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FUNCTION AND STRUCTURE OF THE LABORATORIES
IN YEMEN ARAB REPUBLIC

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INTRODUCTION,

YEMEN ARAB REPUBLIC, lies between latitudes 12 & 18 degrees, north of the Equator, covering an area of 95,000 k.m., and has a population of 7,000,000, the Capital is SANA'A,.

Administratively Yemen divided into eight (8) provinces they are :- Sana'a , Taize , Hodiedah, Haggah, Ibb, Dhamar, Saada, and Al-Beida.

All over the country there are 32 hospitals varies in the capacity from 40 - 700 beds, with a total number of 5,750 beds and 25 Health Labs. attached to the hospitals including the WHO three centres in Sana'a Taize and hodiedah.

There are 43 National laboratories workers (Technicians & Assist.) with 7 persons coming from other countries and one WHO Bacteriologist, for the project of YEMEN 0018 (Central public health Laboratory).

HISTORY OF THE LABORATORIES IN YEMEN.(Y.A.R.).

The Health laboratory services started in 1931 in Sana'a, and in 1935 in Hodiedah and Taize,.

The Health labs. services commenced in each operating hospitals, .

The work was carried by experts coming from abroad by contracts.

The language used varies in each Hospital according to the Nationality of the experts performing the work , the number of the tests were limited to Urine-analysis, Simple blood tests, Stool examination, with other routine tests such as direct Z.N. stain, Gram's stain for G.C. etc.

The equipments and facilities were supplied in a large quantity by the government,.

Those experts employed for running the work did not try to train the national and develop the Laboratories services,.

In 1959 the health centre and training school laboratory in Sana'a started the work and has been used for the training, from 1963 - 1966 nine (9) districts Laboratories were established in different part of the country, seven of these Labs. were equipped by the UNICEF. The work carried in those labs. by the laboratory assistants graduated from the Health centre and training school Sana'a.

In 1967 seven Labs. were established including the two Labs. for the new operated Hospitals (Traumatology & General revolution Hospitals) in Sana'a .

in 1968 only one Lab. was established in Taiz. (Swedish clinic).

In 1969 a minister decision issued stating centralization of Health laboratory services in Sana'a using the Health center and training Lab. as a temporary Central laboratory.

Late 1970 the government with the Assistant of WHO executed the Plan-Operation of the Central Public Health Laboratory, in Sana'a.

The dates of operating of each Lab. are as follows :-

Name of Hospital	Province	Operating date	NO.of staff at present
Republican Hospital	Sana'a	1931	3 - 1*
Al-Oulofi Hospital	Hodiedah	1955	3
Republican Hospital	Taize	1935	7 - 1*
Health center & trainig	Sana'a	1956	2
Haggah Hospital	Haggah	1961	1
Abs Hospital	Haggah	1961	0
Dhamar Hospital	Dhamar	1961	1
Sadaa Hospital	Saada	1962	0
Al-Bieda Hospital	Al-Bieda	1962	1
Military Hospital	Hodiedah	1962	0
Al-Hokha Hospital	Taize	1963	1 - ?
Al-Hugaryah Hospital	Taize	1963	1
Qatabah Hospital	Ibb	1964	1
Al-Rahidah Hospital	Taize	1964	1
Children revulation Hospital	Sana'a	1964	1
Republican Hospital	Ibb	1964	1
Bajel Hospital	Hodiedah	1965	1
Beit Al-Fagih Hospital	Hodiedah	1965	1 - ?
Hospital of Zabied	Hodiedah	1965	1
Health center & training sch, Hodiedah		1967	1
Military Hospital	Taize	1967	1 - 1*
Khamer Hospital	Sana'a	1967	1
Traumatology Hospital	Sana'a	1967	3 - 1*
General Revulation Hospital	Sana'a	1967	6 - 1*
Maternity Hospital	Sana'a	1967	1
The Swedish Clinic	Taize	1968	2
Health center & trainig sch, Taize		1969	1
Jebelah Hospital	Ibb	1969	1 - 1*
Nadrah Hospital	Dhamer	1969	0
Rada'a Hospital	Dhamar	1971	0
Nasser Hospital	Ibb	1971	1 - 1*
Central Public Health Lab, Sana'a		1970	6 - 1**

Remark.

* = Experts from abroad the country,.

** = WHO Bacteriologist

? = The work in Lab. carried out once or twice/ week.

0 = NO Lab. Assistant availabael but the doctor carried out the work such albumin, Sugar, in urine & some stool ex.

The number of National staff Technician and Assistants are 43 while the number of the international and bilateral foreigner experts are 8.

LEGISLATION GOVERNING THE LABORATORIES.

Planning, Construction, & Organization of the Health laboratory services is not existing in satisfactory way due to :-

- a) Lack of recognition of Health Lab. services as independent unit by the Ministry of health .
- b) Lack of adequate budget for the Health lab. services for smooth operation of these services.
- c) Lack of qualified personnel of the Technician level .
- d) Lack of proper accommodation for the Central Public Health Laboratory, and Regional Labs.

In general we are trying our best to convince the Health authority to pay attention for the development of Health Laboratory services and to recognize these services as independent unit.

A committee has been formed to study the scope and Function of the Department of Health Lab. services in the Ministry of Health , after several meetings the committee came to the conclusion that the Health Lab. services should be recognized as independent unit, and the report including the duties and functions, of Health Lab. Services submitted to the Minister of public Health .

Although the ministry of health is re-organizing the whole framework of the Health services , the Health Lab. services were NOT included as independent unit due to lack of appreciation of the importance of Health Lab. services which serve both preventive and curative medicine .

We feel that the resolution from this seminar should strongly support the importance of Health Lab. services.

TRAINING OF PERSONNEL.

The training started in 1959 at the Health Center and Training School in Sana'a, a full-time 18 months course in the level of Lab. Assistants . The standard of the first batch pre-enrolment was secondary school level while the rest of the batches were intermediate school level .

The number of batches, number of students, Enrollment and graduation date are as follows :-

<u>NO. of batches</u>	<u>NO. of students</u>	<u>Enrollment date</u>	<u>Graduation date.</u>
First batch	4	1959	January 1961
Second batch	6	April 1962	August 1963
Third batches	6	Novem. 1963	March 1965

<u>NO.Of batches</u>	<u>NOYof students</u>	<u>Enrollment date</u>	<u>Graduation date.</u>
FOURTH BATCHES	(9	Janua. 1965	June 1966
Fifth batches	10	Novem. 1966	Jully1968
Sixth batche s	9	Jully 1968	Novem1969
Seven batches	6	March 1970	Cebte1970

The seventh batches of 1970 was a course of intensive training for Lab.assistants of six months duration , and was planned for the Lab. worker in the different Lab. all over the country who have practical experiences no theoretical ~~or~~ background or qualification on termination of the intensive course we felt that the standar of training should be raised to the Lab. Technician level so that developed in quality rather than quantity.

Now our plan is to start immediatelly a refresher course in-services training for a period of two months for the Lab. assistant graduated from the Health center and training school in Sana'a , The number of the candidates for this course should not exceed 12 persons, the total hours for the course will be about 240 hours, 5 hours a day 30 hours /week,. The Syllabus will include :-

Haematology, Bacteriology&Serology, Parasitology &Biochemistry.

The regular course which will be held at the Health-Man power Institute is planed to be full time course for a period of 24 months in three semesters as follows :-

First semester:- 9 months which will include practical and theoretical training on :-

Basic knowledge of Medical Lab. technology.

Second semester:- 9 months which will include theoretical and practical training in :-

Bacteriology, Immunology Serology, & Mycology, Virology, Haematology & Blood bank serology, Clinical Biochemistry, Parasitology, Histology, .

Third semester :- 6 months which will be used for pre-services in different Laboratories and in the Central Public Health Laboratory. The total hours per day are five(5) hours

PRESENT SET-UP OF HEALTH LABORATORY SERVICES:-

At present one Lab. in Sana'a out of 25 Labs. distributed All over the country is carrying out a Lab. services at satisfactory standar on Microbiology, Serology, Haematology, Parasitology, &Biochemistry. How ever, no blood bank services, Histology, or Virology are available. The rest of the labs. are carryin out the routine lab. tests in Parasitology, Urine analysis , and simple Haematological tests including the three main general Hospitals labs. 700 beds each in Sana'a, Taize & Hodiedah.

FUTURE DEVELOPMENT ENVISAGED:-

It is obvious that with out recognition of Health Labs. Services as independant unit by the Ministry of Health NO regulation, or order for development of this services, however the execution of plan of operation of the Central public Health Lab. in satisfactory way will raise the standar of work provided the following points should be observed :-

- 1:- Raising the standar of training locally .
- 2:- Development of the existing labs. particularly the three main Hospitals (general Hospitals) in Sana'a, Taize And Hodiedah by the following :-
 - a- Appointment of at least one qualified expert for each lab. in the three general Hospitals.
 - b- Insurance of adequate equipments & supplies for each lab.
- 3:- Further education(Higher education) abroad in specialized subjects for the National staff to cover the requirements of the country gradually ,.
- 4:- Proper accomedation for the Central Public Health Lab. and regional Laboratories .
- 5:- Immediate appointment of three qualified Lab. technicians proposed in plan of operation for Sana'a ,Taize &Hodiedah .
- 6:-Making the best used of what is available .
- 7:-Applying the prenciple of quality rather than quantity in evry aspect .
- 8:- More strengthening the project(Yemen 0018) the Central Public Lab. by special fund through WHO And UNDP. to face the requa-irements of the country .