Findings of Zambia 2YL case study: Lessons learned from introducing a second dose of measles and planning for a 2YL well-child visit

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SAGE meeting

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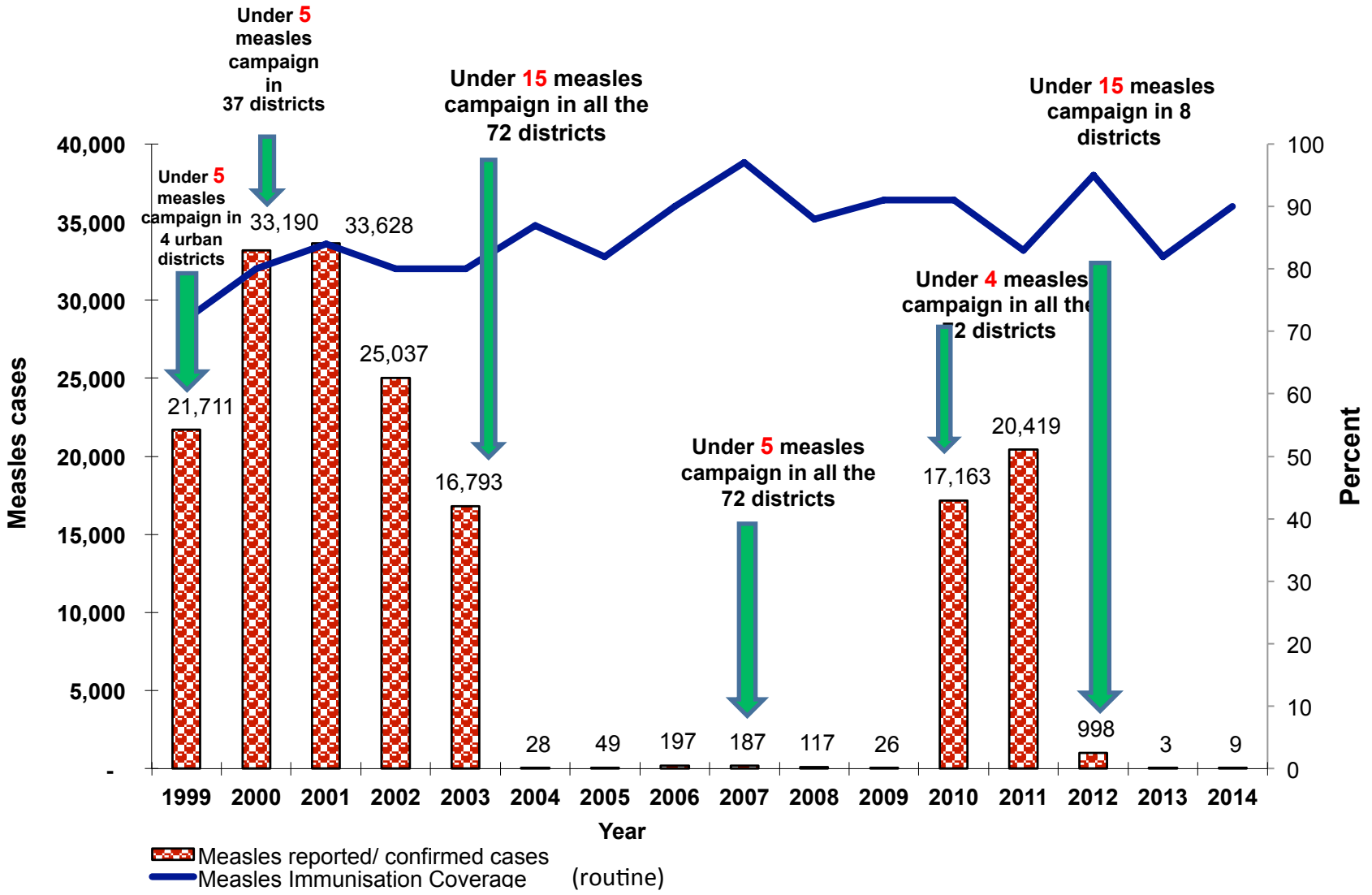
Case study methods: retrospective and prospective

- When: November 2015, over 2 years after introduction of measles second dose.
- Scope: Gather experience from Zambia with MCV2 and synthesize information so that it an be sued to develop global guidance for other countries.
- Activities:
  - Document review: EPI review/PIE surveillance review, reports, manuals, Gavi applications and annual progress reports, JRF data
  - Two-day national meeting on establishing a 2YL visit with MOH/Child Health Unit, regional and district health team representatives, key partners in immunization
  - Visits to health facilities
  - Interviews with stakeholders and health workers

Progress toward measles elimination in Zambia

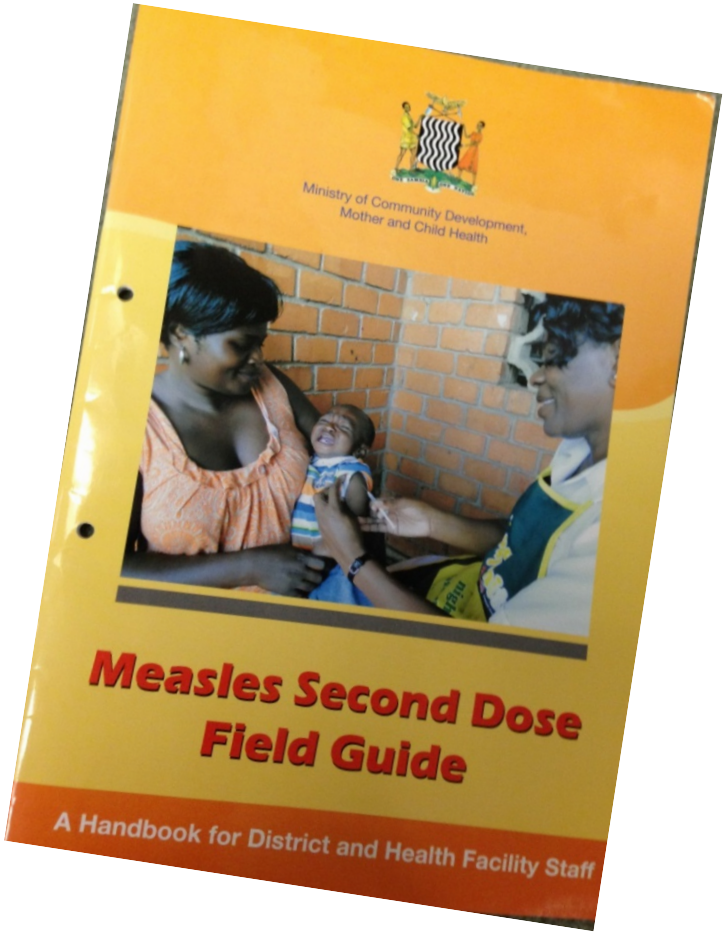


Decisionmaking process for introducing second dose of measles (MCV2)

- Starting in 2009: Collaboration between Pediatric Association and MOH. Pediatricians initially proposed MCV1 at 6 months and MCV2 at 12 months; revised to 9 and 18 months
- Initial application to Gavi for MCV2 and PCV in 2009; conditional approval only for MCV2; resubmission for MCV2, PCV, rota in 2011
- Planned introduction in 2012 postponed due to SIAs
- Funding delays → 6 separate proposed launch dates
- PCV and MCV2 jointly launched in July 2013; rotavirus launched in November 2013

Preparations for MCV2 introduction

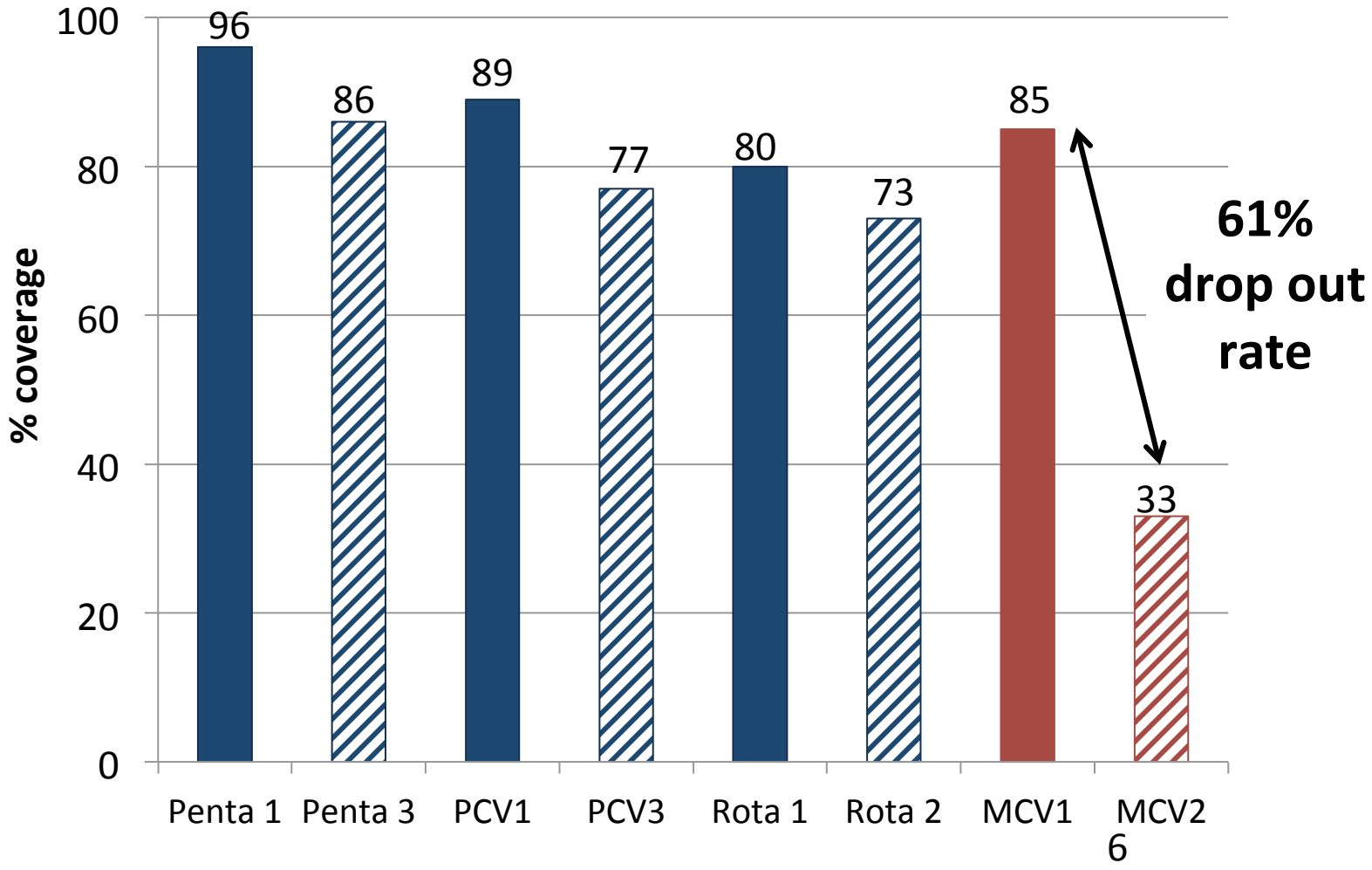
1. Preparation of Measles Second Dose Field Guide
   - Rationale for two doses
   - Storage and administration
   - Recording and reporting doses
   - Key messages for parents
   - Frequently asked questions for HWs
   - Planning for outreach
2. Revision of data collection instruments and HMIS
3. Training on PCV and MCV2 with two levels of cascade and engagement of community volunteers
4. Job aid for health workers
5. July 2013: Launch of PCV and MCV2



Coverage for selected antigens and doses

Zambia, 2014 (WUENIC)

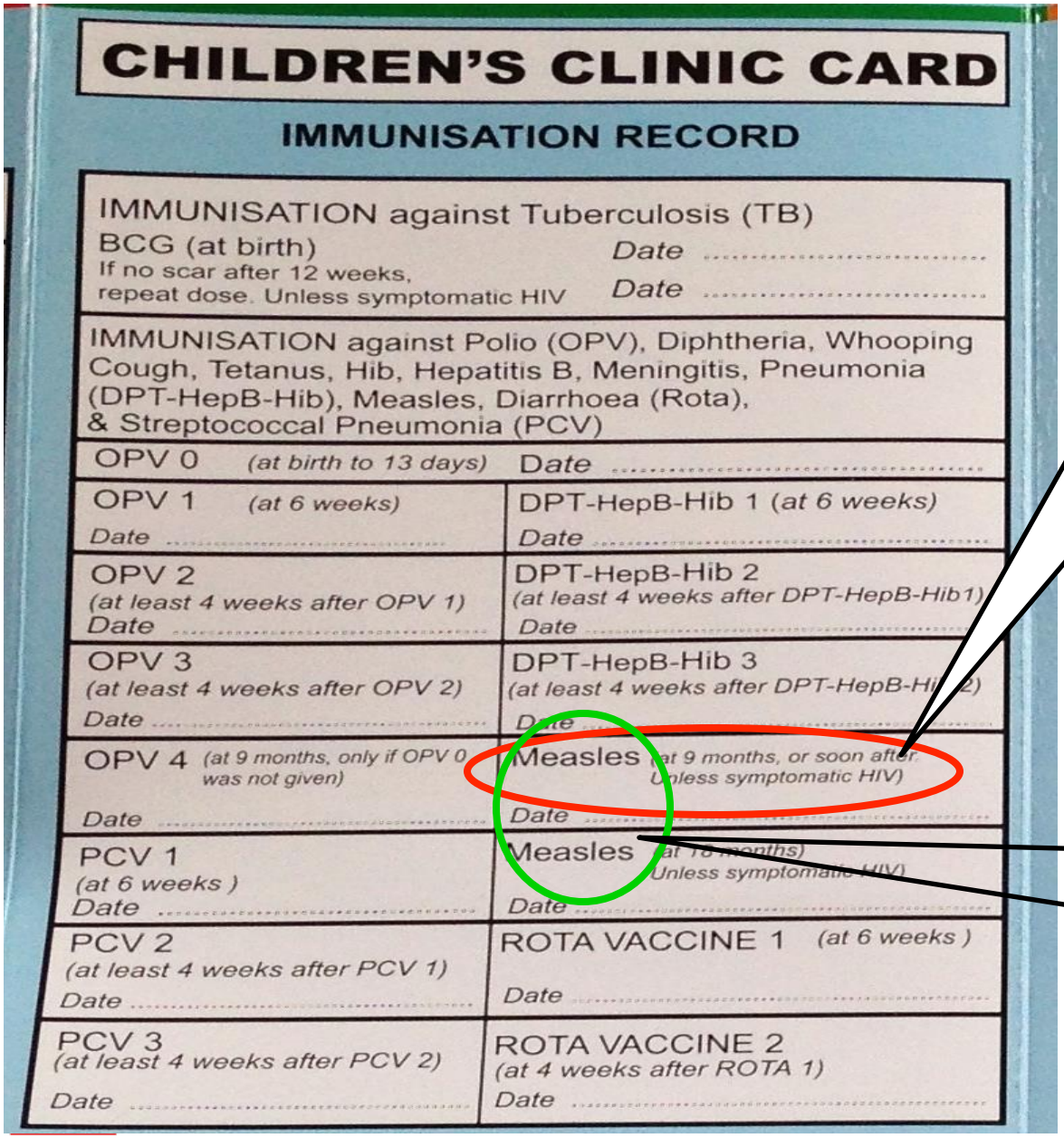
PCV, Rotavirus, and MCV2 all introduced in 2013



Observations on MCV2 introduction

(Sources: PIE, follow-up visit, case study)

- MCV2 introduction viewed as an additional dose of measles, not as establishment of new routine visit at 18 months of age
- MCV2 field guide and revised data collection tools ready in time for training. Unlike PCV and rota, no training DVD for MCV2 or evaluation of training.
- MCV2 launch overshadowed by concurrent PCV introduction. Little social mobilization or communication for MCV2.
- Insufficient reminder systems for MCV2 given the long gap between MCV2 and prior vaccination contact
- Defaulter tracking not systematically implemented
- No clear guidance on number of eligible children who must be present in session before measles vial can be opened
- Confusion on eligibility for vaccination in 2YL



CHILDREN'S CLINIC CARD

IMMUNISATION RECORD

IMMUNISATION against Tuberculosis (TB)

BCG (at birth) Date .....
If no scar after 12 weeks, repeat dose. Unless symptomatic HIV Date .....

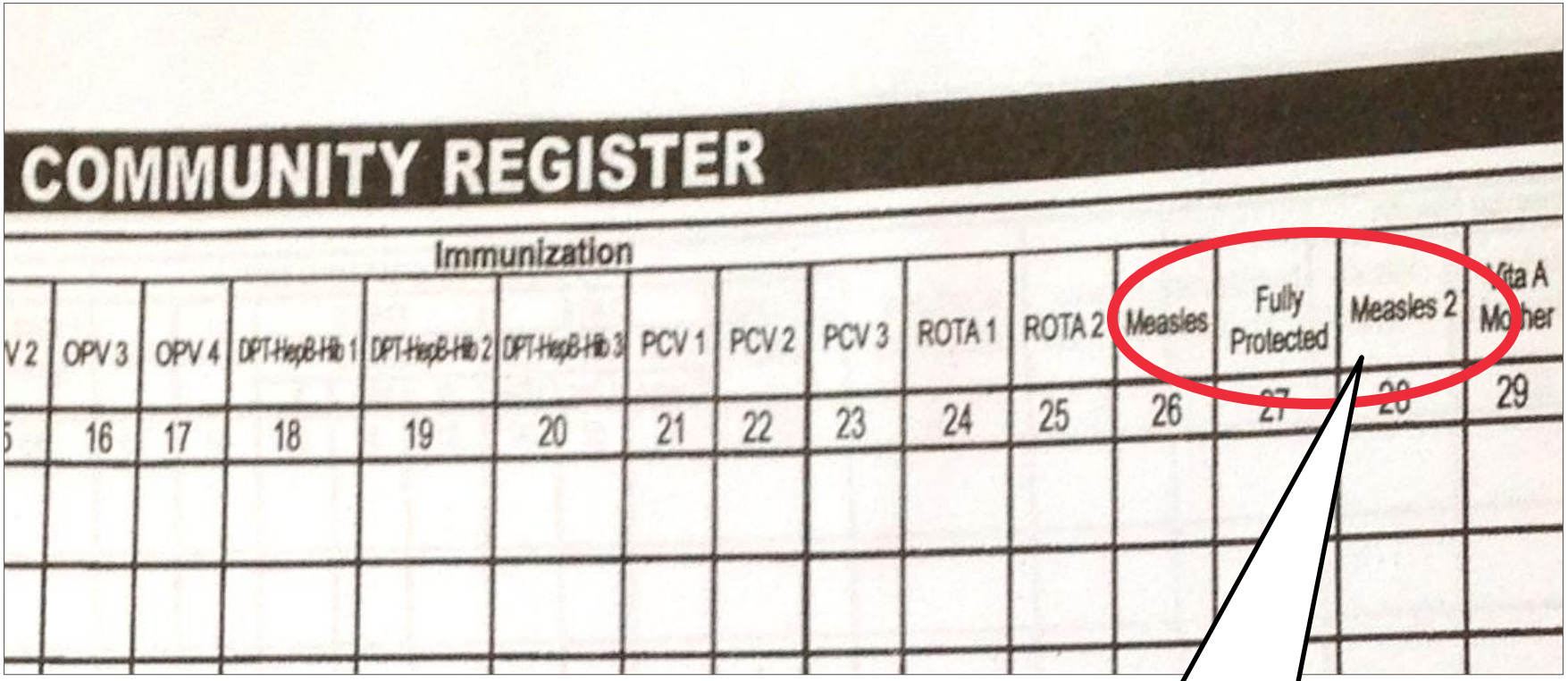
IMMUNISATION against Polio (OPV), Diphtheria, Whooping Cough, Tetanus, Hib, Hepatitis B, Meningitis, Pneumonia (DPT-HepB-Hib), Measles, Diarrhoea (Rota), & Streptococcal Pneumonia (PCV)

OPV 0 *(at birth to 13 days)* Date	
OPV 1 *(at 6 weeks)* Date	DPT-HepB-Hib 1 *(at 6 weeks)* Date .....
OPV 2 *(at least 4 weeks after OPV 1)* Date	DPT-HepB-Hib 2 *(at least 4 weeks after DPT-HepB-Hib1)* Date .....
OPV 3 *(at least 4 weeks after OPV 2)* Date	DPT-HepB-Hib 3 *(at least 4 weeks after DPT-HepB-Hib 2)* Date .....
OPV 4 *(at 9 months, only if OPV 0 was not given)* Date	Measles *(at 9 months, or soon after. Unless symptomatic HIV)* Date .....
PCV 1 *(at 6 weeks)* Date	Measles *(at 18 months) Unless symptomatic HIV)* Date .....
PCV 2 *(at least 4 weeks after PCV 1)* Date	ROTA VACCINE 1 *(at 6 weeks)* Date .....
PCV 3 *(at least 4 weeks after PCV 2)* Date	ROTA VACCINE 2 *(at 4 weeks after ROTA 1)* Date .....

"at 9 months, or soon after"

What does health worker do if child is brought for MCV1 a long time after 9 months?

Unlike other vaccines, the convention of numbering the doses is not followed.



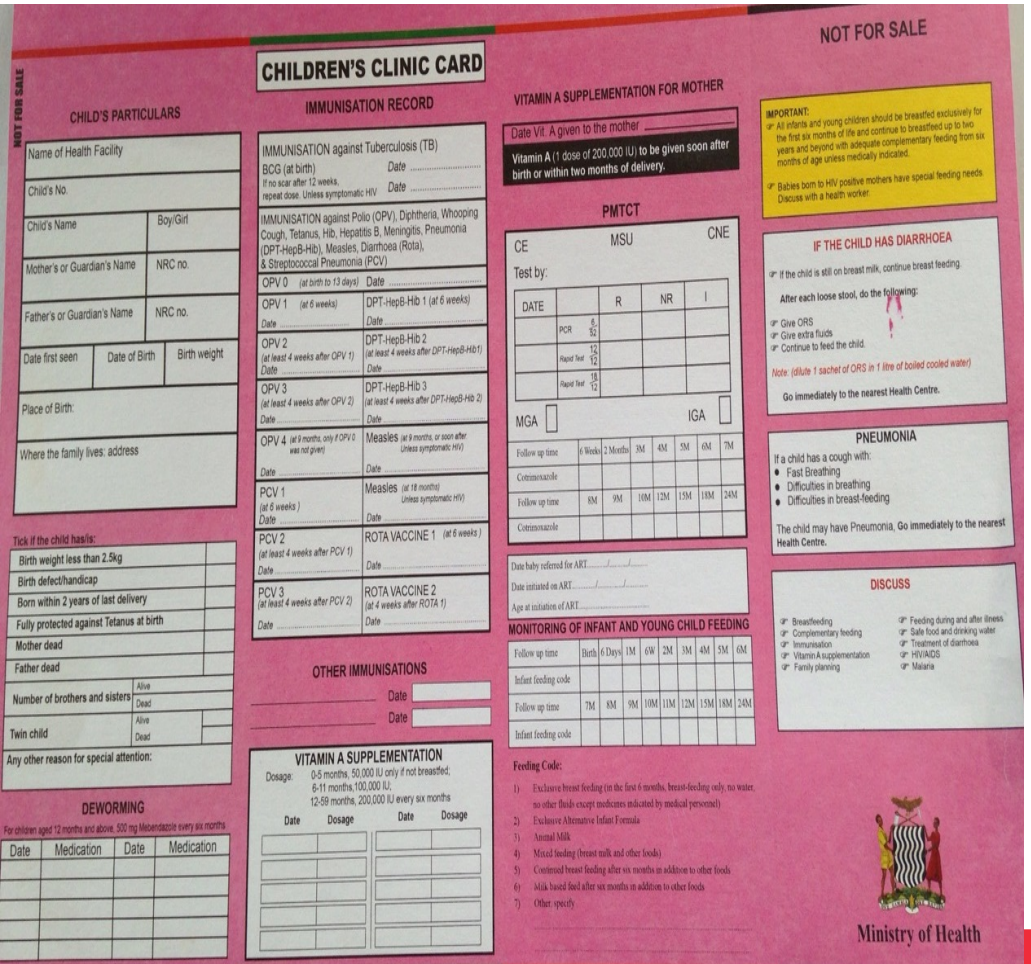
Suggests that child is fully protected (fully immunized) before receiving MCV2

Reported areas of health worker confusion affecting screening, administration, recording, reporting

Scenario	Health worker response
Child is brought for first dose of measles after 12 months of age	A. Health worker records it as MCV2 because she believes MCV1 must be given before 12 months
	B. Health worker does not give MCV1 because child is too old and does also not give MCV2 because child has not yet received MCV1
	C. Health worker does not give MCV2 until 9 months later, believing that it is the 9-month interval that is important, not the target age of 18 months
Child older than 24 months is brought for MCV2	Health worker does not provide dose because she believes the child is too old
"MSD" misunderstood to mean a different vaccine	"We cannot vaccinate because we do not have MSD vaccine."
"Fully immunized child" thought to refer to child under 12 months.	Health workers believe their performance is based on FIC. MCV2 is considered extra, not a priority

Moving from MCV2 to comprehensive well-child visit in 2YL

At November 2015 meeting on establishing a 2YL visit at 18 months, decision was made that the visit will include the interventions on <5 child health card:



For all children

- MCV2
- Overdue vaccinations (except BCG)
- Growth monitoring
- Vitamin A
- Deworming

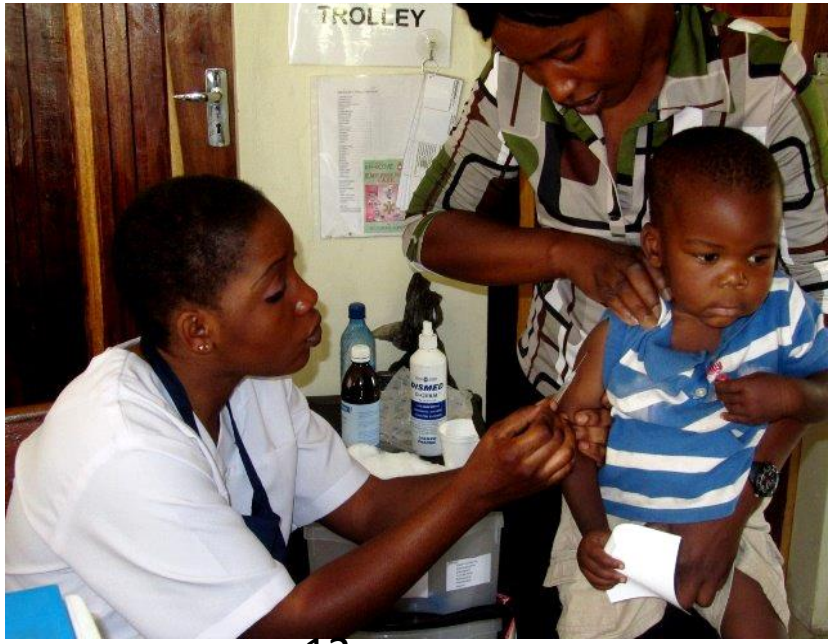
For children as indicated

- Follow-up/referral for early infant diagnosis of HIV/AIDS
- Referral of children with fever or other illness for integrated management of childhood illness

Policies, guidelines and standards

- Present the proposed 2YL package to the Child Health Technical Working Group for discussion and official adoption
- Identify specific revisions needed to policies, guidelines, standards, and other materials. In particular:

1. Clarify the circumstances for health workers to open multi-dose vials of measles vaccine
2. Update immunization policy (EPI manual) on vaccinating children over 12 months of age



Data management: recording, reporting, feedback, and use

1. Update data tools to reflect 2YL visit: tally sheets, under five cards, registers and monthly reporting forms. Revise for MCV2 and late doses of MCV1 to encourage correct practices. Pre-test to assure comprehension.
2. Clarify the denominator to be used for estimating MCV2 coverage
3. Clarify how to use administrative data for decisionmaking at the source
4. Develop feedback mechanisms for MCV2
5. Introduce monitoring chart for MCV1/MCV2

Commodities and supply chain management

- Review availability of all commodities at facility level needed for the 2YL visit: vaccines, vitamin A, Mebendazole
- If needed, review vaccine supply issues based on the premise that measles vaccine will be used for both MCV1 and MCV2

Health worker capacity building

- Develop a training and capacity-building strategic plan
- Update training curricula and enhance the training methods
- Provide post-training support: job aids, revised supervision and feedback instruments

Communication and social mobilization

- Gather evidence on knowledge, attitudes, and practices of mothers and health workers for MCV2 and other elements of the 2YL package
- Ascertain health worker perceptions of enablers and obstacles to the 2YL visit
- Clarify the key audiences and stakeholders, desired actions, communication needs for 2YL, and channels for reaching different audiences
- Develop context-specific strategies for reminding and mobilizing caregivers to come for 2YL
- Conduct a launch for the comprehensive 2YL visit

Service delivery for comprehensive 2YL visit

- Clarify service organization and patient flow for fixed and outreach services
- Assess human resource needs and availability
- Identify specific steps and responsibilities for screening, recording, reporting for all health interventions
- Synchronize with Child Health Weeks (June and November)

Conclusions

- Considerable progress and many lessons from Zambia's experience
- Follow up actions should be taken before MR introduction in mid-2016 if possible.
- Challenges remain in moving from introduction of MCV2 to high levels of performance and creating a 2YL platform for immunization and other essential child health services.
- Deliberate attention needed to increasing awareness and a new norm of a 2YL well child visit