Health in the context of international development

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Lecture Objectives

• My personal context of international health and development
• Links between poverty and health.
• The 10/90 Gap and The UN Millennium Development Goals.
• International development and linkages with health research
Introduction

How did I get here?
Background

- Middlebury College, BA African History
- Peace Corps (Guinea Worm Eradication Program)
- MPH – UCLA
- World Health Organization: India, Nepal, Republic of Congo, Ethiopia, Eritrea, Cote d’Ivoire
- PHD – Johns Hopkins School of Public Health
- National Institutes of Health (Bethesda and DRC)
- UCLA
Where in the world WAS Dr. Rimoin?
Guinea Worm Eradication
RF/RHD Prevention in Egypt
Traditional Healers and Health Programs in Zambia
Current Research

Otherwise known as “Where in the world is Dr. Rimoin?!”
Major Emerging and Re-Emerging Infectious Diseases

Democratic Republic of Congo (Former Zaire) « DRC »
Project Monkeypox
Smallpox

A victim of the world's last smallpox outbreak in Somalia. (Photo courtesy of the World Health Organization.)
Smallpox Eradication

The WHO magazine *World Health* declares one of the greatest triumphs of medicine.
(Photography courtesy of the World Health Organization.)
Smallpox
Human Monkeypox in the DRC

Typical presentation of rash
soles of feet + scalp

7 yr old child, Tokondo, Sankuru District
Human Monkeypox (MPX)

- 1st case of human MPX identified in 1970 during final stages of smallpox eradication campaign when all suspected cases were confirmed by virus isolation.
- Bansankusu Hospital, Equateur Province, DRC
- 9 month old boy
- Only unvaccinated member of family
- Clinically indistinguishable from smallpox
Enabling Factors for Human MPX in DRC

Civil War

Collapse of Health Care System

Population Displacement

Destruction of Fields/Livestock

Co-infection

Malnutrition

Exclusive Reliance on Bushmeat

Increased Susceptibility to Disease

Waning Immunity to Smallpox

MPX
DRC Today

KINSHASA, DRC

11 million people
Cash economy
Major aid from NGOs
French & Lingala
Successful democratic elections in Nov 2006.

CENTRAL DRC

60 million people
>70% of the population is rural
No roads in interior of country
Travel by cargo plane or boat
Study Population

- Sankuru District, Kasai Oriental
- Population: 1.4 million
- 16 Health Zones
- The Sankuru District has reported the highest number of suspected and confirmed MPX cases of all districts in the DRC continuously since 2001.
- Elevated rates of HIV/AIDS
- Logistical coordination with local and international NGOs

Reported Cases of MPX in DRC
Projet MPX Research Team

• Jean Jacques Muyembe, M.D., Ph.D, Co-PI
• Emile Okitolonda, M.D., Ph.D, KSPH, Co-PI
• Stomy Karhemere, D.V.M,
• Co-Investigator
• Robert Shongo, M.D., M.P.H., Field Director
• Neville Kisalu, Project Manager
• Teresa Litchfield, Field Coordinator
• Anne Rimoin, Ph.D., NICHD Program Scientist/ MPX Project Director
• Robin Ryder, M.D., M.P.H., UNC Chapel Hill, PI
Lodja Projet MPX HQ

- MPX Field HQ Office
- Basic Laboratory
- -20° C Freezer
- Centrifuge
- Generator
- Lab technician
- Collaboration with Lodja District Hospital
- Radio communications with all field sites
- Cellphone coverage
- Satellite Telephone
- 1 Landcruiser
- 16 motorcycles
- ~200 bicycles
- Storage facilities
- 2 cargo flights weekly to Kinshasa
- Active port in Kole to ship large equipment
Disease Surveillance in DRC

There are 13 diseases of epidemic potential on which data is collected weekly in each zone:

- Acute Flaccid Paralysis
- Bacterial Dysentery
- Cholera
- Malaria
- Measles
- Meningitis
- **Monkeypox**
- Neonatal Tetanus
- Plague
- Typhus
- Viral Hemorrhagic Fevers
- Whooping Cough
- Yellow Fever