



Critical role of non-governmental organisations in advancing laboratory medicine and public health in Africa

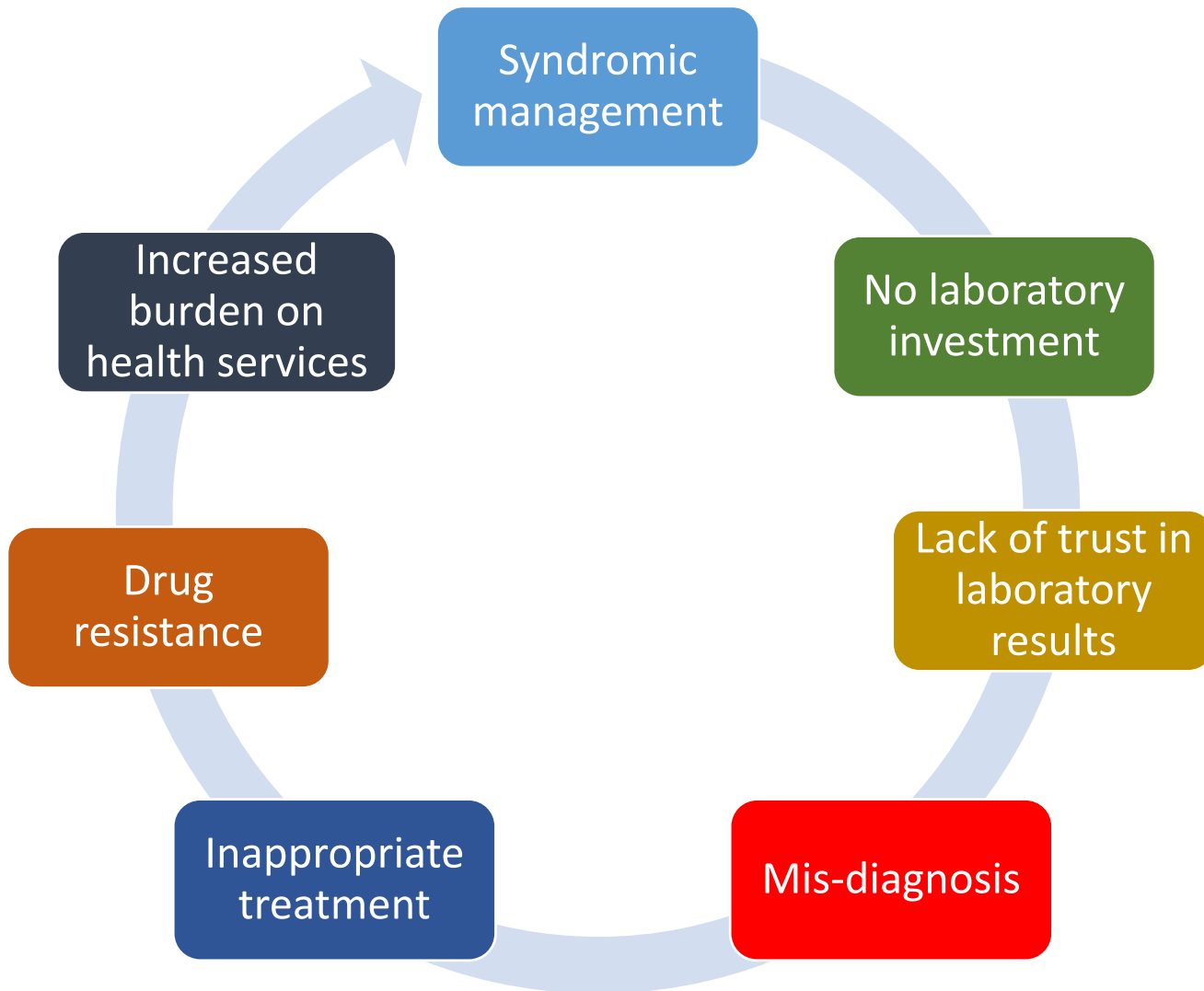
a journey

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- African NGO started in 1957
- Working in over 30 countries to improve health status
- Working with MOHs & partners to strengthen health systems & train health/community workers to respond to the continent's most critical health challenges:
 - Maternal & child health
 - Infectious diseases
 - Water and sanitation
 - Health systems strengthening
 - Laboratory services
- Laboratory Programme started in 1985



Laboratory neglect: the 1980s – 90s



Amref's Laboratory Programme in the 1980s – focus on malaria & anaemia



- Recognition of chloroquine resistance in East Africa
- Anti-malarial drug efficacy studies
- Malaria prevention studies: bednets vs preventive drugs
- Treating malaria and anaemia: use of folic acid with antifolate drugs
- Comparing methods of malaria diagnosis
- Evaluating methods for haemoglobin measurement

Working hand in hand with the East African Ministries of Health – the 1990s

- Laboratory system evaluation for MOH Mainland Tanzania (1989)
- First National Health Laboratory Policies (drafts)
 - Tanzania (1991)
 - Uganda (1995)
 - Kenya (1996)
- Essential Laboratory Programme Pilot Study for Primary Level Laboratories in Kenya (1992-1994)
 - Laboratory testing improves diagnosis and treatment outcomes in primary health care facilities. Afr J Lab Med. 2012; 1 (1). <http://dx.doi.org/10.4102/ajlm.v1i1.8>

Building a regional, affordable, integrated Proficiency Testing (PT) scheme targeting primary level tests

Total **649** facilities
(Survey 18 of 2016)

2 surveys/year @ \$200

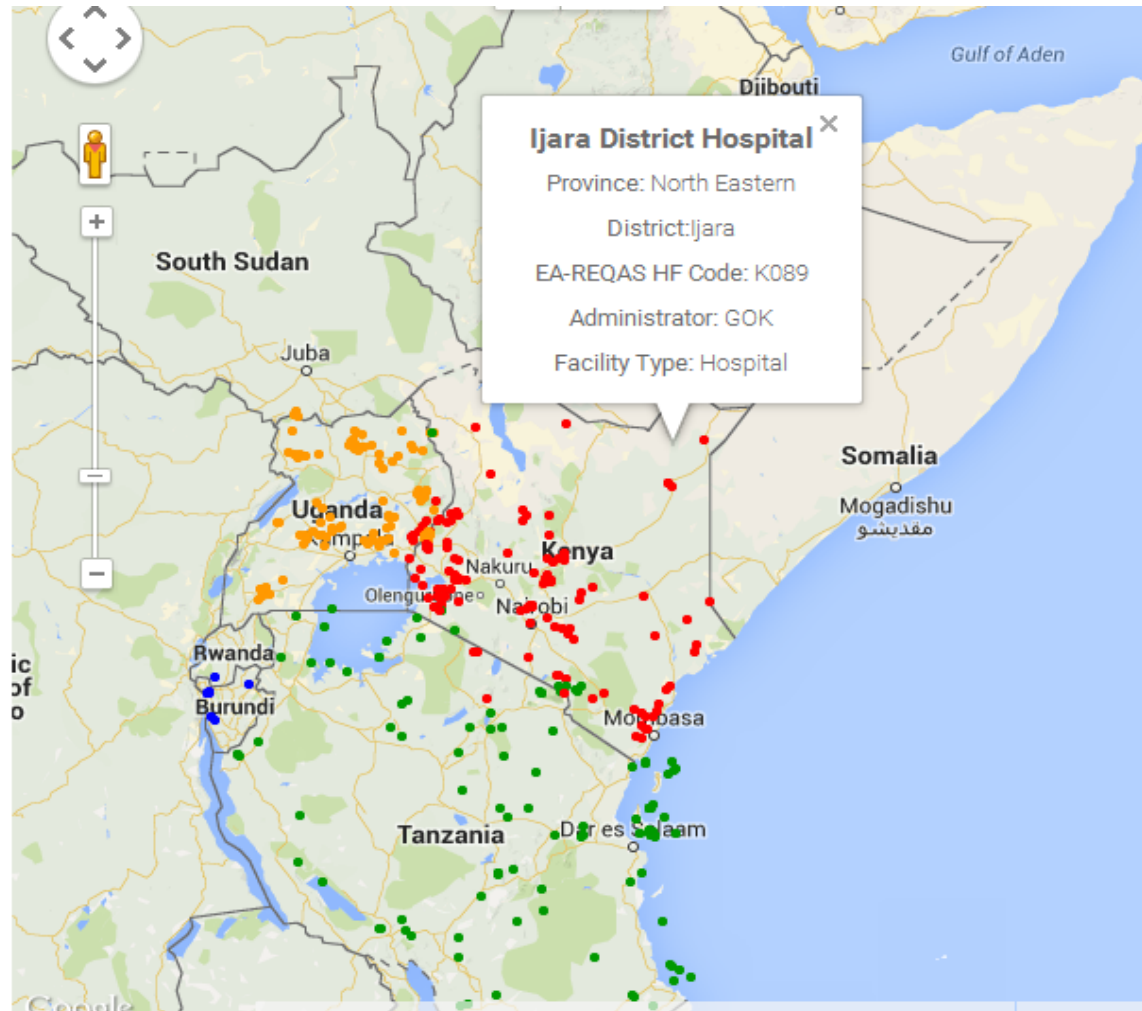
154 - Kenya

404 - Tanzania

68 - Uganda

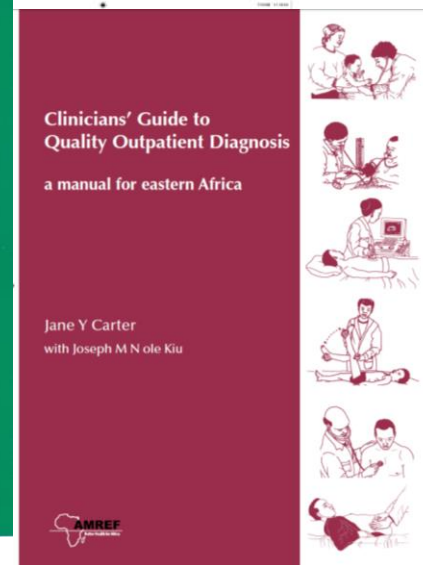
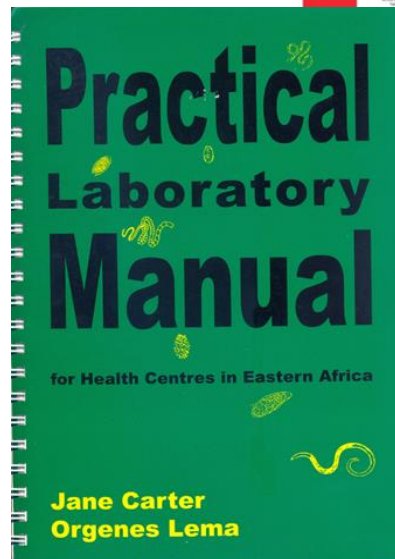
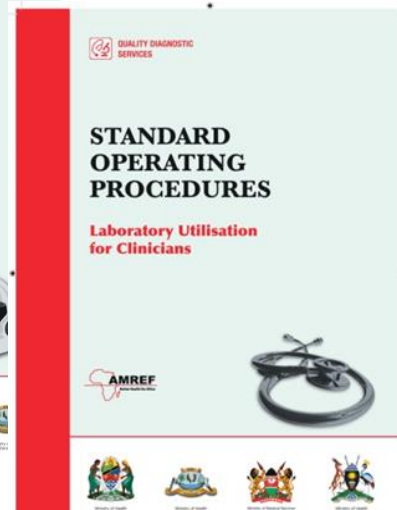
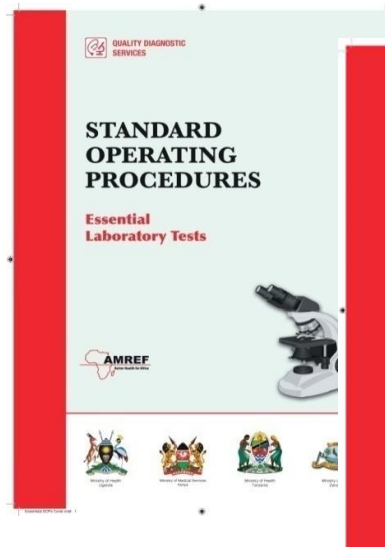
13 - Zanzibar

20 - Burundi



Building capacity & restoring confidence

- Developing model SOPs
- Good Diagnostic Practices training
 - Joint training for clinicians & laboratory staff
- Refresher training courses for laboratory staff
 - Short & long courses
- Writing manuals
 - Practical Laboratory Manual
 - Clinicians' Guide to Quality Outpatient Diagnosis

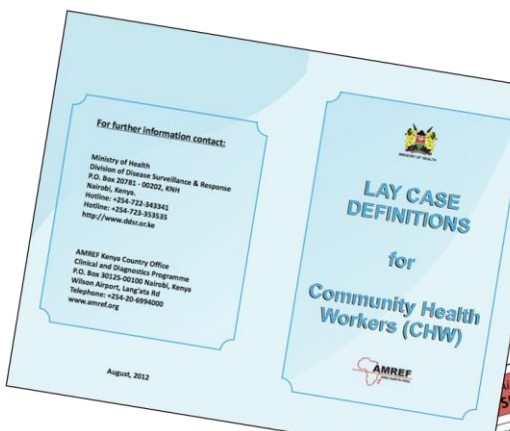


Global Health Security: disease surveillance & outbreak response

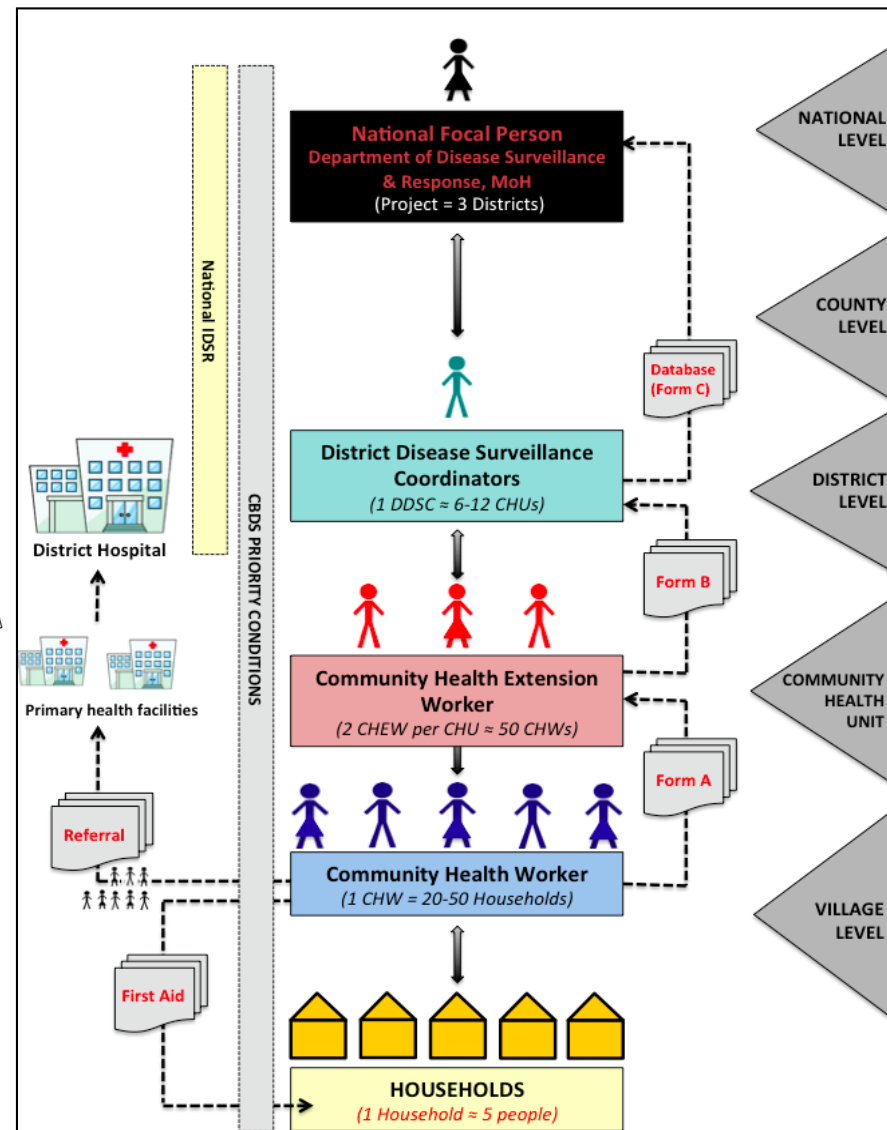
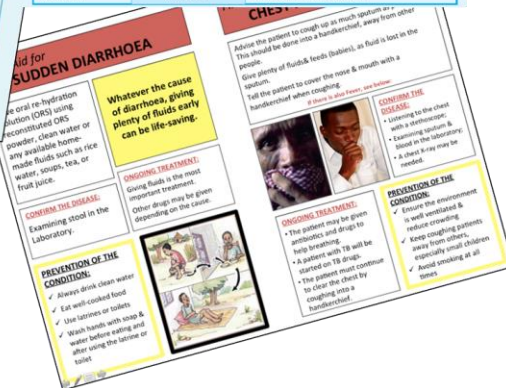
- Reference laboratory testing:
 - Diarrhoeal disease: cholera, *Shigella*
 - Meningitis, malaria
 - Leishmaniasis
- Quality checking:
 - Slide rechecking for TB, malaria, trypanosomiasis
- Laboratory-based Disease Surveillance Training
 - Developed with the East African Community
- Writing manuals
 - Guidelines for Specimen Collection
- Using the “portable laboratory”



Global Health Security: developing the Community-Based Disease Surveillance model



PRIORITY DISEASES	CONCEPT	MINIMUM CASE DEFINITIONS
Cholera	Sudden diarrhoea	Any person with 3 or more watery or blood-tinged diarrhoea stools in 24 hours
Diarrhoea with blood		
Childhood pneumonia	Chest problem	Any person with cough and/or difficulty breathing and/or chest pain Any person with body fever and cough
Influenza like illness		
Measles		Any person with cough for more than 2 weeks
Scarlet fever		
Measles	Fever (body hotness)	Any person with body hotness, or who has died after an illness with body hotness. Body hotness is more serious if accompanied by: • diarrhoea, confusion • fits • skin rash • bleeding from nose, mouth, skin or other sites • painful green swellings
Scarlet fever		
Measles	Fever (body hotness) and rash	Any person with body hotness and widespread rash on face and body
Yellow fever		
Acute jaundice	Sudden yellowness of eyes or skin	Any person with sudden yellowness of the eyes or skin for not more than two weeks, with or without body hotness
New AIDS, Cancer, diabetes	Severe weight loss	Any person with rapid weight loss and frequent illness, and frequent urination
Sexually Transmitted Infection	UTI, urine problem	Any person with discharge, urine pain or itching on his/her private parts
Urinary & Genital problems		Any person with blood in urine
Scabies	Skin sores	Any person with a warm swelling from the skin
Scabies		
Scabies	Skin problem	Any person with a skin sore or rapidly growing jungle
Scabies		
Scabies	Eye problem	Any person with sores of the eyes or pus or watery discharge from the eyes
Scabies		
Scabies	Sudden weakness or loss of movement of arms or legs	Any person less than 15 years with sudden loss of movement in one or both arms or legs (not due to injury)
Neonatal tetanus (NNT)	Neonatal tetanus	Any newborn who is normal at birth, then after 2 days is unable to suck or feed and has body stiffness
Severe malnutrition	Malnutrition	Any child less than 5 years with severely weight loss, swelling of belly, legs & thighs, or feet edema
Animal bites	Animal bites	Any person who has been bitten or scratched by a domestic or wild animal
Maternal deaths	Maternal death	Death of a woman during pregnancy, childbirth, miscarriage or within 42 days (6 weeks) after delivery or miscarriage
Neonatal deaths	Neonatal death	Death of a newborn within 28 days of birth



CDC funding: QMS, SLMTA & accreditation – the 2000s



Tanzania

- Enhancement of Public, Private and Faith-Based Health Laboratory Capacity to Support HIV/AIDS Prevention Care and Treatment: 2006 – 2012; 2012-2018
- Global Health Security Partner Engagement: Expanding Efforts & Strategies to Protect and Improve Public Health Globally: 2015 – 2020

Uganda

- Strengthening Laboratory Services at Health Centre IV and above in the Republic of Uganda: 2004 – 2010

Kenya

- Strengthening Public Health Laboratory Systems in Kenya: 2009 – 2014
- Sustainable Laboratory Quality Systems in the Republic of Kenya: 2015 – 2020

South Sudan

- Strengthening Laboratory and Blood Transfusion Services in South Sudan: 2015 – 2020

What next? Is business the business of governments?

Role of governments:

- Develop policy & strategic plans, annual plans & budgets
- Ensure registration & licensing
- Legislate on standards for equipment, medical devices, IVDs
- Coordination, monitoring and evaluation
- **Fund and hold implementing agencies to task!**



The emerging role of NGOs

NGOs should be contracted to:

- Implement government plans
- Develop & test models for service delivery, quality & self-sustainability
- Manage public health facilities & laboratories, including staff
- Use performance-based management systems and show **results**
- Show **financial accountability**



Access, Quality,
Protection from financial risk



Thank you!

Amref Health Africa
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