

Polio Strategy Review Meeting

Feb 15-16, 2012

- Provide input into the Emergency Action Plan (EAP) to overcome remaining hurdles in polio-affected countries
- Technical review of some key components in the EAP, including vaccine strategies, immunity thresholds, and surveillance issues
- Focus on strategies and innovations that can be implemented in the next two years (2012-2013).

Polio Strategy Review Meeting

Areas covered

- SIA Innovations
- SIA Monitoring
- SIA Strategy
- Role of IPV
- Environmental Sampling

Polio Strategy Review Meeting

■ SIA Innovations

- Management and accountability
 - Primary importance
 - WHO program of work for improving WHO management capacity and personnel accountability
 - ***Strongly support this, but EAP needs expansion on how to bridge gap to government and drive improvement down to the vaccinator/supervisor level***

Polio Strategy Review Meeting

- SIA Innovations
 - GIS/GPS capacity for SIA quality improvement in Nigeria
 - Improved microplans

Satellite imagery provides base map to locate settlements and hamlets.

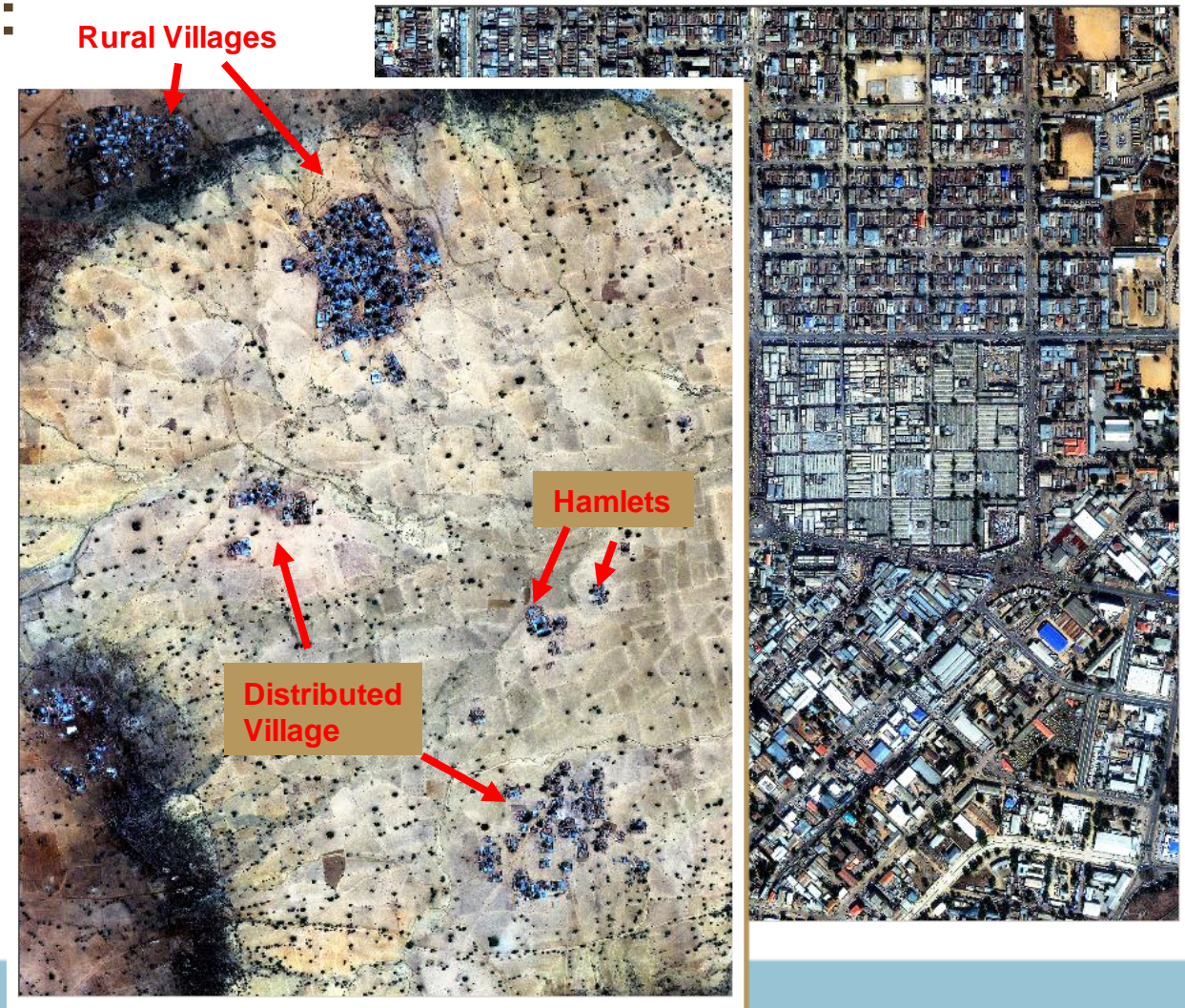
Kano City, Faggae LGA

■ Basemap Service:

- Ikonos 1-meter resolution color imagery
- Published to Esri's ArcGIS Online

■ Supplemental Imagery:

- GeoEye 0.5-meter panchromatic
- Provides better definition of urban streets and small hamlets



Dange Shuni LGA, East of Sokoto City

Polio Strategy Review Meeting

■ SIA Innovations

- GIS/GPS capacity for SIA quality improvement in Nigeria
 - Improved microplans
 - Capacity to track vaccinators
 - Aggressive plan to introduce in northern Nigeria by end of year
 - ***Important technology to be implemented immediately to facilitate improvement in SIA quality – important to gauge introduction to capacity of program to implement for maximum impact***

Polio Strategy Review Meeting

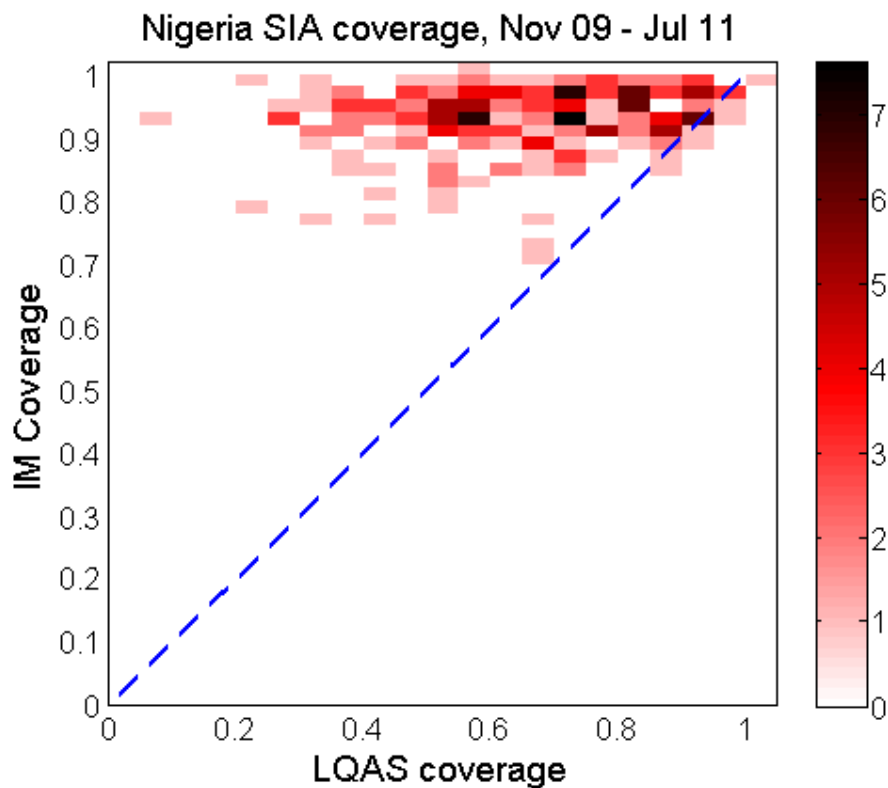
■ SIA Innovations

- Mobile phone technology – potential applications
 - Improved contact with vaccinators
 - Rapid LQAS data transfer
 - Surveillance contacts
 - ***Important technology which can potentially be used to enhance SIA and surveillance quality***

Polio Strategy Review Meeting

■ SIA Monitoring

- Independent monitoring vs LQAS – coverage estimates



■ Courtesy Guillaume Chabot-Couture (Global Good)

Polio Strategy Review Meeting

■ SIA Monitoring

- Independent monitoring
 - Important for local team activity management but data quality poor
 - ***Improved independent monitoring data important for SIA quality activity***

Polio Strategy Review Meeting

■ SIA Monitoring

• LQAS

- Provide more accurate estimate of vaccination coverage
- Misinterpretation of results
- Heterogeneity of lot
- ***LQAS as currently practiced provides a reasonable tool for assessment of SIA activity and identifying areas where further work is needed to improve SIA quality.***
- ***Additional work is necessary to assess utility of LQAS for evaluating EAP programme performance targets.***

Polio Strategy Review Meeting

■ SIA strategy

- Herd immunity thresholds
 - Several factors make it difficult to identify a precise level of population immunity that will guarantee elimination of WPV transmission. These include:
 - ◇ Heterogeneity of access to immunization
 - ◇ Variable vaccine efficacy by area
 - ◇ Waning immunity patterns
 - ◇ Variations in intensity of transmission
 - However, it is possible to identify immunity levels which country programs **LIKELY** must reach to stop WPV transmission (ie, coverage should be at least “X.”)
 - The further one exceeds the critical immunity level, the faster WPV will be eliminated.

Polio Strategy Review Meeting

■ SIA strategy

- Herd immunity thresholds
 - *Modeling efforts should be pursued to estimate levels likely to be necessary to eliminate transmission in northern Nigeria and Pakistan*
 - *The EAP program target of 2 of 4 SIA's reaching 80% coverage in the first half of 2012 is too low.*
 - *GPEI should consider the target level for coverage per SIA in Pakistan to be >95%; similarly, GPEI should consider the target level in Nigeria to be >90%.*

Polio Strategy Review Meeting

■ SIA strategy

- Age range
 - Anecdotal experience and modeling data suggest including populations older than 5 years of age in SIA's for outbreak response is effective in rapidly stopping outbreaks.
 - Limited modeling suggests including older persons in SIA's in endemic areas may be effective
 - ***GPEI should consider routinely including populations from 0-10 or 0-15 (or older if indicated by the epidemiology) in initial outbreak response SIAs***
 - ***Modeling of impact of including older age groups in SIA's in endemic areas should be urgently performed.***

Polio Strategy Review Meeting

- Role of IPV in the next two years
 - Combined IPV(IM,Salk)/OPV campaigns
 - Advantages
 - ◇ Increases seroconversion in OPV-primed populations
 - ◇ Enhances oropharyngeal mucosal immunity
 - ◇ Does not decrease proportion shedding, but may reduce duration and quantity shed
 - Concerns about introduction of IPV campaigns in populations relying primarily on OPV
 - ◇ Operations
 - ◇ Coverage
 - ◇ Communications
 - ***GPEI should initiate pilot studies to evaluate operational and immunologic impact of combined IPV/OPV campaigns in several high risk areas and then assess potential broader utility.***

Polio Strategy Review Meeting

■ Environmental Surveillance

- Utility as AFP surveillance supplement, or early detection of imports
- Specific population/waste requirements, technically labor intensive, relatively expensive and time consuming to initiate
- Several innovative options which may increase ease of performance may be evaluated within 6 months
- ***GPEI should proceed with expansion of environmental sampling prioritized in order of programmatic importance including sites mentioned in EAP, and expanding to other potential importation areas. A rough timeline for potential expansion sites through 2013 should be prepared.***

