

EPI-SA
(Expanded Programme on Immunisation - South Africa)

Successes, Challenges & Future Plans

Presented by Johann van den Heever (EPI-SA Manager: NDoH)
Dr N J Ngcobo (EPI-SA Specialist: NDoH)

**NORTH WEST 2007 EPI SYMPOSIUM ON STRENGTHENING
IMMUNISATION SERVICES IN SOUTH AFRICA**



Outline

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- Attaining High Routine Coverage
 - RED strategy
 - Data Quality Audits
 - Community and School Health involvement
- Acute Flaccid Paralysis Surveillance & Polio Eradication
- Way Forward with New Vaccines
- Challenges

Immunisation

- Most effective and cost effective Public Health Intervention currently available. Other than the provision of safe water, no other undertaking, not even the development of antibiotics has had such an impact in the lowering of mortality
- Globally, immunisation saves more than 3 million annually
Measles vaccine alone prevents 1 million deaths annually
- Immunisation is the greatest gift that a Health Worker can give to a child
- EPI contributes significantly to the achievement of the MDG of reducing Child Mortality by 2/3 in 2015

Achievements of Immunisation Programmes

- Small Pox eradication
- The world is about to witness another major Public Health breakthrough - Polio Eradication
- Measles Elimination in the Americas and Control in other regions: significant reduction in South Africa following 2003 – 2005 outbreaks
- Integration of systems and expanding delivery of services:
 - Vitamin A supplementation during campaigns
 - Insecticide treated bed nets during campaigns
 - AFP surveillance integrated with surveillance of other conditions: meningitis, TB, Malaria, etc.
- In strife torn countries, campaigns have necessitated ceasefire periods to allow campaigns to be conducted
- Neonatal Tetanus has been eliminated from most countries

Expanded Programme on Immunisation in South Africa

EPI - SA : Background

- EPI-SA was established in 1995, following the 1994 National EPI Review
- Prior to that, the TBVC states, Homelands and SA, each had their own Programme. No national coordination
- The 1994 National EPI Review also recommended the establishment of a National Advisory Group on Immunisation (NAGI)
- The National Immunisation Programme – EPI-SA was structured and consisted of the National EPI and Cold Chain Managers. Similar structures, which included a Surveillance Officer were established at Provincial level

EPI - SA : Vision

To reach and protect every child in South Africa with safe – high quality vaccines, delivered to the recipient using state of the art technology, whilst developing local skills and capacity

EPI Goals: South Africa

- To reach full immunisation coverage of 90% for children under 1yr in 90% of districts by 2009
- To be declared free of wild poliovirus by end of 2005 (2006)
- To eliminate measles by 2009, regain the measles control status reached in 2003
- To maintain the Neonatal Tetanus Elimination status (2002)
- To fully investigate 80% of Adverse Events Following Immunisation (AEFI)

The SA immunisation goals are ambitious, yet attainable

EPI-SA Successes

- Neonatal Tetanus has been eliminated – 2002
- October 2006: The ARCC awarded Polio Free status to SA, *meaning that there is no wild poliovirus circulating in the country and that the Polio Free Country Documentation Report has been presented to and accepted by the Regional Certification Commission (RCC)*
- Measles Control – Significant decline in cases
- Acute Flaccid Paralysis Surveillance – Certification Standard reached & maintained since 2003
- High Routine OPV3 /DPTHib3 coverage maintained

EPI-SA Successes...

- Ongoing efforts to increase routine coverage through the introduction of the RED Strategy & integration with other Child Survival interventions: IMCI, CCMTS and Nutrition
- National Control Laboratory for Vaccines: WHO-accredited
- Public Private Partnership (PPP) with the Biovac Institute for the procurement of vaccines
- National Institute for Communicable Diseases (WHO Regional Laboratory for Polio and Measles)

EPI-SA Schedule

Age	Antigen	Route
Birth	OPV & BCG	Orally & ID
6 weeks	OPV, DPT-Hib & Hep. B	Orally & IMI x 2 thigh
10 weeks	OPV, DPT-Hib & Hep. B	Orally & IMI x 2 thigh
14 weeks	OPV, DPT-Hib & Hep. B	Orally & IMI x 2 thigh
9 months	Measles	IMI thigh
18 months	OPV, Measles & DPT	Orally & IMI deltoid
5 years	OPV, DT	Orally & IMI deltoid

Reach Every District (RED) Strategy - To Reach Every Child (REC)

Developed by WHO, UNICEF & USAID. 5 components:

- Re-establishing outreach services
 - Regular and reliable outreach/mobile services
- Supportive Supervision
 - On site training with effective supervision
- Links between Community and Service
 - Regular meetings between the community & staff
- Planning and Management of resources
 - Improved management of human, equipment & financial resources
- Monitoring for action, with use of
 - Coverage Charts/ Charts of doses
 - Maps and catchment populations for each facility

RED - Major Guiding Principles

- District Based and owned
- It is delivered within the minimum package of essential interventions
- The implementation is through integration of services: integrated with Nutrition, IMCI, TB, HIV/AIDS and Comprehensive Care Management, Treatment & Support of HIV exposed and infected
- The Strategy demands full community involvement and ownership
- Maximize efficient use of available resources
 - Sharing & proper management of resources

RED Implementation

- Process started in 2005, initially 3 districts
- All 9 provinces have been trained
- Currently all provinces are cascading training and implementation to districts
- National to monitor quality of training and evaluate effective use of tools at district level
- Beginning to see good results in some districts
- Challenge has been reliable & consistent denominator figures to allow monitoring of outcome

Addressing Routine coverage: Data Quality self surveys & audits

- **The Questions Addressed:**
- Do Immunisation Coverage figures reflect programme performance?
- Audits – external, Self surveys – internal
- Data entries, total doses & quality are verified from facility level, through district & national level
- Monthly summary figures in registers are checked against the daily/weekly doses & totals
- Analyse discrepancies amongst related indicators.
- Process has started – findings are eye opening



Addressing Routine coverage: Involvement of Schools & Communities

- President's Award and Primary Schools are involved in raising community awareness
- Integration with Youth Services and through the Youth Indaba held in June. Youth visited households to trace children not immunised
- School Health Services to be engaged in addressing routine coverage
- Community Health Workers used in defaulter tracing
- Revive the Facility (Clinic) Health Committees
- Involvement of communities as part of RED Strategy implementation.

Surveillance

Targeted EPI Priority Conditions

- Acute Flaccid (AFP) Surveillance for Polio Eradication
- Measles
- Neonatal Tetanus
- Adverse Events Following Immunisation
- Laboratory confirmation: NICD (WHO-Regional Laboratory for Polio and Measles)

AFP - Surveillance

AFP: Case Definition

Any child below the age of 15 years who presents with a sudden onset of floppy paralysis or weakness of a limb/s or a person of any age with strong clinical suspicion of polio or AFP should be notified & investigations done

Even if you are certain of the diagnosis; Guillain Barré, Transverse Myelitis, TB Meningitis, etc., as long as the signs & symptoms of Acute Flaccid Paralysis are present, please report & investigate

AFP Surveillance : Indicators

- Detect 2 AFP cases per 100 000 children below 15 yrs annually
- Collect 2 stool specimens (5-8g), 24 hrs apart within 14 days of onset of paralysis
- Stool specimens to reach NICD (Regional WHO accredited lab) within 3 days, on ice, reverse cold chain
- Cases inadequately investigated need:

A 60 day Follow Up

Clinical notes with the results of all investigations conducted

If not, such cases cannot be presented to PEC & they end up being **Polio compatible**

AFP Surveillance – Requirement for Polio Free Certification



- To detect indigenous wild polio virus cases
- To detect importations and respond promptly, should they occur
- To comply with the requirements for Polio Free Certification
- Difficult to get this across to clinicians

New: AFP Detection rate increased from 1 to 2 cases per 100 000 < 15yrs

Measles Surveillance



Case Definition of a Suspected Measles Case:

A person of **any age** who presents with Rash, Fever and any of the 3C's: Cough, Coryza and Conjunctivitis

Collect blood and urine samples. Complete CIF and send to NICD

Looking Ahead: New Vaccines & Delivery Technologies

- Planning to introduce Td vaccine at 7 & 12 years of age
- EPI – SA is currently investigating the introduction of Pneumococcal and Rotavirus vaccine into the EPI immunisation schedule: recommendations to this effect have already been made by the NAGI (National Advisory Group on Immunisation)
- Also being considered is the use of injectable polio vaccine (IPV) as part of Post Polio Eradication – Immunisation Policy
- Combination vaccines, pentavalent and later hexavalent are being considered. Pentavalent – which may include IPV and acellular Pertussis (less side effects)

Looking Ahead: New Vaccines & Delivery Technologies...

- New vaccine presentations: fixed-dose liquid – formulations in pre-filled syringes (excludes pre-mixing & potentially contaminating vaccines, also minimises needle stick injuries due to recapping of needles)
- New vaccine applications: New routes, e.g. aerosol inhalations, trans-dermal applicators/jet injectors, etc.
- Improved vaccine safety devices:
 - to prevent re-use of syringes: auto-disable syringes
 - to prevent needle stick injuries: retractable needles/sheaths, etc.

Looking Ahead: New Vaccines & Delivery Technologies...

- **All above require financing, amidst other health priorities**
- **All above require the support of a strong routine vaccination programme: prioritised in all provinces: human resources, RED Strategy implementation**

EPI- SA: Challenges

- Reaching the set International & National indicators
- Reaching the set target for routine coverage: huge disparities at district and sub district levels
- Preventing and promptly responding to Measles outbreaks
- Improving and maintaining VPD surveillance targets
- Meaningful involvement of Academic institutions and clinicians in routine immunisation, surveillance and research (clinical trials, etc.)
- Improving systems for surveillance of Adverse Events Following Immunisation
- Collaboration with other child survival strategies
- Sustaining achievements: Polio-free Certification & NNT Elimination

EPI- SA: Challenges

- Improvement of cold chain, equipment, logistics & management capacity, especially with a view to the introduction of new vaccines: audits and equipment replacement schedules
- Intensification of marketing and social mobilisation amidst the absence of VPDs
- Rolling out the RED (Reach Every (child in every) District) Strategy to all 53 health districts by end 2008. Emphasis on
 - improving the quality of immunisation services amidst absence of VPDs
- Improved and sustained financing
- To be the leader in Africa regarding all aspects regarding immunisations

EPI- SA : Constraints

- Inadequate EPI structures at Provincial & District level
- No EPI ownership at District level
- Human Resource challenges: shortages, attrition & rotation
- Supervision: Absence thereof/poorly conducted e.g. data indicators not understood; declining immunisation practices; declining surveillance of AFP, suspected Measles & NNT cases: reluctance of especially clinicians to report cases timeously
- Sustaining training support to provinces
- Poor integration of services
- Competition with other programmes

EPI is committed to protecting the children of South Africa from vaccine preventable diseases

Full implementation of the EPI as an important child survival strategy will bring us closer to achieving the MDG of reducing Child Mortality

Thank You!