

Clinical Officer Training Program

A HEALTHCARE INITIATIVE FOR
DEVELOPING NATIONS



South Sudan



OVERVIEW:

What is the Clinical Officer Training Program?

- **3 year medical training program in primary healthcare**
- **Community based**
- **Developed using the Problem Based Learning format**



OVERVIEW:

Benefits of the Clinical Officer Training Program

- **Shorter time to complete training**
- **No additional infrastructure required**
- **Complements the current healthcare initiatives of the host country**



OVERVIEW:

Why have a Clinical Officer Training Program?

Healthcare System needs to grow to meet the needs:

Most of the medical care in South Sudan is provided by international aid groups - 80 per cent, according to Medecins Sans Frontieres. Many South Sudanese in rural areas have to walk for days to reach a clinic.

"Seventy-five per cent of people do not have access to even basic health care," Terri Morris, the head of MSF's mission in Juba, said.

"Critical gaps remain for basic medical services, particularly for emergencies."

Officer
Training
Program

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OVERVIEW:

Why have a Clinical Officer Training Program?

The Need for Improved Healthcare is Evident:

According to the World Health Organization 2011 report:

South Sudan has the highest maternal mortality rate in the world: The UN reported that one in seven South Sudanese women is likely to die because of complications from delivery. Just 10 per cent of South Sudanese women have access to medical professionals during childbirth



OVERVIEW:

Why have a Clinical Officer Training Program?

What are the current choices for increasing the number of Medical Providers ?

- Have South Sudanese attend medical school abroad.
- Build additional medical training facilities and hire additional medical school faculty.



OVERVIEW:

Why have a Clinical Officer Training Program?

What are the choices for increasing the number of Medical Providers ?

- **Have South Sudanese attend medical school abroad.**
 - Tuition and living expenses (not including travel expenses) average \$50,000.00 per year per student.
 - Medical School training program completion can take from 4 to 6 years.

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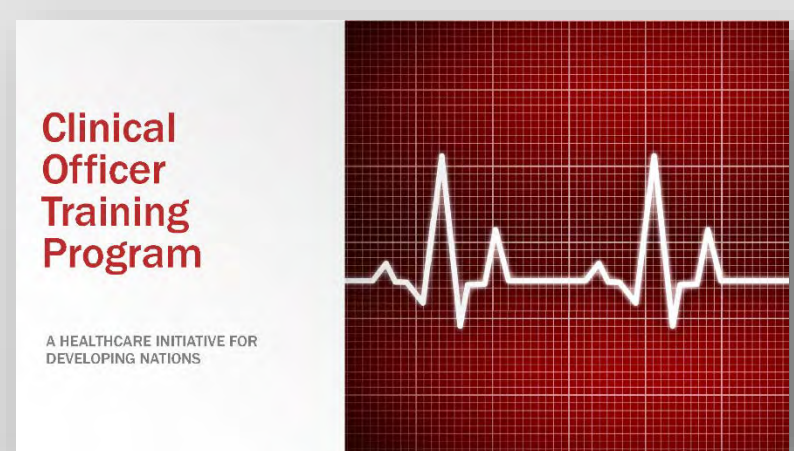


OVERVIEW:

Why have a Clinical Officer Training Program?

What are the choices for increasing the number of Medical Providers ?

- **Increase Medical Training Capacity within South Sudan.**
 - The cost of constructing a new medical school campus can be over \$50,000,000⁰⁰.
 - Salaries for faculty and staff can be over \$10,000,000⁰⁰.



OVERVIEW:

Why have a Clinical Officer Training Program?

What are the choices for increasing the number of Medical Providers ?

- **A New Choice: the Clinical Officer Training Program.**
 - Program graduation in three years.
 - No cost for new infrastructure.
 - **Community Based** – utilizes existing structures
 - No new faculty – utilizes a Medical Provider currently in the area.
 - Utilizes the **Problem-Based Learning (PBL) Format**



OVERVIEW:

Why have a Clinical Officer Training Program?

The Sub-Saharan African Medical School Study

- **Data, Observation, and Opportunity.**

*“There are significant areas of curricular and teaching innovation taking place at many schools designed to meet local and regional health care needs. Innovations often involve critical thinking skills and **community based education** (CBE), both of which reflect innovations taking place globally in medical education. These innovations address regional needs by teaching **problem-solving skills** for work in any setting and by taking learning to communities where health needs are greatest.”*



Clinical Officer Training Program

Clinical Officer Training Program

What is a Clinical Officer?

- A Clinical Officer is a medical professional who practices primary healthcare medicine under specific primary care guidelines. An Clinical Officer is a graduate of an accredited training program which is nationally certified.



Clinical Officer Training Program

What is a Clinical Officer?

- **Clinical Officers are clinic (or hospital) based medical care providers who perform physical examinations, diagnose and treat illnesses, order and interpret lab tests, perform procedures, assist in surgery, provide patient education and counseling and make rounds in hospitals.**

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Clinical Officer Training Program

What Are the Program Basics of a Clinical Officer Training Program (COTP)?

- The COTP utilizes the Problem Based Learning format.
- It is a Community-Based program.
- The Students are ready to provide medical care in three years.



Clinical Officer Training Program

Program Basics:

Problem Based Learning Format (PBL):

- Problem-based learning (PBL) is the learning that results from the process of working toward the understanding and resolution of a problem.
- In the PBL, the problems students encounter are simulated patient cases.
- The patient problems serve as the stimulus for acquiring the basic science knowledge needed to understand underlying mechanisms of health and disease, and they also serve as the focus for the development of clinical reasoning skills



Clinical Officer Training Program

Program Basics:

Problem Based Learning Format (PBL):

- A few of the Medical Schools currently utilizing PBL curriculum:
 - McMaster University, Canada
 - Harvard University School of Medicine, USA
 - Case Western Reserve University School of Medicine, USA
 - Samford University School of Medicine, USA
 - University of Missouri School of Medicine, USA
 - Maastricht University, the Netherlands
 - University of Limerick, Ireland
 - Lake Erie College of Osteopathic Medicine, USA
 - Gadjah Mada University of Yogyakarta, Indonesia
 - Libyan International Medical University of Benghazi, Libya
 - Munich Ludwig Maximilian University, Germany



Clinical Officer Training Program

Program Basics:

Problem Based Learning Format (PBL):

- Research of 10 years of data from the University of Missouri School of Medicine indicates that PBL has a positive effect on the students' competency as physicians after graduation.



Clinical Officer Training Program

Program Basics:

Community-Based Program:

- A Clinical Officer Training Program can be set up in more than one community.
- Each program enrolls 4 to 12 students.
- Can utilize pre-existing structures (e.g. schools, clinics, homes, churches)
- Utilizes a local Medical Provider as the course Facilitator



Clinical Officer Training Program

Students ready to provide independent medical care in three years:

- **The three year program includes:**
 - **Year #1 – Basic medical knowledge and life-long learning skills acquisition**
 - **Year #2 – Beginning clinical application**
 - **Year #3 – Advanced clinical application**



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition:

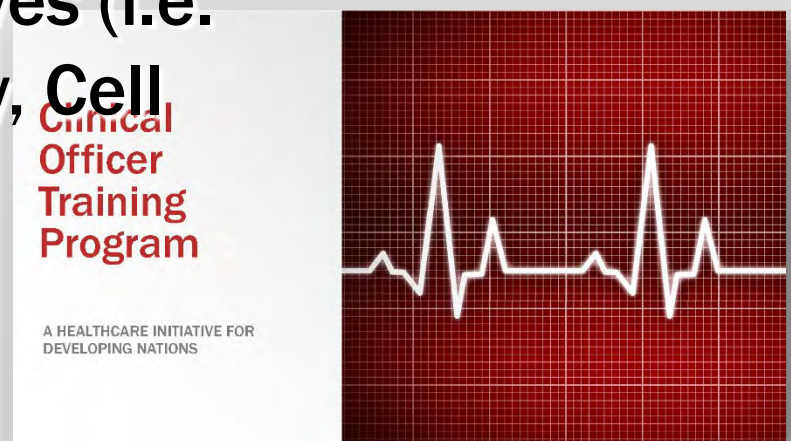
- **Complete 24 Virtual Patient Cases – one case every two weeks.**
- **Meet with the Course Facilitator (local Medical Provider) for two hours twice a week (total of four hours per week)**



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: VIRTUAL PATIENT CASES

- Each case covers a main disease process and 2 or 3 related disease processes
- The individual cases cover related aspects of the basic sciences through completion of case objectives (i.e. Anatomy, Physiology, Biochemistry, Histology, Cell Biology, etc.).



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: VIRTUAL PATIENT CASES

Virtual Cases are presented in a computer based program that allows the student to proceed through the case in a format that is utilized by practicing medical providers

The screenshot displays the 'Virtual Case Introduction' page. At the top, it reads 'Clinical Officer Training Program' and 'Virtual Case Introduction: An Introduction to the Virtual Case Format'. Navigation links include 'Return to Virtual Cases HOME' and a 'dialogue' icon. A sidebar on the left contains a table of contents with six items: '01. Case Introduction', '02. History', '03. Physical Exam', '04. Differential Diagnosis', '05. Teaching Points', and '06. Case Objectives'. Each item has a corresponding icon: 'HX' for history, 'PE' for physical exam, 'DDX' for differential diagnosis, 'TP' for teaching points, and 'CO' for case objectives. The main content area is titled '1. Case Introduction' and includes an 'Associated Files' link. The text defines 'CHIEF COMPLAINT: chief complaint (CC), a subjective statement made by a patient describing the most significant or serious symptoms or signs of illness or dysfunction that caused him or her to seek health care. It is used most often in a health history. Mosby's Medical Dictionary, 8th edition. © 2009, Elsevier.' Below this, it explains the format of the 24 virtual cases, mentioning the 'Presenting Complaint or Chief Complaint, CC' and the goal of developing a 'Differential Diagnosis, DDx'. A photograph of a man in a light blue shirt, appearing to be in a clinical setting, is shown on the right side of the page. The footer contains the text 'Abundant Health International All Rights Reserved'.

Case Introduction

The Case Introduction provides information concerning the aspect of medical care that the case will focus on and is based on the presenting signs and symptoms (e.g. chest pain)

Virtual Case Introduction

An Introduction to the Virtual Case Format

Clinical Officer Training Program

Return to
Virtual Cases
HOME

dialogue

01. Case Introduction

02. History



03. Physical Exam



04. Differential Diagnosis



05. Teaching Points



06. Case Objectives



Associated Files

[CLICK HERE](#)

1. Case Introduction

CHIEF COMPLAINT: chief complaint (CC), a subjective statement made by a patient describing the most significant or serious symptoms or signs of illness or dysfunction that caused him or her to seek health care. It is used most often in a health history. Mosby's Medical Dictionary, 8th edition. © 2009, Elsevier.

In each of the 24 Virtual Cases, you will have a brief introduction to what aspect of medical care the case will focus on. Each case introduction will begin with what is called a Presenting Complaint or Chief Complaint, CC. The You will use the CC to begin the algorithm by which you will develop a differential diagnosis, DDx, for the case. Each case is set up in a format that follows the algorithm for developing the DDx. Two main objectives are to be accomplished as you proceed through the case: 1. Decide if this patient needs emergent care (life-saving intervention) or is there time for more investigation, and 2. Develop a Differential Diagnosis, DDx, (see section '4' below for introduction into developing a DDx) from



History

The students will learn to take a complete history which will include the History of Present Illness, Review of Systems, Past Medical History, Family History and Social History. Each of the cases help the student to learn to include specific questions to “rule in” or “rule out” specific conditions.

Virtual Case Introduction

An Introduction to the Virtual Case Format

Clinical Officer Training Program

Return to
Virtual Cases
HOME

dialogue

01. Case Introduction



02. History

03. Physical Exam



04. Differential Diagnosis



05. Teaching Points



06. Case Objectives



Associated Files

[CLICK HERE](#)

2.1 History of Present Illness

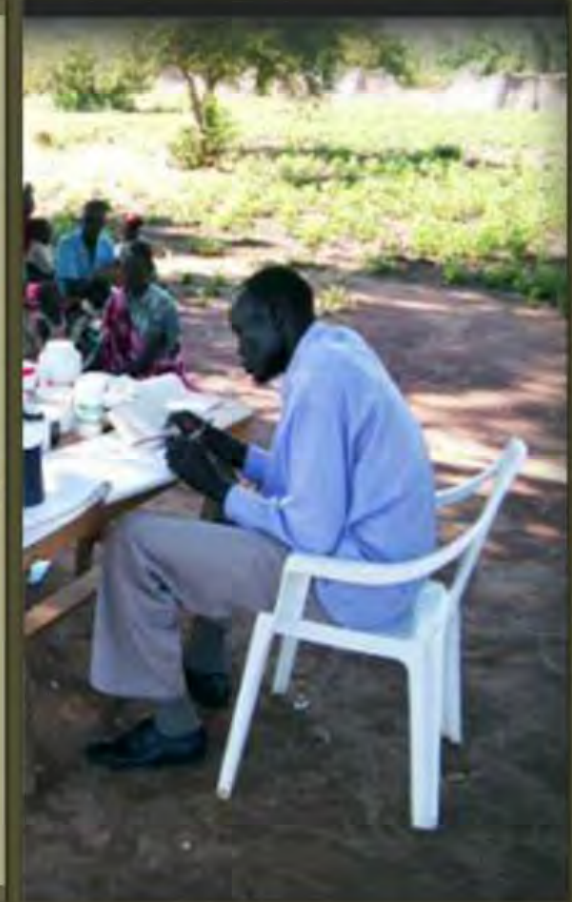
- Obtaining an accurate history is the critical first step in determining the etiology of a patient's problem.
- A large percentage of the time (~ 70%), you will actually be able make a diagnosis based on the history alone.

Opening the Interview

It is important to begin each medical interview with a patient-centered approach.

2.2 Review of Systems and Past Medical History

The majority of the information needed to diagnose and manage a patient's problem(s) is obtained during the history of present illness. The information obtained during the latter portions of the interview provides a complete database of the patient's medical, personal and family history needed to provide optimal management of a patient's problems. Frequently, information contained in the past history is asked about and reported in the history of present illness. For example, in interviewing a patient with chest pain that is suspicious for angina, a physician would query the patient



Physical Exam

The students will learn all aspects of physical exam through course materials including texts and media (audio and video). They will also be instructed by the course facilitator and have opportunity to practice exams on each other. Persons from the community who are trained as “patients” can also be utilized.

Clinical Officer Training Program

Virtual Case Introduction

An Introduction to the Virtual Case Format

Return to
Virtual Cases
HOME

dialogue

01. Case Introduction



02. History



03. Physical Exam

04. Differential Diagnosis



05. Teaching Points



06. Case Objectives



Associated Files

[CLICK HERE](#)

3. Physical Exam

Vital Signs:

Abnormal vital signs have been associated with an increased likelihood of admission to the hospital. Physicians have long recognized the importance of vital sign observations, and vital sign measurement has proven to be useful for detecting serious diseases during triage

Primary Survey with Focused Exam:

Initial Assessment (Primary Survey)

Initial Assessment

The initial assessment is designed to help the Medical Provider detect all immediate threats to life. Immediate life threats typically involve the patients ABCs, and each is corrected as it is found.

The initial assessment has six components;
1. Form a general impression of the patient - The general impression will help you decide the



Teaching Points

Each case will include important Teaching Points that the students must master before completion of the case. These Teaching Points will include the most important aspects of the history and physical exam and the development of the differential diagnosis.

Virtual Case Introduction

An Introduction to the Virtual Case Format

Clinical Officer Training Program

Return to
Virtual Cases
HOME

dialogue

01. Case Introduction



02. History



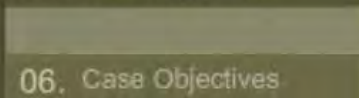
03. Physical Exam



04. Differential Diagnosis



05. Teaching Points



06. Case Objectives



Associated Files

[CLICK HERE](#)

5.1 Teaching Points

Teaching Points

Each of the 24 Virtual Cases will have several “teaching points”. Each teaching point will succinctly present one core knowledge application for the particular case. The presentation of the teaching points endeavors to give a basic framework that the Clinical Officer can utilize in developing a standard of care for patients presenting with that particular chief complaint.

The teaching points will often be the most critical knowledge base used in the development a differential diagnosis and ultimately in the development a treatment plan for the patient. The set of teaching points for a particular case is often referred to as a “script”.

The key components of clinical preceptor’s teaching scripts are three to five teaching points with supporting material and an understanding of common errors made by learners in mastering this material.



Case Objectives

The Case Objectives cover the core information needed to understand the disease processes being studied.

Clinical Officer Training Program

Return to Virtual Cases HOME

dialogue

Virtual Case Introduction

An Introduction to the Virtual Case Format

- 01. Case Introduction
- 02. History
- 03. Physical Exam
- 04. Differential Diagnosis
- 05. Teaching Points
- 06. Case Objectives**

6. Case Objectives
Learning Objectives

Associated Files
[CLICK HERE](#)

Each of the 24 Virtual Cases will also have learning objectives which will help the student to attain the core knowledge required for the understanding and treatment of disease entities. In Year #1 of the Clinical Officer Training Program, the learning objectives will focus on the basic sciences. Year #2 objectives will focus on the clinical specialties with focus on treatment plans.

At the conclusion of the 24 Virtual Cases, the student will have basic knowledge of medicine as it pertains to Anatomy, Physiology, Biochemistry, Embryology, Epidemiology, Histology, Immunology, Microbiology, Pharmacology, and Pathology. In addition, clinical skills will be learned through the Approach to the patient teaching objectives.

The case objectives will ask questions which the students will need to research and answer. The process of research and inculcation of knowledge will

Anatomy Physiology
Approach to the Patient
Biochemistry Histology
Cell Biology Embryology
Epidemiology Immunology
Microbiology Pathology
Medical Imaging
Pharmacology

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Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: VIRTUAL PATIENT CASES

Each Student and the Course Facilitator will receive a laptop computer that will contain the course material including medical textbooks and medical media.



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: VIRTUAL PATIENT CASES

The Panasonic Toughbook is designed to withstand harsh environments and years of service and can hold a medical school library on the hard drive.

It can be recharged with a solar panel.



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: VIRTUAL PATIENT CASES

- The students work in study groups of four.
- They can split up the case objectives between them to research the information and present the findings to the group.



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: COURSE FACILITATOR INSTRUCTION

- **The Course Facilitator meets with the students for two hours twice a week to:**
 - **Discuss the cases**
 - **Answer questions**
 - **Instruct in aspects of physical exam pertinent to the current case.**



Clinical Officer Training Program

COTP Year #1 – Knowledge Acquisition: PROBLEM-BASED LEARNING PHASE

- **Year #1 Objectives will cover:**
 - **Computer application skills**
 - **Communication skills**
 - **Approach to the Patient and Patient Care skills**
 - **Cell Biology and Microbiology**
 - **Immunology and Histology**
 - **Epidemiology and Biostatistics I**
 - **Biochemistry**
 - **Anatomy and Physiology**



Clinical Officer Training Program

COTP Year #2 – Beginning Clinical Application: CLINICAL INSTRUCTION PHASE

- The Course Facilitator for the COTP Year #1 now becomes the Clinical Instructor for COTP Year #2 (and year #3). The Course Facilitator will still meet with the new COTP Year #1 students – 4 hours per week.
- The Year #2 Students will work with the Clinical Instructor seeing patients, writing up medical documents, and performing minor procedures.
- The Year #3 Students will work in settings of clinics, hospitals, and community health forums.

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Clinical Officer Training Program

COTP Year #2 – Beginning Clinical Application: CLINICAL INSTRUCTION PHASE (cont...)

- **Year #2 Objectives will cover:**
 - **Medicine I**
 - **OB-GYN I**
 - **Paediatrics I**
 - **Mental Health I**
 - **Surgery / Orthopaedics I**
 - **Public / Environmental Health I**
 - **Includes Epidemiology and Biostatistics II**
 - **First Aid / Basic Life Support**
 - **Pathology / Microbiology II**



Clinical Officer Training Program

COTP Year #2 – Beginning Clinical Application: CLINICAL INSTRUCTION PHASE (cont...)

For Patient Encounters, Students Will Maintain:

- Patient logs will contain diagnoses and treatment plans for the patients that have been evaluated by the student.
- Procedure logs will record the type and number of procedures performed (e.g. laceration repair, fracture reduction and splinting/casting, assisted births, intra-venous catheter insertion, etc.).



Clinical Officer Training Program

COTP Year #3 – Advanced Clinical Application: CLINICAL PRACTICUM PHASE

- **The Students are required to:**
 - **Maintain patient logs**
 - **Maintain procedure logs**
 - **Complete the assigned objectives for Year #3**



Clinical Officer Training Program

COTP Year #3 – Advanced Clinical Application: CLINICAL PRACTICUM PHASE (cont...)

- **Year #3 Objectives will cover:**
 - **Medicine II**
 - **OB-GYN II**
 - **Paediatrics II**
 - **Mental Health II**
 - **Surgery / Orthopaedics II**
 - **Ophthalmology / ENT**
 - **Emergency / Trauma**
 - **Public / Environmental Health II**
 - **Health Services Management**



Clinical Officer Training Program

CURRICULUM DEVELOPMENT

- **Developed Utilizing:**
 - **Mastery Rubric**
 - **Integrations of Top 100 Diseases/Conditions**
 - **Problem-Based Learning format**
 - **Symptom-Based exam and differential diagnosis formulation**
 - **Differential Diagnosis-Based treatment plan**

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Clinical Officer Training Program

CURRICULUM DEVELOPMENT

- **Mastery Rubric**
 - Ensures the training of competent medical Providers who practice medicine within the scope of their granted licensure and credentials

Mastery Rubric for the Clinical Officer Training Program

Developed by Robert A. Slaney, MD

PURPOSE: To ensure realization of the expected outcome measures at the completion of the Training Program.

EXPECTED OUTCOME: It is expected that the student, upon completion of the Training Program, will be able to function as a competent independent medical provider within the scope of the granted licensure and credentials.

OUTCOME MEASURES:

Knowledge Base: Demonstration of an intimate knowledge of the basic sciences and clinical medicine as it pertains to the understanding of the top 100 disease processes.

Clinical Acumen: Exhibition of the correct application of the acquired knowledge base in the diagnosis and treatment of disease processes as they present in a particular patient.

CURRICULUM DEVELOPMENT BASED ON MASTERY RUBIC:

Clinical Officer Training Program

CURRICULUM DEVELOPMENT

- Integration of Top 100 Diseases / Conditions
 - Utilizes DALYs of Eastern Africa (as obtained from the WHO).

Summary: Undiscounted and non-age-weighted DALYs(0,0) (000s) by cause, countries grouped by WHO subregion (a), estimates for 2004

Cause	WORLD (b)	AFR D	AFR E	AMR A	AMR B	AMR D	EMR E	EMR D	EUR A	EUR B	EUR C
Population (000)	6 416 836	744 816	392 720	340 046	458 579	754 274	145 753	373 974	422 026	223 270	238 074
TOTAL DALYs(0,0)	2 680 433	338 906	384 407	74 509	181 662	27 949	87 786	219 344	86 972	65 378	103 966
Communicable, maternal and perinatal conditions and nutritional deficiencies	1 212 914	45.3	252 629	292 319	5 280	30 064	12 149	9 679	119 794	4 351	15 108
Infectious and parasitic diseases	595 345	23.2	141 903	179 299	1 909	10 486	4 942	2 522	46 412	1 402	4 618
Tuberculosis	57 829	2.2	7 402	11 533	18	835	664	219	4 466	70	622
STDs excluding HIV	13 627	0.5	1 901	3 177	66	472	36	152	1 751	75	167
Syphilis	6 210	0.2	932	2 073	2	85	43	16	1 097	6	20
Chlamydia	3 281	0.1	329	380	47	207	12	51	250	51	86
Gonorrhoea	3 588	0.1	584	645	13	168	30	38	313	12	38
HIV/AIDS	103 882	3.9	15 582	68 674	601	2 107	804	138	1 466	285	34
Diarrhoeal diseases	161 694	6.0	36 370	35 594	199	3 655	1 348	1 254	17 775	187	2 506
Childhood diseases	69 583	2.6	20 530	8 574	43	142	392	43	8 130	45	75
Pertussis	23 035	0.9	5 472	3 413	39	116	338	28	2 691	40	42
Poliomyelitis (c)	63	0.0	33	6	3	0	0	0	6	3	0
Diphtheria	394	0.0	106	76	0	1	6	0	38	0	2
Measles	33 697	1.3	11 698	2 792	9	0	2	3 447	1	22	1
Tetanus	12 435	0.5	3 221	2 286	0	22	47	12	1 948	1	4
Meningitis	23 890	0.9	6 155	4 894	65	399	290	179	2 167	103	412
Hepatitis B (d)	3 854	0.1	376	339	25	81	85	72	466	61	138
Hepatitis C (d)	1 782	0.1	159	152	139	74	2	32	200	64	50
Malaria	75 197	2.8	39 085	29 873	0	116	42	3	3 086	2	3
Tropical leishmaniasis	18 262	0.7	4 130	5 094	1	580	101	77	783	0	8
Trypanosomiasis	9 027	0.1	724	2 190	0	0	0	0	110	0	0
Chagas disease	551	0.0	0	0	0	453	93	0	0	0	0
Schistosomiasis	2 522	0.1	1 160	1 055	1	63	0	61	158	0	0
Leishmaniasis	3 162	0.1	266	295	0	47	5	15	397	0	6
Lymphatic filariasis	8 497	0.3	1 555	1 404	0	15	2	0	103	0	2
Cochosomiasis	303	0.0	425	60	0	1	1	0	15	0	0
Leprosy	326	0.0	22	17	1	23	0	0	40	0	0
Dengue	1 312	0.0	7	15	0	68	75	12	41	0	0
Japanese encephalitis	1 135	0.0	0	0	0	0	0	0	0	0	4
Trachoma	1 921	0.1	248	565	0	25	0	14	275	0	0
Intestinal nematode infections	5 479	0.2	1 393	611	2	120	177	1	388	0	1
Ascariasis	2 879	0.1	1 124	185	1	38	65	1	249	0	0
Trichuriasis	1 444	0.1	106	155	1	66	47	0	89	0	0
Hookworm diseases	1 025	0.0	163	230	0	14	5	0	43	0	0
Respiratory infection	210 995	7.9	48 691	46 386	788	5 273	2 150	1 496	25 765	1 072	3 454
Lower respiratory infections	205 412	7.7	47 864	45 651	720	5 055	2 041	1 389	25 178	978	3 247
Upper respiratory infections	3 599	0.1	599	499	16	68	75	22	435	45	183
Otitis media	1 984	0.1	228	236	49	149	33	44	153	48	32
Maternal conditions	51 497	1.9	10 523	10 167	417	1 639	731	756	5 735	249	428
Maternal haemorrhage	7 593	0.3	1 367	1 538	3	74	86	68	846	1	24
Maternal sepsis	8 013	0.3	1 596	737	78	376	191	151	315	40	128
Hypertensive disorders	3 399	0.1	1 147	127	4	129	93	28	400	2	19
Obstructed labour	4 507	0.2	1 085	297	8	51	47	29	479	2	8
Abortion	8 467	0.3	1 500	2 067	2	278	85	86	971	5	14
Perinatal conditions (e)	297 023	11.1	43 218	45 124	1 954	10 270	3 177	4 084	35 711	1 286	5 530
Prematurity and low birth weight	105 202	3.9	13 330	13 343	891	4 237	1 023	1 460	11 131	553	2 251
Birth asphyxia and birth trauma	94 690	3.5	14 536	15 008	426	2 872	1 230	1 684	10 943	372	1 935
Neonatal infections and other conditions (f)	97 130	3.6	15 352	16 773	677	3 161	924	1 000	13 737	361	1 346
Nutritional deficiencies	88 055	2.2	8 294	11 345	215	2 396	1 149	861	6 171	342	1 077
Protein-energy malnutrition	31 197	1.2	5 609	7 487	66	1 473	711	412	3 252	52	227
Iodine deficiency	5 046	0.2	363	1 210	30	146	48	189	909	4	357
Vitamin A deficiency	1 379	0.1	587	478	0	0	2	0	138	0	0
Iron deficiency anaemia	18 501	0.7	1 601	2 046	134	714	362	236	1 301	276	447
II. Noncommunicable condition	1 150 605	42.9	62 020	62 084	61 156	80 343	12 397	21 584	71 669	25 984	44 276
Malignant neoplasms	150 262	5.6	5 640	5 780	11 308	9 319	1 518	1 818	6 171	17 059	6 597
Mouth and oropharyngeal cancers	7 161	0.3	257	265	194	250	26	61	450	215	389
Oesophagus cancer	9 340	0.3	105	510	273	245	17	187	275	469	154
Stomach cancer	14 603	0.5	276	408	256	868	223	213	282	831	537
Colorectal cancer	11 388	0.4	274	207	1 196	663	77	126	297	2 084	561
Liver cancer	12 583	0.5	743	721	304	279	59	61	250	573	187
Pancreas cancer	4 420	0.2	91	109	543	301	36	27	83	827	222
Trachea/bronchus/lung cancer	23 085	0.9	210	288	2 802	973	78	139	520	3 379	1 664

Clinical Officer Training Program

CURRICULUM DEVELOPMENT


- Integrates WHO Country Cooperation Strategy South Sudan recommendations into the curriculum



World Health Organization

Country Cooperation Strategy at a glance

South Sudan



HEALTH SITUATION

South Sudan has some of the worst health outcome indicators globally, in spite of modest improvements over the last five years. Maternal mortality ratio has stagnated at 2054 per 100 000. Mortality rate for infants and children under five years declined from 102 and 135 in 2006 to 75 and 104 in 2012 per 1000 live births respectively. The significant disparity in health status across socio-demographic factors and geographical location is well documented.

Communicable diseases constitute a major public health problem: Malaria accounts for 30% of outpatient diagnosis; TB prevalence is at 140 per 100 000; HIV/AIDS prevalence is estimated at 3%, and classified as a generalized epidemic. Most neglected tropical diseases (NTDs) are endemic: South Sudan accounts for about 90% of global guinea-worm disease burden. Other NTDs include visceral leishmaniasis, trypanosomiasis, ancherocerciasis, trachoma, lymphatic filariasis and schistosomiasis.

Noncommunicable diseases (NCDs) are on the rise, especially cardiovascular diseases and diabetes among the affluent. Road traffic accidents are significant, while mental disorders are also prevalent, given the vulnerability to post-traumatic stress disorders after the prolonged conflicts in the country. The country is vulnerable to humanitarian crises, primarily as a result of inter-ethnic conflicts and perennial border tensions which increases the risk of epidemic prone diseases especially measles and cholera.

Illiteracy rates are high at 88% and 63% for women and men respectively. Although 57% of the population has access to improved water sources, 91% of citizens have no access to proper sanitation. While the ratio of girls to boys attending primary school is 4:5, overall school enrolment is quite low at 18.8%. Public infrastructure, such as roads and bridges, which are essential for service delivery, are lacking in most parts of the country, hence compromising access to over 60% of the population during rainy seasons. No national electricity grid or national energy system is in place.

Institutionalizing mechanisms such as International Health Regulations, Tobacco Free Initiative and noncommunicable diseases control to promote the global health agenda, is at the preliminary stage.

HEALTH POLICIES AND SYSTEMS

South Sudan's Health Sector Development Plan (HSDP) 2012-2016 provides the overall vision and strategic direction for development in the health sector. It is aligned to the South Sudan Development Plan (SSDP), drawing its vision from the social and human development pillar goal of the former, which is "to promote the well-being and dignity of all people of South Sudan, by progressively accelerating universal access to basic services". The overall goal of the HSDP is to "contribute to the reduction of maternal and infant mortality and improve the

WHO region	Africa
World Bank income group	Low-income
CURRENT HEALTH INDICATORS:	
Total population in thousands (2012)	10838
% Population under 15 (2012)	42.28
% Population over 60 (2012)	5.26
Life expectancy at birth (2012)	55 (Both sexes)
Total, Male, Female	56 (Female) 54 (Male)
Neonatal mortality rate per 1000 live births (2012)	36 [24-53] (Both sexes)
Under-5 mortality rate per 1000 live births (2012)	104 [72-148] (Both sexes)
Maternal mortality ratio per 100 000 live births (2009)	
% DPT3 immunization coverage among 1-year olds (2012)	69

Clinical Officer Training Program

CURRICULUM DEVELOPMENT

- Integrates the Country's healthcare initiatives such as the National Reproductive Health Strategic Plan 2013 - 2016.

Government of the Republic of
South Sudan
Ministry of Health



National Reproductive Health
Strategic Plan

2013 – 2016

Clinical Officer Training Program

CURRICULUM DEVELOPMENT

- **Vision 2020 goals can be met with community-based affordable medical training programs that focus on issues that have the greatest economic impact for South Sudan.**

Foundational Issues

1. Macroeconomic stability
2. Demographic issues
3. Food security and malnutrition
4. Early childhood development and basic education
5. Quality, demand and accessibility of primary health care
6. Rule of Law, unity and reconciliation, security and stability (including regional peace and stability)
7. Strengthening Effectiveness of Public Finance Management
8. Consolidating decentralization

Cross Cutting Issues

1. Capacity building
2. Environment and climate change
3. Gender and family
4. Regional integration
5. HIV/AIDS and NCDs
6. Disaster management
7. Disability & Social Inclusion

Clinical Officer Training Program

PROGRAM IMPLEMENTATION

- The COTP curriculum is reviewed, revision screened, and approved by the Ministry of Health for the hosting nation who will provide certification for graduates.
- A Memorandum of Understanding is drafted between the COTP Administrators and the Ministry of Health for the Hosting Nation (MHHN).
- A community site is selected
- Prospective students are selected



Clinical Officer Training Program

PROGRAM IMPLEMENTATION (cont...)

- **Course Facilitator is chosen.**
- **Orientation held for Course Facilitator and COTP Students.**
- **Course begins with 6 month evaluation and end of year evaluations ensuing.**
- **Course Administrator (provided by COTP) will maintain contact with MHHN to provide updates on Student progress.**
- **MHHN will provide ultimate control and oversight of the Program.**



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PROGRAM CONTACT:

- **Robert Slaney, MD** - Director of the Curriculum Development
 - Telephone – 01.410.533.1688
 - Email – info@clinicalofficer.com



Creating Greater Access to Healthcare

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