

How can the reporting of vaccination coverage data be further improved?

Some suggestions previously received include:

Analysis and presentation of multiple age cohorts: While DHS and MICS surveys have usually collected immunization information on children under five years of age, the standard survey report presents information on the cohort of children 12-23 months of age to reflect the most recent system performance of infant immunization. Increasingly, national schedules include doses recommended at older age and the selection of the appropriate cohort(s) for analysis have been problematic. Rather than modify the cohort age selection (e.g., from 18-29 months of age rather than 12-23 months) to capture vaccinations recommended at or after 12 months of age, we recommend presenting the immunization information using multiple age cohorts if necessary. For vaccinations recommended up to 12 months of age we recommend reporting on coverage in the 12-23 months of age cohort; the current practice. For vaccinations recommended between 12-23 months of age, we recommend reporting coverage on the cohort of children 24-35 months of age. For vaccinations recommended between 24-35 months of age, coverage should be presented for the children 36-47 months of age.

For example, if BCG is recommended at birth, DTP and polio at 6, 10, and 14 weeks, a first dose of measles at 12 months of age and a second at 24 months of age, coverage could be presented as below.

Children aged	12-23m		24-35m		36-47m					
	BCG	DTP1	polio1	DTP3	polio3	n12-23	MCV1	n24-35	MCV2	n36-47
Vaccinated by card or facility register	85%	83%	81%	66%	66%	800	64%	900	58%	1000
Vaccinated by maternal recall	5%	5%	7%	10%	9%	200	10%	300	12%	200
Vaccinated by either source	90%	88%	88%	76%	75%	1000	74%	1200	70%	1200

Age appropriate vaccination\* 88% 85% 85% 72% 72% 1000 72% 1200 70% 1200

Presentation of home-based vaccination record receipt: Currently information on whether a child ever had a vaccination card is asked as part of the questionnaire, but this information is not presented in standard published summaries. As the number and cost of the vaccinations recommended increases, it is becoming increasingly important that good recording and reporting practices are followed to ensure children are fully but not over vaccinated. Information on whether a child ever had a vaccination card would be useful information in addition to the currently presented data on whether a card was seen or not.

Full immunization coverage (FIC): How should full immunization coverage be calculated? What should be included? There were several ways the full vaccination coverage (FIC) rates are currently estimated in the surveys. Should they include:

Birth doses of polio or Hepatitis B. Neither is currently included in the definitions of FIC by DHS or MICS. The question was posed to the group whether such inclusion is necessary. The recommendation was that it is included in FIC in those cases where these doses are part of the nationally recommended schedule. New vaccines. Countries are often reluctant to make new vaccines part of the definition of the fully immunized. This has to do with how the FIC rate is computed: it cannot be higher than the lowest coverage rate of its individual component vaccines.

In the years immediately after introduction, new vaccine coverage rates are often low and can thus bring FIC sharply down. One possible solution is to wait a certain number of years post-introduction before including a new vaccine in the definition of FIC. Is "basic vaccination", including BCG, 3 doses of polio, 3 doses of DPT (or pentavalent), and 1 dose of measles, still a useful measure for monitoring trends in vaccination coverage? Should this indicator be dropped in favor of age appropriate full immunization coverage (FIC)?

Monitoring Timely versus Valid Doses: A timely dose is one in which a child is vaccinated early enough that s/he avoids being infected with disease. A valid dose is one which is likely to produce the desired immune response and is administered when a child has reached the minimum age for the vaccine and with the proper spacing between doses according to the national schedule. In both MICS and DHS, timely vaccination for the basic childhood vaccinations is part of the standard data presentation; however, there is currently no attempt to monitor valid doses. It is also important to highlight that monitoring of timely doses is dependent on accurate date of birth and vaccination date data and cannot be computed in settings where card retention is low.

A draft of revised tables for DHS7 are attached. Any further suggestions?

### File Attachments

1) [DRAFT DHS7 Tabulation Plan - Child Vaccinations.pdf](#),  
downloaded 1751 times

---

---

Subject: Re: Suggestions for reporting of vaccination data  
Posted by [krishn28\\_ssh](#) on Thu, 21 Jun 2018 06:20:42 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dear Trevor,

I went through the following steps for calculation of vaccination details but the result is much much differ from the national report.

Please help me to short-out this calculation, I shall be thankful to you.

use, "IABR73FL", clear

\*First generate the full vaccinated, Partial Vaccinated and not vaccinated group by each vaccine.

\*for BCG

gen bcg\_vac=.

replace bcg\_vac=0 if (h2==.|h2==0|h2==8 |h2==9)

replace bcg\_vac=1 if h2==1

replace bcg\_vac=3 if (h2==2|h2==3)

label define bcg\_vac 0 "not vaccinated" 1 "partial vaccinated" 3 "full vaccinated",modify

label values bcg\_vac bcg\_vac

```
*for DPT1
gen DPT1_vac=.
replace DPT1_vac=0 if (h3==.|h3==0|h3==8 |h3==9)
replace DPT1_vac=1 if h3==1
replace DPT1_vac=3 if (h3==2|h3==3)
label define DPT1_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify
label values DPT1_vac DPT1_vac
```

```
*for polio 1
gen polio1_vac=.
replace polio1_vac=0 if (h4==.|h4==0 |h4==8 |h4==9)
replace polio1_vac=1 if h4==1
replace polio1_vac=3 if (h4==2|h4==3)
label define polio1_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify
label values polio1_vac polio_vac
```

```
*for DPT2
gen DPT2_vac=.
replace DPT2_vac=0 if (h5==.|h5==0|h5==8 |h5==9)
replace DPT2_vac=1 if h5==1
replace DPT2_vac=3 if (h5==2|h5==3)
label define DPT2_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify
label values DPT2_vac DPT2_vac
```

```
*for polio 2
gen polio2_vac=.
replace polio2_vac=0 if (h6==.|h6==0 |h6==8 |h6==9)
replace polio2_vac=1 if h6==1
replace polio2_vac=3 if (h6==2 |h6==3)
label define polio2_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify
label values polio2_vac polio2_vac
```

```
*for DPT3
gen DPT3_vac=.
replace DPT3_vac=0 if (h7==.|h7==0 |h7==8 |h7==9)
replace DPT3_vac=1 if h7==1
replace DPT3_vac=3 if (h7==2|h7==3 )
label define DPT3_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify
label values DPT3_vac DPT3_vac
```

```
*for polio 3
gen polio3_vac=.
replace polio3_vac=0 if (h8==.|h8==0 |h8==8 |h8==9)
replace polio3_vac=1 if h8==1
replace polio3_vac=3 if (h8==2|h8==3)
label define polio3_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify
label values polio3_vac polio3_vac
```

\*for measles

```
gen measles_vac=.  
replace measles_vac=0 if (h9==.|h9==0 |h9==8 |h9==9)  
replace measles_vac=1 if h9==1  
replace measles_vac=3 if (h9==2|h9==3)
```

```
label define measles_vac 0 "not vaccinated" 1 "vaccinated" 3 "full vaccinated",modify  
label values measles_vac measles_vac
```

\*Combine the vaccinated (all that are vaccinated either by vaccination date on card or reported by mother)

```
gen vaccination_status=.  
replace vaccination_status=0 if (bcg_vac==0 & measles_vac==0 & DPT1_vac==0 &  
polio1_vac==0 & DPT2_vac==0 & polio2_vac==0 & DPT3_vac==0 & polio3_vac==0)  
replace vaccination_status=1 if (bcg_vac==1 & measles_vac==1 & DPT1_vac==1 &  
polio1_vac==1 & DPT2_vac==1 & polio2_vac==1 & DPT3_vac==1 | polio3_vac==1)  
replace vaccination_status=3 if (bcg_vac==3 & measles_vac==3 & DPT1_vac==3 &  
polio1_vac==3 & DPT2_vac==3 & polio2_vac==3 & DPT3_vac==3 & polio3_vac==3)
```

```
label define vaccination_status 0 "not vaccination" 1 "partial vaccination" 3 "full vaccination",  
modify  
label values vaccination_status vaccination_status
```

```
gen chldage_vac=.  
replace chldage_vac=1 if b8 >= 12 & b8 <= 23  
replace chldage_vac=2 if b8 >=24 & b8 <=35  
replace chldage_vac=3 if b8 >=36  
label define chldage_vac 1 "12-23months" 2 "24-35months" 3 ">36above",modify  
label variable chldage_vac "child age computed for immunization"
```