

# **Vaccine order and 'DTP weeks': data from the DHS and MICS surveys**

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# Objectives

To use existing nationally representative survey data to estimate the following:

1. % of children given a *first* dose of DTP *before* or *with* BCG
2. % of children given a *last* dose of DTP *with* or *after* MCV
3. % of children given vitamin A on the same day as a vaccine
4. *Numbers of child-weeks with DTP as the most recent vaccine*

# Summary of earlier results

*For 56 surveys, in cohorts of children aged 24m or more at mother's interview*

	<i>Median</i>	<i>90<sup>th</sup> %ile</i>
1 <sup>st</sup> dose of DTP before BCG	2%	6%
BCG and 1 <sup>st</sup> DTP on the same day:	5%	22%
Last DTP after MCV:	4%	7%
MCV and last DTP on the same day:	2%	8%
Vitamin A and MCV on the same day:	12%	51%

- substantial variation between countries
- %s similar in boys and girls
- %s greater in rural than urban populations
- %s greater in lowest wealth quintile than top (gradient)
- reducing trends in out-of-order and same-day vaccination.

# Calculating DTP weeks



# Preliminary examination of the data

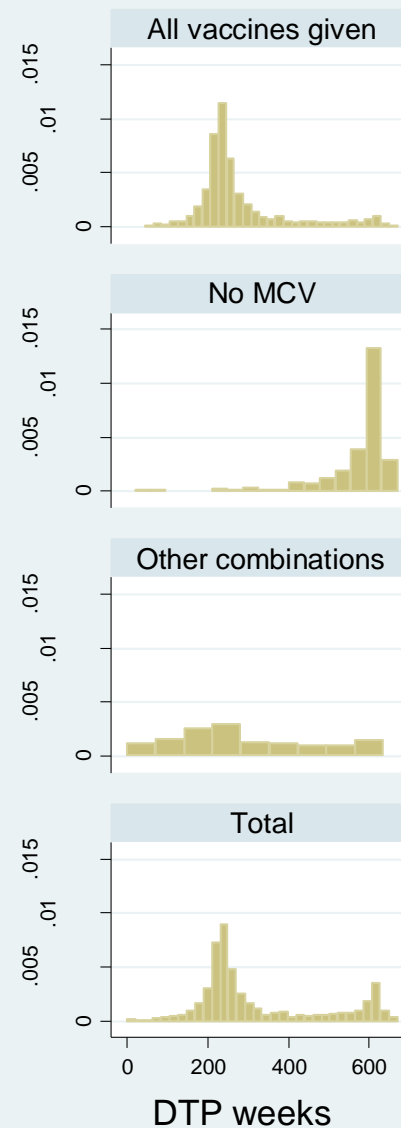
			<i>Median values for the group of countries</i>							
<i>WHO Region</i>	<i>Surveys available included</i>		<i>Children in survey aged 24m +</i>	<i>Year of vaccination earliest BCG latest MCV</i>		<i>Infant mortality UNPOP</i>	<i>Died before interview DHS</i>	<i>% of MCV given after age 24m</i>	<i>% of vaccinated children that have dates on cards age median</i>	
<b>Overall</b>	<b>102</b>	<b>56</b>	<b>3,401</b>	<b>2004</b>	<b>2007</b>	<b>6%</b>	<b>5%</b>	<b>3%</b>	<b>24-35m</b>	<b>73%</b>
									<b>24-59m</b>	<b>68%</b>
AFR D	22	14	4,076	2003	2007	9%	7%	3%	24-35m	59%
									24-59m	50%
AFR E	27	14	4,165	2006	2009	8%	6%	2%	24-35m	71%
									24-59m	65%
AMR B & D	16	11	3,871	2003	2007	3%	3%	6%	24-35m	78%
									24-59m	75%
EMR B & D	8	3	6,094	2003	2006	3%	2%	0%	24-35m	53%
									24-59m	50%
EUR B & C	11	7	1,297	2001	2005	2%	2%	2%	24-35m	94%
									24-59m	94%
SEAR B & D	11	3	5,132	2004	2007	4%	3%	1%	24-35m	85%
									24-59m	82%
WPR B	7	4	2,248	2003	2006	7%	5%	4%	24-35m	74%
									24-59m	68% <sup>5</sup>

# Imputing DTP weeks: eg Cote d'Ivoire

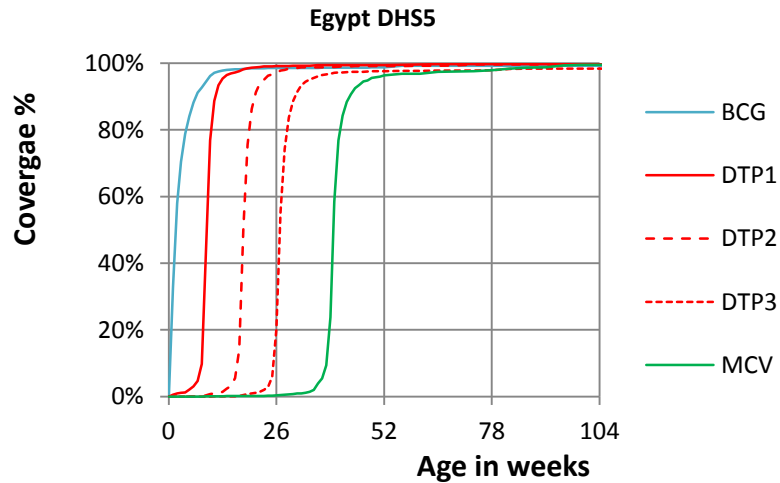
For children with at least 1 vaccination

	<i>Complete dates</i>	<i>Incomplete dates</i>
All vaccines given	76%	46%
No MCV	18%	24%
Other combinations	6%	30%
	100%	100%
	2,008	1,551

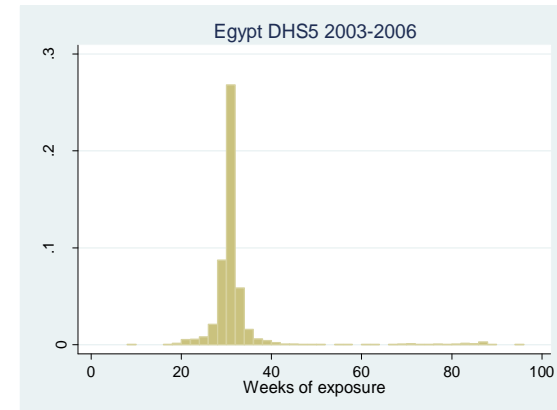
Cote d'Ivoire: Distributions of DTP w



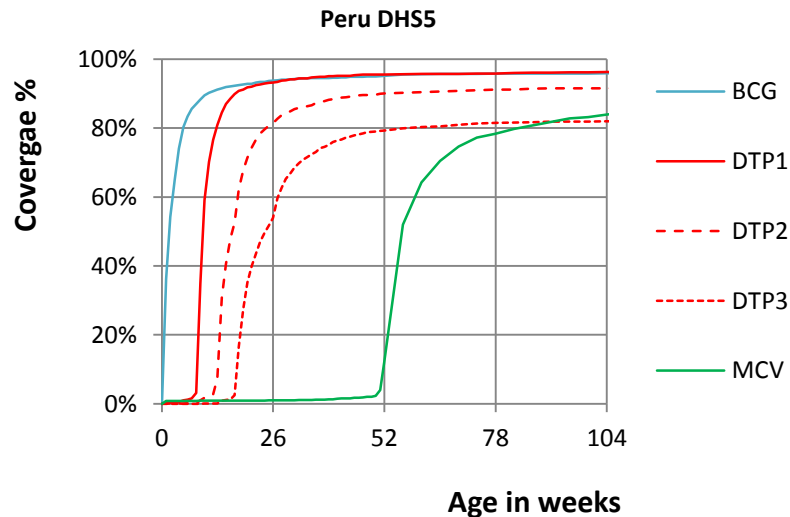
# Vaccine coverage and DTP weeks: Egypt & Peru



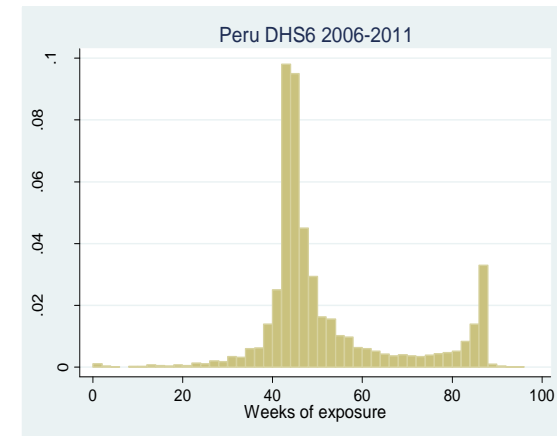
*Schedule: 2, 4, 6, 9m*



*50%, 75%, 90%iles: 30, 31, 33w*

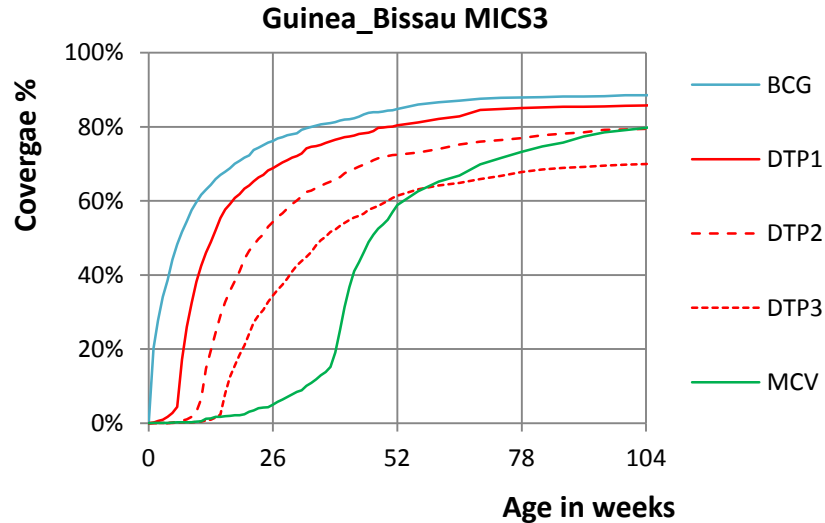


*Schedule: 2, 3, 4, 12m*

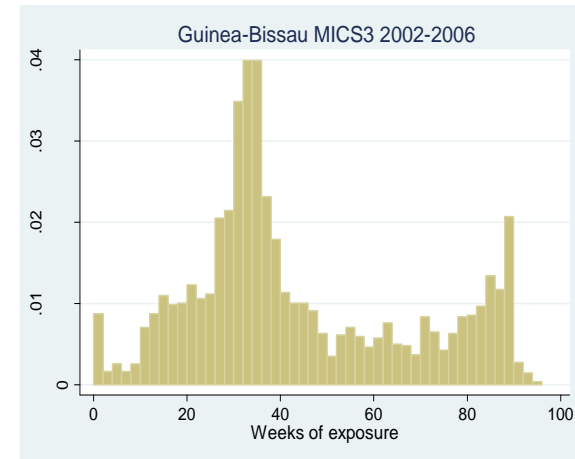


*50%, 75%, 90%iles: 48, 56, 85w*

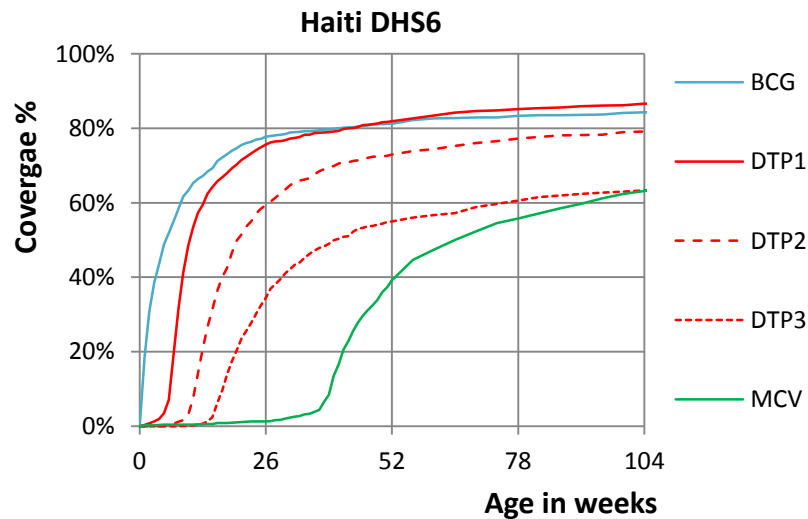
# Vaccine coverage and DTP weeks: Guinea-Bissau & Haiti



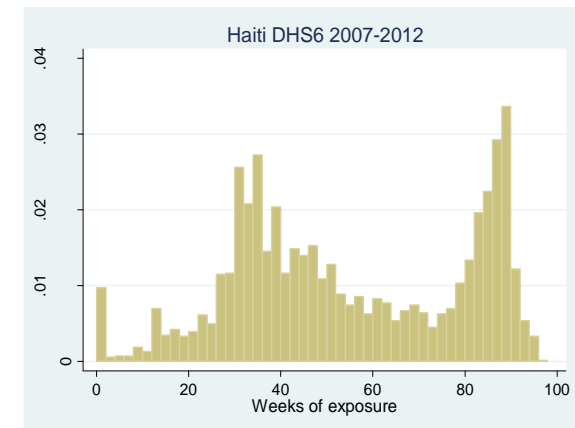
*Schedule: 6, 10, 14w*



*50%, 75%, 90%iles: 32, 62, 84w*



*Schedule: 6, 10, 14w*



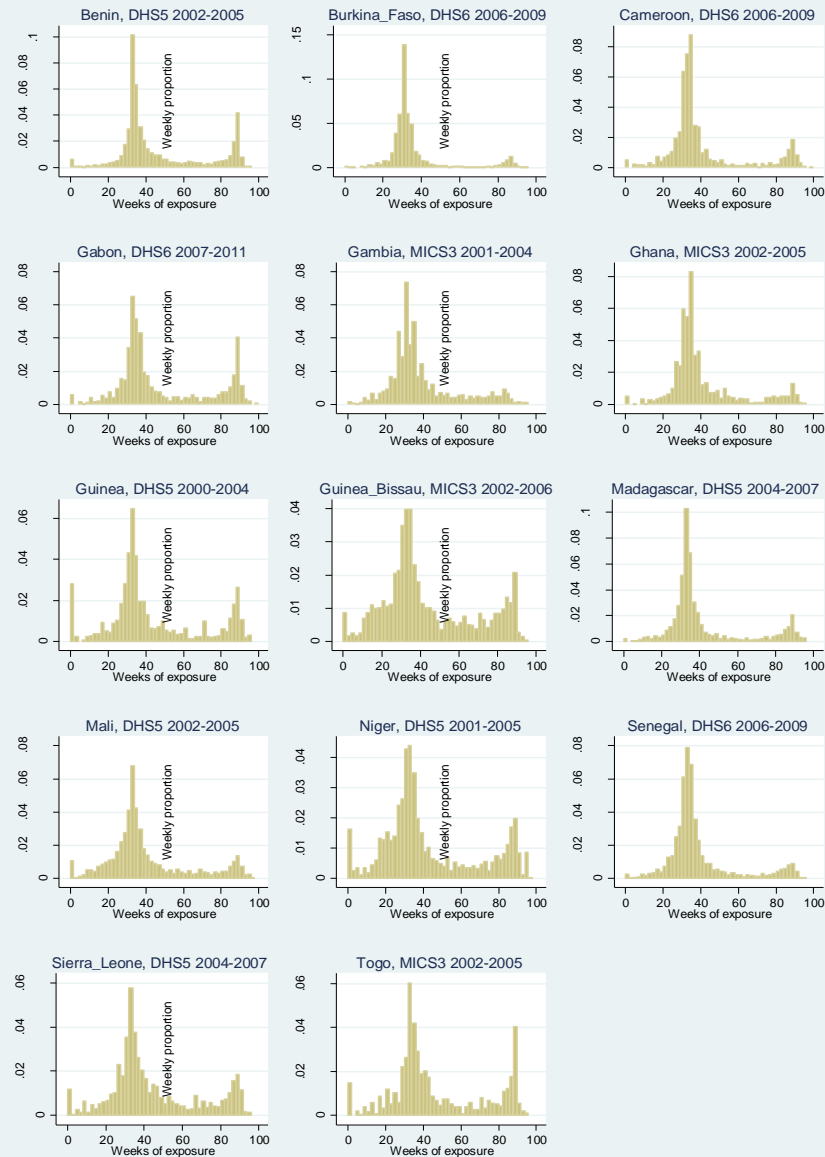
*50%, 75%, 90%iles: 51, 83, 89w*

# DTP weeks before age 24 months

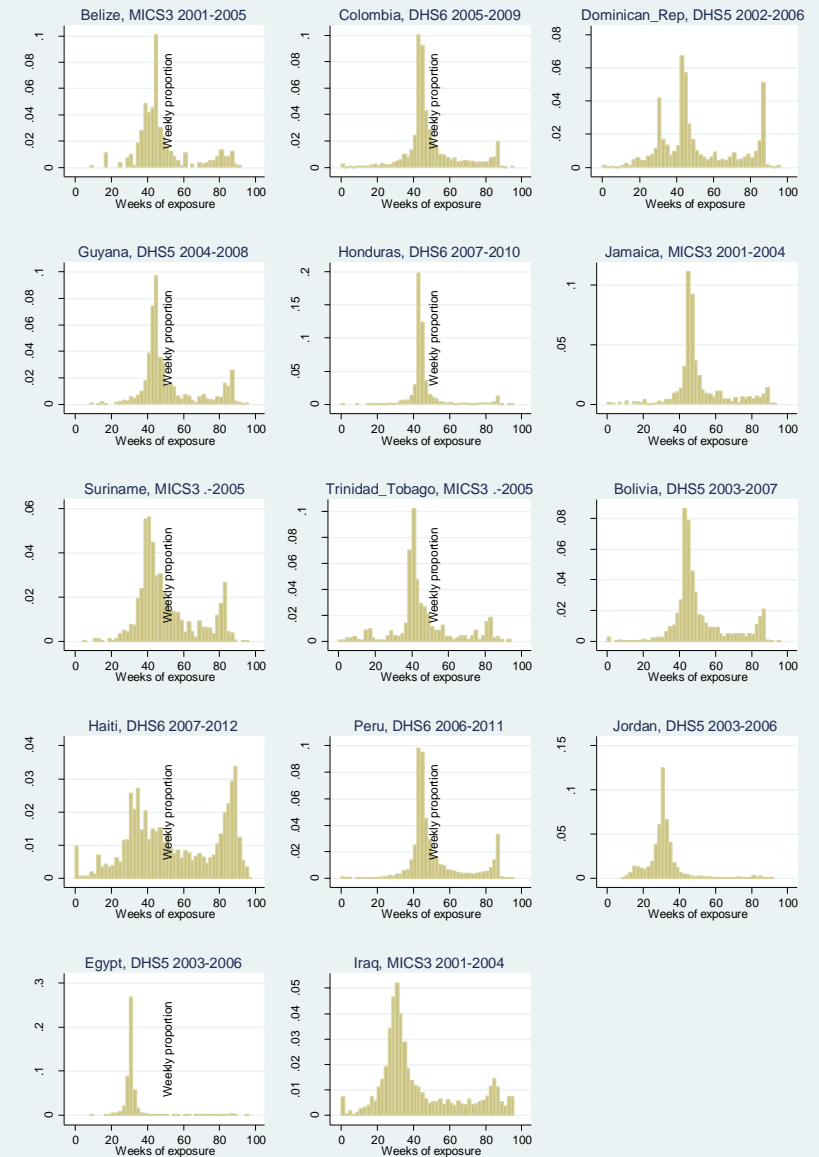
*Median etc. values for surveys in each group of countries.*

<i>Region</i>	<i>median</i>	<i>upper quartile</i>	<i>upper decile</i>	<i>boys</i>	<i>girls</i>	<i>urban</i>	<i>rural</i>	<i>wealth quintile top</i>	<i>wealth quintile bottom</i>
Overall	<b>35</b>	46	78	35	35	35	35	34	36
AFR D	<b>34</b>	51	85	34	34	34	34	34	35
AFR E	<b>34</b>	40	76	34	34	34	34	34	35
AMR B & D	<b>45</b>	55	80	45	45	45	45	45	45
EMR B & D	<b>31</b>	34	39	31	31	31	31	31	30
EUR B & C	<b>44</b>	46	57	43	44	44	44	43	43
SEAR B & D	<b>32</b>	36	45	32	32	32	32	33	32
WPR B	<b>35</b>	57	83	37	34	34	36	34	35

## Distributions for DTP weeks: AFR D subregion



## Distributions for DTP weeks: AMR & EMR regions



# Summary

The distribution of DTP weeks depends on:

- the EPI schedule (weeks from DTP1 to MCV)
- coverage (% drop-off between DTP1 & MCV)
- timeliness
- campaigns