

Fighting Childhood Pneumonia in Uganda

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INTRODUCTION - AGENDA



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INTRODUCTION - CHARGE



Challenges of the Uganda Pneumonia Program

How can we improve it over the next five years?

Initial \$10 million and additional \$4 million per year for the next 5 years

How do we allocate these funds for the Ugandan Vaccination Program?

ANALYSIS

UNDERSUPPLY

MISDIAGNOSIS

LACK OF AWARENESS

FUNDING

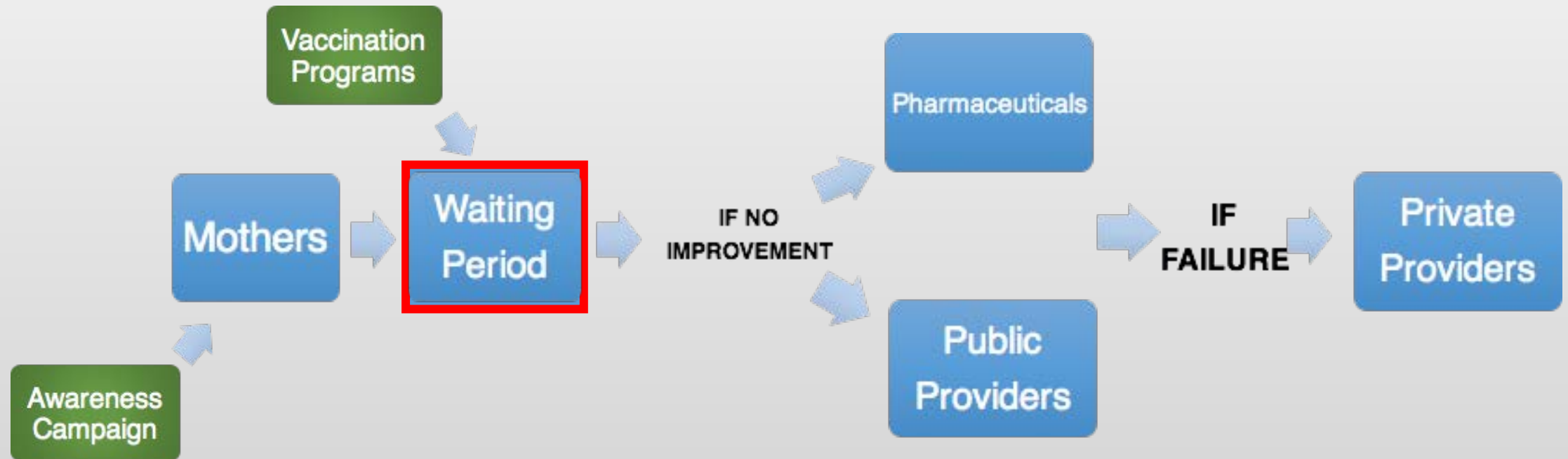
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ANALYSIS - ALTERNATIVES

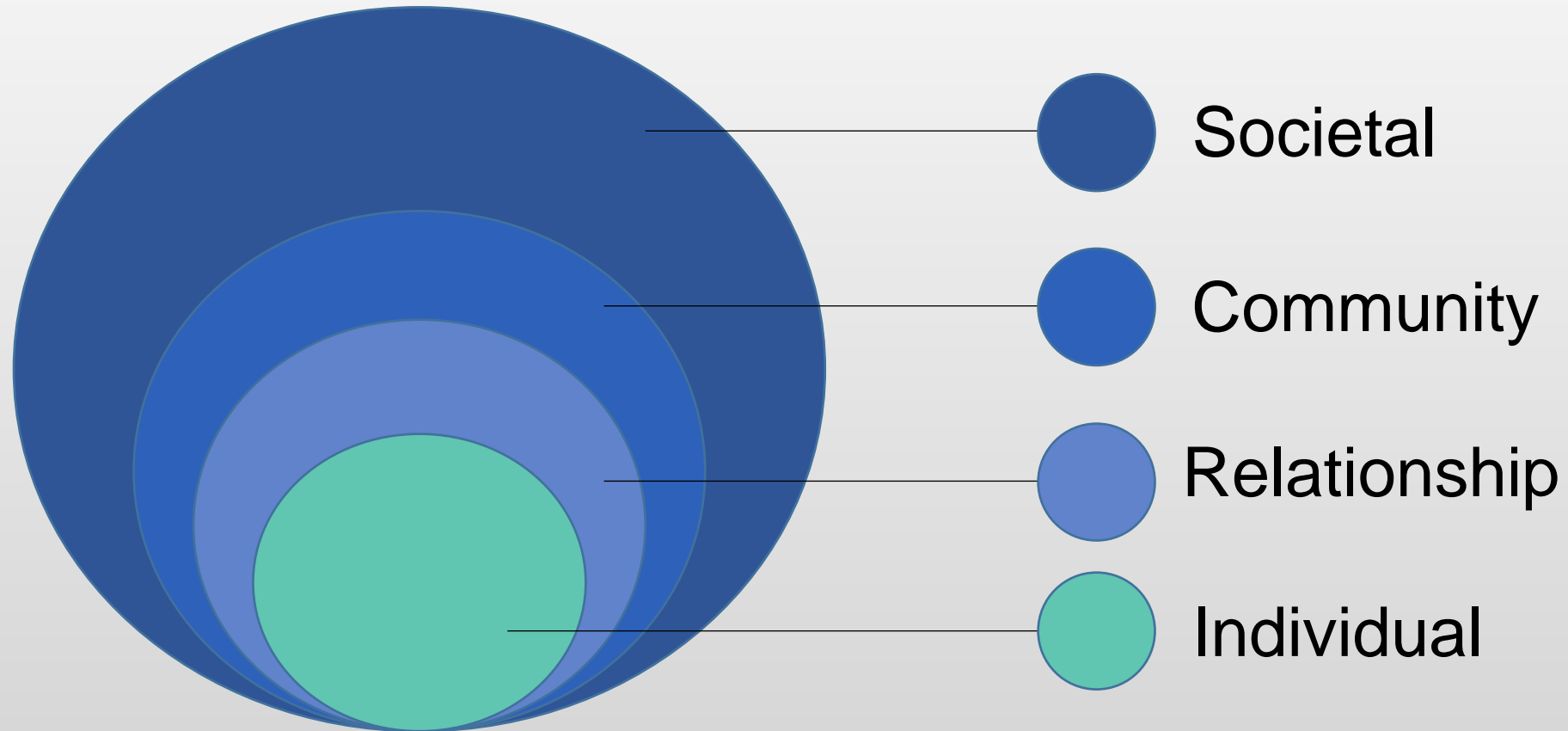
| Alternatives | Feasibility | Sustainability | Scalability |
|-----------------------------------|-------------|----------------|-------------|
| Village Teams | ✓ | ✗ | ✗ |
| Mass Radio Campaign Programs | ✓ | ✗ | ✗ |
| Sustainable Drug Sell Initiatives | ✗ | ✓ | ✗ |
| Healthcare Professional Training | ✓ | ✓ | ✗ |

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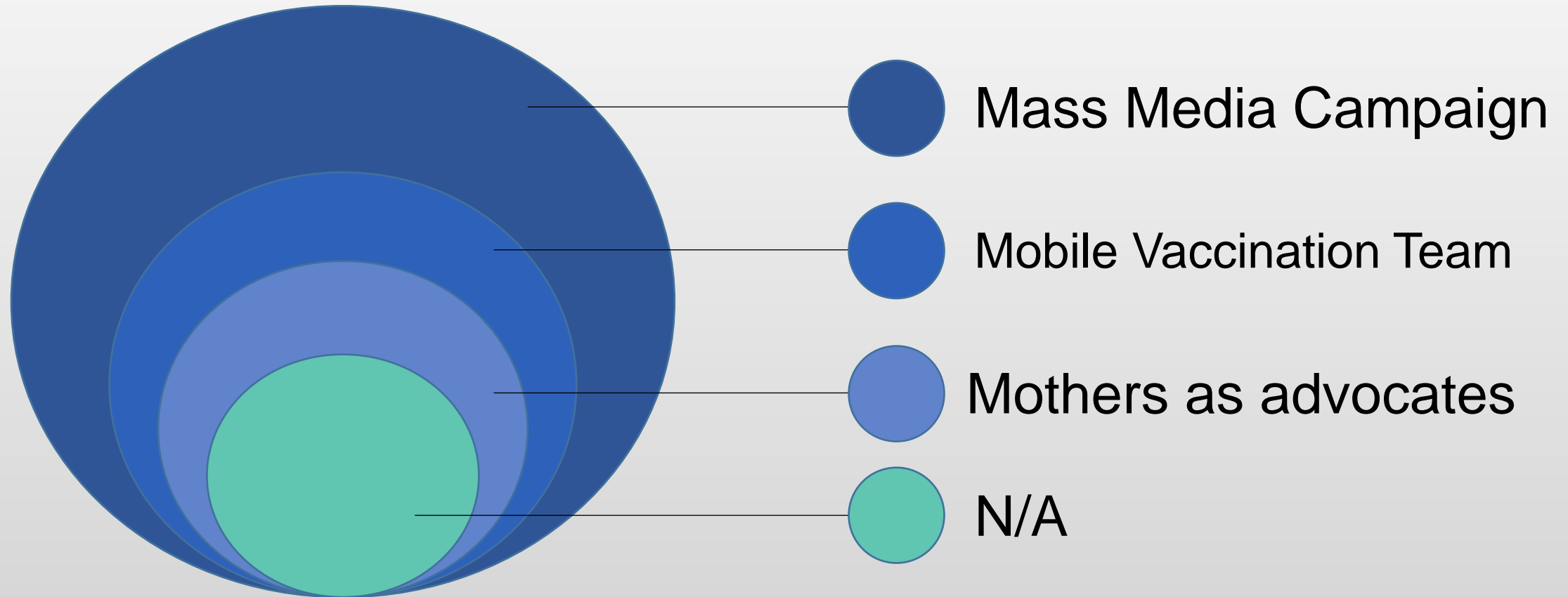
ANALYSIS



SOLUTIONS



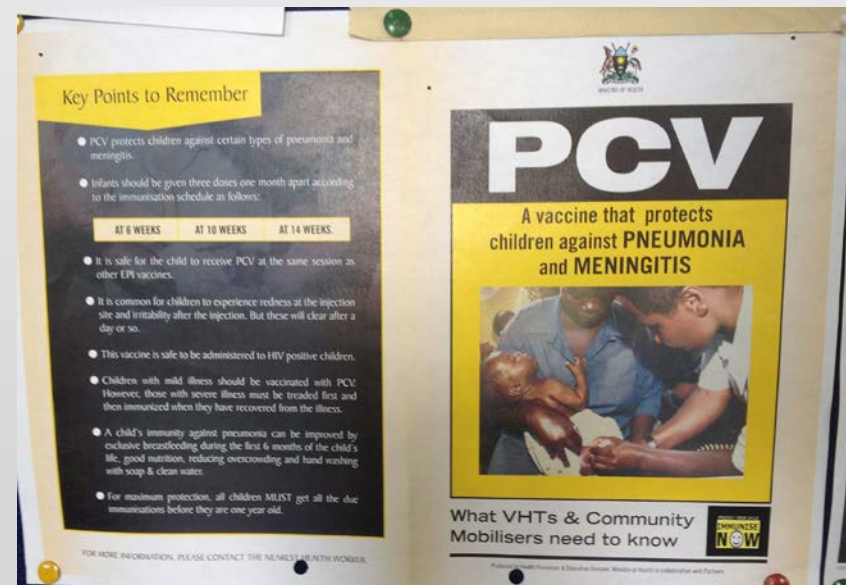
SOLUTIONS



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SOLUTIONS – SOCIETAL

Societal: Promote **social norms** that promote vaccination with multi-media campaign





Relationship: Use the campaign to target and empower **mothers** as advocates for their child's health

Community: One mobile vaccination team per three districts

- 38 teams
- 2-3 months rotations
- 5 professionals: 2 nurses, 2 nursing assistants, 1 educator

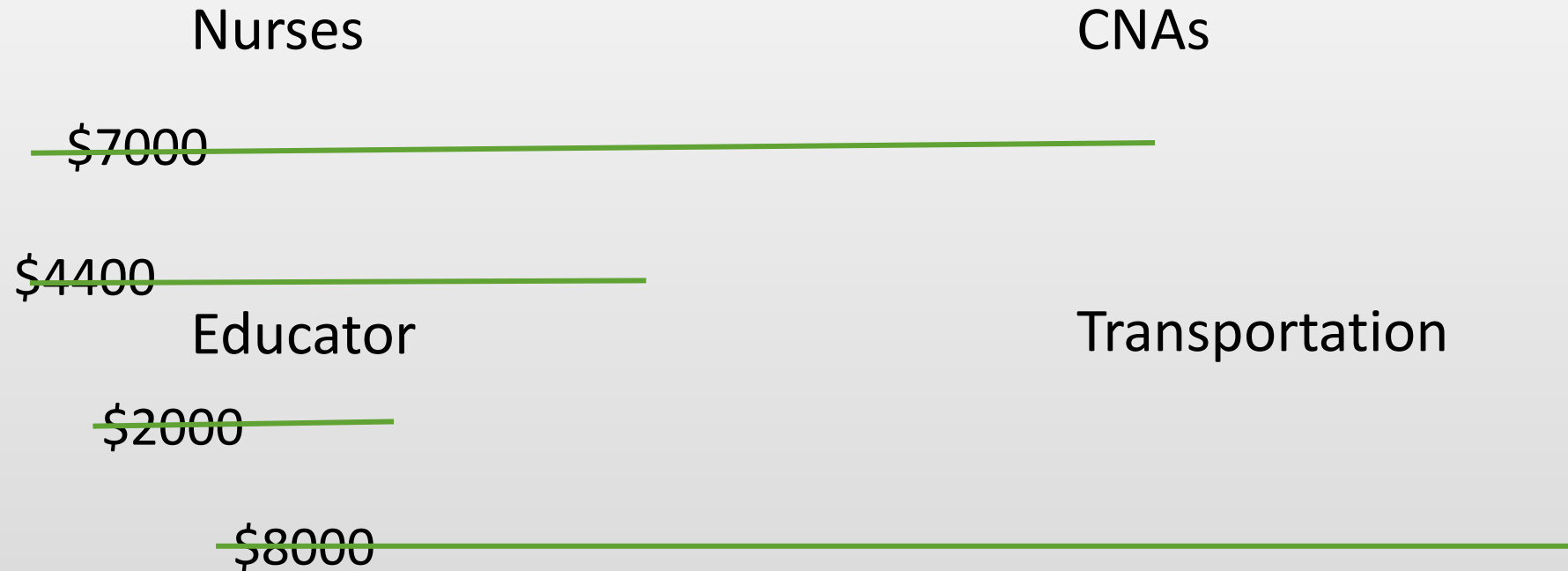
Teams **exclusively vaccinate**



Educators provide **mini lectures** to reinforce concepts presented in campaigns

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FINANCIALS



GDP per Capita is only **\$1424**

FINANCIALS

First Year Vaccination Team Expenditures ~ **\$813,200**

Second Year+ Expenditures ~ **\$520,000**

FINANCIALS

\$3.30 per Pneumococcal Conjugate Vaccine (PCV) dose
4 Required Doses → **\$13.20**

Average cost of pneumonia treatment is **\$52.95** per person

Preventive vaccination is a **quarter** of the cost of treatment

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FINANCIALS - CAMPAIGN

227 Cities

\$19 per Poster

100 Posters per City

Cities x Poster cost x

Posters per City =

\$431,300

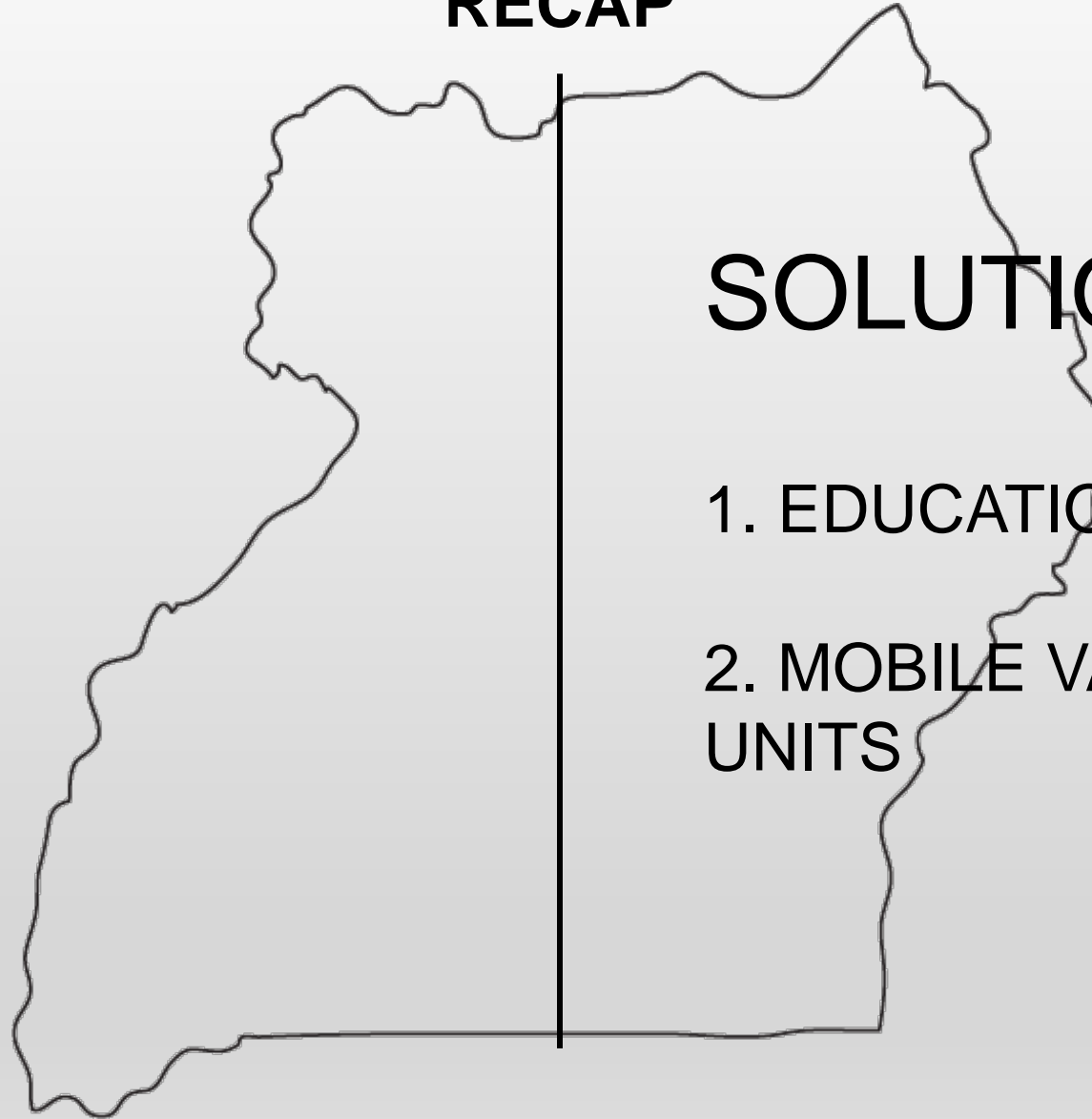
280 Radio Stations in
Uganda

Top 20 Radio Stations

35 Plays per week at \$75 per
Minute Slot =

\$2,730,000

RECAP



SOLUTIONS:

1. EDUCATIONAL CAMPAIGN
2. MOBILE VACCINATION UNITS



Q & A

Thank you!

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APPENDIX

RISK MITIGATION

VACCINE FUNDING

CAMPAIGN LOGISTICS

STARTUP COST

NURSING COSTS

MOBILE VACCINATION

TEAM LOGISTICS

CAMPAIGN
POSTERS

CAMPAIGN RADIO

SOLUTION
ANALYSIS BASIS

ALTERNATIVE
ANALYSIS

SOCIOECOLOGICAL
MODEL

UGANDA
POPULATION

COMPARATIVE
CASES

FEASIBLE
SUSTAINABLE
SCALABLE

UGANDA NGO

RISK MITIGATION

Risk Mitigation

- Money Mismanagement: Gavi's 2006 Uganda Vaccine Program:
 - Most districts did not have training, not ready for introduction
 - Lack of progress
 - Contextual changes: leadership, new financial systems led to poor planning and adjustment to plans.
 - The relationship between vaccine stakeholders in Uganda is “delicate”
 - 2013 study showed that only 43% of health workers had sufficient knowledge of vaccines and unique handling requirements
- To regulate and prevent money mismanagement, we will have periodic budget audits and check ins with our representatives from Gavi.

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VACCINE FUNDING

Through donor commitments, this innovative funding mechanism incentivises vaccine makers to produce suitable and affordable vaccines for the world's poorest countries. These countries are then able to plan for immunisation programmes knowing that vaccines will be available rapidly, in the quantities they need and at affordable prices.

The introduction of these vaccines is largely thanks to the generosity of Italy, the United Kingdom, Canada, the Russian Federation, Norway, and the Bill & Melinda Gates Foundation who together contributed US\$ 1.5 billion through an innovative financing mechanism, called the [Advance Market Commitment \(AMC\) for pneumococcal vaccines](#).

MANUFACTURERS

Participating manufacturers must make a 10-year commitment to supply a share of the target demand of 200 million doses annually at a price no higher than US\$ 3.50 per dose (paid for by Gavi with a co-financing contribution from the recipient country governments, in accordance with Gavi's standard co-financing policy).

In return, each manufacturer will receive a share of the committed AMC Funds of US\$ 1.5 billion in proportion to their supply commitment.

COMPARATIVE CASES

Smallpox Vaccine Dissemination

You cannot get vaccinated for smallpox (ended in 1972), because of its limited availability of vaccine and possibility of severe side effects. Routine Vaccination is not recommended to prevent disease to general public, but is available if a person gets exposed. Within four days of exposure, the severity can be limited.

(http://healthvermont.gov/emerg/smallpox/smallpox_fact.aspx#nine)

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NURSING COSTS

| | |
|--------------------------------------|---------|
| Previous Nursing Pay (USD/year) | \$1,380 |
| Reformed Nursing Pay (USD/year) | \$3,480 |
| Mobile Vaccine Nurse Pay (USD/ year) | \$3,500 |

UGANDA POPULATION

Social Structures/Cultural Factors of Uganda

About Uganda:

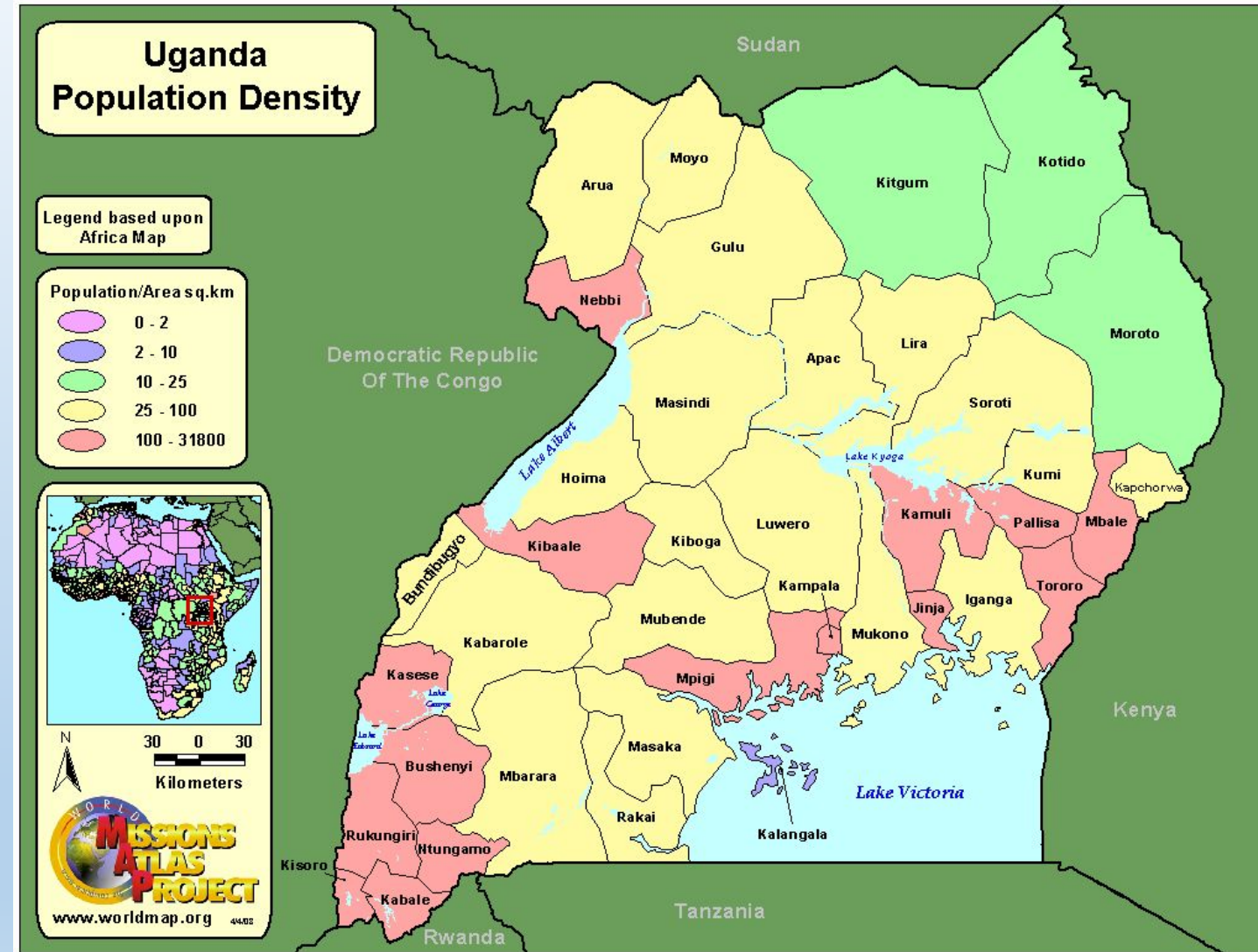
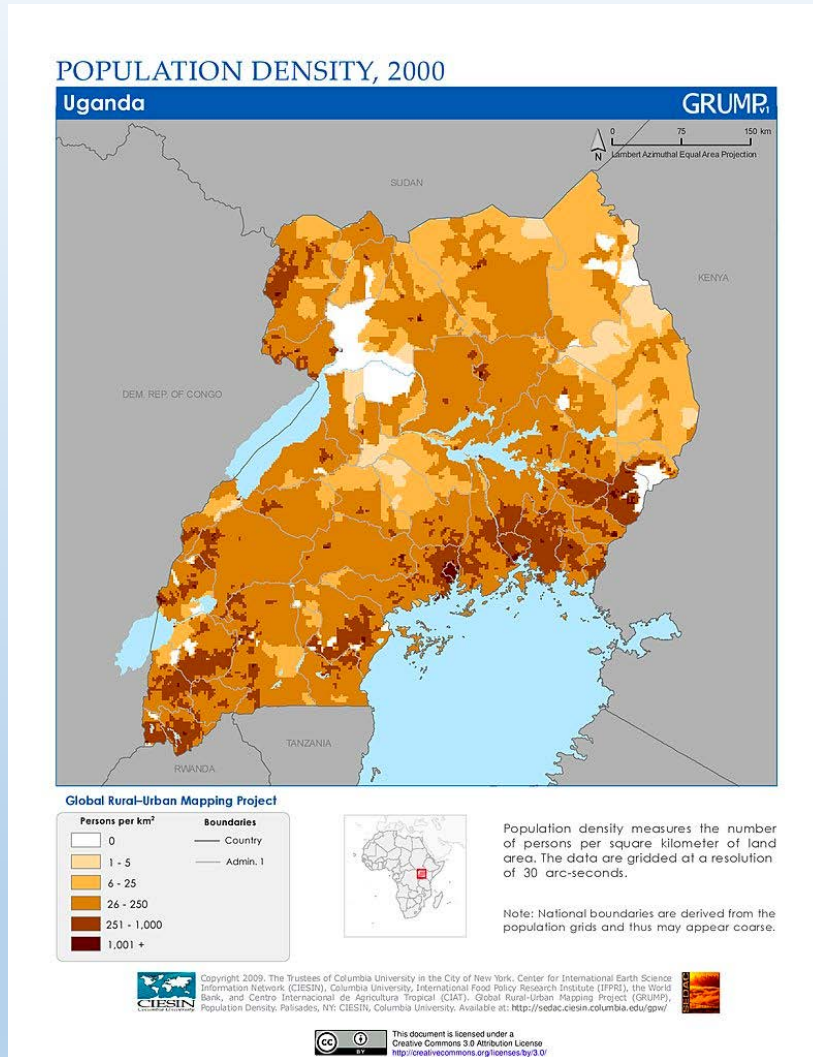
- 20th century: class system dominated by small, educated middle class (professionals, wage earners working for the state), and small number of commercial farmers. Population basically consists of poor peasant farmers and government workers.
- agricultural country, soil & coffee=most important resource
- women traditionally considered inferior to men; independence is extremely discouraged
- "Budgets were usually inadequate to meet districts' needs, leaving district health managers in difficult position of making decisions..." (pg. 6)
- "Long-term public financing of promising pilot programs was not guaranteed" (pg. 6)
- nearly a quarter of population lived below poverty line, only a third of the population has access to improved sanitation (WATER)
- avg GDP= \$1,424=ranked 166th in 2012
- 90% rural areas, 10% urban
- traditional society:

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GDP PER CAPITA

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POPULATION DENSITY



UGANDA NGOS

Existing NGOs in Uganda

- No current NGOs relating directly to pneumonia.
- Uganda Health Marketing Group: Indigenous organization that was founded by reputable public health and social marketing Ugandan professionals in 2006.
 - <http://www.uhmg.org/>
 - Committed to creating strategic health communication and accelerating health market growth in Uganda.