

Health System Strengthening in Post-Ebola Liberia

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Liberia has been decimated by Ebola



4,800 Deaths

8% Decrease in healthcare workforce

Massive decline in confidence of health care systems

8.5% drop in GDP

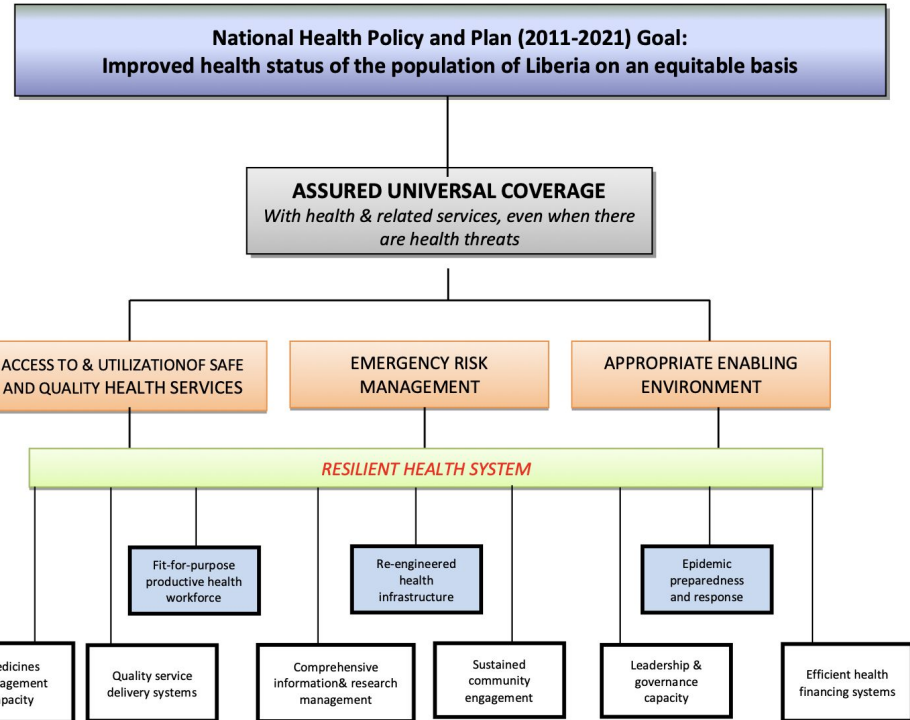
83.8 percent of the population live on less than \$1.25 USD a day.

What is already being done?



Republic of Liberia

Investment Plan for Building a Resilient Health System, Liberia 2015 to 2021





Liberia's Pre-existing Investment Plan

Health Workforce



Fit for purpose and effective workforce

Health Infrastructure



Re-engineered health infrastructure

Disease



Epidemic preparedness, surveillance and response system

Data Structure



Management capacity for medical supplies and diagnostics

Delivery



Enhancement of quality service delivery systems

Research



Comprehensive information, research and communication management

Community



Sustainable community engagement

Leadership



Leadership and governance capacity

Financing



Efficient health financing systems

Goals

01

Support the Liberian workforce and economy via roads and mining industry

Establish a Community Worker Program

02

03

Transition emergency infrastructure into permanent health clinics

Incentivize students to stay in Liberia to receive their medical education

04



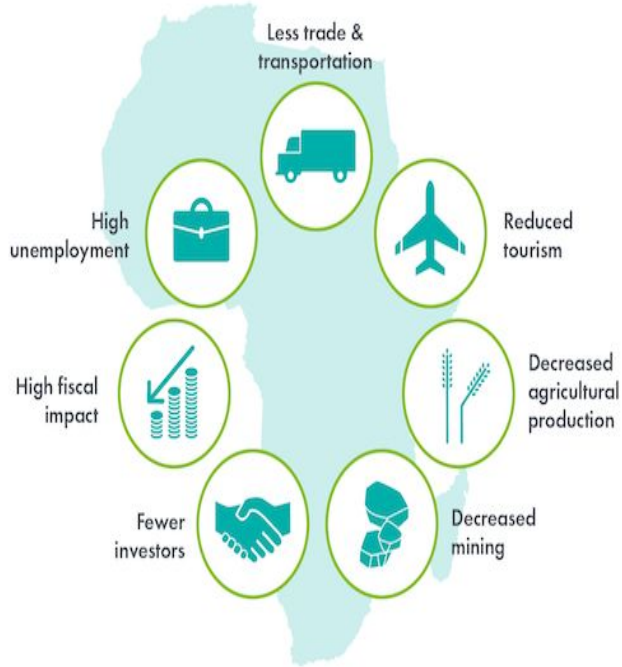
Goal #1:

**Support the Liberian workforce
and economy via roads and mining**



Economic Relief

“Even those living in the most remote communities in Liberia, where Ebola has not been detected, are suffering the economic side effects of this terrible disease,” said Ana Revenga, Senior Director of the Poverty Global Practice



- 64% of Liberians live in poverty & 1.3 million live in extreme poverty
- 40% increase in unemployment
- Survey found decrease in salary in all communities in Liberia
- Mining has been hit relatively hard as foreign investment withdrew
- Return to farming

Economic Relief - Miner Protection

- Mining, particularly iron ore mining, accounts for 7% of the country's GDP and large part of the nation's exports
- Arcelor Mittal and China Union pulled out of the country during pandemic
- Proposing stricter tax assessment and implementation on mining sector as they return
 - Follow the Revenue Code
- Negotiate with the worker and the community in mind
- Support the creation of mining companies from Liberia
- Goal will be reached when mining community has better living conditions, work conditions, mining companies are invested in Liberian community



liberianobserver.com

Economic Relief - Roadwork



vidani.com



1 Mano River Railway
2 Bong mine Railway
3 Lamco Railway

- Country has 66,000 miles of road (7% paved) compared to 93,000 in Tennessee
- Many potholes, struggling road conditions
- Villagers complain of not being able to access big cities
- 97% of the rice to Monrovia is currently imported; farmers have no way of selling their crops
- This will bolster the farming industry as well (Cassava and Rice) which is industry trying to fuel this struggling economy
- Improved road conditions will allow creation of new market places, bolster tourism industry, business relations, encourage meetings, get children to school, and support our proposed plans for health infrastructure improvement and improving health access
- A key government funded job for those without work, struggling in the recession
- Could employ over 2000 Liberians annually, with a long term plan



Goal #2:

**Establishing a Community Health
Worker Program**



Improving, strengthening and rebuilding the healthcare workforce

Several problems identified:

- Not enough healthcare workers in Liberia
- Healthcare workers not evenly distributed throughout the country
- Tensions between healthcare workers and the health ministry leadership



Take advantage of community health workers

Why?

- Improve distribution of healthcare in rural areas
- Connect people in remote areas with the health system

What will they provide?

- Primary care services
- Epidemiologic surveillance

How?

- Involve local leaders
- Nurse supervision

Workers vs Volunteers





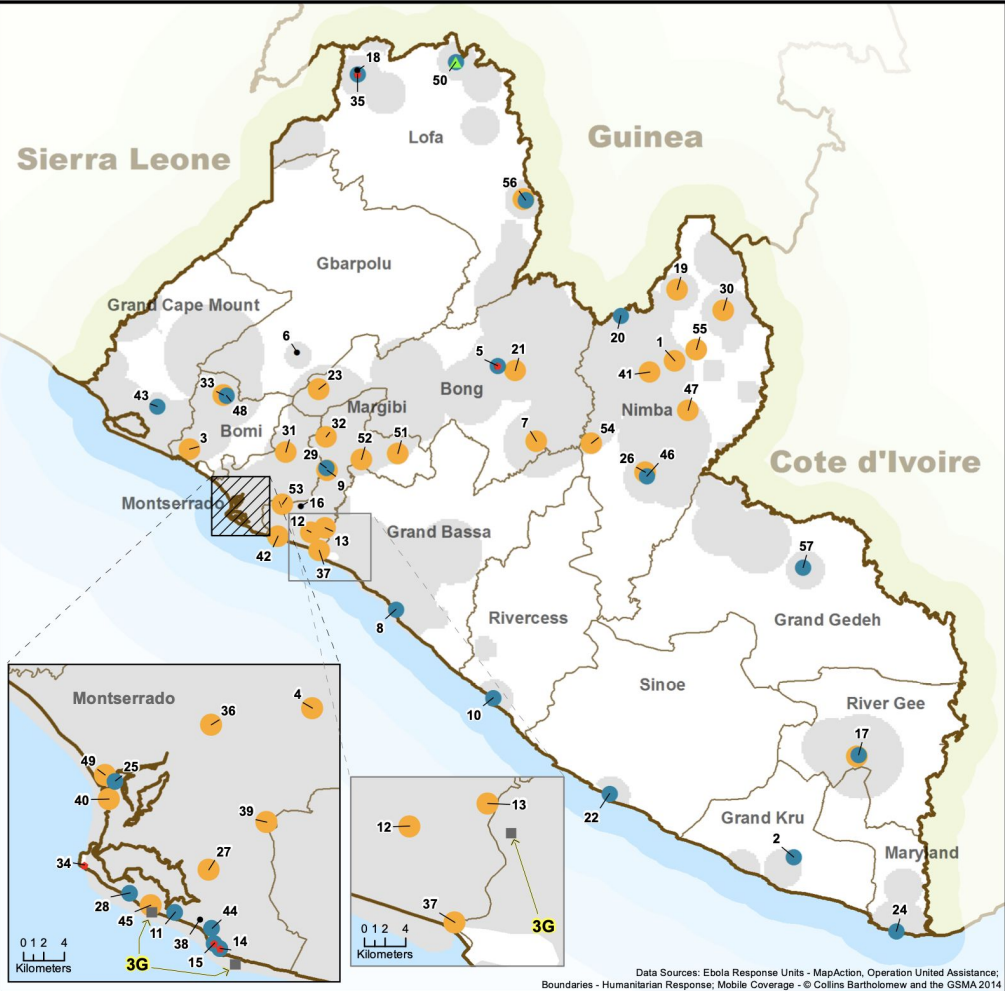
Goal #3:

**Transitioning emergency
infrastructure into permanent
health clinics**





Utilizing Pre-existing Ebola Treatment Units (ETU's) and Community Care Centers (CCC's)



Transition to Permanent Health Clinics

Nurse Managed Health Clinics (NMHC)

- Expand access to health care
 - Decrease morbidity and mortality of curable diseases (malaria, tuberculosis, HIV illnesses)
 - Improve maternal and infant health
- Opportunity to educate future nurse practitioners, improve practice, and increase primary care workforce
- Nurse Aids: Require less education and paid training than nurses
 - They can be trained on the job, and in the future require a shorter education and training period to become a nurse



Immunizations



Maternal and infant care



Physical exams



Goal #4:

**Incentivize students to stay in
Liberia to receive their medical
education**



Building the Education System



Outside Liberia

- Partnering with Universities to Offer Credit, Scholarships, or Study Abroad Incentives for Clinical Experience in Liberia
- Loan forgiveness program partnered with the World Bank for healthcare students that stay in Liberia post-graduation

Inside Liberia

- Build up the existing medical school
- Recruit Liberians from different counties to attend school
- Use shadowing methods at Nurse- run clinics to train Liberians
- Offer positions that vary in skill level (Nurse- Aid, Nurse, Nurse Practitioner, Doctor)

Timeline

Mid Term

- Establish community health care worker programs in rural communities
 - Build nurse-run clinics
- Improve access to longitudinal (primary care, vaccines), acute, and emergency care

Short Term

- Improve pay/benefits for health care workers
- Protect miners and farmers via careful economic arrangements

Long Term

- Recruit students to study in Liberia
- Strengthen nurse-run clinics
- Restore roads

Budget

\$701 million

Economy

- Miner Protection: \$35 million dollar
- Road Restoration: \$666 million

\$34.8 million

CHW program

- Salary: \$6.8 million/year
- Training: \$28 million total

\$66.5 million

ETU's

- Salary and Training costs: \$29 million for 5 years
- Startup cost: \$4.5 million
- Monthly operating cost: \$13.5 million
- Total operating cost: about \$19.5 million for 5 years

\$62.5 million

Education

- Nurse-aid start-up program: \$1.5 million
- Build up medical school: \$1 million
- Scholarships and loan forgiveness programs: \$60 million

Thank you.



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