

Republic of Lebanon

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Health Planning for South Lebanon

A Study undertaken by Tibbalds Partnership Ltd
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الجمهورية اللبنانية
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مركز مشاريع ودراسات القطاع العام

HEALTH PLANNING FOR SOUTH LEBANON

PROGRESS REPORT

12 August 1983

Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

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FOREWORD

This report is submitted in accordance with the terms of the contract between Tibbalds Partnership and the Government of Lebanon. The effective date of the start of the contract was 15 July, although the consultant members of the team began work before that date.

The report summarises the activities and progress to date with the implementation of the contract, and sets out the framework for the recommendations which will follow in the subsequent reports.

It should be emphasised that this framework constitutes the 'best estimate' possible at this point in the project. It is not yet a definitive solution and will be subject to refinement. However, although the precise numbers may change we believe that the concept is sufficiently robust to form the basis of agreement for our future work.

"This report is financed by the European Economic Community from credits of the Technical and Financial Cooperation Programme, signed with the Republic of Lebanon, and established by Tibbalds Partnership. It does not necessarily reflect the opinion of the Commission of the European Communities."

CONTENTS

1. INTRODUCTION
 2. DATA BASE
 - 2.1 Population Size and Distribution
 - 2.2 Epidemiology and Demography
 - 2.3 Existing Services
 - 2.4 Government Policy
 - 2.5 International Comparability
 3. PROPOSALS
 4. CONCLUSION
-
- APPENDIX 1 : Population Estimates
- APPENDIX 2 : Government Hospitals; Architectural Report
- APPENDIX 3 : Private Hospitals in Saïda

1. INTRODUCTION

The initial work of background data collection, and informing the team members of the policy context of the assignment was completed in London in early July. The project manager, chief architect and equipment specialist arrived in Beirut together and carried out surveys of the existing government hospitals from functional, architectural and equipment perspectives. They were subsequently joined by a second architect, who with the other team members visited Hasbaya, and later by the project coordinator. The first phase of the fieldwork included visits to the private hospitals in Saida, and culminated in a workshop in London, attended by the whole team, two external advisers (Dr E M Backett, Professor of Community Health, Nottingham and Dr P Emerson, Dean of The Westminster Medical School, London) and Dr Kronfol, Adviser to Minister of Health, Beirut.

The objectives of the workshop - to define the functions of public health facilities in South Lebanon - were successfully accomplished, and form the basis of this interim report.

2. DATA BASE

In developing our proposals for the programme of hospital services in South Lebanon we have taken account of the following:

- ... population size and distribution in Southern Lebanon
- ... epidemiological and demographic characteristics of that population
- ... the pattern of existing private and public services
- ... the proposed orientation of government policy and changes in health service administration
- ... comparative international levels for the provision of services and good standards of medical practice.

Each of these is briefly summarised below in Sections 2.1 - 2.5.

At the time the Progress Report is being presented, the consultants are engaged in future detailed epidemiological and sociological studies in the Hasbaya qada and in investigating the regional role (and teaching and educational possibilities) of a new Saida hospital.

The Hasbaya Report will be submitted on 13 September.

2.1 Population Size and Distribution

In the absence of a recent census or government decreed planning guidelines, the estimation of the size and location of population is subject to a wide margin of error. Estimates of the population of the seven qadas of Southern Lebanon have been derived from six sources:

- ... public school enrolment figures supplied by the Ministry of Education
- ... public and private school enrolment figures supplied by UNICEF
- ... projections of a planning model based on 1975 data
- ... estimates supplied by Ministry of Health, Saida
- ... electoral registration statistics, published in Al Baheth Cultural Review for 1981
- ... estimates of the Census of 1964 (date to be checked).

The various estimates from these sources are tabulated in Appendix I. After discussion of these, the following planning estimates have been derived and will form the basis of the proposed hospital plan:

Qada	Population
Hasbaya	25,000
Marjeyoun	50,000
Nabatiyeh	65,000
Jezzine	25,000
Saida	200,000
Bint Jbail	35,000
Tyre	100,000
TOTAL - Southern Mohafazat	500,000

Further corroboration and confirmation of these estimates will be made during the next month.

2.2 Epidemiology and Demography

A literature search has indicated that there are no major epidemic or endemic diseases peculiar to South Lebanon which warrant a disproportionate allocation of resources. This will be confirmed, especially with reference to Hasbaya, by the work of the epidemiologist during August.

However, work carried out in the Faculty of Health Sciences, AUB and confirmed by our fieldwork to date indicates that a large proportion of women, especially those of low levels of education living in rural areas, do not make use of professional medical services during pregnancy or for childbirth. This, with a birth rate of 3% p a (to be confirmed) points to the importance of MCH and obstetric services in any programme of rural health services.

2.3 Existing Services

All the existing public hospital buildings and sites have been visited, measurements taken, site and building sketch plans produced and a survey summary prepared (see Appendix 2). The current practices of administration and management are likely to change considerably in the future, but the base information of the site and building sizes and standards will be used to determine the programme of improvements and extensions which will subsequently be proposed.

All but one of the private hospitals in Saida have been visited (those in Tyre (2) and Nabatiyeh (2) will be visited subsequently), and a brief summary of their size, staffing and workload is tabulated in Appendix 3. An assessment of their value and utility in future health care provision in Southern Lebanon has been made. This indicates that only eight of the hospitals should be regarded as providers of acceptable acute care services (Hariri, Hamoud, Chehaib, Labib, Alaeddin, Dalaa, Osseirane and Nakeeb). Of these some would need to increase their staffing standards (with respect to nursing and laboratories) to justify the label "acute general hospitals".

2.4 Government Policy

Six major aspects of current government policy towards health care services have important implications for the hospital plan. These are:

- a) attitudes towards primary care
 - b) proposals for administrative reorganisation
 - c) proposals to establish minimum sizes and standards for the designation "hospital"
 - d) proposals to establish Health Training Institutes in the provinces (reference WHO/LRCS Annex F para 4.1.3) and a medical school at the Lebanese University
 - e) proposals for the financing of health care services
 - f) the desirable public/private balance.
-
- a) The WHO/LRCS Report "The Reconstruction of the Health Services of Lebanon" reiterated the WHO philosophy of emphasising primary health care, yet at the same time warned against creating health services and institutions which did not meet "the needs and the reasonable expectations of all the people". This important element of health service provision - the perceived wants of the population - will form an integral component of our proposals.

- b) The Ministry of Health is in the process of an extensive programme of reorganisation (starting with its change of name and the widening of the responsibilities with which it is charged) and extending to the establishment of semi-autonomous Area Health Authorities (AHA). The latter concept, with its well-developed structure of administrative posts and responsibilities, provides a framework within which we have examined the need for public hospitals in the Southern Region. The concept of an AHA is intended to embrace a population of 2-400,000, with at least one major identifiable town/city in which ultimately, if not already, would be located a public hospital. The AHA would cover a geographical area which has economic and transport links without stretching across a mohafazat boundary.
- c) Recent legislation, designed to protect the public, about the size and functions necessary for the designation 'hospital' have important implications for this plan. We understand that 'hospitals' less than 50 beds will only be able to operate as single-specialty nursing homes, and that the concept of a "health-centre with beds" is not acceptable within the legislation. Rather than debate this policy issue we have framed our thinking and proposals to it. We will address this issue further in our final proposals for the Hasbaya qada.
- d) The WHO/LRCS Mission recommended the establishment of Health Training Institutes, initially one per province, to undertake the training of nurses, nurse/midwives, laboratory and radiography technicians, and sanitarians. The Report proposes that such institutes should be attached to hospitals to facilitate practical training. This recommendation can be allied to the recent decision to establish a public medical school at the Lebanese University, which will lead within four years to a need for one or more hospitals for clinical tuition of doctors. These two aspects possibly expand the role of the Saida Hospital from that of a regional referral hospital to a broader concept of a teaching/training hospital with some national responsibilities.
- e) The proposed new financing mechanism for hospital services also has an important implication for the planning of hospital services. Public hospital services will not be financed by central government through taxation revenue. Instead costs will be reimbursed by a national Social Insurance Fund, whose resources will be acquired through a levy on all employed Lebanese. The Fund will reimburse all Lebanese citizens, (either directly to the hospital or the individual) for all hospital costs incurred on a fee-for-service basis. Public hospitals will therefore receive reimbursement in the same manner as will private hospitals.

The argument extends thence to the fact that because public hospitals will not seek to be profit making, and because within the new administrative framework they will be as efficient as the private hospitals, the public hospitals will be preferred by the people because they will be cheaper (private hospitals are likely to make charges beyond the amount reimbursed by the Social Insurance Fund). Hence the recurrent costs of any proposals for Southern Lebanon will be borne not by the Central Treasury (unless the hospital, once built, through inefficiency or any other failing, fails to attract patients) but by the Social Insurance Fund. Therefore, the prospect of running successful hospital services in the future depends more on the achievement of these legislative and administrative changes than on any direct increase in the MoH recurrent budget.

Initial steps have been taken by the Government to introduce AHA legislation and in the next stage of the project we shall be looking in more detail at this and the proposed financing mechanism. Even if a Social Insurance Fund is not implemented, it is argued that the development of public beds by the Government will result in reducing the amount presently reimbursed to private hospitals. This implies again that improved services are not dependent on a massive increase in MoH recurrent budget but rather on organisational issues.

Whichever system is chosen, it is clear is that the creation of a successful hospital system depends on attracting patients to public hospitals and this depends on the perceived quality of care provided in them.

- f) The stated policy of the government towards the private health sector is to foster cooperation between private and public hospitals. The construction of public hospitals is intended to present the public with the freedom of choice and not to restrict the activities of good private hospitals. The AHA's would contract in some areas with the private hospitals for services which the public hospitals could not provide. A public hospital construction programme should therefore ensure that it provides basic coverage of the population, paying particular attention to ensuring that rural residents are provided with a basic service and that urban residents have a choice between the public and private hospitals.

2.5 International Comparability

Various international comparisons can be adduced to determine the need of a population for inpatient service ie beds in hospitals. By definition they will all proceed from a static or current position, where current practice with respect to hospitalization, community care, day surgery, etc will be perpetuated. Nevertheless, as a guideline, in a situation where other factors (eg. population, growth rates, etc) are very imprecise, they can provide an initial estimate of requirements. Any reservations about the use of such a crude methodology using comparative statistics, coupled with the imprecision of our knowledge about demography and epidemiology point to a need only for caution and flexibility in subsequent architectural design rather than a rejection of the methodology and its conclusions.

In those European/industrial countries having a higher degree of control over supply of beds the recommended level of provision of general acute beds is around 3.5/1000 population. In the UK for example the 1975 recommended ratio was 3.3 whilst the actual ratio was around 3.2. In 1974 the Australian Government undertook an elaborate study of bed needs and concluded that an appropriate ratio was 3.5 general acute beds per thousand population.

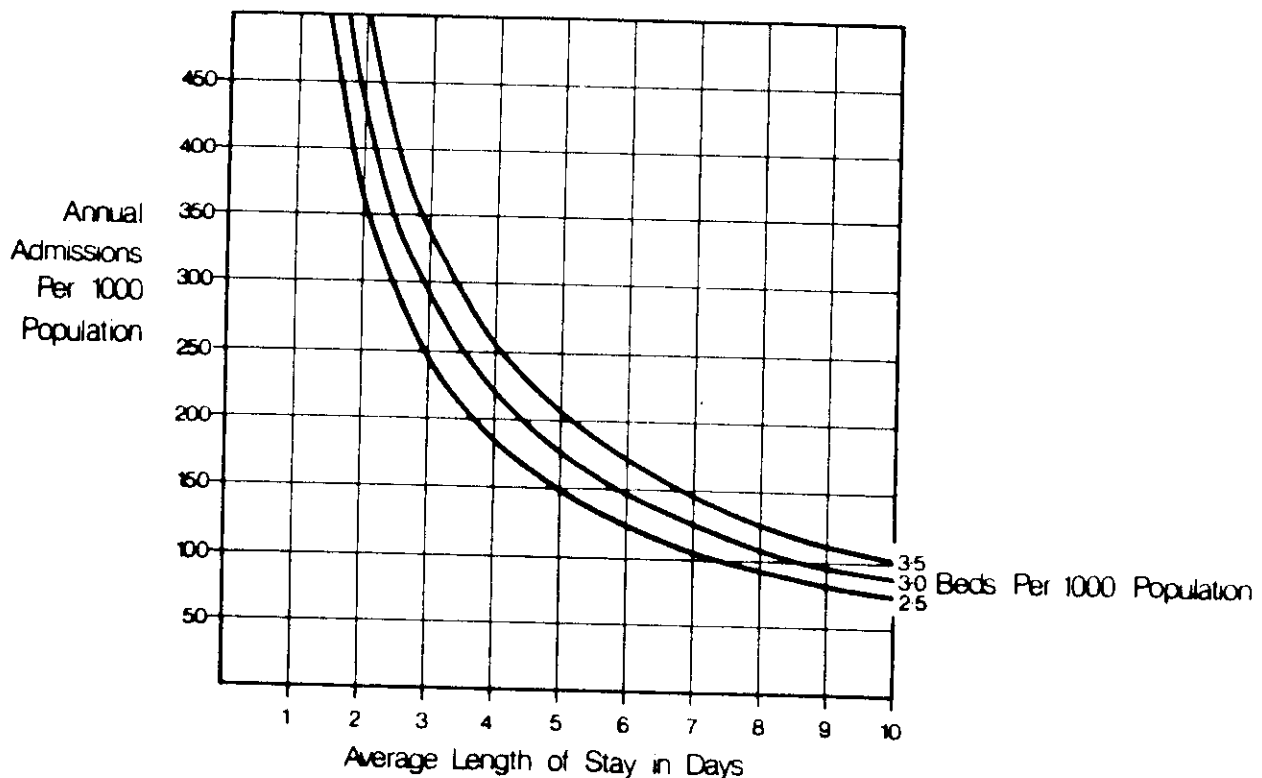


Figure 1: The relationship between admission rate, average length of stay and bed provision/1000 population assuming 80% occupancy.

However, in assessing appropriate bed requirements in any particular situation it is vital to consider the age distribution of the population concerned since the utilisation of beds varies greatly between different age groups. Older people generally enter hospital more frequently, and stay longer in acute specialty beds than younger people. Whilst we do not yet have accurate data on population structure we believe the Lebanese population to be a younger one than that of UK. This implies that an appropriate general acute bed index for Southern Lebanon should be considerably less than 3.5/1000 and we suggest around 2.5/1000.

The effect of this can be seen from Fig 1. With an admission rate of 75 patients per 1000 population, and a length of stay of just under 10 days, 2.5 beds/1000 population used at 80% occupancy will be sufficient to meet the hospital needs of the population.

3. PROPOSALS

Taking account of the population configurations, the epidemiological pattern, and the government policies and proposals, we propose the following model for three AHA's in Southern Lebanon (see Fig 2).

- Saida AHA - Jezzine
Saida
- Nabatiyeh AHA - Nabatiyeh
Marjeyoun
Hasbaya
- Tyre AHA - Tyre
Bint Jbail

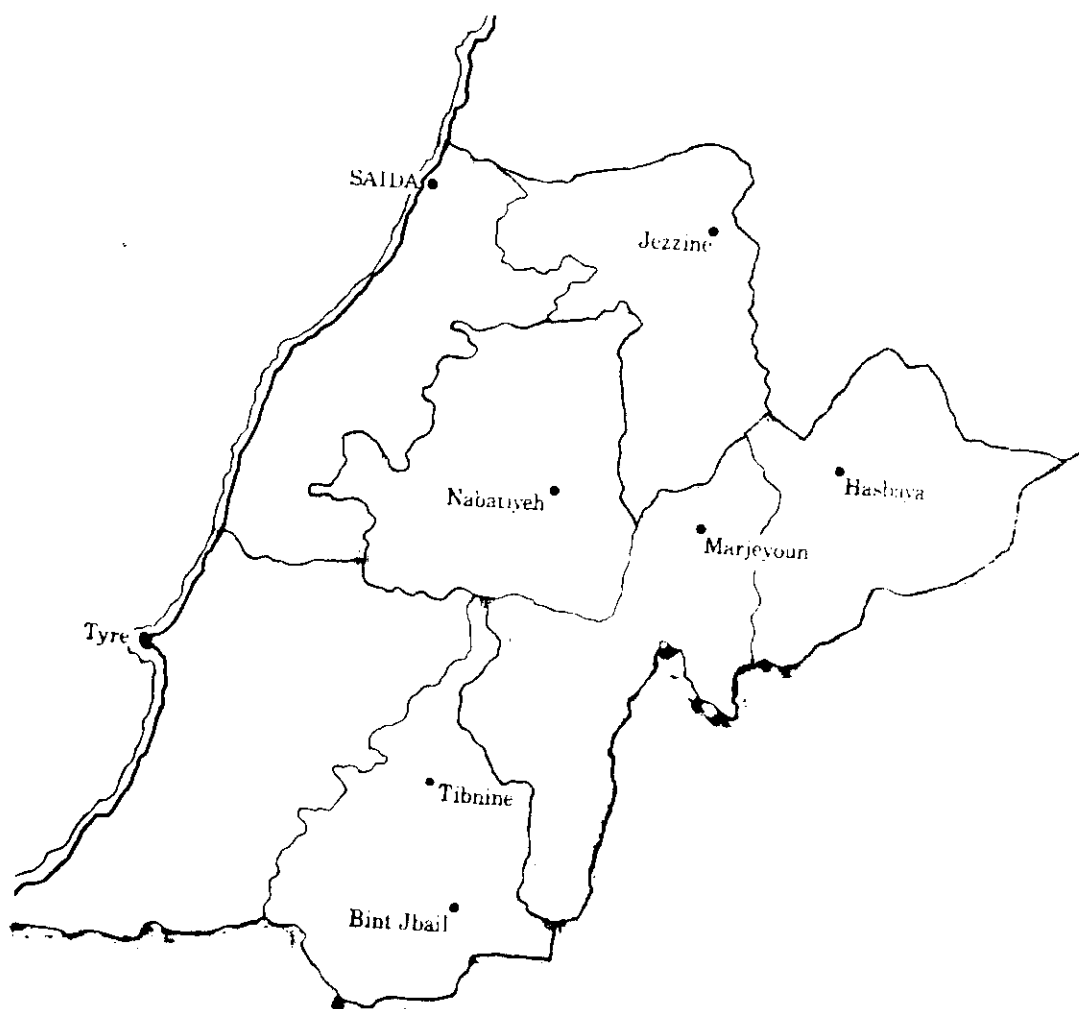
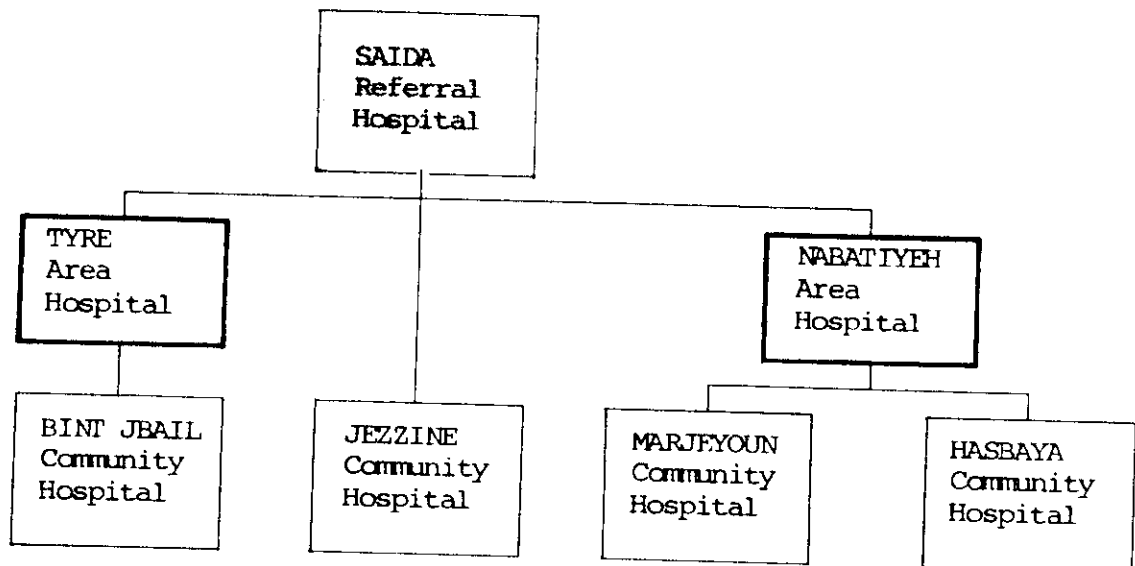


Figure 2: Southern Lebanon showing qada boundaries, major towns and proposed AHAs.

The three projected populations will be 225,000, 140,000 and 135,000 respectively, which although smaller than envisaged in the AHA legislation, we recommend as providing a sensible framework for administering health care services in Southern Lebanon.

Hospital services in Southern Lebanon will be planned within this framework. Each qada will have a community hospital; in each area one community hospital will be nominated the area hospital; and there will be a regional hospital in Saida which will also have qada and area responsibilities. The pattern will be as below:



In principle, community hospitals, area hospitals, and the regional hospital will form a patient referral chain, with staff from the regional hospital carrying out some of their activities in area and community hospitals. The regional hospital staff will also provide support to community hospitals in diagnostic and maintenance services. The community hospital will perform the four basic inpatient services of general medicine, general surgery, paediatrics and obstetrics, and should work in very close harmony with the local primary health care centre or centres. In each area the area hospital will support the one or more community hospitals, and provide additional services. In particular this would include a 24-hour staffed accident and emergency department, and additional inpatient facilities for cardiology, obstetrics, a special care baby unit, and short-stay psychiatry. Outpatient consultancy by the staff of the regional hospital in orthopaedics, ENT, and ophthalmology would also be held at the area hospital.

The regional hospital will provide the full range of inpatient services, and be expected to cope with all the needs of the region except for very sophisticated specialties like open heart and renal transplant surgery.

The sizes of the community and area hospitals are determined by the estimates of the population served. Area hospitals would perform some service for the population of their qada and some for the wider population of the Area.

In UK and Sweden approximately three-quarters of acute beds are taken up by the four specialties of medicine, surgery, paediatrics, and obstetrics and gynaecology. As an initial approximation therefore, the following scheme is proposed:

For community hospitals a norm of 1.8 beds/1000 for the qada population
 plus, For area hospitals, a norm of 0.4 beds/1000 for their area population
 plus, For regional hospitals a norm of 0.3 beds/1000 for their regional population.

For the Southern Lebanon, this would result in the following requirement for hospital beds:

	Qada Popn (000's)	Area Popn	Qada Beds	Area Beds	Total Beds
Hasbaya	25		45		45
Marjeyoun	50		90		90
Nabatiyeh	65	140	117	56	173
<hr/>					
Jezzine	25		45		45
Saida	200	225	360	90	450
<hr/>					
Bint Jbail (Tibnine)	35		63		63
Tyre	100	135	180	54	234
					1100

In addition, Saida would need a further 150 beds for regional services.

Currently beds in large private hospitals exist only in Saida, Hariri (between Jezzine and Saida), Sarafand (between Tyre and Saida), Tyre and Nabatiyeh. Of these, we have assumed that 200 beds in Hariri Medical Centre will be used for patients from outside Southern Lebanon. Tabulating the requirements against the available private beds shows the following:

Qada	No of beds required	Current no of private beds	Shortfall (surplus)
Hasbaya	45	-	45
Marjeyoun	90	-	90
Nabatiyeh	173	75	98
Jezzine	45	-	45
Saida	600	800 (791)	(200)
Bint Jbail	63	-	63
Tyre	234	90	144
Southern Lebanon	1,250	965	285

All of the above calculations neglect consideration of population growth and movement (migration). The current paucity of information on this aspect reinforces the point made earlier - that architectural design must treat expandability as a major design criteria. More information will be sought to clarify the nature and extent of population change. However, some calculations can be done to indicate the scale of the effect of population growth. If regional population grows at 3% p a, within six years there will be a need for 500 public beds in Southern Lebanon.

Population growth will not be uniform throughout the region - there is likely to be a movement of people towards the cities, and Saida may well grow at as much as 6% p a whilst the rural areas like Hasbaya only at 1% p a. If this were the case, within five years there would be a shortage of beds in Saida, whilst it would be ten years before Hasbaya required 50 beds.

The situation of Saida requires two additional comments. Firstly, as has been discussed earlier it is Government policy to achieve something of a competitive balance between the public and private sectors. In Saida there are presently no public acute beds. If it were considered desirable for Government to provide say 35-40% of total acute bed needs a public hospital of some 200 beds would be required. Under this policy the role of private hospitals could shift towards providing more specialised and/or long-term facilities.

Secondly, the urgent needs for new teaching and training programmes with more community orientation, combined with the plans for a new national medical school could have a significant influence on the need for public beds in Saida. This will be investigated later in the project.

It should not be overlooked that there is a clear need in South Lebanon to achieve a significant shift towards primary health care - a need emphasised in the WHO/LRCS Report. However, with its strong tradition of private curative medicine, Lebanon is not in a strong position to make this shift overnight. Medical and allied manpower have not been trained in scientific general practice and community prevention and care, and it will be some considerable time before this can be changed.

An essential and achievable first step is to develop public confidence in and credibility for public services. Good community level care must be provided and actively supported by more specialised services. We believe this can be achieved with small, good quality community hospitals at the gada level closely linked with health centres, together providing most of what is required under good preventive, promotive and curative primary care. By providing simple yet effective and appropriate curative care public confidence can be established upon which, simultaneously, preventive and promotive primary health care activities can be built.

4. CONCLUSION

At present, therefore, we intend to proceed on the basis of recommending the construction of a community hospital of 50 beds for Hasbaya, of a training, teaching and referral public hospital in Saida, and upgrading and replacement of other public hospitals in the South. During the next month, work will be carried out to define in greater detail the roles of Hasbaya and Saida Hospitals: the former as a 50-bed hospital with linkages to primary health care services in the gada; the latter as a regional hospital with referral, training and teaching roles.

COMPARISONS OF ESTIMATES OF POPULATION, BY QAZA, OF SOUTHERN LEBANON

	HASBAYA	MARJEYOUN	NABATIYEH	JEZZINE	BINT JBAIL	TYRE	SAIDA	TOTAL
1	13674	41581	65152	20477	31186	82814	93488	348372
2	26535	80689	126429	39735	60516	160702	181415	676021
3	9527	27883	39499	9846	19818	60456	53918	220947
4	17000	30000	20000	18000	30000	85000	45000	245000
5	45000	55000	60000	50000	50000	65000	200000	525000
6	51619	98961	110385	83838	111920	133398	144209	734330
7	32262	61851	68991	52399	69950	83374	90131	458958
PLANNING ESTIMATE	25000	50000	65000	25000	35000	100000	200000	500000

1. (a) Using UNICEF estimate/counts of school enrolment, + 5% to compensate for missing data.
 (b) Using estimate that 35% of population is aged 3-18 years.
 (c) Using estimate that 86% of population 3-18 years is enrolled in school.
2. (a) Using UNICEF estimate/count, + 10%.
 (b) Using estimate that 25% of population is aged 3-18 years.
 (c) Using estimate that 65% of population 3-18 years is enrolled.
3. (a) Using Ministry of Education estimate for public and UNICEF estimate for private school enrolment.
 (b) Using estimate that 45% of population is aged 3-18 years.
 (c) Using estimate that 95% of population 3-18 years is enrolled.
4. 1975 MoP statistical model estimates for the year 2000.
5. Ministry of Health, Saida, estimates for today.
6. Estimates from Al Baheth Cultural Review for 1981 (November 1981 issue).
7. 1964 Census.

TABLE COMPARING STUDENT NUMBERS

Qaza	Min of Ed (public)	UNICEF (public)	UNICEF (private)	UNICEF (total)
Hasbaya	2,963	2,810	1,110	3,920
Marjeyoun	?	8,900	3,020	11,920
Nabatiyeh	12,226	14,017	4,660	18,677
Jezzine	3,159	4,820	1,050	5,870
Bint Jbail	5,472	5,940	3,000*	8,940
Tyre	15,015	12,910	10,830	23,740
Saida	13,300	17,050	9,750	26,800
		66,447	33,420	99,876

* Estimated

APPENDIX 2

GOVERNMENT HOSPITALS IN SOUTHERN LEBANON

ARCHITECTURAL REPORT

This report covers the six government hospitals in Southern Lebanon at Jezzine, Marjeyoun, Nabatiyeh, Saida, Tibnine and Tyre. Each section is organised in terms of an Introduction, a description of the site, a description of the buildings and finally a review of any current plans for future development.

Estimates of the floorspace provided by each hospital have been made on the basis of the best information available. However, very little hard data was made available to us. In most cases the drawings given here and the areas taken from them are based on no more than site photographs and sketches, approximate survey dimensions taken on site and occasionally, photographs of architectural drawings. Therefore, although the site plans are notionally to a scale of 1:500 and the internal layouts to a scale of 1:200, the drawings should not be scaled. Exceptions to this observation are the 1:200 layouts of Nabatiyeh, taken from 1:50 scale electrical layouts supplied by the architect and the 1:1000 scale site plan of Saida, taken from a recent 1:500 scale site survey supplied to us by UNICEF.

JEZZINE

The team visited Jezzine on 09 July 1983. No drawings were available but subsequently photographs of building plans were made in the Ministry of Health. A small number of building dimensions were checked on site. The overall site plan is shown in Figure 1 and approximate layouts of the buildings are given in Figures 2 and 3. Jezzine is a 25-bed hospital currently providing an outpatient service only.

Site

The site is triangular in shape with the buildings running north-south along the western boundary. There is a fairly steep slope downwards from west to east towards the local river, but there is plenty of room for expansion if required.

Buildings

There are two buildings on the site. The main building is a mixture of single and two-storey construction, reportedly built in 1954. The second building, a dispensary, is comparatively modern.

The structure of the main building is composite with loadbearing external masonry walls and some internal framing in reinforced concrete. It was not clear whether any of the internal partitions are also loadbearing. Floor finishes are generally terrazo tile and walls and ceiling are painted render and plaster. There are two staircases in the building but no lift. The buildings are generally in reasonable condition in spite of some war damage, now repaired, and have recently been redecorated. The accommodation is arranged as follows:

Ground Floor - South Wing - X-ray
Pharmacy

North Wing - 15-bed ward, not in use. Two rooms for outpatients.

East Wing - Emergency room and director's office plus laundry and kitchen not use.

First Floor - South Wing - 10-bed ward, not in use. Staircase access only.

East Wing - Not in use. To be renovated as doctor's sleeping quarters.

There is a basement to part of the main building which was not inspected. Neither was the dispensary inspected.

The main building provides a total departmental area (excluding stairs, entrance hall and basement) of approximately 780 sq m, an area of 31 sq m per bed.

MARJEYOUN

The team visited Marjeyoun on 14 July 1983. No drawings were available but extensive survey dimensions were taken on site. The internal arrangement of the buildings was recorded in sketch form only. The site plan is shown in Figure 4 and the approximate layouts of the buildings are given in Figures 5 and 6. Marjeyoun is a 46-bed hospital and is fully operational.

Site

The site is approximately rectangular and slopes downwards from west to east across its shorter dimension. The buildings are all located in the northern half of the site leaving the southern half available for expansion if required.

Buildings

There are four buildings on the site which all appear to be of similar age and construction. The main building which is cruciform in shape appears to be of composite construction with loadbearing external walls finished in sand/cement render and some internal framing in reinforced concrete. The building has one main level which contains the following functions:

Female Ward	- 18 beds
Male Ward	- 20 beds
Paediatric Ward	- 8 beds
Operating Theatres	- 2
Laboratory (with own external access)	
Kitchen and Staff Dining	
Radiology	
Emergency	
Specialist Outpatients - 3 consulting rooms	
Administration.	

There is a small amount of accommodation at first floor level containing 6 bedrooms for nurses. The partial basement area contains the main engineering plant room. The building is generally in reasonable condition although there is some evidence of war damage still awaiting repair.

To the east of the main building is a separate single-storey outpatients block providing accommodation for the pharmacy, two general practitioners and the dental suite.

The remaining two buildings are a guardhouse near the main site entrance and a doctors' residence block which also contains two garages and the body store.

The two main buildings provide a total departmental area, excluding the basement plant rooms and all residential accommodation, of 1260 sq m, an area of 27 sq m per bed.

NABATIYEH

The team visited Nabatiyeh on 14 July 1983. No drawings were available at the time but a subsequent meeting with the architect produced a set of 1:50 scale electrical layouts giving accurate building dimensions. Plans were subsequently obtained of the floor layouts, but too late for analysis for this report. Since the building is not in use, its conversion from a school to a hospital having been interrupted by the war, some of what follows is surmised based on visual inspection of the buildings and drawings. The four above-ground levels of the building are shown in Figures 7, 8, 9 and 10. There is also a basement area which was not inspected or drawn but is reportedly to be used for engineering plant rooms and storage.

Site

The site is in the centre of Nabatiyeh and is bounded by shops, a mosque and an open area that was once the playground/games area of the school. We did not determine whether this land was available for expansion since it seemed unlikely that such expansion would be necessary.

Buildings

Conversion of the buildings from a school to a hospital remains incomplete and there is some war damage to be repaired. Nevertheless the building could be brought into use in a fairly short space of time. There are four storeys, served by a lift and a staircase. The structure is a reinforced concrete frame and the external finish is sand/cement render and there are some metal strip suspended ceilings.

On the assumption that the conversion is intended to provide reasonable space standards in the patients' bedrooms we estimate the achievable bed complement to be about 55 beds, plus the usual range of outpatient diagnostic, treatment and support functions. These include radiology and operating theatres. The building provides a total departmental area, excluding the basement, staircase and lift, of 1930 sq m which on the basis of 55 beds gives an area per bed of 35 sq m.

SAIDA

The team visited Saida on 09 July 1983. Drawings of the main building were available for inspection only and were photographed. A small number of site survey dimensions were recorded and sketches made. Subsequently a copy of a recent site survey was supplied to us by UNICEF. Before the Israeli invasion the hospital contained over 100 beds. However the main building was badly damaged during the fighting and the hospital is now operating only an outpatient service although 30 beds are available for use in the outpatient building. The site is illustrated in Figure 11 and the approximate internal layouts of the buildings are shown in Figures 12 to 17 inclusive.

Site

The total area owned by Government is extensive. However, the existing hospital is confined to the north-west corner. The majority of the remainder of the site has been taken over for refugee housing although there remains a large vacant area due south of the existing hospital. The site slopes downwards from east to west.

Buildings

The hospital was reportedly built in 1950 and its exterior was recently upgraded by UNICEF. New horizontal sliding aluminium frame windows have been fitted throughout, the roof covering has been renewed and the external rendering painted. Internally, however, the building is in poorer condition than any of the other hospitals inspected, particularly on the top floor where condensation has stained the walls. This is probably the result of the fitting of tightly sealed windows without the provision of other permanent means of ventilation. The building, which is on three levels, has two staircases but no lift.

The use of space is as recorded below but it should be noted that this will change when the UNIFIL forces move out.

- Lower Ground Floor - Engineering plant
 - Laundry
 - Kitchen
 - Stores including pharmacy store
 - Staff accommodation
 - Administration
 - Mortuary

- Ground Floor
 - Administration
 - Doctors' accommodation
 - Outpatients
 - Emergency
 - Radiology
 - Laboratory
 - Pharmacy
 - Delivery suite

- First Floor,
Hospital Sections
 - Operating Theatres - 2
 - Wards - 35 beds

- First Floor,
UNIFIL Section
 - Pharmacy
 - Kitchen
 - 4/5 bed sick bay
 - On-call room
 - Dental surgery
 - Treatment room
 - Doctors' accommodation (3 rooms and WCs)

The approximate total departmental area provided is 2700 sq m. In relation to the present bed complement of 35 this gives an area per bed of 77 sq m. However, when the top floor reverts to normal usage then the bed complement can increase to about 70 giving an approximate area per bed of 38 sq m.

To this must be added the extra costs of achieving any changes required in the use and subdivision of space to improve the utility of the building. Radical change in the subdivision is not possible because of the closely spaced column grid (which may have protected the building from more extensive damage). The question arises, therefore, as to whether the main block is worth renovating for hospital purposes and if not, whether some other use, for example, residential accommodation for staff or teaching accommodation, would be more suitable. These points cannot be addressed properly in the absence of cost data which will be prepared. However, a first reaction is that given the plans already made for the hospital's immediate future (see below) then no attempt should be made to use the building for hospital purposes and possibly not even for less demanding functions.

As they stand the two hospital buildings together provide a total gross area of approximately 4600 sq m, including plant rooms, stairs, lifts and basements. On the basis of an original bed complement of about 130 beds this gives a gross area of 35 sq m per bed, or a probable departmental area per bed of 29 sq m.

Future Plans

It is intended, as an immediate short-term measure to construct a 110-bed prefabricated hospital on the vacant site south of the existing hospital. This project is being organized and funded by USAID. Although intended as a temporary expedient it may be that the buildings will be of sufficiently durable qualities to allow them to be integrated into the future development plan for Saida. The space programme for the project of which we have a draft copy provides a departmental area of 4540 sq m, that is 41 sq m per bed.

We have also been made aware of plans to renovate the basement area of the outpatient block to provide a dialysis unit.

TIBNINE

The team visited Tibnine on 12 July 1983. No drawings were available and no accurate site dimensions were recorded. The plans given in Figure 18 must be regarded as very approximate. The building is shared with UNIFIL forces who occupy part of the top floor but the hospital is fully operational with a current bed complement of 35.

Site

The site is small, with no significant room for expansion, and takes the form of a terraced area on a steeply sloping hill.

TYRE

The team visited Tyre on 12 July 1983. No drawings were available but sketches were made, photographs taken and major site and building dimensions recorded. The site plan is shown in Figure 19 and approximate internal layouts given in Figures 20 and 21. The hospital is operating with a reduced bed complement of 56 beds, one 20-bed ward being closed.

Site

The site is flat and fairly congested. However, next to it is another parcel of land on which there are the beginnings of what was intended to be a Palestinian hospital. This project was abandoned as a result of the Israeli invasion.

Buildings

The main hospital building was reportedly built in 1952 and is of similar construction to those at Saida and Jezzine. The outpatient block and the mortuary are of more recent construction and their external walls are of rendered blockwork rather than stone. The buildings are in reasonable condition with no evidence of war damage but as usual are in need of routine maintenance, repair, decoration and cleaning.

The majority of the hospital is single storey with a small area at first floor level and also a partial basement area. The use of space is as recorded below with the exception of the delivery suite which was not located. Block letters refer to Figures 20 and 21.

Block A Ground Floor	20 bed ward (closed) Radiology Laboratory
Block A First Floor	Stores Doctors and nurses accommodation (15 beds)
Block B Ground Floor	Paediatric ward Male surgical ward Male medical ward Pharmacy
Block C Ground Floor	Laundry Kitchen and staff dining
Block D Ground Floor	Female surgical ward Female medical ward
Block E Ground Floor	Administration Operating theatres - 2

The approximate total departmental area provided, excluding the basement and the stairs, is 2290 sq m, giving an area per bed, for 76 beds, of 30 sq m per bed.

SUMMARY OF AREAS

Hospital	Departmental Area	Gross Area	Area per Bed	
			Dept	Gross
Jezzine	780	-	31	-
Majeyoun	1260	-	27	-
Nabatiyeh	1930	-	35	-
Saida	3830	4600	29	35
Tibnine	2700 app	-	38 app	-
Tyr	2290	-	30	-

GENERAL COMMENTS ON STANDARDS OF ACCOMMODATION

grossly
Detailed evaluation of spatial shortfalls will await the development of appropriate standards for this type of hospital for the Hasbaya project. In the meantime two comments can be made. Firstly the ward accommodation in many of the hospitals is grossly substandard with even the most basic of supporting work-rooms missing and beds far too close together. Normal hospital wards require 25 to 30 sq m per bed departmental area and this would account for the whole of the available area in some hospitals. This is not to say that the same standards will prove appropriate to these institutions but nevertheless the shortfall is significant. Another illustration of this is that the total departmental area required for a general hospital built to normal standards is around 65 sq m per bed. The hospitals we have examined provide about half this amount.

Secondly, the arrangement of space often leaves a great deal to be desired. At Jezzine and Tibnine wards located at first floor level are accessible only by staircase, involving the staff in physically carrying patients from one level to another. At Tyre some wards are located so as to form through-routes to other parts of the hospital. Single loaded corridors are often used with the result that accommodation is strung out unnecessarily increasing walking distances for staff and patients. Finally, departments that should be located in easy proximity to one another are sometimes located in different buildings, for example, radiology and general outpatients at Marjeyoun. The question of whether such failings can be overcome without totally rebuilding the hospitals will be addressed at the next stage of the study.

Fig 1

Jezzine

Site Plan

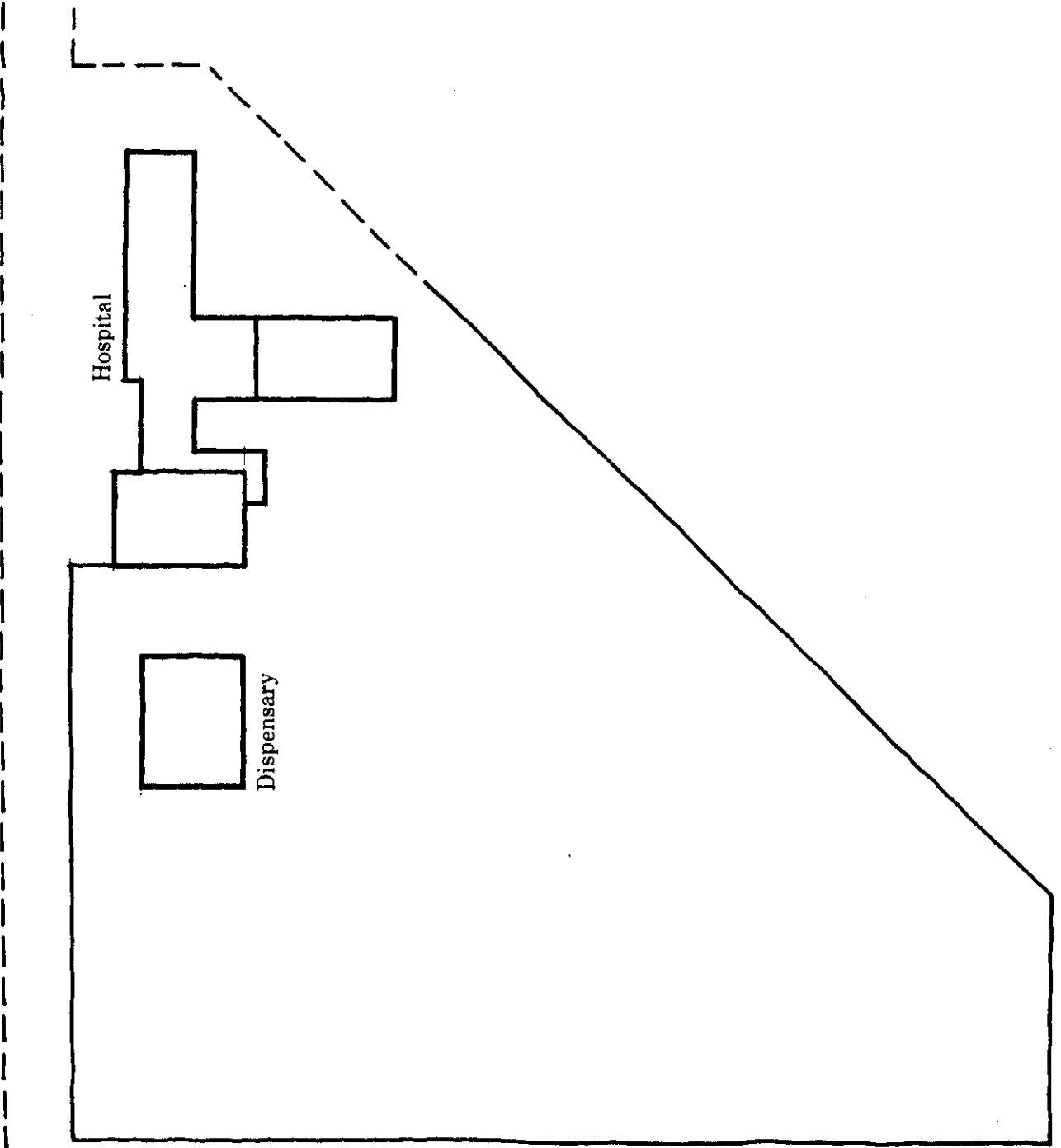


Fig 2

Jezzine

Ground Floor

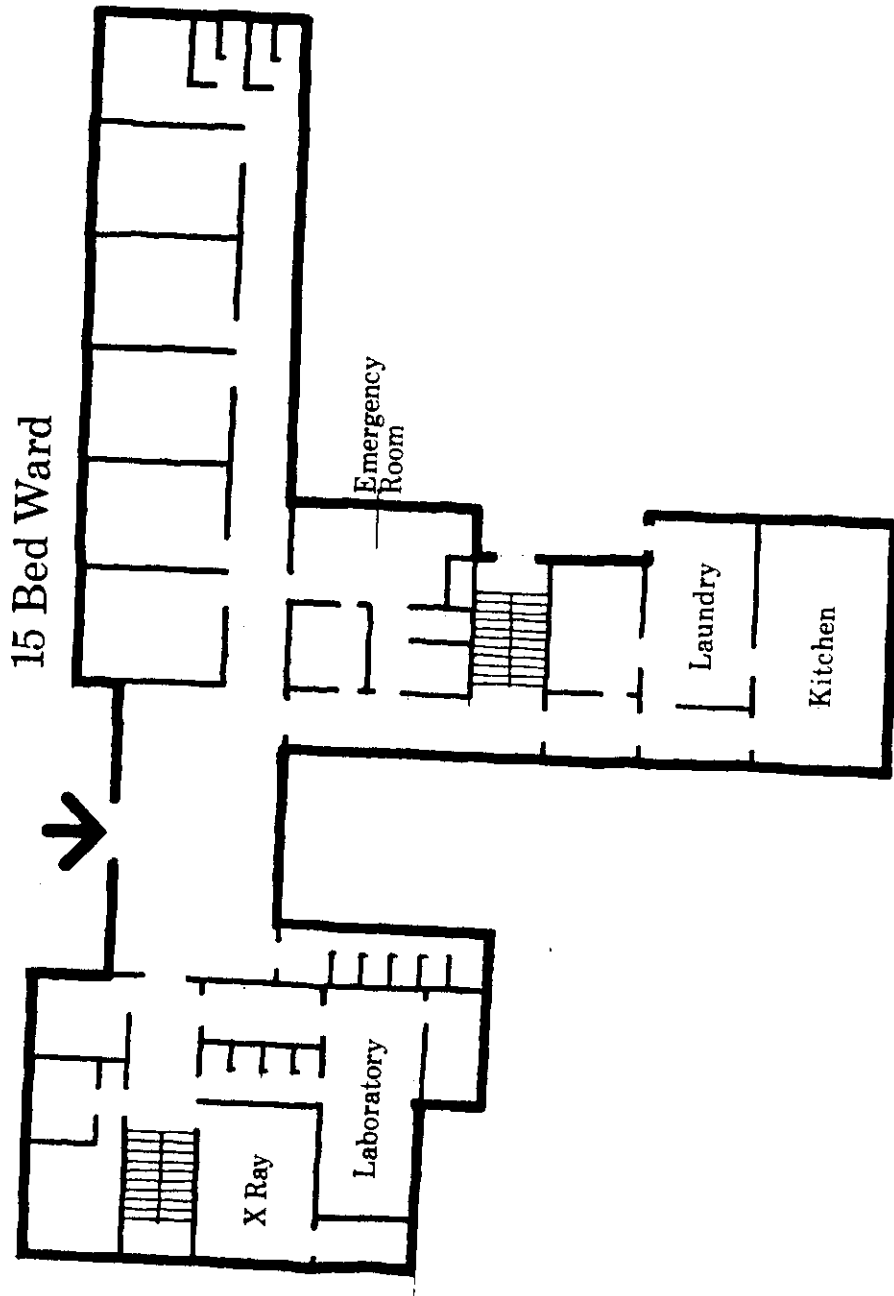


Fig 3
Jezzine
First Floor

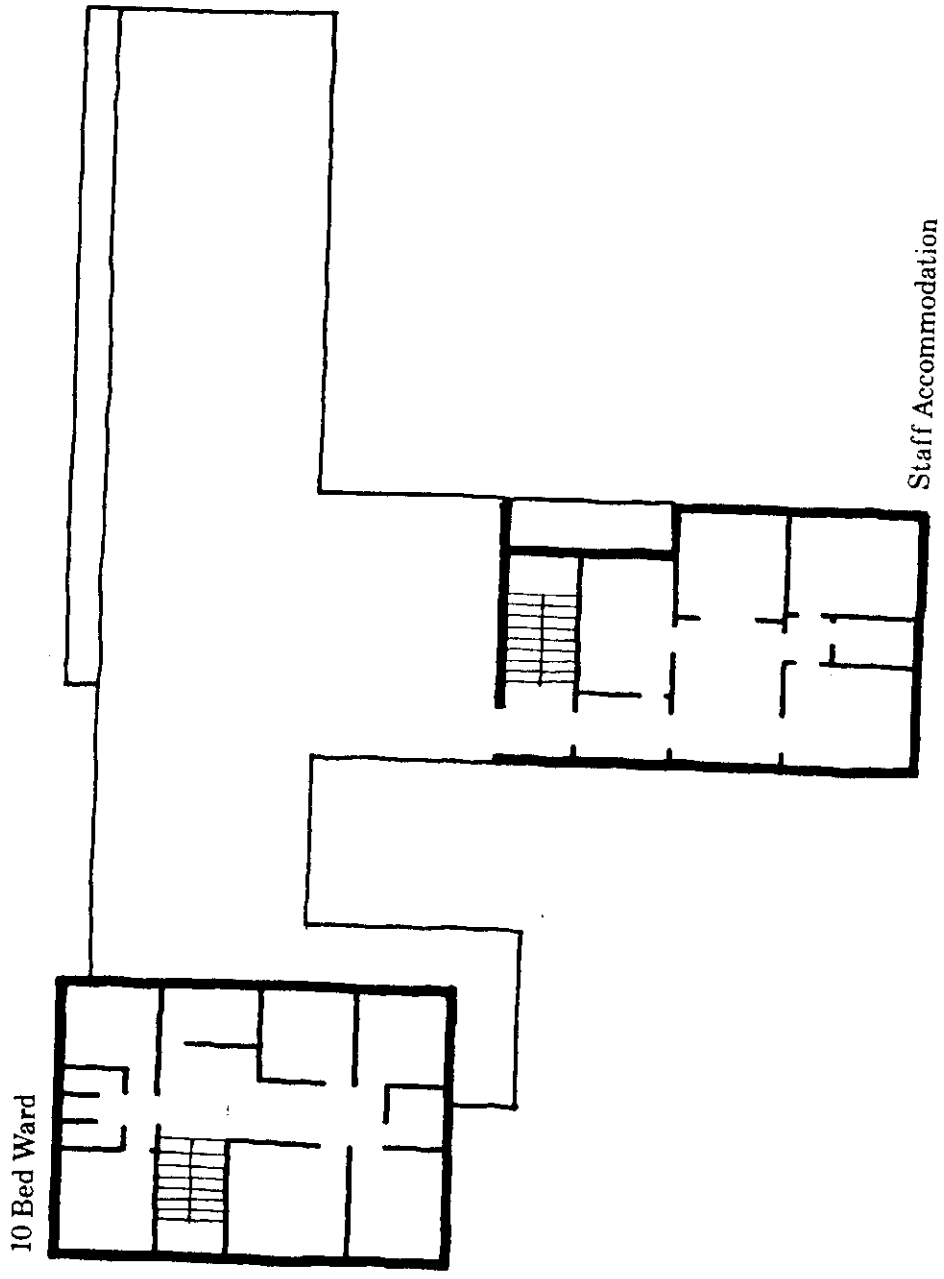


Fig 4
Marjeyoun
Site Plan

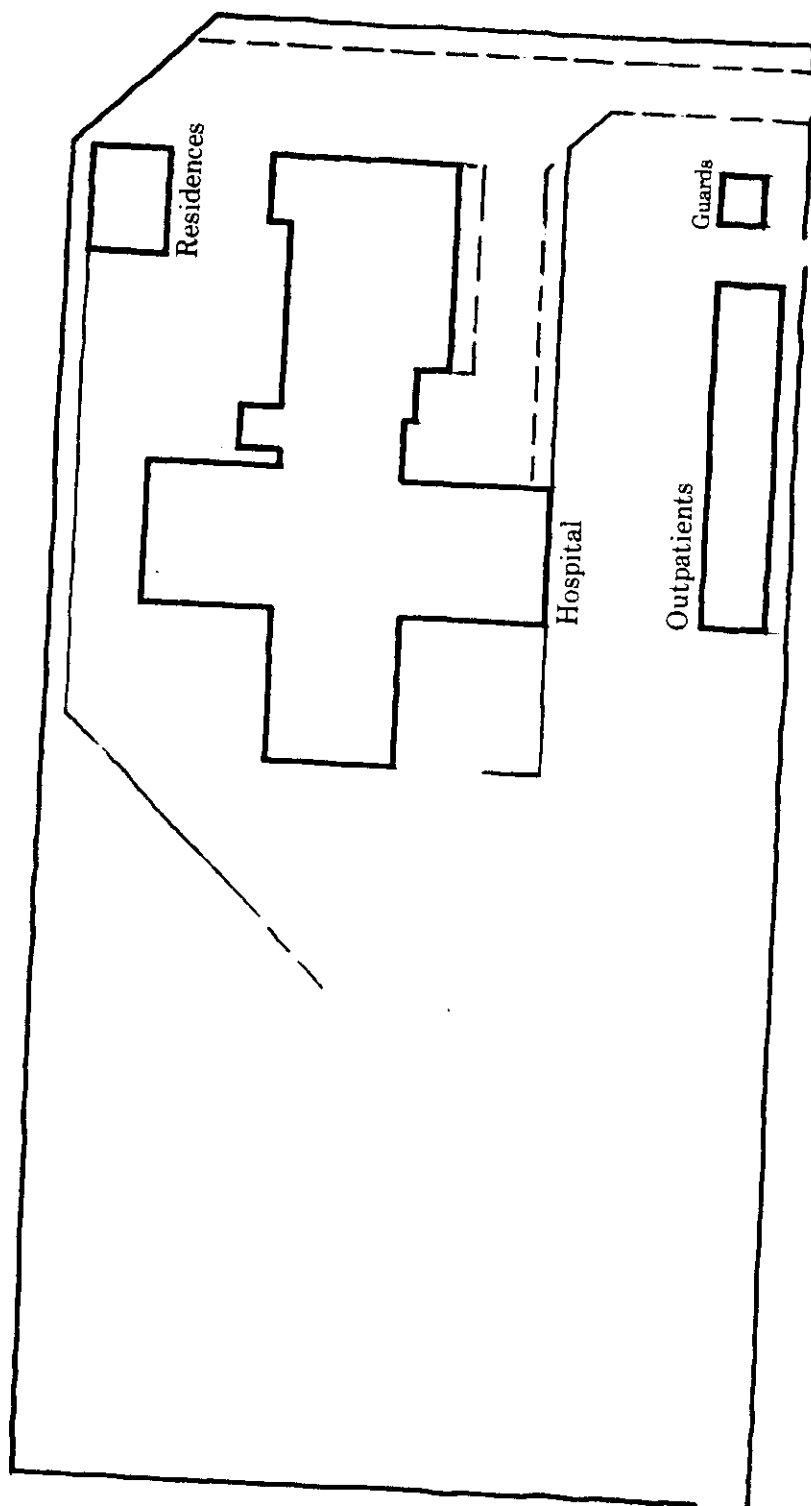


Fig 5

Marjeyoun
Hospital
Ground Floor

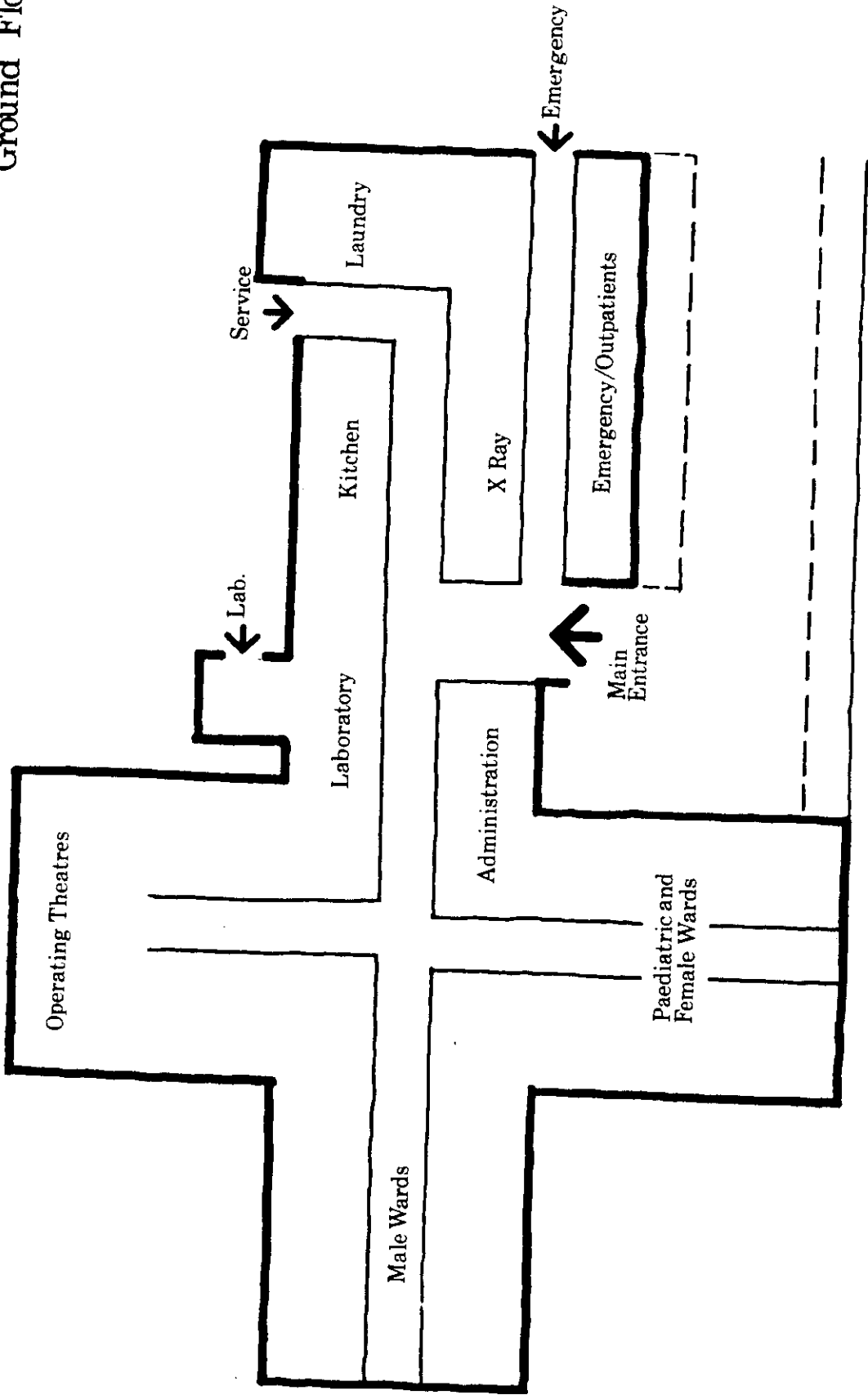


Fig 6

Marjeyoun
Outpatients
Block
Ground Floor

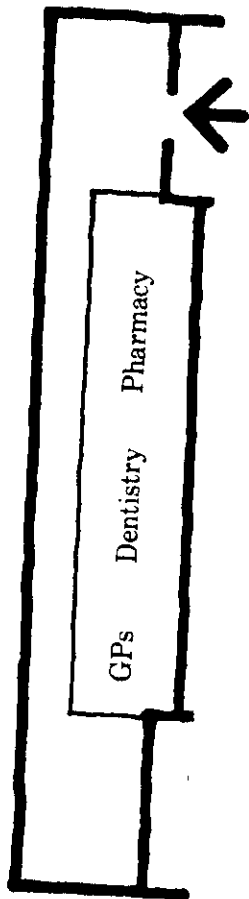


Fig 7

Nabatiyeh
Ground Floor

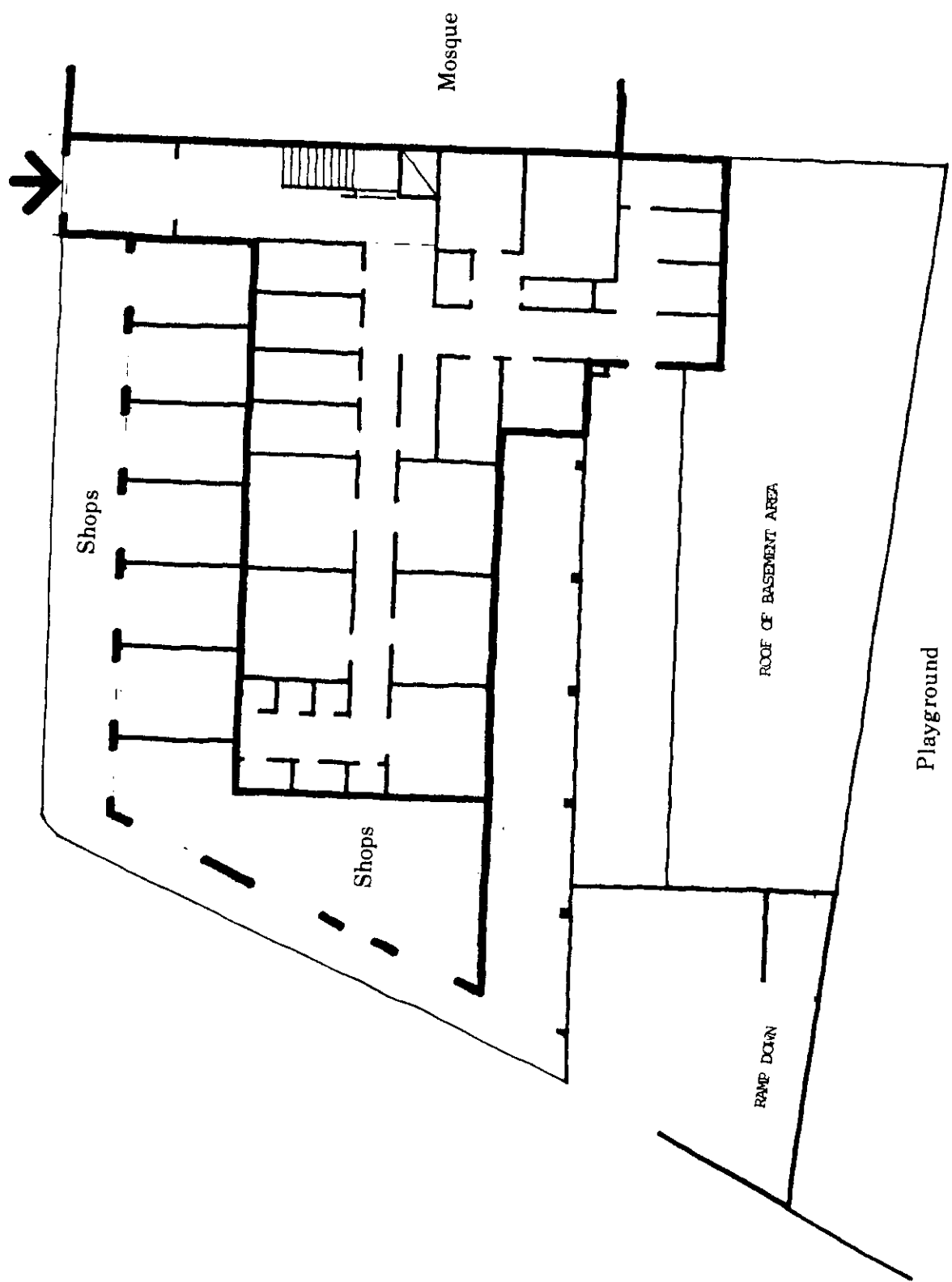


Fig 8

Nabatiyeh
First Floor

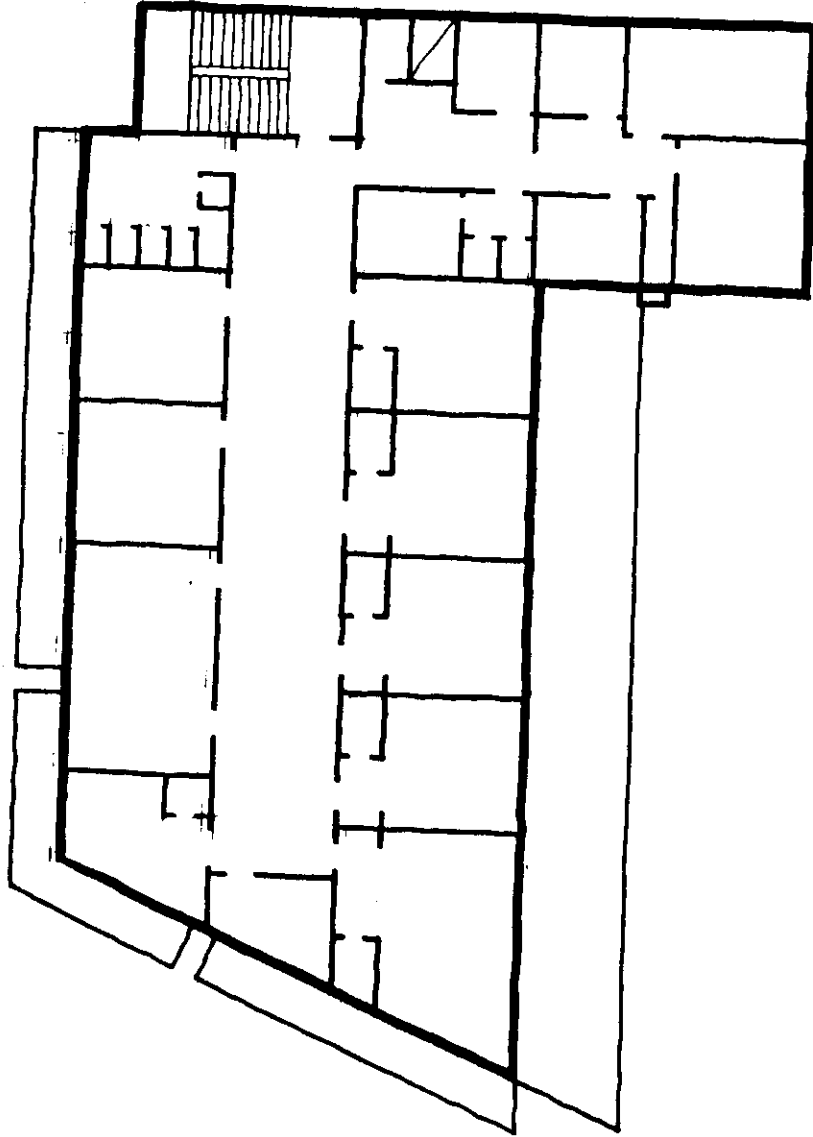


Fig 9
Nabatiyeh
Second Floor

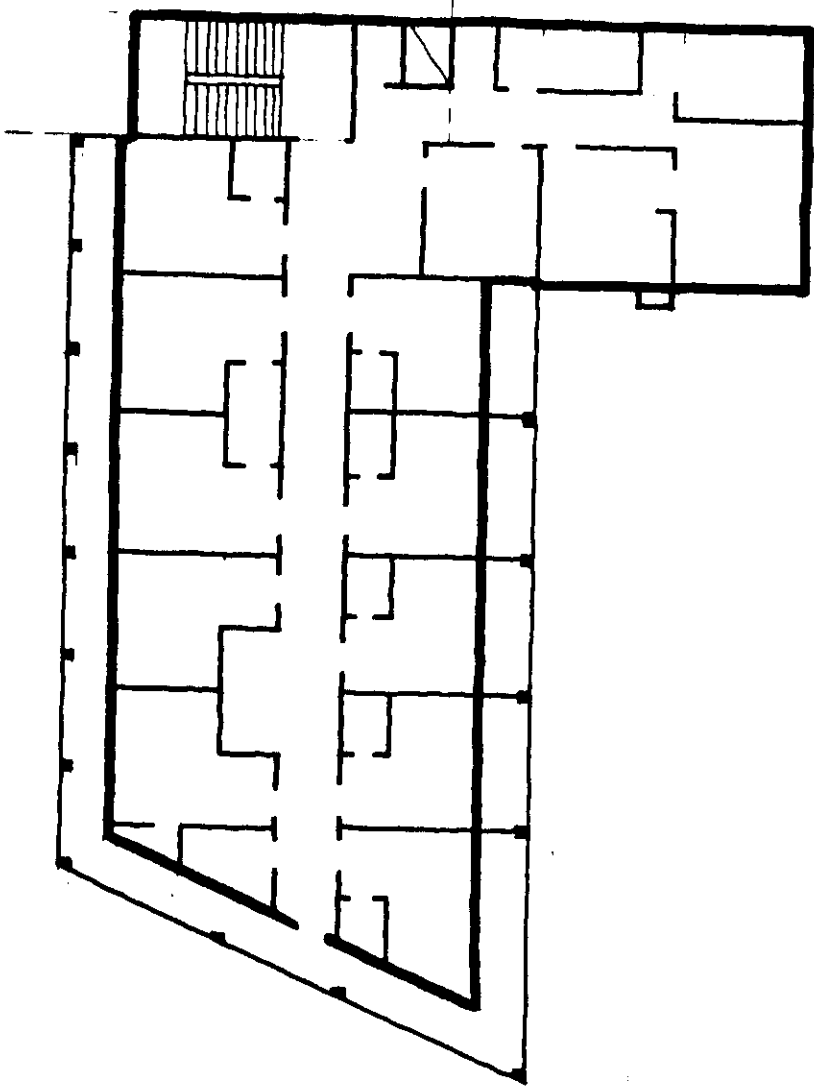


Fig 10
Nabatiyeh
Third Floor

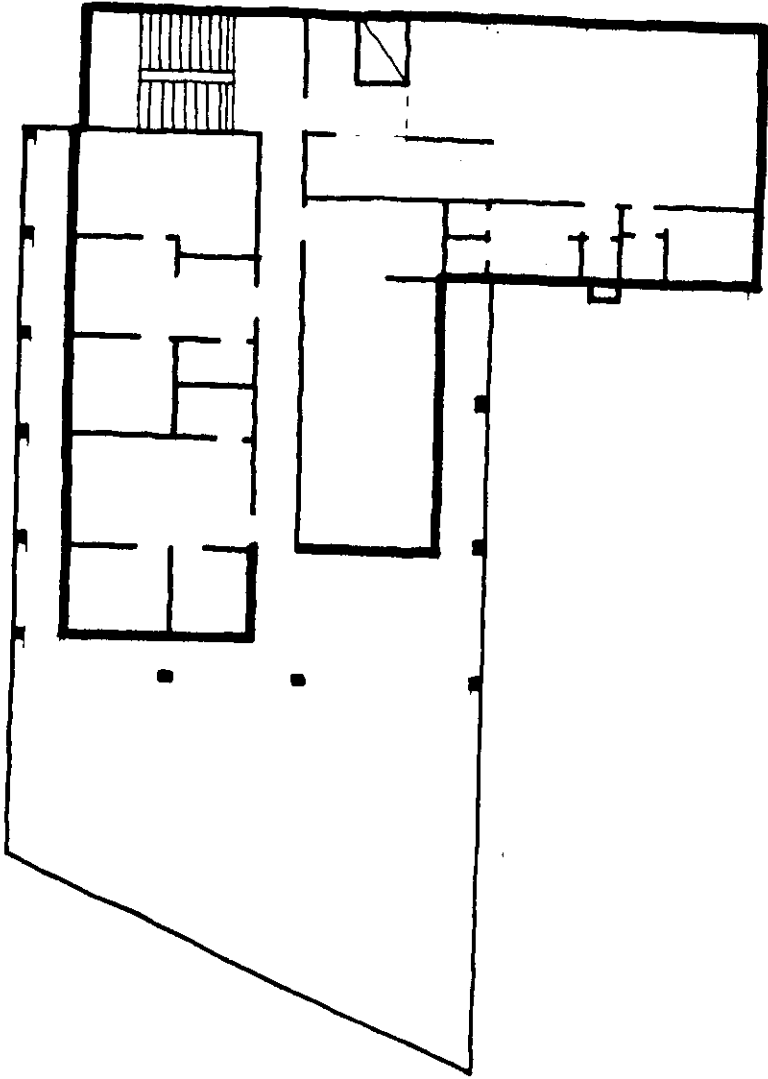


Fig 11
Saida
Site Plan

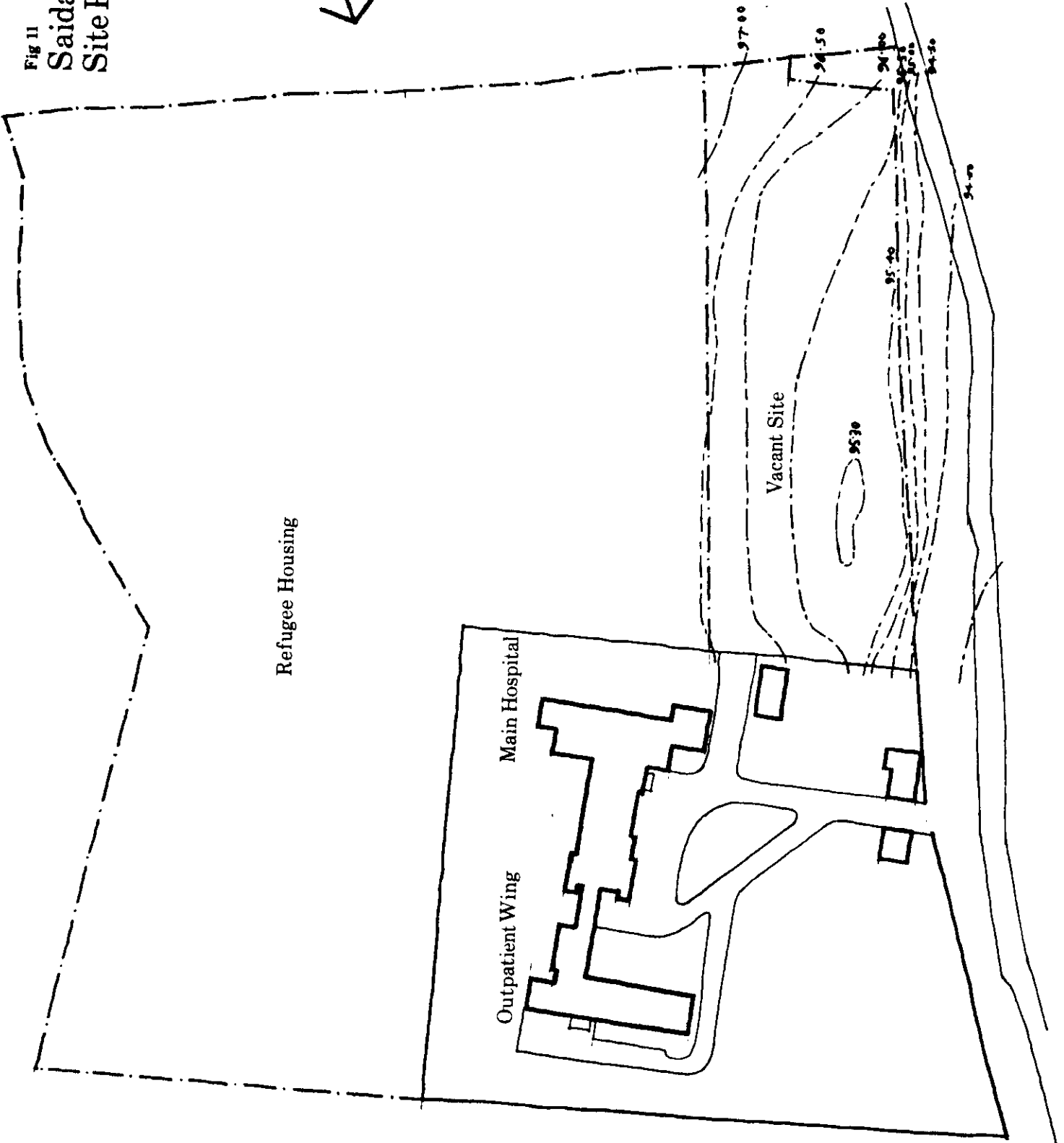


Fig 12

Main Hospital
Saïda
Ground Plan

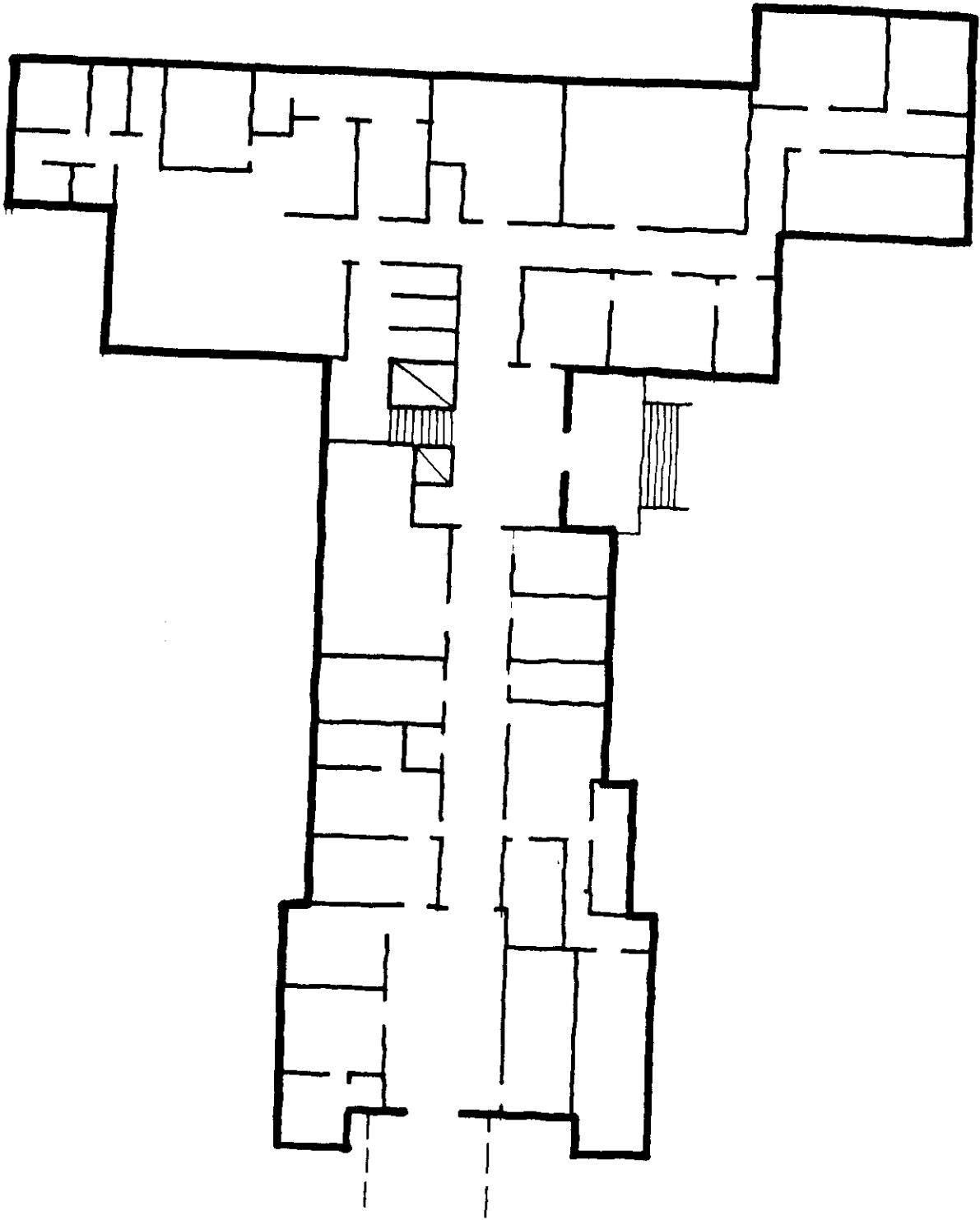


Fig 13
Saida
First Floor

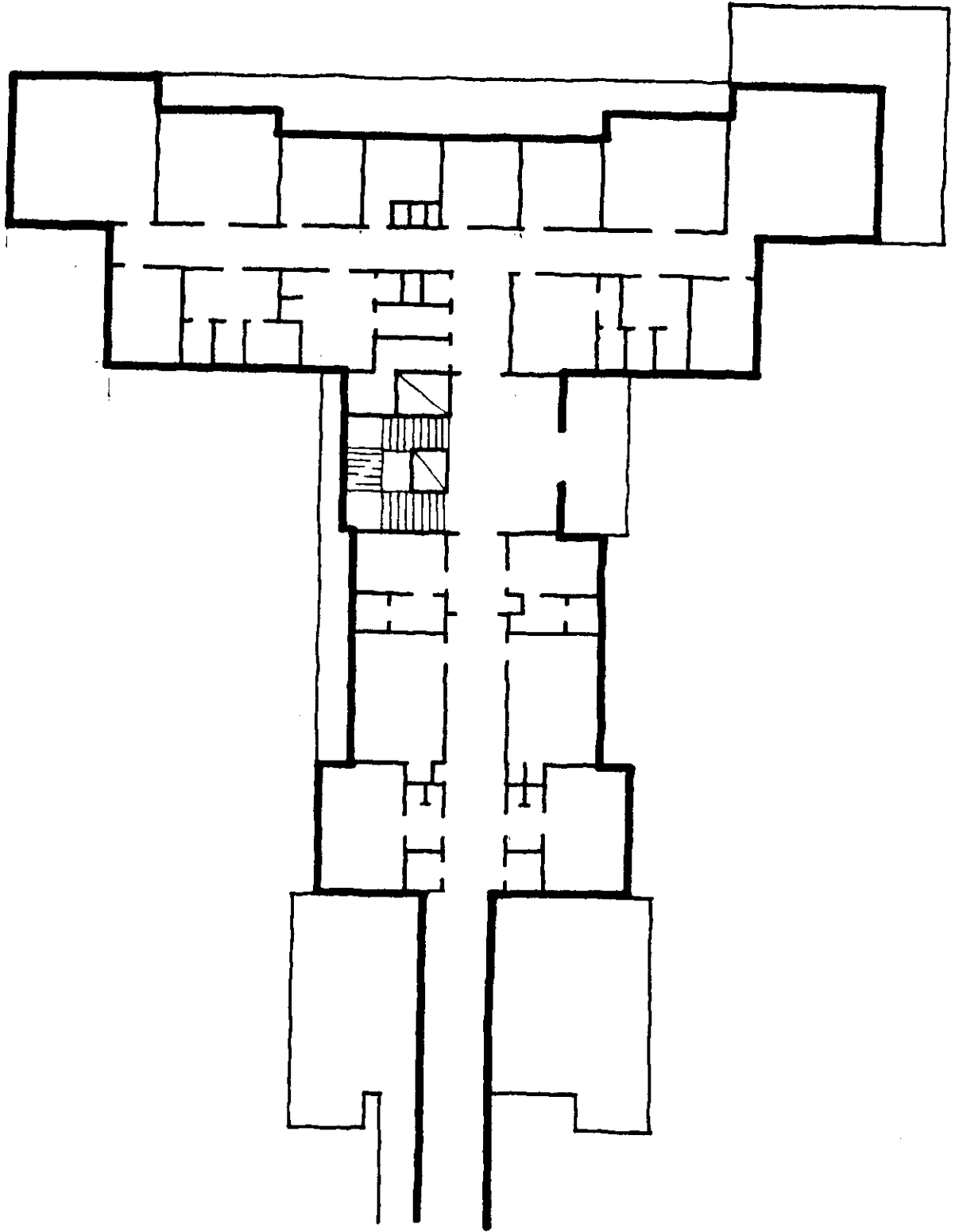


Fig. 14

Saida

Second Floor

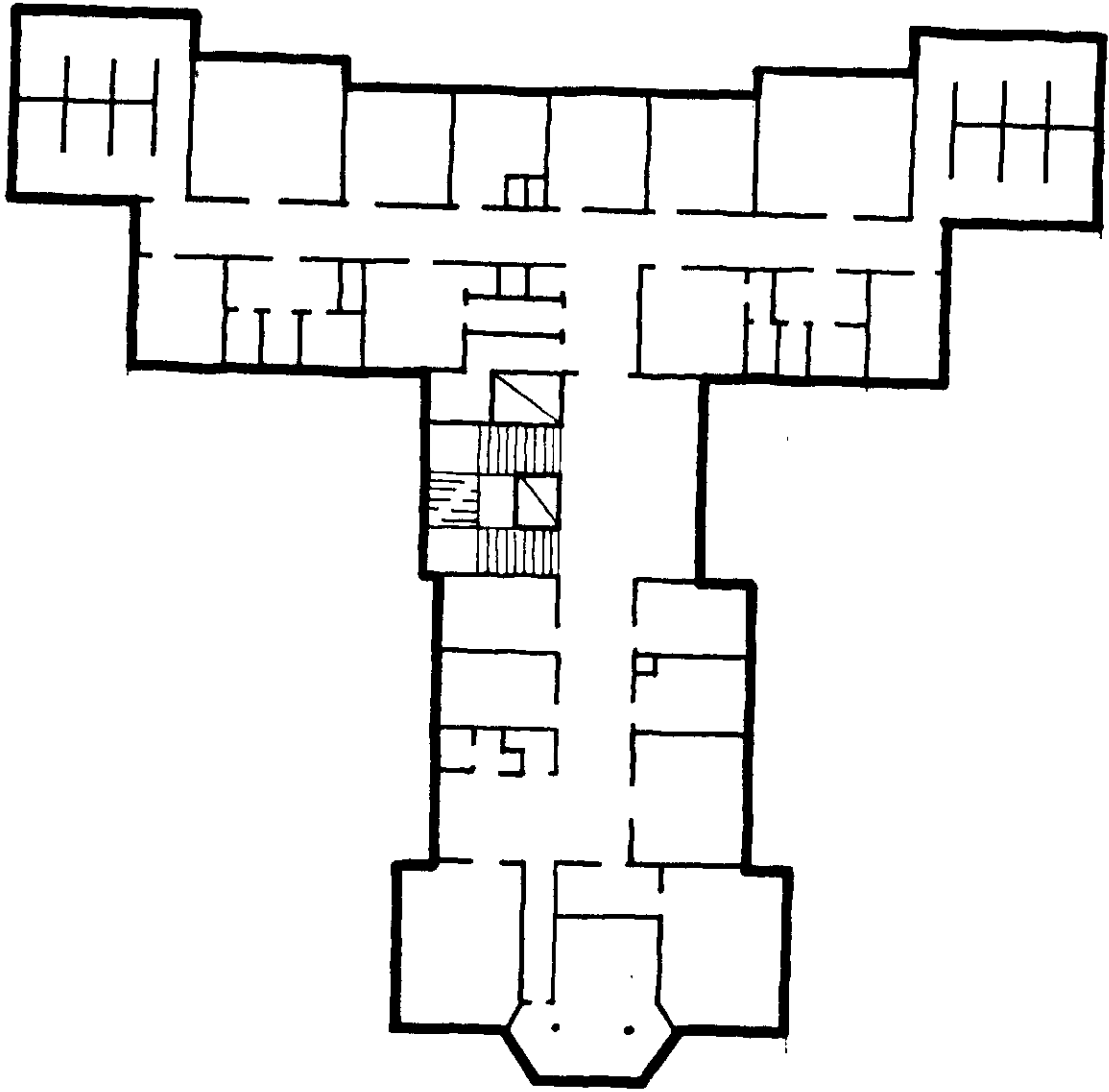


Fig 16

Saida

Fourth Floor

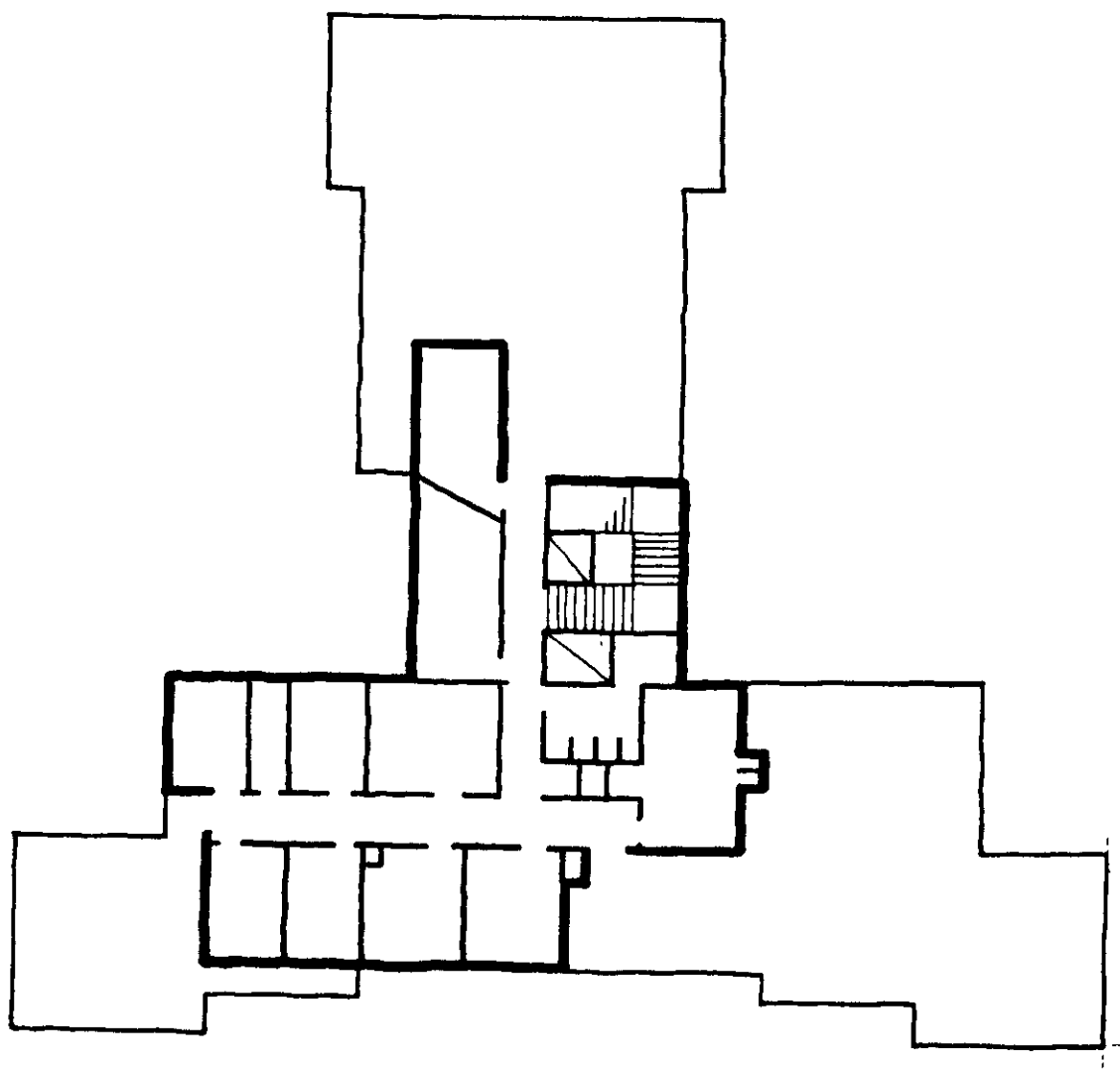


Fig 17

Saida

Outpatients Wing

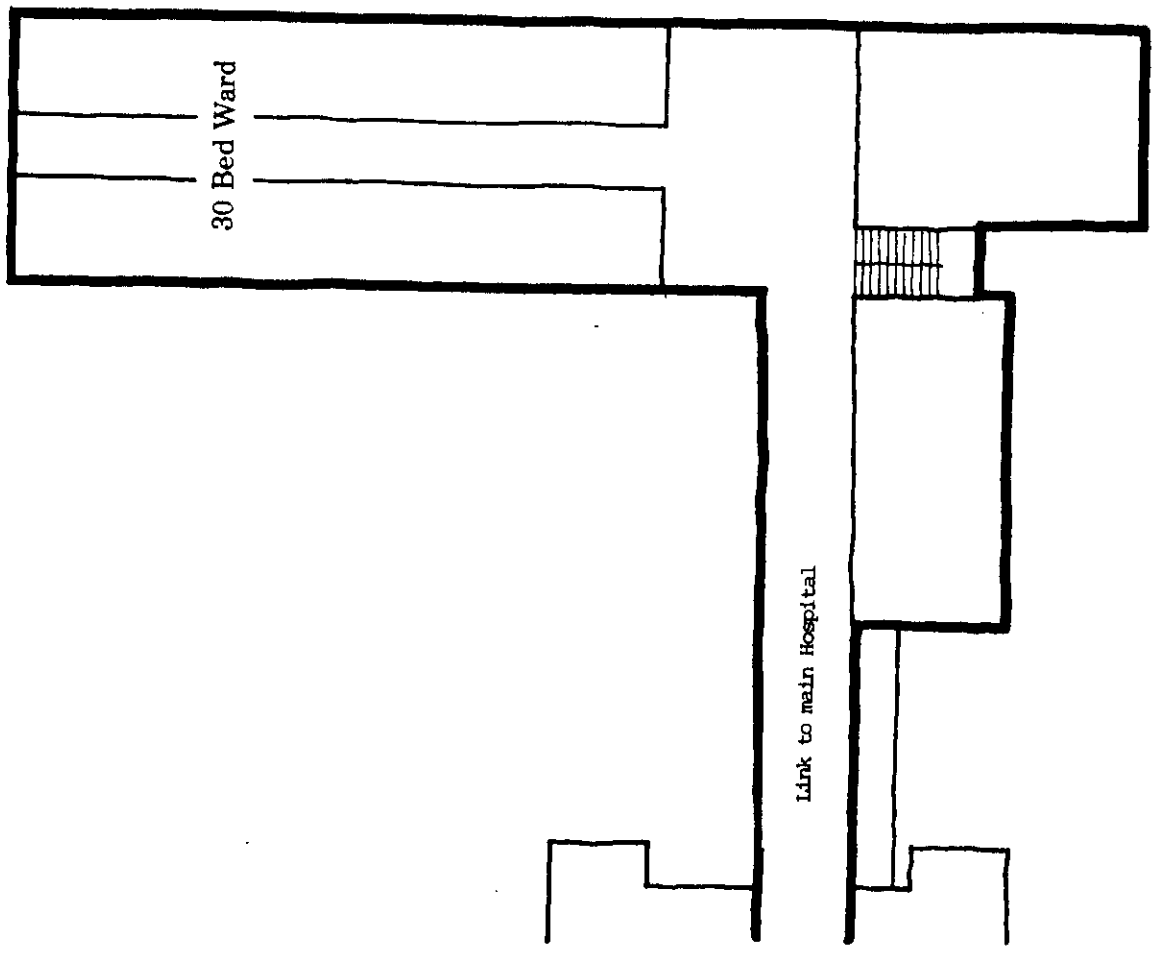
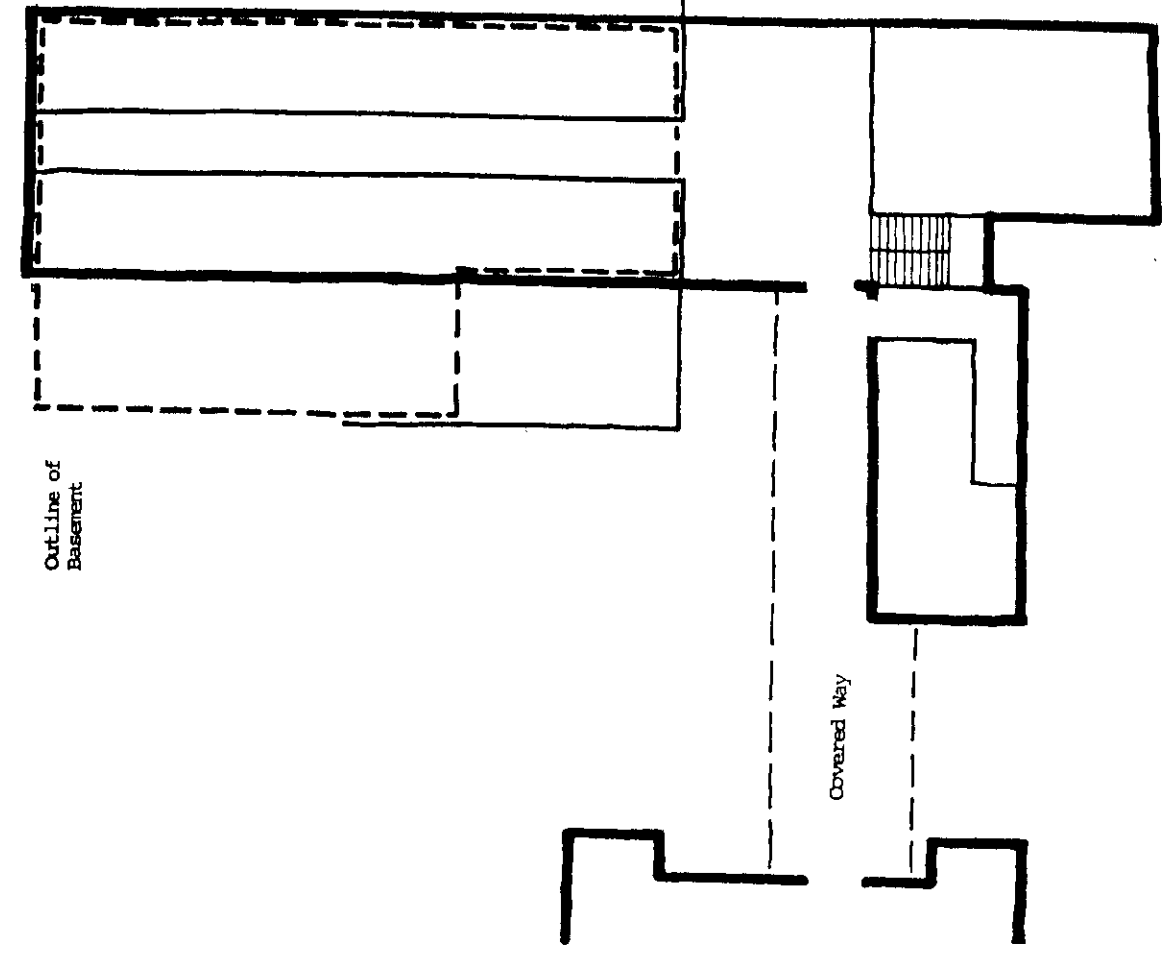


Fig 16

Tibnine Site Plan

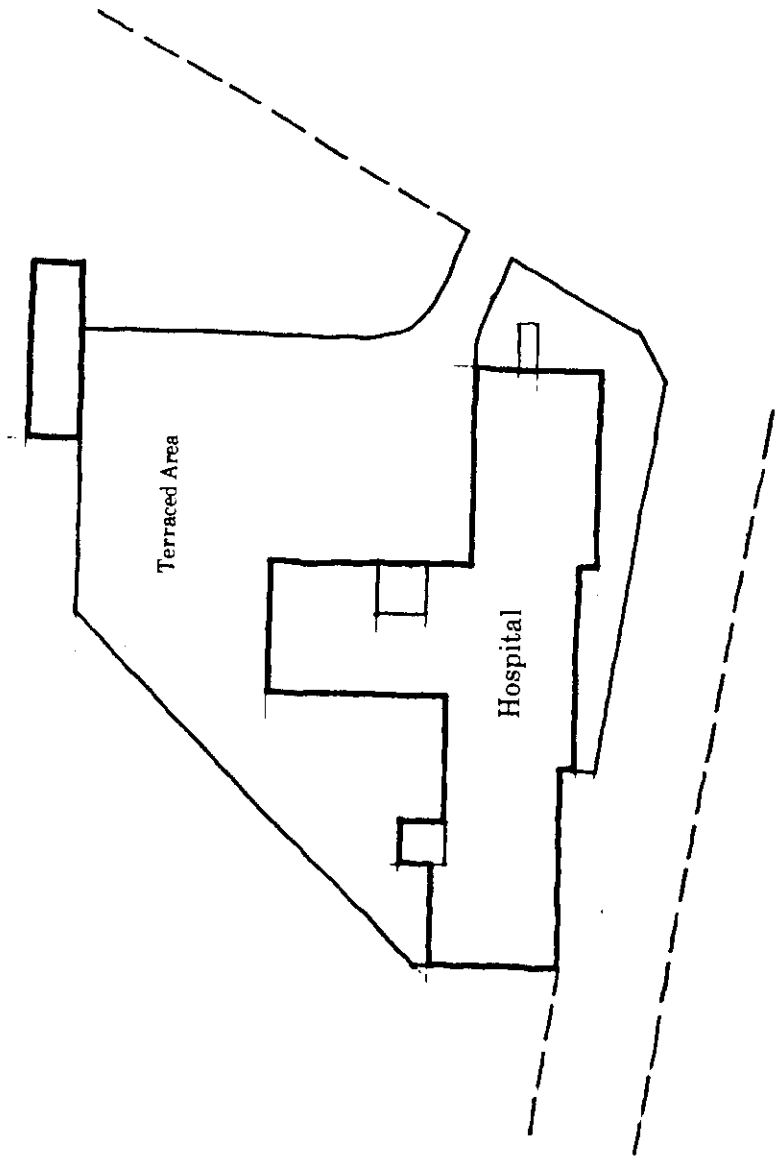


Fig 19

Tibnine Lower Ground

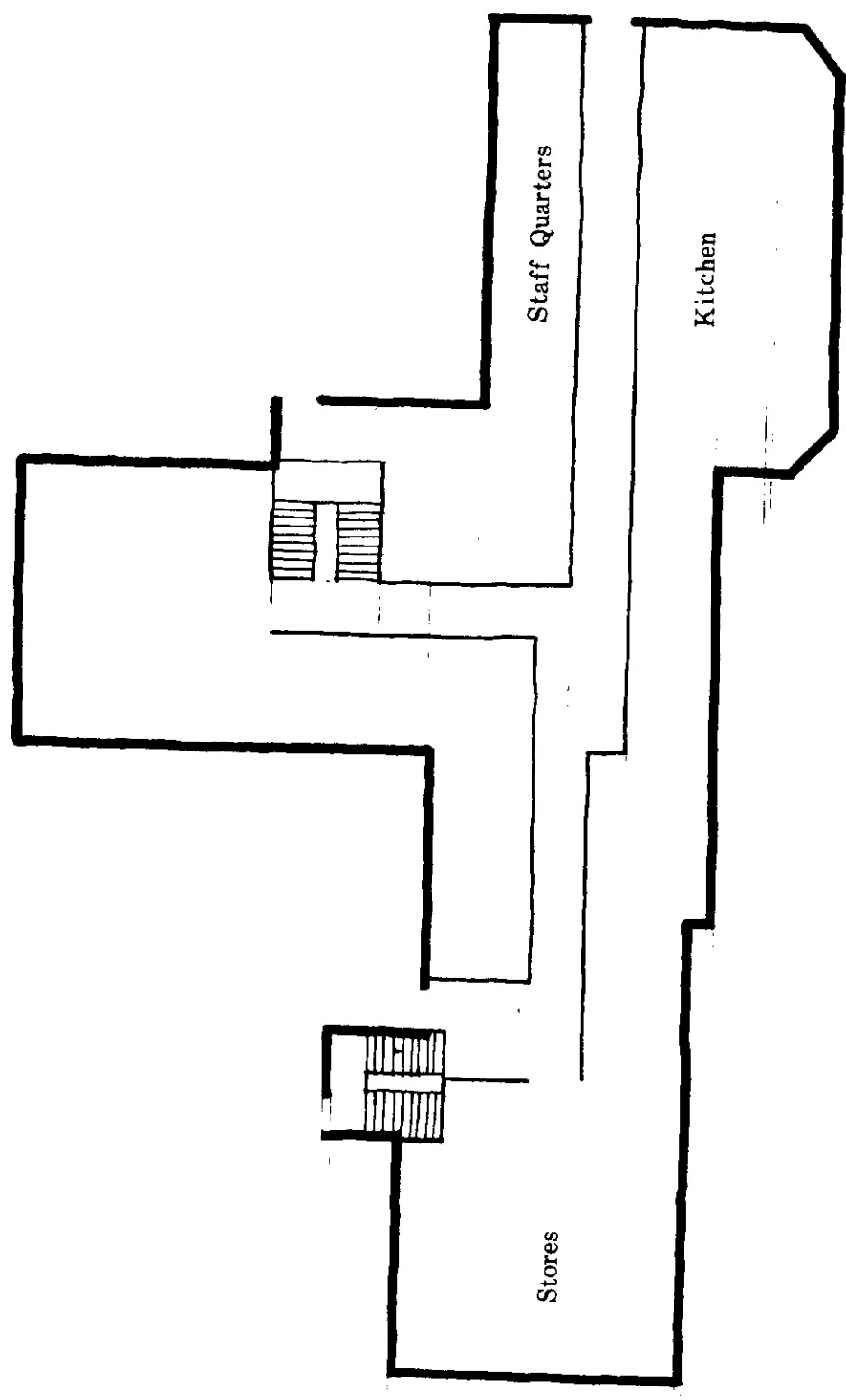


Fig 20

Tibnine Ground Floor

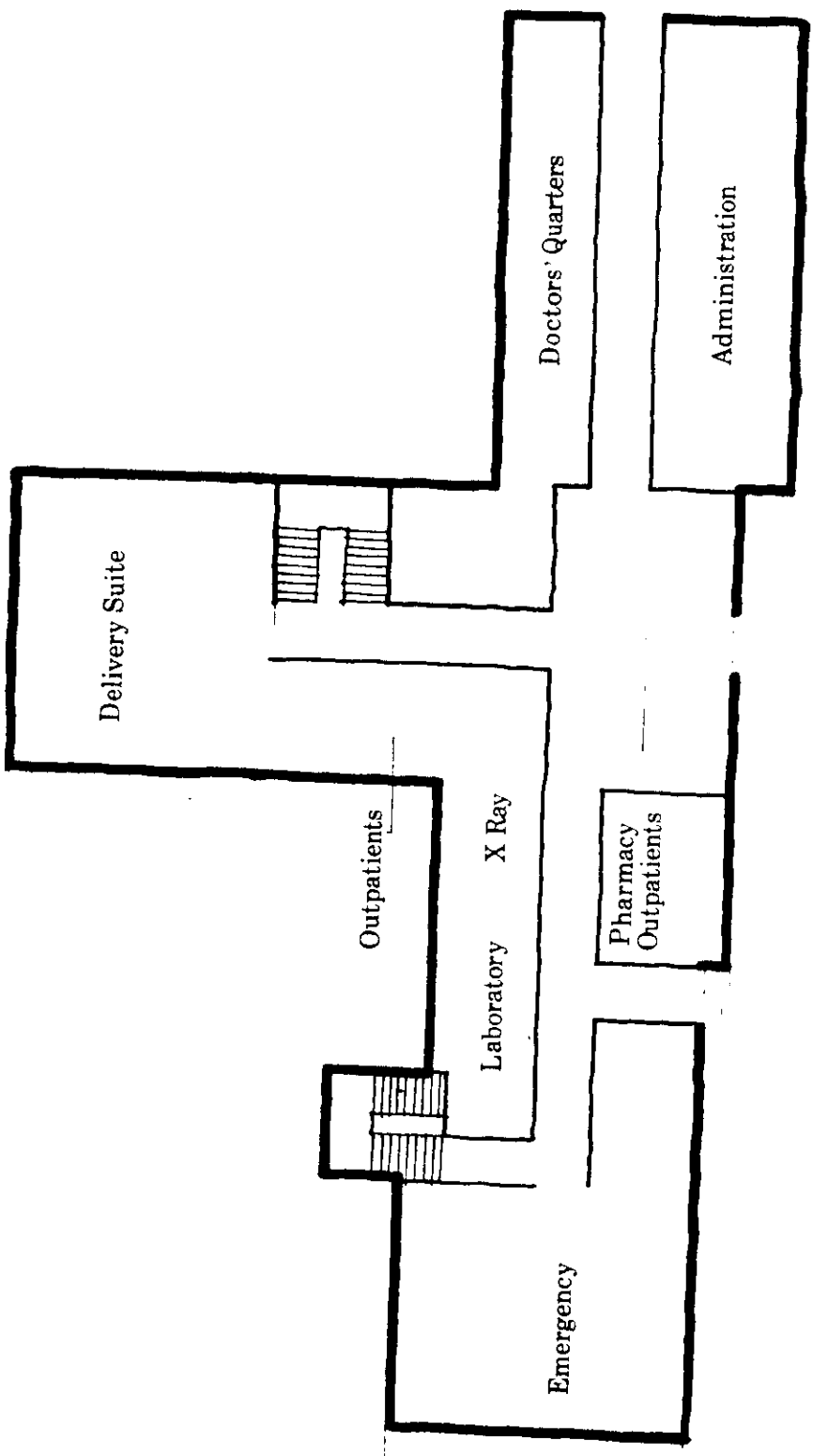


Fig 21

Tibnine
First Floor

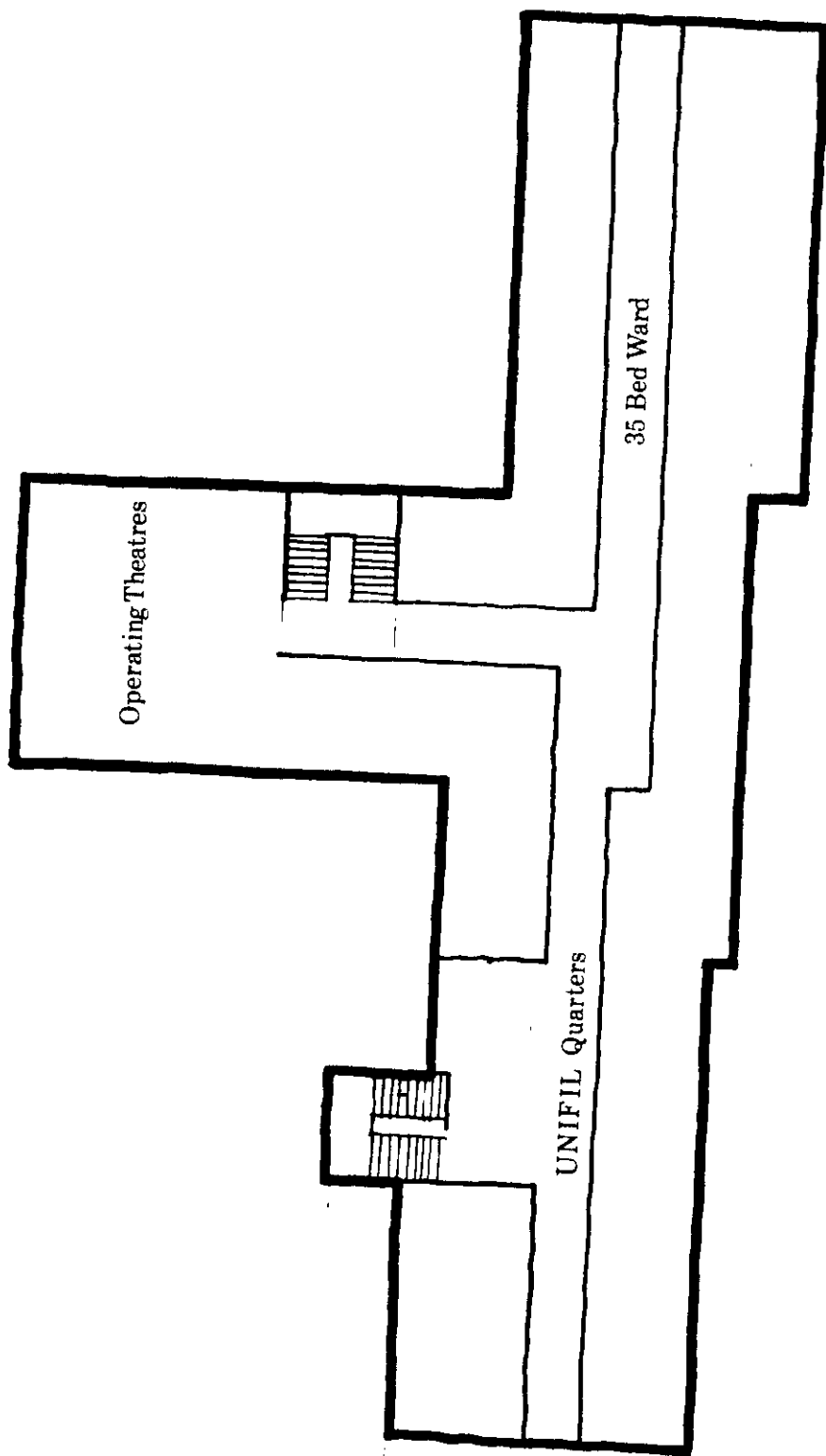
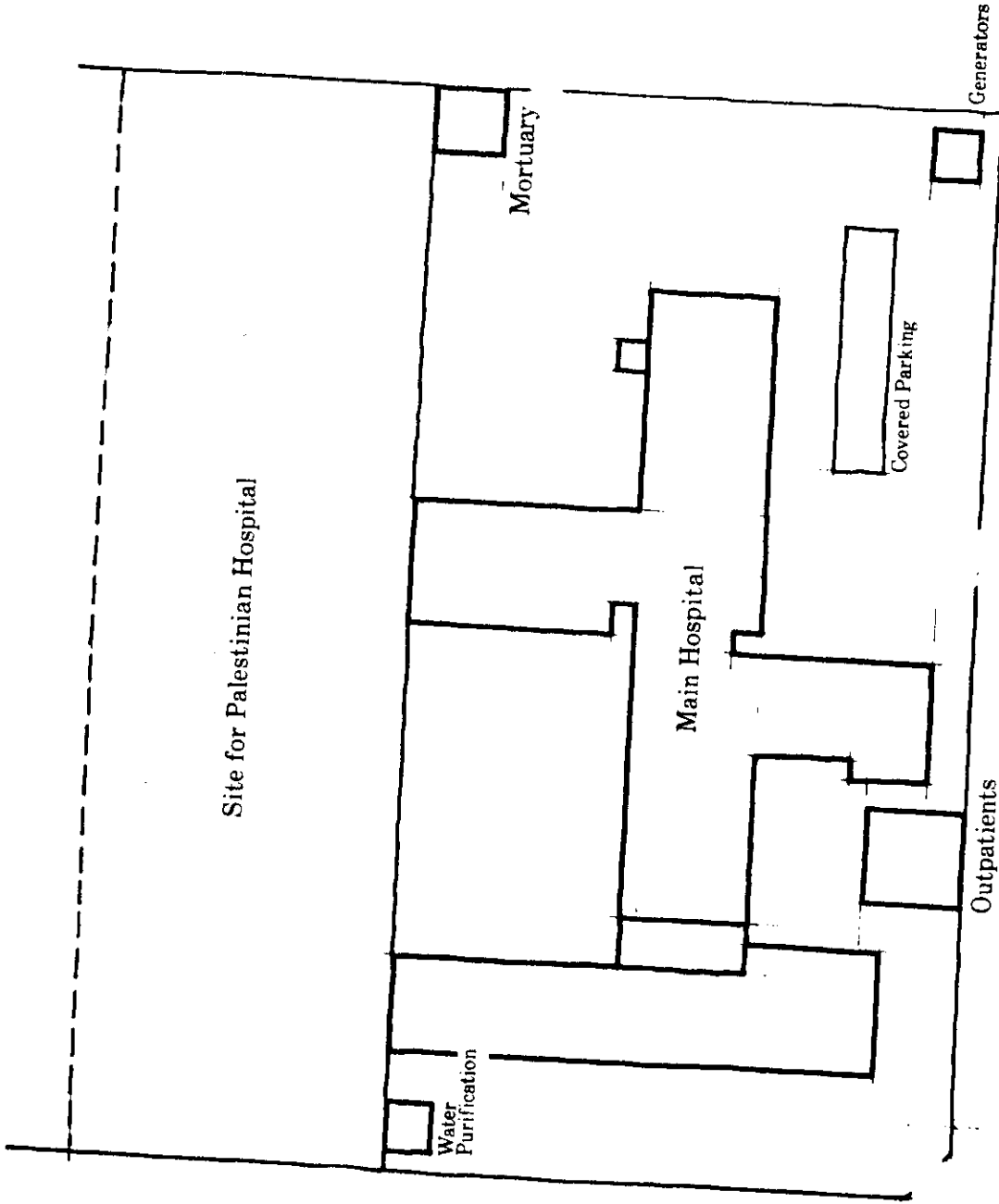
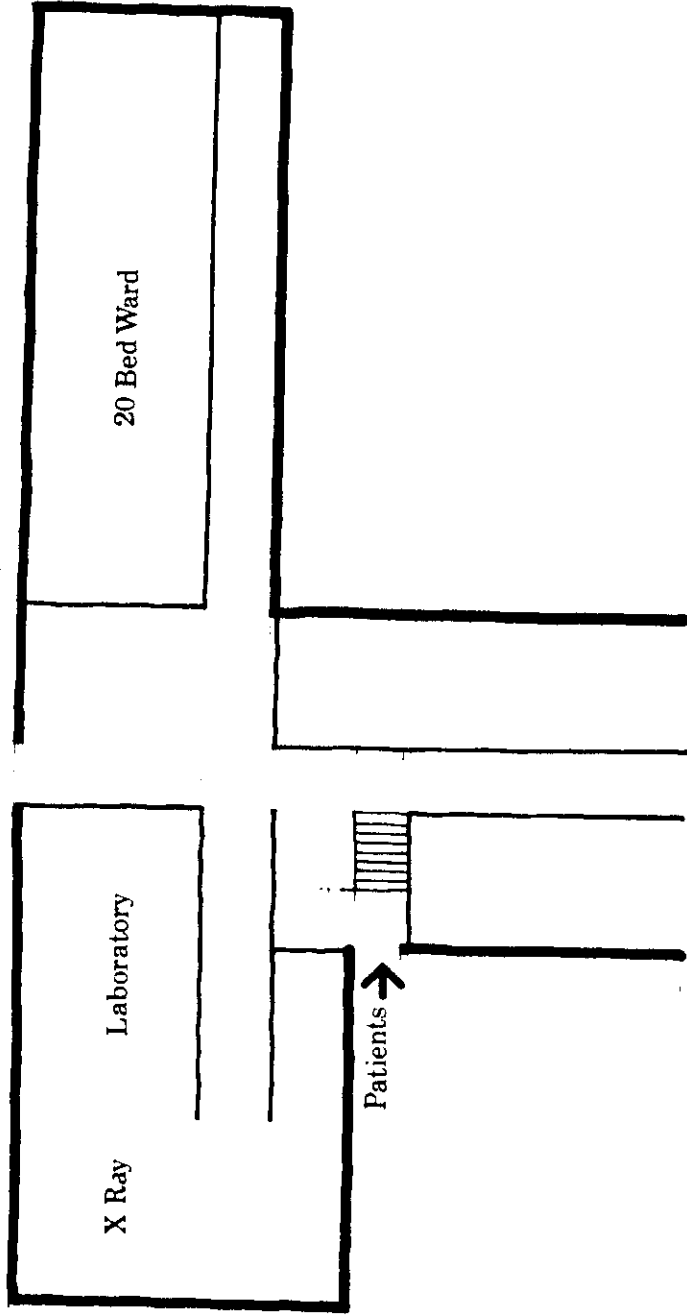


Fig 22

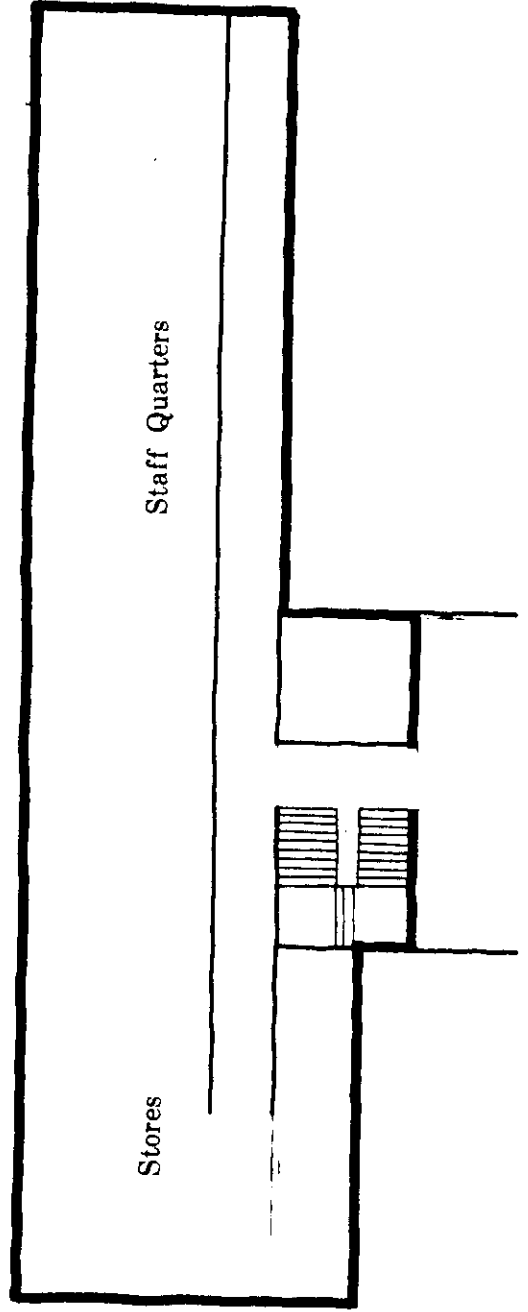
Tyr Site Plan



Tyr Main Hospital
Ground, First
Part



Ground



First

APPENDIX 3

PRIVATE HOSPITALS IN SAIDA (C.P.S.P.S.)

Republic of Lebanon

Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies

الجمهورية اللبنانية

مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

	HARIRI	HAMMOUD	CHEHEIB	LABIB	ALAEDDIN	DALAA	ELIAS ELIAS	NAKEEB	ASSAF	OSSEIRANE	MAAMARI	HAJJ	SHABB	KHOURY	NAJN
No of beds available	340	188	150	75	64	75	40	36	23	63	8	15	16	13	14
No of beds used	340	188	150	75	64	75	40	36	23	63	8	?	16	13	6
By spec:															
Gen Medical	Y	44	Y	Y	Y	-	Y	Y	Y	Y	-	?	-	-	-
Gen Surgery	Y	47	Y	Y	Y	-	Y	Y	Y	Y	-	?	-	-	-
Obs & Gyn	Y	22	Y	Y	Y	50	Y	Y	Y	Y	-	?	16	-	6
Paediatrics	Y	29	Y	Y	Y	25	Y	Y	Y	Y	8	?	-	-	-
Others	Y	40	Y	Y	Y	-	-	Y	Y	Y	-	?	-	13	-
By type:															
Suites	?	?	4	6	-	8	?	?	?	?	-	?	-	-	?
1st Class	?	?	16	12	14	21	?	?	?	?	1	?	-	-	?
2nd Class	?	?	50	18	25	22	?	?	?	?	4	?	5	4	?
3rd Class	?	?	80	39	25	24	?	?	?	?	3	?	8	-	?
McH Beds	Y	8	10	10	7	7	10	10	7	7	-	-	-	-	-
X-Ray	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	N
Laboratory	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	N	N	N	N
Full-time MDs	?	10	4	5	3	5	1	3	1	6	1	1	1	1	1
Part-time/ contract MDs	?	33	30	26	12	27	?	10	11	-	1	?	1	-	3
Qualified Nurses	?	40	10	14	8	17	?	4	-	4	-	?	1	-	-
Unqualified Nurses	?	121	35	?	9	23	7	10	6	6	4	?	?	2	2
Inpatients per month	?	800	800	400	120	?	?	?	?	?	50	?	100	10	10
Operations per month	?	270	250	240	?	120	40	70	120	?	-	?	100	10	10
Deliveries per month	?	180	20	50	?	200	?	?	?	?	50	?	-	-	-
Additional beds under construction	-	-	25	-	20	55	-	-	-	-	-	-	-	-	-
Additional beds under consideration	-	150	-	-	-	-	-	-	-	-	-	?	-	-	16

Y indicates that the service is present
? indicates information not knownN indicates that the service is not present
- indicates zero