Status of Routine Immunization, Kenya

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KPA Conference,
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Mombasa, Kenya
Presentation Outline

- Background
- Immunization Performance review
- Available Opportunities for engagement
- Planned and ongoing strategies- New Vaccines and Technologies
- Other Key priorities
Immunization & Disease

- Once your immune system is trained to resist a disease, you are said to be immune to it.

- Before vaccines, the only way to become immune to a disease was to actually get it and... with luck, survive it.

- With naturally acquired immunity... you suffer the disease & risk the complications,... can be quite serious or even deadly.

- You may be contagious and pass the disease to family members, friends, or others who come into contact with you.

- Diseases have been able to circumvent drugs through development of resistance but this is yet to be reported for vaccination.

- Vaccines are key in protecting our mainstay drugs from resistance.
Immunization in the developing world

- Developing countries represent about 75 million surviving infants (55% of world's birth cohort)
- Every year, millions of children in poor countries die from preventable diseases because they do not have access to life-saving vaccines.
- Possible reasons:
  - Existing vaccines being either too expensive
  - Existing vaccines not optimal for developing country use
  - Vaccine development has high fixed costs and manufacturers have historically not seen value in investing in new products for developing country needs
- Increase in Missed Opportunities for vaccination:
  - Economic barriers- Charging for vaccination
  - Failure to check for children’s vaccination status during treatment
Evolution of Immunization in Kenya

- Established in 1980, initially provided on an ad-hoc basis through primary schools and the larger health institutions and facilities

- Initial Government focus was on establishing & strengthening the health service delivery, subsequently achieving **Universal Child Immunization goals** of immunizing at least 80% of the target population in 1990’s

- Program focus shifted to **disease control, elimination and eradication:**
  - Maternal Neonatal Tetanus Elimination
  - Measles/ Rubella Elimination
  - Polio Eradication

- Guiding Principles:
## Evolution of Immunization in Kenya

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>1978</td>
<td>Alma Ata Declaration by WHA</td>
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<tr>
<td>1980</td>
<td>KEPI established, target 6 childhood killer diseases</td>
</tr>
<tr>
<td>2006</td>
<td>All vaccination services under DVI</td>
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### New Vaccine Introductions

<table>
<thead>
<tr>
<th>Year</th>
<th>Vaccine</th>
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<tbody>
<tr>
<td>2002</td>
<td>Penta-valent</td>
</tr>
<tr>
<td>2011</td>
<td>PCV 10</td>
</tr>
<tr>
<td>2013</td>
<td>Measles 2nd dose</td>
</tr>
<tr>
<td>2014</td>
<td>Rota Virus</td>
</tr>
<tr>
<td>2015</td>
<td>IPV</td>
</tr>
<tr>
<td>2019</td>
<td>HPV (girls 10 yrs)</td>
</tr>
<tr>
<td>2016</td>
<td>Switched from Measles-only to Measles-Rubella</td>
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1980 - present
MOH continues to improve, expand and intensify immunization services in Kenya.
Penta 3 Coverage by Month
Jan. - Dec., 2017

Coverage

Jan. 76%  Feb. 70%  Mar. 80%  Apr. 71%  May 75%  June 46%  July 52%  Aug. 56%  Sept. 61%  Oct. 62%  Nov. 84%  Dec. 81%

Nurses Strike Started
Nurses Strike Ended
Percentage of Counties by DPT3 & MR1 Coverage

Legend: Coverage
- <50%
- 50% - 79%
- 80% - 100%
- >100%

<table>
<thead>
<tr>
<th></th>
<th>DPT3</th>
<th></th>
<th>MR1</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>19%</td>
<td>2% 6%</td>
<td>9%</td>
<td>2% 9%</td>
</tr>
<tr>
<td>50%</td>
<td>72%</td>
<td></td>
<td>81%</td>
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</table>
Available opportunities for practitioners

- Operational level and Mid level managers training
- Review of guidelines and development of SOPs for vaccine management, reporting and communication
- Improved temperature monitoring systems
- Routine IEC materials and minimal messaging on routine immunization
- Support research work and other evidence generating activities
- Cold chain equipment support for private high volume health facilities
- Supply of vaccines and injection devices
...so...

...how about new vaccine introduction?
Considerations we make in the choice of an Immunization Intervention

- Magnitude of public health problem conclusively determined
- Risk groups clearly identified
- Ensured **Sustainable** availability of an effective vaccine
- Ability of vaccination services to cover > 80% of at-risk-population in order to break transmission
- Political Goodwill
- Cost effectiveness
- International Trends, Quality approval and Monitoring

OR

- Targeting of only very high-risk groups e.g.
  - Health workers; prisoners; food handlers
Operations of the EPI system

- Vaccine Supply & Quality
- Logistics
- Advocacy & Communication
- Surveillance
- Service delivery
New Vaccine and Technologies Introduction Updates

- HPV introduction into routine immunization schedule in 2019
- Scale up of Yellow Fever vaccine to West Pokot and Turkana- 2018
- Meningitis A vaccination campaign and subsequent introduction-
- National Switch from Two to Four dose Pneumococcal vaccine formulation
- Switch from TT to Td- 2018
- Malaria pilot project
- Electronic and Remote Temperature Monitoring Devices
Malaria Vaccine

- WHO published a policy position for the first malaria vaccine (RTSS) in January 2016
- Recommended pilot introduction be done in sub Sahara Africa in distinct settings
  - Further evaluation of implementability of a four dose schedule
  - Further evaluation of impact
- Kenya is one of the three countries that applied to participate in the pilot implementation
- The objective is to reduce mortality and morbidity in children in combination with the existing prevention strategies
- Selection of pilot implementation areas based on criteria such as malaria parasite prevalence
- Implementation planned for July 2018
Map of the selected MVIP areas
Vaccination Strategy

- The MVIP will be fully integrated in the routine vaccination program
- Main strategy is will be use of fixed posts - All current vaccinating health facilities
- Outreaches or mobile vaccinations will be carried out where necessary in areas that access and utilization is a challenge
- Existing malaria control strategies are integrated with vaccination delivery.
### Proposed Immunization Schedule

<table>
<thead>
<tr>
<th>Age</th>
<th>6months</th>
<th>7months</th>
<th>9months</th>
<th>24months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed schedule</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Other interventions</td>
<td>Vit A</td>
<td>MR1st Dose</td>
<td>Vit A, De-worming</td>
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HPV Vaccine

- HPV Vaccine Demonstration project conducted in Kitui County (2013-2015)
  - School based approach used
  - Coverage of 96%
  - Resource intensive
- Nationwide introduction planned for 2019
- Facility based approach
  - Supplemented with school outreach, community outreach (as per county needs)
  - Sustainable and less expensive than school based approach (reduced personnel and transport costs)
  - Needs intensive advocacy and mobilisation efforts to achieve required coverage
- Status: Support for introduction approved, Delays due to vaccine supply challenges
Vaccination Strategy

- Health based, with outreach services
- Modeled on and integrated with routine immunization delivery
- Same target- Standard 4 class in school going children, in both public and private primary schools- proxy for 10 year olds
- Schools and education system a key pillar for mobilization, List by district and Zone to generated
- Vaccination in schools could be organized as part of outreach- Efficiency, Closer engagement with health teams from the health facilities
- Vaccination card given to girls and documentation summary retained at the Health Facility
Meningitis & Yellow fever

- The regional Immunization plan recommends:
  - Countries within meningitis belt to implement strategies to control Meningitis.
  - Countries at risk of Yellow fever to implement strategies to control Yellow fever.
- Kenya is part of the meningitis belt, outbreaks experienced in the past.
- A 2016 Meningitis risk assessment recommended introduction of the vaccine in a one phase campaign in high risk areas (Counties bordering Uganda, South Sudan and Ethiopia).
- MOH plans to conduct a Menengitis campaign for Individuals 1-29 years, with subsequent introduction into routine immunization.
- Yellow fever vaccine is currently administered in 2 counties (Baringo, Elgeyo Marakwet).
- A 2015 Yellow Fever risk assessment recommended expanding to include Turkana & West Pokot Counties - Planned for 2018.
Introduction of Men-Afrivac Vaccine through Vaccination campaign in Kenya

Areas for vaccination
Introduction of key vaccines against severe childhood diseases

As global coverage of new vaccines expands, principal etiological causes of childhood disease are largely controlled by immunization
  - Clinical case definitions
  - Clinical Case management of diseases
  - Possible Increase in Diversity of cases
  - Implications in HIV Infection?

Significant reduction in rates of severe disease, more non-communicable disease

Influence of reduction these diseases on the clinical diagnosis, classification, management, and control

Programmatic implications of new vaccine introduction- Any changes to accommodate new vaccine?
Immunization and Saving lives is our shared responsibility.

Always Remember EVERY CHILD COUNTS!