CDC Global Health Security Agenda/Ebola Grantee Meeting

Accountability. Results. Sustainability.

CDC & GLOBAL HEALTH SECURITY AGENDA
GHSA and USAID Programming

CDC, Atlanta
Feb. 11, 2016

Craig Carlson, Senior Public Health Advisor
CDC Detailee to…
Global Health Security and Development Unit (GHSD)
USAID Global Health Bureau
USAID has a variety of capabilities across the agency that contribute to GHSA:

- USAID’s Global Development Portfolio
- USAID’s Health Portfolio
- Global Health Security and Development Unit

EPT serves as a focus point for USAID to bring its broader capabilities to bear.

Source: USAID, team analysis
Opportunities for Alignment

- **In the agriculture sector** - activities supporting livestock production and biosecurity, animal markets and value chains, training veterinarians and agricultural extension workers, strengthening livestock disease surveillance and veterinary laboratories, and addressing the use of antibiotics in animal feed.

- **In food security** – agricultural production and livelihoods

- **In the environmental sector** - activities supporting wildlife conservation, conserving biodiversity and forests, sustainable land management, trans-boundary water management, addressing habitat and or climate change.

- **In higher education** - strengthening capacities of professional schools for public health, veterinary medicine, human medicine, and environment.

- **In disaster assistance** - disaster preparedness and response

- **In human health** - immunization (against epidemic prone infections), emerging infectious diseases, laboratory strengthening (particularly in the areas of diagnostic capacities, biosafety and quality assurance), and antimicrobial resistance (particularly for drug quality, and prescriber/user practices).
These investments in health systems and capacities contribute to GHSA…

<table>
<thead>
<tr>
<th>Examples of activities</th>
<th>Link to GHSA</th>
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<tbody>
<tr>
<td><strong>Malaria</strong></td>
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<tr>
<td>• Scaling up quality rapid diagnostic testing in low-income countries, enhancing ability to track disease response to treatment</td>
<td>• Antimicrobial resistance</td>
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<td>• Establishing community-based delivery systems, which engage the private sector to reach those who lack access or avoid traditional public health structures</td>
<td>• Real-time biosurveillance</td>
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<td><strong>TB</strong></td>
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<td>• Improving early-detection of multi-drug resistant TB, access to quality treatment, and systems to improve retention in care</td>
<td>• Antimicrobial resistance</td>
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<td>• Enhancing national laboratory capacity to detect pathogens of high consequence and develop highly-effective point-of-care diagnostics</td>
<td>• National Laboratory System</td>
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<tr>
<td><strong>Maternal and Child Health</strong></td>
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<tr>
<td>• Raising awareness for vaccination in communities and mobilizing vaccination services in previously unreached areas</td>
<td>• Immunization</td>
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<tr>
<td>• Supporting national regulatory authorities and core national regulatory functions in countries, with respect to immunization policies</td>
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Source: USAID interviews, document review, and team analysis
...as do these contributions outside the Global Health Bureau

### Examples of activities

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<th>OFDA</th>
<th>Food Security</th>
<th>EGEE</th>
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<tr>
<td>• Disaster Assistance Response Team (DART) rapidly mobilizes response personnel during emergencies, including public health events.</td>
<td>• Promotes judicious and restricted use of pesticides and herbicides in food production, which among many environmental benefits, reduces drug resistance among both animals and humans.</td>
<td>• In Econ. Growth, Environment and Education, Office of Forestry and Biodiversity supports biodiversity conservation at the nexus of poverty alleviation, food and water security, human health, and disaster risk reduction.</td>
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<td>• During the Ebola outbreak in West Africa USAID deployed DART in Liberia, Guinea, Sierra Leone, and Mali to lead the overall U.S. response to the Ebola crisis.</td>
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### Link to GHSA

| • Medical and non-medical Countermeasures |
| • Antimicrobial resistance |
| • Zoonotic disease |
| • Surveillance |

Source: USAID interviews, document review, and team analysis
USAID-GHSD Program Origins

Avian Influenza (2006)

Pandemic Preparedness (2008)

Emerging Pandemic Threats (EPT) (2009)

EPT plus (2011)
WHO we’re working with:

**Consortium Partners:**
- UC Davis, EcoHealth Alliance, Metabiota, Smithsonian Institution, Wildlife Conservation Society

**Global Partners:**
- CDC, EPT One Health Workforce, EPT Preparedness & Response, FAO, WHO, DTRA, Columbia University, HealthMap, UC San Francisco

**Implementing Partners (in addition to consortium partners):**
- **Africa:** Institut National de Recherche Biomedical, Mountain Gorilla Veterinary Project, Inc., Sokoine University of Agriculture
- **Asia:** Center for Molecular Dynamics Nepal, Chulalongkorn University, East China Normal University, ICCDR-B, Institut Pertanian Bogor, Institut Pasteur du Cambodge

**Host country and regional partners:**
- Ministries of Agriculture, Health, Livestock, Wildlife, and associated Departments; USAID missions; and relevant host country laboratories, universities, and research institutes (e.g. Institut Pasteur, Wuhan Institute of Virology, local CDCs, etc.)
What PREDICT is Doing: attempting to improve understanding of zoonotic disease spillover, evolution, amplification, and spread; better forecast risk; and identify and inform prevention and control measures

PREDICT Strategic Areas of Focus:
SAF: Biological and ecological risk characterization
Conducting standardized, longitudinal surveillance of human and animal populations to identify biological and ecological drivers and host-pathogen dynamics at high-risk interfaces

SAF: Behavioral risk characterization to identify practices for risk reduction
Understanding behavioral mechanisms of human-animal contact within high-risk pathways for disease emergence and spread AND identifying potential control points, strategies, and interventions for pilot testing and policy promotion

SAF: Supporting national One Health platforms & validating the One Health approach
• Developing an evidence base to promote policies in support of cross-sectoral collaborations
• Actively engaging partners through data sharing, capacity building, surveillance, and outbreak response activities to demonstrate the value of the One Health approach

SAF: Strengthening global networks for real-time bio-surveillance
• Enhancing capacity for surveillance; diagnostics; and improved data collection, synthesis, storage, and sharing platforms to strengthen global surveillance and outbreak response and intelligence systems
WHO P&R is Working With:

P&R Team:
- DAI (Development Alternatives Incorporated)
- TRG - training resources group
- Palladium (previously-Futures Group)—policy analysis and dialogue
- AFENET - Africa epi network

Direct Partners:
- WHO Regional Offices – AFRO, WPRO, and SEARO
- FAO Regional and Country Offices
- U.S. CDC and DOD
- PREDICT 2 and One Health Workforce (OHW)

Indirect Partners:
- ASEAN and African Union
- SEAOHUN and OHCEA University Networks
- International and Regional One Health Organizations
WHAT P&R is doing:

Enabling national governments to establish and strengthen systems, policies, and practices for prevention, detection, response, and control of emerging disease threats – especially zoonotic diseases – by:

• Establishing and Strengthening National One Health Platforms – Senior technical and administrative officials who coordinate for the prevention & control of zoonotic diseases

• Adapting and Applying the Public Health Events (PHE) of Unknown Etiology Framework in African and Asian Country Contexts for National Preparedness and Response Plans

• Supporting Implementation of National Preparedness & Response Plans for PHE of Unknown Etiology
WHO One Health works with:

-One Health Central and Eastern Africa Network (OHCEA)
  • 14 Public Health and Veterinary Medicine institutions in 6 countries

-South East Asia One Health University Network (SEAOHUN)
  • 14 faculties of veterinary medicine, medicine, public health and nursing from 10 universities in Indonesia, Malaysia, Thailand and Vietnam.
  • Four country-level university networks – (each country has its own)

-University of Minnesota

-Tufts University
One Health’s Main Activities:

Work through the regional and country networks to support member universities:

• To participate with government, academia, and other key partners in defining One Health workforce needs

• To strengthen graduate and undergraduate preparation of future health workers to meet country workforce needs

• To strengthen governments’ provision of in-service preparation and upgrading of current OH workforce.

• Help strengthen regional and national university networks in ways that promote their sustainability.
Objective: build resilience and capacities of countries to prevent and respond to diseases threats including transboundary animal diseases, emerging infectious diseases and zoonoses.

Approaches:
• Promote national/regional disease control in a sustainable manner
• Provide rapid support to countries experiencing animal disease emergency situations
• Promote best practices in preparing for and responding to animal disease outbreaks
• Augment national and sub-national disease surveillance, reporting capacity, and decision making
• **FAO Approaches, continued:**

• Determine laboratory capacity and functionality, to prioritize improvement needs and monitor progress made
• Enhance national, regional, global collaboration and information sharing on surveillance, diagnosis and control measures
• Operationalize One Health across sectors
• Improve animal production practices by promoting good animal husbandry management
• Improve animal health and its primary production practices towards global standards
• Establishing global stockpile of animal disease outbreak emergency commodities
• Establish global stockpile of PPE and IPC-related commodities for human infectious disease outbreaks

• Funding to GOARN for ongoing support

• Exploring conducting “One Health” sub-regional conference for west African countries, in 2016

• Other additional activities under discussion
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Influenza: Over a Decade of Building and Sustaining International Capacity

Daniel B. Jernigan, MD MPH
Influenza Division
Centers for Disease Control and Prevention
February 12, 2016
International Influenza Activities and Support, FY 2015
CDC International Influenza Program
Partner Country Support

- Build Capacity with MOHs
- Analysis & Sharing
- Supporting Research
- Support Policy Development

- Surv Capacity Lab and Epi
- Develop Country Specific Burden Estimates
- Determine Feasibility of Policies
- Influenza Prevention and Control Policies

- Increasing Focus on Quality and Technical Support
Our Mechanism: 3 Types of Bi-lateral “Cooperative Agreements”

- Capacity-building
  Strategy: 5 Year Cooperative Agreement Activities
  Goal: Improved Country Systems for Influenza Detection and Response

- Strengthening & sustainability
  Strategy: 5 Year Cooperative Agreement Activities
  Goal: Adoption of Core Aspects of National Influenza Surveillance and Response System with decreasing funding support

- Maintenance
  Strategy: 5 Year Cooperative Agreement Activities
  Goal: Maintenance of Core Aspects of National Influenza Surveillance and Response System with limited support

10-year capacity strengthening program since 2004

New in 2014
Sustainability Framework Components

- **PROGRAM EVALUATION**: Analyzing your program for effectiveness and efficiency
- **PROGRAM CAPACITY**: Internal resources and support needed to effectively manage your program
- **STRATEGIC PLANNING**: Systematic process that guides your program’s direction, goals, and strategies
- **COMMUNICATIONS**: Conveying information to stakeholders and the public about your program
- **FUNDING**: Establishing a financial base for your program
- **PARTNERSHIPS**: Establish and foster connections between your program and its stakeholders
Countries completing the 5-year capacity grant and 5-year sustainability grant will be eligible for a 5-year maintenance grant.

Sustainability planning is important (start early)
- Use Sustainability Guidelines to plan
- Seek additional support from MOH
- Seek additional partners/advocates

Smaller funding (~$50K/year) available to support whatever is needed to maintain surveillance.

Laboratory reagents will still be available.

Technical support/collaboration/training on-going.
Support for Flu Laboratories through the Influenza Reagent Resource (IRR)

GISRS Labs – NICs and Beneficiary Labs
Strategic Labs – CoAgs and other CDC collaborators
Qualified Labs – PHL’s approved by CDC to use its RT-PCR Kits
Other – Hospitals, Universities, Non-profit orgs, Commercial Companies, unqualified PHLs

ADDING NEW REAGENTS TO IRR

https://www.influenzareagentresource.org/
Three Assessment Tools

- Standardized to look at indicators of capacity or core capabilities
- Repeat assessments done to drive and track change
- Voluntary and confidential

- 2008-40 Countries
  - 90 Assessments
  - 30 repeats

- 2010-36 Countries
  - 60 Countries
  - 16 repeats

- 2012-33 Countries
  - 71 Assessments
  - 55 Countries

https://www.cdc.gov/flu/international/tools.htm
Using Data from Assessments to Determine Regional Training Needs

2010 to present >30 courses, trainings, workshops globally
Lab Techniques, Lab Management, Data Management for Surveillance
Writing workshops, Regional Meetings, BOD, Sequencing
Development of PIVI: Contributing to Prevention

Vaccine intro
Maternal Evaluation
Focus Groups
KAP Surveys
Post Intro Evaluation Tool (PIE)
Vaccine Policy Cooperative Agreements to Support Vaccine Program Introduction/Expansion

Goal:

- Provide support and technical assistance to countries to conduct activities that will:
  - lead to policy decisions related to the introduction or expansion of seasonal influenza vaccine
  - support the implementation of national influenza vaccination programs
- Activities may be related to regulatory, scientific, or programmatic at a national level

Funded countries:
China, Kenya, Morocco, Uganda and Vietnam
Summary

- Building global capacity takes time
- Use a framework to guide the approach
- Plan early for sustainability
- Flu approach can be leveraged for Global Health Security Agenda

https://www.cdc.gov/flu/international/program/
Thank You

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Acknowledgements
CDC

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U.S. President’s Malaria Initiative

Peter McElroy, PhD, MPH
Program Implementation Unit Chief
Malaria Branch

GHSA Awardees Meeting
12 Feb 2016
1 Overview of PMI
2 How PMI evolved
3 Ensuring sustainability
President’s Malaria Initiative (PMI)

- Announced in 2005 as $1.3 billion Initiative over 5 yrs
  - In 2008, Lantos-Hyde Act extended PMI

- Interagency initiative led by USAID, and implemented together with CDC

- PMI now includes 19 focus countries in Africa and a program in the Greater Mekong Subregion

- Nearly 6 million malaria deaths averted between 2000–2015*

* WHO and UNICEF report on "Achieving the malaria MDG target: reversing the incidence of malaria 2000-2015".
Key Success Factor: Implementation of Four Effective Interventions to Prevent, Detect, and Treat Malaria

- Insecticide Treated Bednets
- Rapid Diagnostic Tests & Artemisinin-based Combination Therapy
- Indoor Residual Spraying
- Intermittent Preventive Treatment for Pregnant Women

85% coverage of vulnerable groups
PMI 2005–2015: A Decade of USG Leadership

Country budgets range from ~ $15–75 M
PMI Staffing Footprint

- Each country
  - Two Resident Advisors (CDC & USAID)
  - USAID Mission Health Team (3-4 staff)

- Headquarters (ATL and DC)
  - Interagency country teams
  - Interagency technical teams (by intervention, M&E, OR, etc.)

- USAID implementing partners (handful of CDC partners)
  - Cooperative agreements
  - Contracts
Sustainability: Annual Planning, Coordination, and Integration with Partners

- Annual Malaria Operational Plan (MOP)
  - Country-by-country effort
  - Consultative 7-10d process led by NMCP with interagency PMI team and all in-country malaria stakeholders engaged

- Coordinated/harmonized with Global Fund Concept Note development and implementation

- Always look for opportunities to integrate
  - Lab (including QA)
  - Surveillance, monitoring and evaluation
Sustainability: NMCP Capacity Building

- PMI RAs spend ~40-50% co-located at NMCP
- Link junior NMCP staff to 2-yr FELTP training
- Advocate for FELTP graduates to be assigned to NMCP
- Ensure 5-year National Malaria Strategic Plan
- Facilitate staff participation in WHO committees
Sustainability: Strengthening Country Capacity to Collect and Use Info

Keep in mind, country’s data needs will evolve...

- **Support for periodic national household surveys**

- **Support for routine malaria surveillance**
  - Revising HMIS forms
  - Promoting DHIS2 implementation
  - Outbreak detection & response
PMI works closely with NMCPs to document how increases in intervention coverage are followed by decreases in malaria morbidity/mortality...country-by-country
Finally...PMI’s Transparency Can Help: Please Refer to Our Existing Materials Online

Posted on PMI website:
- Country-specific Annual MOPs (from past decade)
- PMI Strategic Plan, 2015-2020
- PMI Annual Reports to Congress (*10 of them*)
- PMI Technical Guidance
- PMI External Evaluation, Report

Plus, all funded partners’:
- Contracts & Cooperative Agreements
- Workplans & Progress reports

www.pmi.gov
Thank You!

Angola
Benin
DRC
Ethiopia
Ghana
Guinea
Kenya
Liberia
Madagascar
Malawi
Mali
Mozambique
Nigeria
Rwanda
Senegal
Tanzania
Uganda
Zambia
Zimbabwe

Burma
Cambodia
China
Laos
Thailand
Vietnam
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Sustaining the Commitment to the Global HIV Response

John M Blandford, PhD
Principal Deputy Director
Division of Global HIV & Tuberculosis (DGHT)
12 February 2016
The AIDS Scene Pre-PEPFAR

• From 1981-2001, from 0 identified infections to 36 million worldwide
• In 2001: 16,000 new infections daily
• At the end of 2002, only 50,000 on treatment in sub-Saharan Africa
• Health systems overwhelmed by the sheer scope of the epidemic
U.S. President’s Emergency Plan for AIDS Relief (PEPFAR)

- Largest global health initiative by any nation for a single disease
- PEPFAR I: 2003 – 2007
  - $18.8 billion initiative to fight HIV/AIDS globally
  - Emergency response to the rapid spread of HIV
- PEPFAR II: 2008 – 2012
  - Reauthorized at $48 billion
  - Strengthening country capacity to accelerate toward country ownership and program sustainability
- PEPFAR III: 2013 - 2018 (PEPFAR Stewardship and Oversight Act)
  - Enhanced reporting and oversight provisions
  - Increased focus on measuring outcomes and impact
  - Institutionalization of results-linked expenditure reporting
“Seldom has history offered a greater opportunity to do so much for so many. We have confronted, and will continue to confront, HIV/AIDS in our own country. And to meet a severe and urgent crisis abroad, tonight I propose the Emergency Plan for AIDS Relief, a work of mercy beyond all current international efforts to help the people of Africa.”

– President George Bush, Jan. 28, 2003
Announced January 28, 2003
15 focus countries

Goals (2-7-10):
- Treat 2 million HIV-infected people
- Prevent 7 million new HIV infections
- Provide care for 10 million HIV-infected people and AIDS orphans

Overall target budget for global AIDS: $15B over 5 fiscal years ($10B new money, including $1B for Global Fund)
Recent USG Spending on Global HIV/AIDS


- 2001: $0.84 billion
- 2002: $1.2 billion
- 2003: $1.5 billion
- 2004: $2.3 billion
- 2005: $2.7 billion
- 2006: $3.3 billion
- 2007: $4.5 billion
- 2008: $6.0 billion
- 2009: $6.3 billion

Fiscal Year

Note: Beginning in FY 2009, bilateral TB funding is excluded from calculations of PEPFAR’s budget.
After 5 years (2004–2008) of effort, the PEPFAR goal to support ART for 2 million men, women, and children in the 15 focus countries was achieved.
Declining PEPFAR Costs of HIV Treatment

Note: Per-patient budget allocation is estimated as lagged treatment allocation divided by end-of-reporting direct patients.
Broad Societal Benefits of ART in Sub-Saharan Africa

For every 1000 patient-years of treatment:

• 228 patient deaths averted
• 449 children not orphaned
• 61 sexual transmissions of HIV averted
• 26 vertical (mother-to-child) infections averted
• 9 TB cases averted among HIV patients
• 2,200 life-years gained

Cost Savings Attributable to ART

Source: CDC estimates from the PEPFAR ART Cost Model (PACM) for the Office of the U.S. Global AIDS Coordinator
The President on World AIDS Day 2011: Expansion of Combination Prevention

Treatment:
By the end of 2013, PEPFAR will directly support more than 6 million people on antiretroviral treatment – two million more than our previous goal.

Over the next two years:
Voluntary medical male circumcision (VMMC):
PEPFAR will support more than 4.7 million VMMCs in Eastern and Southern Africa.

Condoms:
PEPFAR will distribute more than 1 billion condoms.

PMTCT:
PEPFAR will reach more than 1.5 million HIV-positive pregnant women with antiretroviral drugs to prevent them from passing the virus to their children.
Total PEPFAR HIV/AIDS Funding and Key Results, FY 2008 – 2015

- Total bilateral funding (non-GF)
- Total Global Fund contribution
- People on Treatment
- PMTCT: HIV-positive pregnant women who received ARVs
- Males circumcised
PEPFAR’s Evolution
From Emergency Response to Sustainable Impact for an AIDS-free Generation

2003 – 2007: PEPFAR I
- Emergency response
- Delivering prevention, care, & treatment services
- Building & strengthening health systems to deliver HIV services

2008 – 2012: PEPFAR 2
- Shift from emergency to sustainable response
- Shared responsibility & country-driven programs
- Scaling up core interventions (ART, PMTCT & VMMC) for impact

2013-2018: PEPFAR 3
- Sustainability & shared responsibility
- Quality, oversight, transparency, & accountability for impact
- Accelerating core interventions for epidemic control
For more information please contact:
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U.S. Centers for Disease Control and Prevention (CDC)
1600 Clifton Rd NE, Atlanta, GA 30333 USA

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
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The Road to Polio’s End and Beyond

Dr. John Vertefeuille
Polio Eradication Branch Chief/Polio Incident Manager
Global Immunization Division

12 February 2016
Polio Global Outlook in 1988

125 countries
350,000 cases

Known or probable wild polio transmission
Wild Polio Cases Worldwide, 1985-2015*

1988: WHA Resolution to Eradicate Polio and creation of the GPEI

1990s: 99% decrease in incidence
        Elimination from Western Hemisphere
        Eradication of WPV2

Wild Polio Cases in 2015

Cases in 2015*

Pakistan

Afghanistan

*Data from WHO HQ current as of 13 January 2016
Wild Poliovirus & cVDPV Cases¹, 2016
01 January – 10 February

Data In WHO HQ as of 09 February 2016

¹Excludes viruses detected from environmental surveillance.
CDC’s Role in Polio Eradication

- Serves as a technical lead in GPEI
- Supports and provides polio eradication field staff
- Partners with WHO and National Ministries of Health on global polio surveillance and immunization activities
- Conducts epidemiology and vaccine efficacy research studies
- Participates in the global polio laboratory network
GPEI Progress 1988-2015

- Polio cases declined over 99%
- Prevented 13m cases of paralytic polio and 650k deaths
- Nigeria is no longer endemic and the entire African region has not had a WPV case since Aug. 2014
- Decreasing diversity of WPV
- Four out of six regions in the world certified polio-free
- Only two countries remain endemic for polio – Afghanistan and Pakistan
Strategies to Stop Polio Transmission

India:
- Strong political commitment and will at all levels
- Using specific tactics to reach children in underserved areas
- Targeting high risk blocks to ensure no children were missed

Nigeria:
- EOCs to coordinate activities and ensure accountability
- Health camps offering polio vaccines and other health interventions
- Engaging key religious leaders, polio survivors, and journalists as advocates
- Working through barriers to reach every child in security compromised areas
Legacy Transition Planning

- Helps protect a polio-free world
- Ensures that investments made to end polio continue protecting and improving health after eradication
- Every country with polio eradication resources and infrastructure should prepare for the transition
- Should be led by the national government and involve a broad range of stakeholders
Maintaining and mainstreaming polio functions

Ensure that those functions needed to maintain a polio free world after eradication (such as surveillance, outbreak preparedness and response, and containment) are mainstreamed as ongoing public health functions.

Source: "Legacy Planning Process for the Global Polio Eradication Initiative" (Nov 2013)
Sharing lessons learned to improve child health

Ensure that the knowledge generated and lessons learned from polio eradication activities are shared with other health initiatives.

Transition polio functions to improve child health

Where feasible, desirable, and appropriate, transition capabilities and processes to support other health priorities

Priority Countries for Transition Planning (n=16)