene and cleanliness were maintained and making patients comfortable. Other doctors wish nurses to provide highly skilled technical services, to know the cause of disease and to function as a skilled assistant to the physician. The advances in medical science, the development of new medical techniques in surgery, in diagnosis and in treatment and the increase in the use of complicated apparatus has made it necessary for nurses to become more highly skilled and better educated than ever before and has made it impossible for the nurse to perform all the simple bedside care functions which she formerly did. Doctors require and rightly demand good nursing service. By their frequently voiced criticisms, however, and their apparent reluctance to recommend nursing as a career to the children of their friends, doctors are acting contrary to their best interests.²

Although this study did not explore the relationship of nurses and doctors in Hawaii, the results of a sociological study of the nursing personnel in six hospitals on Oahu, conducted in 1955, are relevant. This study examined the social factors which are associated with the job satisfaction of nurses.

. . . Though the correlation in some instances was low, each of the general factors implicit in the formulated areas showed statistically significant association with job-satisfaction. The most highly significant general factors were the nurse's appraisal of the hospital for which she works, her appraisal of the attitude of her superior towards her, and her attitude towards the functions she performs, in that order. Next in order of significance were the nurse's appraisal of the attitude of her primary group towards nurses and nursing and her appraisal of the attitude of her peer group in the work situation toward her. Finally, the nurse's appraisal of the community attitude towards nurses and nursing and her appraisal of the attitude of her subordinates in the work situation were found to be associated with her job-satisfaction. . . . [underlining added]

In terms of the nurse's appraisal of the hospital for which she works, the characteristics associated with satisfaction in the profession are those related to the organizational structure and policies of the institution. The nurses, like other professional groups, react positively to the more liberal and democratic personnel policies. They are dissatisfied with organiza-

²Commonwealth of Massachusetts, Report of the Special Commission, pp. 17-18.

tional policies that require full cooperation without participation in planning and decision making. They resent personnel policies that discriminate on the basis of race or religious background or administrators' personal feelings. Those who are more satisfied feel that institutional policies are liberal and generous with regard to work routine, employee benefits and the like and that the institution is sincerely interested in the welfare of the worker.

Very closely related to this appraisal of the institution is the nurse's evaluation of the attitude of her superiors, her peers, and her subordinates. The factors common to the work group situation which are important to job-satisfaction appear to be the desire for work situations characterized by secure voluntary cooperative effort, opportunity for success in the task, attainment of the respect of the cooperating workers, and freedom to participate in the affairs of the group. . . . Intimately related to this is a desire for democratic leadership rather than authoritarian direction in delegated tasks³

This same study indicates that

. . . the nurse-role considered most desirable or acceptable is essentially that of team-leader. Such job-characteristics as freedom from routine tasks, participation in planning of hospital routine, responsibility for scheduling and arranging health service, close professional relationship involving exchange of information between MD and nurse were associated with job-satisfaction. Implied in the responses to the items in this area is that the more satisfied nurses feel that their jobs involve decision-making, self-direction, and dealing with the public or with other professionals on the health team on an equal basis. On the other hand, the more dissatisfied nurses feel that their jobs involve the more routine and inappropriate functions and that MDs fail to give due credit and recognition to the work they perform and fail to give adequate attention to information that nurses may provide regarding the patients.⁴

The concept of the "team approach" has been discussed for over a decade as a means of improving patient care. This approach is a challenge to the nursing profession because it assigns an important role to the professional nurse.

³Yamamura, op. cit., pp. 142-43.

⁴Ibid., p. 144.

The Team Approach to Nursing

The team approach makes the professional nurse responsible for planning the nursing care required by patients and for the execution of that plan. The professional nurse assigns specific duties to and supervises nonprofessional personnel. She also works with other specialists, such as dietitians, laboratory technicians, physical therapists, and the like. Thus a patient's nursing care during each of the three shifts is centered in one competent professional nurse; this enables a patient to turn to "his nurse" for help.

The team approach implies that the other members of the team, especially the doctor and specialists, recognize and appreciate the role of nursing in the total medical and health program. This approach also implies that professional nurses are properly and adequately trained to assume their leadership roles. The Committee on the Function of Nursing, in exploring the team approach, recommends that professional nurses be educated in programs that are affiliated with universities or colleges and that these programs lead to baccalaureate degrees.⁵

Perhaps the nursing profession in Hawaii will be successful in promoting the team approach so that it will be adopted by a few hospitals on an experimental basis. Research would then be needed to evaluate the effectiveness of this approach in terms of adequate nursing care for patients, reactions of nurses and others on the team, reactions of patients, and costs of the program.

ECONOMIC STATUS OF THE NURSING PROFESSION

A recent study of salaries in Hawaii, derived from data collected by personal interviews at 341 private firms and 14 government agencies, includes several fields of nursing among the 71 job classifications which were surveyed.⁶ The data in Table 30 summarize information on pay rates in private industry, federal government, state government, and county governments for the following types of nurses: (1) staff nurse, (2) clinic or office nurse, (3) industrial nurse, (4) practical nurse. Also included are the pay

⁵The Committee further indicates "the appropriate over-all ratio for the entire nursing mission is still uncertain at this stage of experimentation. As a tentative guide for recruitment policy only, we recommend the ratio of one professional nurse to two practical nurses." (The Committee on the Function of Nursing, op. cit., p. 104.)

⁶Hawaii Employers Council, Research Department, Pay Rates in Hawaii; Private Employment, Government Employment, Special Publication No. 49 (Honolulu: the Council, February 1962).

Table 30

Pay Rates of Nurses and Related Personnel
in Hawaii, By Employing Agency
1961

Note: The following definitions, taken from the source, may be helpful:
Full Range: the range of pay rates from the lowest to the highest.
Mid-50% Range: the range of pay resulting after the reported rates for each job are ranked and the bottom and top 25 per cent are excluded.
Median: the rate of pay so located in the full range of all jobs in a classification that half the persons are paid more and half the persons are paid less than the median (or midpoint).
Mean: the calculated arithmetic average of the pay received by all persons in a classification.

Job Classification and Employing Agency	Number of Jobs	Pay Rates		Median	Mean
		Full Range	Mid-50% Range		
STAFF NURSE					
Industry	442	\$300 - 439	\$310 - 341	\$322	\$329
Federal Govt.	0				
State Govt.	0				
County Govts.	98	384 - 444	384 - 423	403	404
Industry & Government	540	300 - 444	310 - 366	325	343
CLINIC OR OFFICE NURSE					
Industry	98	\$280 - 475	\$312 - 357	\$329	\$333
Federal Govt.	2*				
State Govt.	0				
County Govts.	1*				
Industry & Government	101	280 - 571	312 - 357	329	339
INDUSTRIAL NURSE					
Industry	29	\$300 - 601	\$405 - 505	\$435	\$452
Federal Govt.	1*				
State Govt.	1*				
County Govts.	0				
Industry & Government	31	300 - 601	412 - 485	435	451
MEDICAL LAB TECHNICIAN					
Industry	80	\$280 - 515	\$345 - 413	\$370	\$375
Federal Govt.	2*				
State Govt.	3*				
County Govts.	18	444 - 539	444 - 489	489	466
Industry & Government	103	280 - 555	350 - 444	390	396
PRACTICAL NURSE					
Industry	324	\$205 - 372	\$240 - 275	\$255	\$264
Federal Govt.	73	368 - 440	399 - 430	430	414
State Govt.	54	316 - 384	316 - 349	332	336
County Govts.	285	316 - 366	332 - 349	349	342
Industry & Government	736	205 - 440	260 - 349	332	314
HOSPITAL ATTENDANT					
Industry	95	\$190 - 332	\$210 - 235	\$220	\$234
Federal Govt.	2*				
State Govt.	0				
County Govts.	21	260 - 316	260 - 316	301	292
Industry & Government	118	190 - 374	215 - 287	225	246

Source: Hawaii Employers Council, Research Department,
Pay Rates in Hawaii; Private Employment, Govern-
ment Employment, Special Publication No. 49
 (Honolulu: the Council, February 1962), pp. 39, 41, 43.

*Fewer than 8 jobs were reported. Since the statistical measures would not be valid, data are reported in the "Industry and Government" classification.

rates of two related positions: (5) medical lab technician and (6) hospital attendant.⁷

Comparisons of pay rates in private industry and in at least one level of government are possible for the staff nurse, medical lab technician, practical nurse, and hospital attendant. For these positions, the median and mean salaries of those in government are higher than those in industry. Only in the case of the practical nurse are data available for private industry and all three levels of government. Noteworthy is the fact that the median and mean salaries of practical nurses in all three levels of government are higher than those of staff nurses in private industry; pay rates for practical nurses in the federal government are considerably higher than those of other employing agencies because of the cost-of-living allowance provided federal workers in Hawaii.

Another study of the compensation of public employees included several fields of nursing in its survey--practical, staff, and industrial nurses. The study indicated that "For Nursing and Social Welfare type classes, State salaries are higher by 16.50%."⁸ This percentage was higher than that which resulted in comparing community and state government salaries for other classes of employment.

In view of the results of the above two studies, private industry appears to be in an unfavorable position in the competition for certain, if not all, types of professional and nonprofessional nurses. The nursing profession is striving to improve the economic status of nurses in private industry. While a frontal attack on salaries may bring results (and oftentimes increases in hospital rates), it may be just as likely that the economic status of nurses will improve as the nursing profession is successful in improving patient care through approaches which place the professional nurse in a leadership role and in insuring that professional nurses undertake educational preparation commensurate with their responsibilities.

Data for this report were tabulated by Miss Jean Tanaka and Mrs. Marylyn Vause, and the manuscript was prepared for the printer by Miss Maizie Yamada; all are staff members of the legislative reference bureau.

⁷Not included in this section are pay rates in other mainland jurisdictions. Data on salaries of nurses in 15 major metropolitan areas can be found in: United States Department of Labor, Bureau of Labor Statistics, Earnings and Supplementary Benefits in Hospitals, Mid-1960 (15 Areas), Bulletin No. 1294 (Washington, D.C.: Government Printing Office, May 1961).

⁸State of Hawaii, Department of Personnel Services, A Report Relating to the Compensation of Public Employees, Report No. 3 (Honolulu: February 1961), p. 15.

APPENDIX A

A Copy of H.R. 187 Adopted by the House of Representatives,
First State Legislature, Hawaii, 1961

H.R. NO. 187

HOUSE RESOLUTION

WHEREAS, there is an expansion in the number and scope of health programs and an increasing utilization of hospitals and of other medical care facilities, giving rise to a growing demand for professional nursing services; and

WHEREAS, although there is no present shortage of nurses, our ratio of 270 nurses per 100,000 population is below the recommended minimum ratio of 300 per 100,000; and

WHEREAS, considering the projected growth of population in Hawaii during the coming years through 1970, it will be necessary to add approximately 250 professional nurses annually to the existing nursing force; and

WHEREAS, adding 250 nurses annually to the existing force appears unrealistic in the light of the fact that only 94 graduates of our local nursing schools were licensed in Hawaii in 1960; and

WHEREAS, the distribution of nurses in Hawaii is and has always been unequal, with a disproportionate number serving in Honolulu; and

WHEREAS, facilities for nursing education within our state are limited, and many of those wishing to enter the nursing field through education and training on the mainland are reluctant to go because of the high cost in terms of time and money; and

WHEREAS, in order to meet the future demand, it may be imperative that a program be undertaken to establish more facilities in Hawaii for nursing education; to encourage and assist nurses in seeking further training in certain specialties on the mainland; and to attract more qualified nurses from the mainland; now, therefore,

BE IT RESOLVED by the House of Representatives, First Legislature of the State of Hawaii, General Session of 1961, that the Legislative Reference Bureau be and it is hereby requested to make a study of the nursing situation in Hawaii with the end in view of ascertaining

(a) the demand for nurses during the coming years through 1970, including an analysis as to the relative need for nurses

in the various areas, specialties, and programs;

(b) the existing facilities for nursing education, the need for additional facilities, where and how such facilities shall be established;

(c) means of assisting nurses in seeking further training on the mainland, especially in those special fields where facilities for training are not obtainable locally; and

(d) means of attracting more nurses from the mainland to serve in Hawaii.

BE IT FURTHER RESOLVED that a certified copy of this Resolution be transmitted to the Legislative Reference Bureau.

April 28, 1961

APPENDIX B

Letter and Questionnaire Sent to Hospitals

LEGISLATIVE REFERENCE BUREAU

STATE OF HAWAII

UNIVERSITY OF HAWAII

HONOLULU 14, HAWAII

KENNETH K. LAU
DIRECTOR

TOM DINELL

October 27, 1961

MEMORANDUM TO: Hospital Administrators in Hawaii

SUBJECT: Nursing Resources and Needs in Hospitals;
Request No. 9606

The Legislative Reference Bureau at the request of the Legislature is presently studying Hawaii's nursing needs. Part of this study is devoted to a survey of nursing resources and needs in hospitals.

We have developed the enclosed questionnaire to obtain basic information from all hospitals in Hawaii. It is composed of items dealing with the present nursing staff in terms of number, turnover, educational preparation, and vacancies as well as with the hospital's plans for expansion and the effect of that expansion on nursing needs in 1970.

We would appreciate your help in furnishing us with the information we desire. Two copies of the questionnaire are enclosed; one is for your files. Will you please complete one copy of the questionnaire and return in the enclosed stamped, self-addressed envelope by November 10, 1961? Thank you for your cooperation.

(Mrs.) Mildred D. Kosaki
Assistant Researcher

For: Tom Dinell
Acting Director

MDK:jf
encl.

NURSING RESOURCES AND NEEDS IN HOSPITALS

Name of hospital.....Address.....
For the period July 1, 1960 to June 30, 1961:
Daily average patient census (excluding newborn).....
Daily average patient census (including newborn).....
Number hours in work week in this hospital.....

- A. Number of nursing personnel currently employed: (Include all nursing personnel on payroll of hospital, both professional or nonprofessional, whether on duty, off duty, on vacation, or ill)

		<u>Number of nursing personnel</u>	
		Full-time	Part-time
1.	Administrative, supervisory, and instructional personnel:		
a.	Directors and assistant directors.....	.....	.....
b.	Instructors.....	.....	.....
c.	Supervisors and assistant supervisors.....	.....	.....
d.	Head nurses.....	.....	.....
2.	General duty nurses giving direct patient care (not in special departments):		
a.	Professional nurses.....	.....	.....
b.	Practical nurses.....	.....	.....
c.	Other nonprofessional nurses (attendants, orderlies, etc.).....	.....	.....
3.	Nurses in special departments:		
	<u>Professional</u>		
a.	Outpatient department.....	.....	.....
b.	Operating room and/or intensive care.....	.....	.....
c.	Obstetrics.....	.....	.....
d.	Psychiatry.....	.....	.....
e.	Pediatrics.....	.....	.....
f.	Geriatrics.....	.....	.....
g.	Other (specify.....)	.....	.....
	<u>Nonprofessional</u>		
h.	Practical Nurses.....	.....	.....
i.	Others (attendants, orderlies, etc.).....	.....	.....

B. Nurse turnover

(Please indicate in the first column the total number of nursing personnel who left hospital in 12 months ending June 30, 1961. In other columns show number who left for reasons stated. Numbers in these columns should add across to the totals)

Types of personnel	Total number who left their jobs in past year	Reasons for leaving					
		(1)	(2)	(3)	(4)	(5)	(6)
		Pregnancy	Husband moved to another location	Personal desire to move to another location	To get further education	Discharged from position	Other reasons
<u>Full-time personnel</u>							
1. Professional nurses, total							
a. Administrative (directors, supervisors, head nurses).							
b. Staff-level nurses.							
2. Nonprofessional nursing personnel, total							
a. Practical nurses.							
b. Others (attendants, orderlies, etc.).							
<u>Part-time personnel</u>							
1. Professional nurses, total							
a. Administrative (directors, supervisors, head nurses).							
2. Nonprofessional nursing personnel, total							
a. Practical nurses							
b. Others (attendants, orderlies, etc.).							

C. Professional background of nursing personnel in administrative and supervisory positions.

Position	Number	Collegiate Background					Working Toward			
		No degree	Bachelor's Degree	Master's Degree	Doctor's Degree	Other*	Bachelor's Degree	Master's Degree	Doctor's Degree	Other*
Director of nursing service										
Asst. Dir.										
Supervisor										
Asst. Super.										
Head Nurse										

*Please specify below by describing the type of degree.

D. Professional background of professional nursing personnel in special departments.

Special Department	Number of Nurses	Number Who Have Taken Post-Graduate Work in Specialty
1. Outpatient dept. _____		
2. Operating room and/or intensive care _____		
3. Obstetrics _____		
4. Psychiatry _____		
5. Pediatrics _____		
6. Geriatrics _____		
7. Other, specify _____		

E. Vacancies and needs in nursing personnel

(Please indicate additional number of nursing personnel needed to staff hospital adequately. If no additional nursing personnel are needed, indicate this.)

Types of personnel	Present Personnel		Desirable Staff Level		
	Number authorized	Number filled?	Present	How many more nursing personnel are needed for expansion in next 2 years?	How many more nursing personnel are needed for expansion in 1970 (including those in preceding columns)
1. Professional nurses, total.....					
Administrative (directors, Supervisors, Head nurses).....					
Staff-level.....					
2. Nonprofessional nursing personnel, total.....					
Practical nurses.....					
Other nonprofessional nursing personnel giving direct care, total.					
a. Nursing aides and orderlies.....					
b. Ward clerks.....					
c. Others (specify titles).					

F. Expansion in 1970

1. Number of beds

Present _____
1970 estimate _____

2. Number of special departments (see list in item A of this questionnaire)

Present _____
1970 estimate _____

Please describe new special departments your hospital plans to develop by 1970: _____

Please describe your plans for expanding present special department by 1970 and indicate magnitude and nature of nursing needs _____

3. Plans for new programs

a. Do you now have a home care program? Yes _____ No _____

If yes, do you plan to expand it by 1970? Yes _____ No _____

Please describe expansion and indicate the magnitude and nature of nursing needs: _____

If no, do you plan to initiate one by 1970? Yes _____ No _____

Please describe scope if initiation is planned and indicate the magnitude and nature of nursing needs: _____

b. Do you plan to initiate any new programs by 1970? Yes _____ No _____

If yes, please describe program and indicate magnitude and nature of nursing needs: _____

APPENDIX C

Letter and Questionnaire Sent to Nursing Schools

LEGISLATIVE REFERENCE BUREAU

STATE OF HAWAII

UNIVERSITY OF HAWAII

HONOLULU 14, HAWAII

KENNETH K. LAU
DIRECTOR

TOM DINELL

October 20, 1961

Subject: Hawaii's Nursing Needs; Request No. 9606

Dear _____:

The Legislative Reference Bureau at the request of the Legislature is presently studying Hawaii's nursing needs. Part of this study is devoted to an examination of nursing education facilities in the state.

We have developed the enclosed questionnaire to obtain basic information from nursing education facilities. It is composed of items dealing with present staff, enrollment, and practices as well as with the activities of alumni and the plans for future expansion.

We would appreciate your help in furnishing us with the information we desire. Three copies of the questionnaire are enclosed; two are for your files. Will you please complete one copy of the questionnaire and return it in the enclosed stamped, self-addressed envelope by November 3, 1961. I shall then call you for an appointment to discuss your responses and other matters related to nursing education. Please call me (996922) if I may be of help in clarifying the items in the questionnaire. Thank you very much for your cooperation.

Very truly yours,

(Mrs.) Mildred D. Kosaki
Assistant Researcher

For: Tom Dinell
Acting Director

MDK:my
encl.

NURSING EDUCATION FACILITIES IN HAWAII

A. General

1. Name of School _____
2. If there is no degree program, are you now negotiating with another educational institution to set up such a program? Yes _____ No _____
How soon do you expect to complete such plans? _____

B. Instructional Personnel

1. List titles of instructional personnel responsible for classroom, laboratory, and planned clinical instruction in preclinical and clinical courses. (Include nurse instructors, physicians, physiologists, dietitians, etc. Exclude occasional lecturers.)

Title of Instructional Personnel	Full or Part Time (1/4, 1/2, 3/4)	R.N. (yes or no)	M.D. (yes or no)	Complete these columns for nurse instructors only		
				Highest degree held	Years of service in this school	Seeking advanced degree, specify
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

(Please attach additional sheets if necessary)

B. Instructional Personnel (continued)

2. Are there any instructional positions vacant? Yes ____ No ____
If yes, how many? ____ Why? _____

_____.
3. Have you encountered problems in recruitment of instructional personnel?
Yes ____ No ____ . If yes, please describe _____

_____.

C. Students

1. Describe your school's program of recruitment _____

_____.
- Do you use other organizations? Yes ____ No ____
- Do you work through high school guidance personnel? Yes ____ No ____
Public? Yes ____ No ____
Private? Yes ____ No ____
- Do you also direct your efforts out-of-state? Yes ____ No ____

2. Number of students currently enrolled

Graduation in:	Number Applied	Number Admitted	Number Presently Enrolled
1962			
1963			
1964			
1965 (baccalaureate program only)			

C. Students (continued)

3. Geographical distribution of students currently enrolled

Island or Location	Number of Students			
	1st year	2nd year	3rd year	4th year*
Hawaii				
Kauai				
Lanai				
Maui				
Molokai				
Niihau				
Oahu				
SUB-TOTAL				
Other States				
Foreign Country				
SUB-TOTAL				
GRAND TOTAL				

* Only for baccalaureate program.

4. Other characteristics of students currently enrolled

Feature	Number of Students			
	1st year	2nd year	3rd year	4th year*
1. Sex				
Male				
Female				
2. Age				
Below 20				
20-24				
25-29				
30-34				
35-40				
Over 40				

* Only for baccalaureate program.

C. Students (continued)

5. What scholarships are presently available?

[illegible]

D. Alumni

1. Admissions, graduations and licensure

<u>Applications</u>		<u>Admissions</u>		<u>Graduations*</u>		<u>Taking Exam for First Time</u>	
<u>Year</u>	<u>No.</u>	<u>Year</u>	<u>No.</u>	<u>Year</u>	<u>No.</u>	<u>No.</u>	<u>No. Passed</u>
1950		1950		1953			
1951		1951		1954			
1952		1952		1955 ('56)			
1953		1953		1956 ('57)			
1954		1954		1957 ('58)			
1955		1955		1958 ('59)			
1956		1956		1959 ('60)			
1957		1957		1960 ('61)			
1958		1958		1961			

* Dates in parentheses for four-year baccalaureate degree programs.

D. Alumni (continued)

2. Total enrollment, 1955-1960

Year	Total Enrollment	Number of Withdrawals
1955-56		
1956-57		
1957-58		
1958-59		
1959-60		

3. Reasons for withdrawal, 1955-1960

Reasons	Number of Students Who Withdrew in:				
	1955-56	1956-57	1957-58	1958-59	1959-60
1. Marriage					
2. Health					
3. Personal or family needs					
4. Unsited to nursing (conduct, personality)					
5. Disinterest in nursing, change of vocation					
6. Academic					
7. Transfer to another professional nursing program					
8. Other reasons					
9. Reasons not stated					

D. Alumni (continued)

4. Post-graduation activities

a. Approximately what percentage of your graduates during the last five years remained in Hawaii? _____

b. For diploma schools:

Approximately what percentage of your graduates during the last five years went on to baccalaureate degree programs? _____ To advanced graduate work? _____

b. For baccalaureate degree programs:

Approximately what percentage of your graduates during the last five years went on to advanced graduate work? _____

E. Nursing Education in the Future

1. If the present plant is utilized to the fullest extent, what is its capacity in terms of:

faculty _____

students _____

2. Are you using your present plant to the fullest extent? Yes____ No____
If no, why? _____

3. Is there any possibility of expanding nursing education facilities in your school during the next ten years? Yes____ No____
If no, why? _____

If yes, does your school have any plans for expansion of the present program? Yes____ No____. If yes, please describe in terms of plans for the physical plant, faculty, and students _____

4. Is there a need among Hawaii's nurses for graduate education on the college level? Yes____ No____. If yes, in what fields? _____

If yes, how should graduate education be promoted? _____