INTRODUCTION
At the request of the former Department of Health, a survey was made of the manpower in health and welfare services in the RSA in 1981. The aim of this investigation was to obtain a picture of the institutions rendering health and welfare services, the facilities available and the manpower involved in these services. During the past two decades much attention has been devoted to the availability of educated manpower in all fields of the labour market. The general shortage of highly skilled manpower is also experienced in the health fields and necessitates better utilisation of the available manpower.

Pleas for drastic measures to solve the problems of nurse shortages have been heard for many years. During 1971, Mrs M.E. Venter (1971: 25) stated in her opening address at a South African Nursing Council meeting: "Due to the intensity of treatment of patients and modern trends and developments during the past decade, requirements for health services were excelled and the demand for trained nurses exceeded the actual manpower available. We must be logical — we must face the facts if we want to solve some of our problems. The present situation was allowed to develop over some one hundred years and it will certainly not be solved within the next few years. The problems certainly were not solved during the subsequent twelve years. Judging from the survey of the HSRC during 1981 in which an average of 9,5% vacant posts was reported the position may even have grown worse. Last year, Prof. Van Huysssteen asked the question in an opening address at the congress of the SANA whether optimum use was being made of nurses. She said that no one knew what the nurse to population ratio should be for health services to work efficiently. The ratio in the Witwatersrand and Vaal Triangle area, although among the best in the world, still fell far short of the generally assumed ratio of one nurse for every 500 people. Certain factors in our highly industrialised society will in future demand increasing numbers of professional nurses and will place a heavy burden on those practising the profession if a satisfactory solution to the problems cannot be found. The fast growing population with a high infant death rate, a large ageing population, increase in degenerative and psychiatric diseases, brought about by stress, the high accident rate, the bush war in which the RSA has been involved for the past decades and other complexities in the social environment, all call for an intensified health service in which the nurse plays a vital role.

RESEARCH
It is therefore essential that every possible attempt be made to explore all the factors that lead to the existing shortage. One such attempt is the current investigation which the HSRC is undertaking into the occupational pattern and labour situation of nurses. This longitudinal survey which will extend over a period of five years was launched during 1981. The project will be executed in various phases. Firstly the final-year students of 1981 were involved and their careers will be followed periodically until 1986. In the second phase a sample of registered nurses were questioned during the middle of 1981 with the aim of getting an historical image of their careers over the previous ten years.

As male nurses constitute a very small proportion of the nursing profession, it is expected that the career pattern of nurses will differ to a large extent from that of most other professionals.

First phase
During 1981 questionnaires were sent to all training hospitals and colleges and universities with departments of nursing, to be completed by the students immediately before sitting for their final examinations. Only the students who sat for an examination that would lead to a
The aims of the investigation were the following:

- to obtain a general picture of the nurses who progressed as far as their final year
- to establish their motivation for choosing nursing as a career
- to obtain an overview of the fields of interest of these nurses
- to analyse the students' immediate plans for the future.

Completed questionnaires were received from 2108 respondents, which represents 85% of the questionnaires which were dispatched and 53% of the population of students who sat for the examination during 1981 according to the statistics of the SANC. Approximately half of the respondents were Whites and just more than a third were Blacks. Only 2% were males. Ninety per cent of the Black students sat for the examination to obtain a diploma in general nursing and the majority of them intended to enrol for a course in midwifery after obtaining this diploma.

Second phase

In the second phase of the investigation a representative random sample was drawn from different types of employers of nurses. The sample included provincial, state and private hospitals, head and regional offices of the departments of health and welfare of the RSA and national states, municipal and other health clinics, welfare organisations and institutions. Questionnaires were sent to all employers who assisted by informing us what number of registered nurses they currently had in their employ. They were requested to hand the questionnaires to all registered nurses in their service. Altogether 3103 usable questionnaires were received from registered nurses in this sample. The group represented 6% of the number of registered nurses according to the statistics of the South African Nursing Council on 31 December 1980. A quarter of the respondents were Blacks, almost two-thirds Whites and the rest Asians and Coloureds.

The aims of this phase of the investigation were to

- obtain an idea of the background and qualifications of practising registered nurses
- ascertain the job satisfaction of registered nurses,
- obtain an idea of the career pattern over a number of years
- determine what factors were responsible for the resignation and re-engagement of registered nurses.

As far as population group and male-female ratio were concerned, the survey group corresponded fairly well to the composition of the population of registered nurses on the registers of the SANC.

Employers were also requested to supply registered nurses who would resign during the nine months following the completion of the first questionnaire, with a second questionnaire to be returned to the HSRC after completion. Two hundred and twenty seven nurses reacted to this questionnaire. No proof can be given that this number represented the total number of nurses who resigned during the period. Owing to incomplete answers the information supplied by respondents in this questionnaire could not be validated against the data in the first questionnaire and was therefore not used.

Research findings

Family responsibilities and age structure

The majority of the survey group of registered nurses were female (95%) and almost two-thirds were married. Three out of every four married nurses had children. Only 6% of the Black nurses did not have any children. A relatively large percentage of the respondents married before they completed their basic training (35% of the Black nurses). If the structure of the labour force is taken into account, nurses in all population groups come to a greater extent from the higher than from the middle and lower socio-economic groups in society.

In comparison with ages in other occupations that are mainly practised by females, the median age of nurses was relatively high (38 years). This corresponds to a survey of registered nurses in Australia during 1979. The median age of Black nurses was even higher (40 years). The trend of a steadily rising median age of registered nurses indicates that fewer young people are entering the profession and staying in it and that the profession is practised mainly by older married people. If this trend should continue, problems could arise in future when it comes to replacing retired persons with younger nurses.

Qualifications

As far as qualifications are concerned the combination of general nursing and midwifery appears to be the most popular as registrations. This conclusion is substantiated by the data supplied by the 1981 final-year students. (Almost three-quarters of the 1981 students were going to continue their full-time study in midwifery during 1982, while only 6% were interested in psychiatric nursing. There is evidence that the percentage of respondents who take the integrated course with two or three of the basic fields simultaneously, has increased during recent years. One out of every twenty Black registered nurses in the sample had a qualification in psychiatric nursing.

Continuing education

The definition of continuing education which is given to students at the University of Pretoria is: continuing education includes all those educational activities which take place after the professional person has been registered or enrolled, or where no such registration or enrolment exists, takes place after the period of basic education has been completed, which gave the person entry into the profession or occupation. It is designed to lead to new responsibilities, to the better utilization of the potential of the individual, in his work and in his community role. It updates knowledge and skills and adds knowledge from all basically related fields which could enrich the life and the potential of the worker. (Searle, 1975 : 26) Prof. Searle distinguishes between inservice education, clinical instruction and continuing education (1971 : 7).
In an article in the S.A. Nursing Journal, Prof. J.M. Mellish stressed the importance of keeping abreast of developments within the profession after registration: Without continuing education it is impossible to meet the needs of a dynamic society. Medical ideas change in the light of modern knowledge and nursing techniques must change accordingly. On the other hand we live in a society in which there is such a vast expansion of technology and knowledge that specialisation is essential. One out of every five Black nurses has post-basic qualifications, mainly in community nursing. During the investigation 43 % of the Black respondents were busy with formal study but the majority of them were studying for the matriculation certificate. Sixty five of the Black respondents (representing 23 %) were enrolled for a university degree in nursing. Respondents indicated that they studied further mainly to do their present work better.

According to the new Health Act (1977), health services should be directed more to preventative than to remedial services. Although more than half of the Black registered nurses in the sample and the majority of the final-year student nurses of 1981 displayed more than average interest in community nursing, relatively few registered nurses have a post-registration qualification in this field. Furthermore, only 5 % of the 1981 finalists had the intention to qualify as community nurses.

As was said before, there are circumstances in present-day society such as the ageing population, stress, increasing road accidents, and so on, which call for specialised knowledge and techniques in nursing. A relatively small proportion of Black students as well as registered nurses display more than average interest in orthopaedic, operating theatre and cancer nursing. Compared to other population groups a slightly larger proportion of Black registered nurses are interested in medical and paediatric nursing, nursing administration and education. At the time of the investigation, however, only 4 % of the Black registered nurses had qualified in nursing administration and education, and less than 2 % in each of the various other specialised fields.

The author believes that more Black nurses should be motivated to specialise in the various fields of nursing in order to cope with the demands of an urbanised and industrialised society.

Career pattern

Motivation The motivation of people to choose nursing as a profession differs from person to person. It is, however, essential that one should be conscious of the reasons why one prefers one profession to another. Miss Bruwer (1970: 15) says in an article on motivation in nursing that the nurse who knows herself and her motivation to nurse can be aware not to fulfil only her own desires but also those of her patients. Some nurses desire to help those who are suffering and to restore their health, or to render a service. Miss Bruwer says that this motivation is important and if it is really true, the nurse will suppress her own emotional feelings in the interest of her patient. Miss Bruwer concludes that interest in medical science is a well-directed motivation which should be directed towards human beings to be of any value.

According to our survey the factor that played the most important role in the choice of nursing as a career was indeed the desire to render a service. Interest in people and interest in the nursing profession also played an important role in the motivation of the 1981 finalists. The influence of outsiders, such as friends and family, seems to play a minor role in the choice of nursing as a career.

Mobility One of the most important aims of the research project is to obtain a view of the career mobility of nurses, because mobility in the labour force has a tremendous influence on future planning. The more people move in and out of the labour force or from one occupation to another, the more difficult it becomes to plan training programmes. Lucille Knopf of the National League for Nursing in the USA said in this connection (1972: 1): "Nursing is predominantly a woman's occupation, implying interruption of professional practice for marriage, childbearing and child rearing. Yet educators and employers of nurses have given scant consideration to the planning of an interrupted work life for nurses. It has been widely assumed that newly graduated nurses work for a while, marry and leave the field permanently or temporarily. This assumption has been cited as one of the reasons why nursing manpower requirements exceed supply. Yet data on the nurse's work life in relation to the years of marriage and motherhood have not been available.

In an investigation in Australia in 1979 it was found that 66 % of the practising registered nurses had left at some time or other and had re-entered the nursing profession. In our survey 45 % of the respondents revealed that they had left nursing at least once in the past. It could however, not be determined from the sample how many registered nurses resign and never return to nursing, because only practising nurses were involved. We hope to get a better picture in the follow-up survey of the 1981 finalists as we may be able to determine what proportion of newly registered nurses leave nursing during the first five years after registering.

According to the possible number of years that our survey group could have practised after registering and the number of years that they were actually nursing, three of every fourteen years of a nurse's work life are spent outside the nursing profession. For Black registered nurses the position is slightly better: for every 13,3 years of the Black nurse's work life she spends 10,7 years in nursing. This means that 2,6 years of every 13,3 years are lost to the profession.

More than two-thirds of the registered nurses who had left nursing at some time indicated that they were not economically active during their absence from nursing. The most important reason given for their resignation was pregnancy. Other important reasons given were inconvenient working hours and caring for small children at home.
The most important reasons given did not differ very much from one population group to another, although it appeared that pregnancy played a relatively greater role with Black nurses who resigned.

Interest in nursing was the most important factor that persuaded the respondents to return to the profession.

According to the data supplied by the respondents concerning their position each year for a period of ten consecutive years, it appeared that the percentage of respondents who practised full-time during a specific year one, three, five or ten years after registering, remained more or less unchanged. Just as many nurses therefore re-enter the profession after an absence of a year or more as those who resigned during the same year. The shortages which have recently been mentioned should therefore be attributed mainly to expansion of services, accompanied by a decrease in the numbers entering the profession, and not so much to a decrease in the percentage of registered nurses in full-time service or a trend that younger nurses are more inclined to leave the profession. The high median age of the respondents confirms this conclusion.

**Job satisfaction**

Research done in connection with nursing turnover reveals that job satisfaction of employees is related to their voluntary turnover. According to the data in the present survey, dissatisfaction with their jobs could not have played a major role in the motivation of nurses to resign.

On the whole, the respondents were a more satisfied than a dissatisfied group of workers. The respondents who worked in provincial and state hospitals, nursing colleges and medical consulting rooms were less satisfied than those working for other employers. Married persons and widows were more satisfied than unmarried nurses and divorcees. The Black respondents were less satisfied than the respondents from the other population groups.

The rendering of service is an aspect of nursing that was most popular with the largest group, namely one out of every three respondents, while the opportunity to work with people also provided satisfaction to many respondents. Administrative duties were least popular with the largest single group, especially among matrons and organisers of nursing services. Irregular working hours and night duty were more disliked by nursing sisters and students. A relatively small percentage of the respondents (one out of every five) regarded poor salaries as the most important source of dissatisfaction.

**CONCLUSION**

As was mentioned before, the research project is being continued for the next three years. The data gathered from 1981 final-year students two years after registering is now being processed and it is expected that the findings will be published early next year. It is also expected that information gathered during the next two phases will shed more light on and will augment the data, contained in the first two reports, regarding the movement of nurses during the first five years after their registration. It will perhaps also be possible to determine whether the recently announced improvement in conditions of service and structural changes have brought about changes in the way the profession is practised and in nurses’ attitudes.

Finally the author wishes to thank everyone who participated in this investigation. Your continued support in the further phases of the survey will be appreciated.

**References**


