

**BACKGROUND PAPER FOR  
UNICEF REPORT ON STATE OF THE WORLD'S CHILDREN 2023**

# Within-Country Inequalities in Zero-dose Prevalence

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## Executive summary

The Immunization Agenda 2030 builds upon the vision of the Sustainable Development Goals to ensure that no child is left behind, aiming at universal coverage with routine immunizations. Special attention is given to identifying and reaching zero-dose children, or those who are failing to receive any vaccines.

We identified and analyzed all nationally representative surveys carried out from 2015 to 2020, covering 74 countries. These included Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). The outcome variable was lack of any doses of DTP (diphtheria, tetanus and pertussis) vaccine, referred to as no-DTP prevalence. The analyses included 161,922 children aged 12-23 months who constitute the target group for measuring immunization coverage. Nine stratification variables were studied: wealth quintiles and deciles (derived from household asset indices), urban or rural residence, double stratification by wealth and residence, sex of the child, maternal education and empowerment (using the SWPER or survey-based women's empowerment index), ethnic group and subnational area. All analyses took into account the survey sample design. Pooled estimates were provided by region of the world and country income groups using the child population as weights in each country.

Pooled no-DTP prevalence was 12.9%, corresponding to 10.2 million children aged 12-23 months living in the 74 countries. Socioeconomic gradients were observed within all regions of the world and in all country income groups. Globally, 22.6% of children in the poorest wealth decile were not immunized, compared to 4.9% in the wealthiest decile. The widest gaps were observed in West and Central Africa, particularly in Nigeria where prevalence was 62.5% in the poorest and 3.8% in the wealthiest decile. In several world regions, the poorest decile showed markedly higher prevalence than all other deciles.

Urban-rural gaps were also present with pooled prevalence of 15.1% among rural and 9.4% among urban children, with gaps being particularly wide in low-income countries. Over half of rural Angolan children did not receive DTP compared to 18.5% among urban children. Double breakdown by wealth quintiles and residence showed wider gaps in rural than in urban areas. Among poor children, no-DTP prevalence was lower in urban compared to rural areas.

No-DTP prevalence levels were similar for boys and girls in all countries except for Haiti where prevalence was higher in boys. Maternal schooling was an important driver, with 23.5% pooled prevalence among children of mothers with no education and 6.9% among children whose mothers had completed secondary education.

Analyses of maternal empowerment were focused on the social independence domain of the SWPER index. In most of the 33 countries with data, empowerment was inversely associated with no-DTP prevalence. The strongest association was in Nigeria, where 53.2% of children with mothers in the lowest empowerment tercile failed to receive DTP, compared to 10.8% in the top empowerment tercile.

Of 53 countries with data on immunization by ethnic group, 27 showed significant gaps. Five countries (Afghanistan, Philippines, Nigeria, Angola, and Ethiopia) had at least one ethnic group with no-DTP prevalence above 50% and at least one group with less than 20% prevalence. Ten countries had prevalence gaps of 50 percentage points or higher among their subnational areas. The high-low prevalence gap among areas was 86.0 percentage points in Mali and 92.4 percentage points in Afghanistan.

Country-by-country results on inequalities according to the nine stratification variables are available in the Supplementary Materials and may be used to tailor national policies and programs. At the global level,

results point out the multidimensional nature of immunization inequalities and call for intersectoral action. Monitoring levels and trends in inequality through nationally-representative surveys is essential for supporting efforts to reach every child with essential immunizations.

## Background

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, and the Immunization Agenda 2030 (IA2030) have as their motto “leave no one behind” and thus prioritize the elimination of between and within-country disparities due to income, gender, age, race, ethnicity, and other relevant characteristics, as laid out in SDG 17.18.(United Nations 2015) Specifically in terms of immunization coverage, IA2030 envisions “a world where everyone, everywhere, at every age, fully benefits from vaccines to improve health and well-being”. Ensuring high and equitable coverage with vaccines is recognized as one of the “best buys” in global health.(World Health Organization 2020)

Analyses of inequalities in vaccine coverage within low- and middle-income countries (LMICs) are plentiful in the published literature, as well as in reports and websites from international organizations.(World Health Organization 2016) (Bosch-Capblanch, Banerjee et al. 2012, Restrepo-Mendez, Barros et al. 2016, Gavi - The Vaccine Alliance 2020, Bergen, Cata-Preta et al. 2022) Consistent with SDG 17.18, family wealth, maternal education and place of residence are well-known determinants of immunization coverage. Children from poor households, born to women with little or no education, living in rural areas and in remote locations tend to have limited geographic and economic access to health facilities. Their caretakers also tend to have lesser information on the importance of immunizations, generating wide inequalities as described in a 2016 landscape publication.(World Health Organization 2016) Whereas very few countries show significant gaps in immunization coverage between boys and girls, gender disparities play an important role in immunization in other ways. Evidence showing a positive association between women’s empowerment and vaccine coverage among their children, for example, indicates how gender serves as a determinant of uptake of immunization services .(Julia M. Porth, Abram L. Wagner et al. 2021, Wendt, Santos et al. 2022) Recently, family ethnicity has been shown to affect immunization coverage in many low and middle-income countries, with children of certain disadvantaged ethnic groups significantly less likely to receive vaccinations compared to others.(Cata-Preta, Santos et al. 2022)

Most existing analyses focus on intervention coverage, for example, the proportions of young children who received one or more doses of recommended vaccines, or who were fully immunized in early life. As part of the SDG focus on “leaving no one behind”, growing attention is being given to children who fail to receive any doses of routine vaccinations, the so-called “zero-dose children”.(Fulker 2021) The Immunization Agenda 2030 includes a specific global target of reducing the number of zero-dose children by 50% by 2030.(World Health Organization 2020) To better identify such children, the research community is focusing on no-DTP children, i.e., those who have not received any doses of a diphtheria-pertussis-tetanus-containing vaccine, an indicator that may also be measured using data from administrative health information systems. (Bosch-Capblanch, Banerjee et al. 2012, Cata-Preta, Santos et al. 2021, Fulker 2021, Santos, Cata-Preta et al. 2021) We will use the terms “zero-dose” and “no-DTP” interchangeably in this article, and we focus our analyses on the prevalence of children who fail to receive any doses of a DTP-containing vaccine.

By relying on the extensive database of the International Center for Equity in Health at the Federal University of Pelotas, we provide a landscape set of analyses of no-DTP prevalence among young children. We focus on several dimensions of within-country inequality, including family wealth, sex of the child, maternal education and empowerment, urban-rural residence, and ethnicity.

Findings from the present report were interwoven into the 2022 State of the World’s Children report issued by UNICEF. (<https://www.unicef.org/reports/state-worlds-children-2023>)

## Methods

### *Data sources and study samples*

The survey database of the International Center for Equity in Health includes all publicly available datasets from nationally representative Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). A total of 450 surveys carried out since the 1990s in 124 countries are available for analyses. We identified 72 nationally representative DHS and MICS carried out from 2015 to 2020 in low and middle-income countries. For countries where more than one survey was available since 2015, we used data from the most recent one unless otherwise mentioned.

Further information on the surveys is available elsewhere: DHS (<https://dhsprogram.com/what-we-do/survey-Types/dHs.cfm>) and MICS (<http://mics.unicef.org/>). Both survey programs are highly comparable in terms of sampling and indicators.(Corsi, Neuman et al. 2012, Hancioglu and Arnold 2013) In accordance with the internationally standardized definition of vaccine coverage, our sample included children aged 12-23 months in all countries except for Peru (2021), where we studied children aged 18-29 months because the measles vaccine is given after 12 months of age, in contrast to most countries where it is given at 9-12 months. Although measles vaccination is not included in our analyses, the use of these age ranges makes our findings consistent with results from national survey reports and from recent publications on lack of vaccination.(Cata-Preta, Santos et al. 2021, Santos, Cata-Preta et al. 2021)

### *Immunization zero-dose indicator*

The outcome variable – no-DTP prevalence – was defined as the proportion of children without any doses of a DTP-containing vaccine, including tetravalent and pentavalent vaccines. We use no DTP as a proxy for zero-dose children, that is, those who failed to receive any routine vaccinations, to be consistent with the IA2030 monitoring definition of zero-dose. (IA2030 2021) Information on immunisation status was extracted for children from two sources: vaccination cards or, when the child did not have a card or it was unavailable at the time of interview, the mother's or caregiver's report. We treated children with missing information on immunization as not vaccinated.

### *Stratification variables*

The stratification variables used in the analyses are defined below, along with their source of information:

- Wealth quintiles and deciles were obtained from household wealth indices that are included in the DHS and MICS datasets. These were derived using principal component analyses of household assets and characteristics of the building, presence of electricity, water supply and sanitary facilities, among other variables associated with wealth. Because relevant assets may vary in urban and rural households, separate principal component analyses are carried out in each area, which are later combined into a single score using a scaling procedure to allow comparability between urban and rural households.(Rutstein 2008)
- Maternal education was coded in three groups based on self-report: none (no formal education); primary (any primary education, including completed primary education); secondary or higher (any secondary education, including completed secondary education and partial or full higher education).
- Sex of the child was reported by the questionnaire respondent (almost always the child's mother).
- Urban or rural residence was coded according to country-specific delimitations at the time of the survey.
- Double stratification according to residence and wealth quintiles is also presented.



- Subnational regions were those defined by the national survey designers for sampling purposes; in most countries these correspond to level 1 administrative regions.

The six indicators above are available for virtually all countries out of the 72 with available surveys. We also carried out additional breakdowns according to the two stratification variables below, which are not available for a fair number of countries (total number of countries included in each analysis is presented in the results section):

- Women’s empowerment terciles (SWPER Global index) were based on factor analyses of questionnaire variables indicating social independence, including schooling attainment, access to information, age at pivotal life events, spousal asset differentials, and access to information.(Ewerling, Lynch et al. 2017, Ewerling, Raj et al. 2020) The SWPER index also includes two other domains (attitude to violence and decision making) which earlier analyses showed are not consistently associated with child immunization and therefore were not used in the present review.(Wendt, Santos et al. 2022)
- Ethnic group affiliation was assessed according to (a) self-reported ethnicity in most surveys, or (b) by the language spoken at home or by the household head, or (c) reported skin color in Cuba, or (d) caste in India. In Latin America and the Caribbean, for consistency with earlier analyses, we grouped the ethnic variable into three categories as follows: reference (mostly individuals with European, or mixed European and indigenous ancestry), indigenous, and afrodescendants.(Mesenburg, Restrepo-Mendez et al. 2018) We recoded groups with fewer than 50 children into country-specific “other” categories; if the “other group” still included fewer than 50 children, these were excluded from all analyses. For simplicity, we refer to ethnicity to indicate either ethnic group, language, skin color or caste groups.

In four instances, information on empowerment or ethnicity were not available in the most recent survey included in the analyses of the other stratification variables but were available in earlier surveys carried out in 2015 or later. We therefore used the penultimate surveys for these two variables, namely Ethiopia 2016, Nepal 2016 and Zimbabwe 2015 for empowerment and Ethiopia 2016 for ethnicity analyses.

Analyses are shown separately for the seven UNICEF regions: West and Central Africa (WCA), Eastern and Southern Africa (ESA), North Africa and Middle East (MENA), South Asia (SA), East Asia and the Pacific (EAP), Eastern Europe and Central Asia (EECA) and Latin America and the Caribbean (LAC).

### Statistical analyses

For each country, we calculated no-DTP prevalence and their 95% confidence intervals (95% CI) for each subgroup of the stratification variables. Country-specific results are shown in the Supplementary Materials. For presentation purposes, whenever possible we aggregated national results by UNICEF region and World Bank country income groups. In the pooled analyses, country-specific results were weighted by the national population of children aged 12-23 months obtained from the World Bank Population Estimates and Projections derived from the United Nations Population Division.(The World Bank 2021) A similar set of analyses with unweighted estimates are available in the Supplementary Materials at the end of this document.

When interpreting the results, we focus on absolute inequality, which is easier to interpret by policymakers and statistically more stable than relative inequality. In some analyses, a summary index of absolute inequality, the slope index (SII) is used to express the difference in prevalence among children at the poorest and wealthiest extremes of the socioeconomic scale. The SII is obtained through logistic regression that includes all children in the national samples, not only those in the poorest and wealthiest quintiles or deciles. Because no-DTP prevalence is usually higher among the poor than among the wealthy, the regression line is slanted downwards, and the SII is almost always a negative number.

The analyses were carried out with Stata (StataCorp. 2019. Stata Statistical Software: Release 17. College Station, TX: StataCorp LLC) and R (R Core Team, 2020, version 4.1.3. R Foundation for Statistical Computing, Vienna, Austria) and accounted for the multi-stage survey design and sampling weights.

### Ethical aspects

Ethical clearance was the responsibility of the institutions that administered the surveys and all analyses relied on anonymized databases.

## Results

The number of countries with available information for each stratification variable ranged from 33 for women's empowerment, 53 for ethnicity and 74 countries for the remaining variables. The 74 countries represent 71% of low-income, 57% of lower-middle income and 42% of upper-middle income countries in the world in 2018, median year of the surveys included. A total of 161,922 children were included in the analyses.

When results from the 74 countries were combined, the overall prevalence of no-DTP was 12.9%, corresponding to 10.2 million children aged 12-23 months living in these countries. National prevalence levels are shown in Table 1, ranging from 45.0% in the Central African Republic to 0.4% in Rwanda. The top 10 countries with the highest percentages of zero dose children included six from Sub-Saharan Africa and four from the EAP region.

Table 1. No-DTP prevalence in the 74 countries included in the analysis, ordered by decreasing prevalence.

Country	Year	Source	UNICEF Region	Zero-DTP prevalence
Central African Republic	2018	MICS	West & Central Africa	45.0
Kiribati	2018	MICS	East Asia & the Pacific	40.1
Guinea	2018	DHS	West & Central Africa	37.7
Papua New Guinea	2016	DHS	East Asia & the Pacific	36.1
Nigeria	2018	DHS	West & Central Africa	34.7
Congo, DR	2017	MICS	West & Central Africa	34.1
Angola	2015	DHS	Eastern & Southern Africa	31.2
Samoa	2019	MICS	East Asia & the Pacific	29.5
Laos	2017	MICS	East Asia & the Pacific	27.1
Afghanistan	2015	DHS	South Asia	27.0
Ethiopia	2019	DHS	Eastern & Southern Africa	23.7
Madagascar	2021	DHS	Eastern & Southern Africa	21.7
Timor Leste	2016	DHS	East Asia & the Pacific	21.6
Suriname	2018	MICS	Latin America & Caribbean	19.7
Cote d'Ivoire	2016	MICS	West & Central Africa	19.6
Mali	2018	DHS	West & Central Africa	17.9
Cameroon	2018	DHS	West & Central Africa	16.7
Haiti	2016	DHS	Latin America & Caribbean	16.5
Benin	2017	DHS	West & Central Africa	15.8
Pakistan	2017	DHS	South Asia	13.7
Philippines	2017	DHS	East Asia & the Pacific	13.4
Iraq	2018	MICS	Middle East & North Africa	13.3
Myanmar	2015	DHS	East Asia & the Pacific	13.1
Mauritania	2019	DHS	West & Central Africa	12.2
Indonesia	2017	DHS	East Asia & the Pacific	11.1
Nepal	2019	MICS	South Asia	10.5
Mozambique	2015	DHS	Eastern & Southern Africa	10.0
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	9.4
Maldives	2016	DHS	South Asia	9.2
Togo	2017	MICS	West & Central Africa	9.2
South Africa	2016	DHS	Eastern & Southern Africa	8.8
Guyana	2019	MICS	Latin America & Caribbean	8.7
Liberia	2019	DHS	West & Central Africa	8.6
Lesotho	2018	MICS	Eastern & Southern Africa	8.5
Dominican Republic	2019	MICS	Latin America & Caribbean	8.1
Mexico	2015	MICS	Latin America & Caribbean	7.8
Tajikistan	2017	DHS	Eastern Europe & Central Asia	7.6
Jordan	2017	DHS	Middle East & North Africa	7.4
Peru	2021	DHS	Latin America & Caribbean	7.2
Belize	2015	MICS	Latin America & Caribbean	7.1
Guinea Bissau	2018	MICS	West & Central Africa	7.0
India	2019	DHS	South Asia	6.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	5.5
Sierra Leone	2019	DHS	West & Central Africa	5.4
Paraguay	2016	MICS	Latin America & Caribbean	5.2
Uganda	2016	DHS	Eastern & Southern Africa	5.1
Vietnam	2020	MICS	East Asia & the Pacific	4.9
Tunisia	2018	MICS	Middle East & North Africa	4.6
Malawi	2019	MICS	Eastern & Southern Africa	4.6
Algeria	2018	MICS	Middle East & North Africa	4.5
State of Palestine	2019	MICS	Middle East & North Africa	4.5
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	4.4

<b>Country</b>	<b>Year</b>	<b>Source</b>	<b>UNICEF Region</b>	<b>Zero-DTP prevalence</b>
North Macedonia	2018	MICS	Eastern Europe & Central Asia	4.1
Ghana	2017	MICS	West & Central Africa	4.0
Kosovo	2019	MICS	Eastern Europe & Central Asia	3.9
Senegal	2019	DHS	West & Central Africa	3.8
Tonga	2019	MICS	East Asia & the Pacific	3.6
Serbia	2019	MICS	Eastern Europe & Central Asia	3.5
Honduras	2019	MICS	Latin America & Caribbean	3.5
Fiji	2021	MICS	East Asia & the Pacific	3.3
Thailand	2019	MICS	East Asia & the Pacific	3.1
Tanzania	2015	DHS	Eastern & Southern Africa	3.0
Mongolia	2018	MICS	East Asia & the Pacific	3.0
Cuba	2019	MICS	Latin America & Caribbean	2.6
Costa Rica	2018	MICS	Latin America & Caribbean	2.3
Sao Tome and Principe	2019	MICS	West & Central Africa	2.3
Zambia	2018	DHS	Eastern & Southern Africa	2.1
Tuvalu	2019	MICS	East Asia & the Pacific	1.7
Gambia	2019	DHS	West & Central Africa	1.7
Armenia	2015	DHS	Eastern Europe & Central Asia	1.5
Bangladesh	2017	DHS	South Asia	1.5
Burundi	2016	DHS	Eastern & Southern Africa	0.8
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	0.7
Rwanda	2019	DHS	Eastern & Southern Africa	0.4

In the next sections, we show results on no-DTP prevalence stratified by wealth quintiles and deciles, urban-rural residence, combined residence and wealth, sex of the child, maternal education and empowerment, ethnic group and subnational regions. These results are presented by world region and country income groups. Full results for all countries including confidence intervals are available in the Supplementary Materials.

### Prevalence by socioeconomic position of the households

Figure 1 shows no-DTP prevalence according to wealth quintiles. For all countries combined, prevalence equals 20.6% in the poorest and 5.9% in the wealthiest quintiles.

The widest gaps are seen in WCA, where almost half (44.3%) of children from the poorest quintile compared to 8.3% in the wealthiest quintile are unvaccinated. The narrowest gaps are in EECA and LAC. And EECA is the only region where the pattern appears to be reversed, which may be due to vaccine hesitancy among wealthier families. The gaps by wealth quintile are widest in low-income countries, intermediate in lower-middle, and narrowest in upper-middle-income countries.

Figure 1. No-DTP prevalence according to wealth quintiles in 74 LMICs, grouped by UNICEF regions and World Bank country income groups.

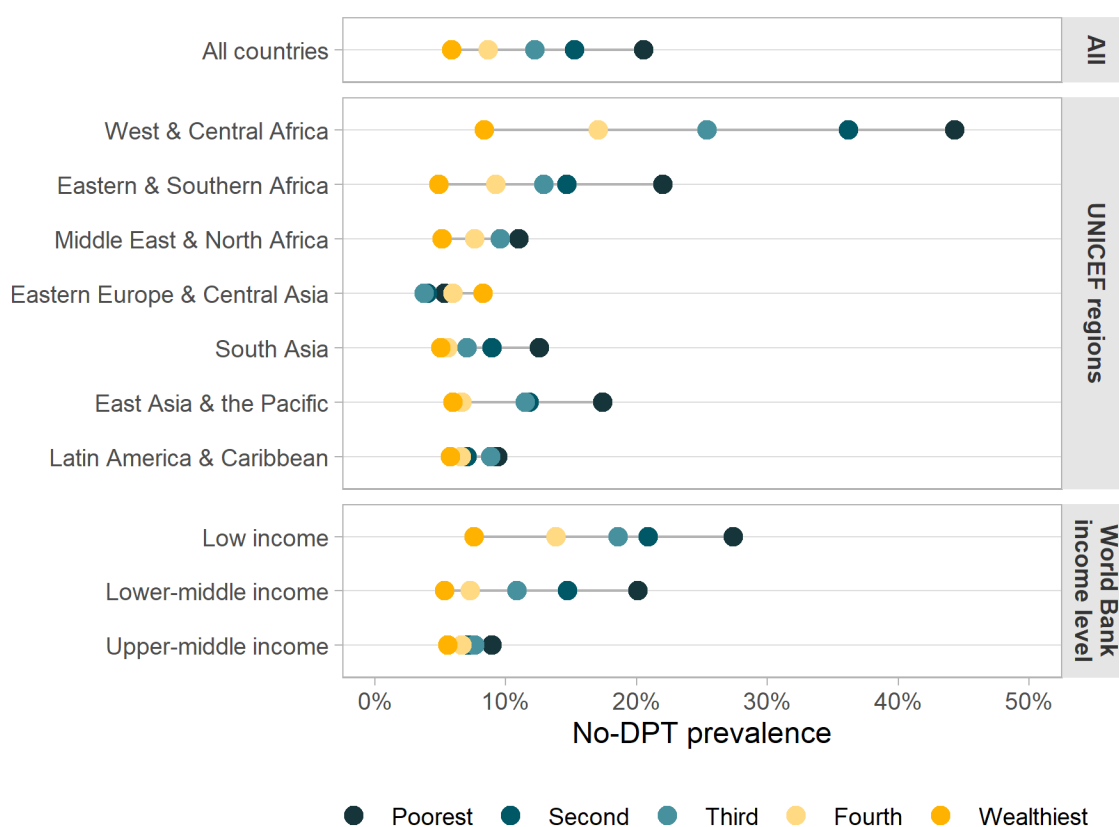
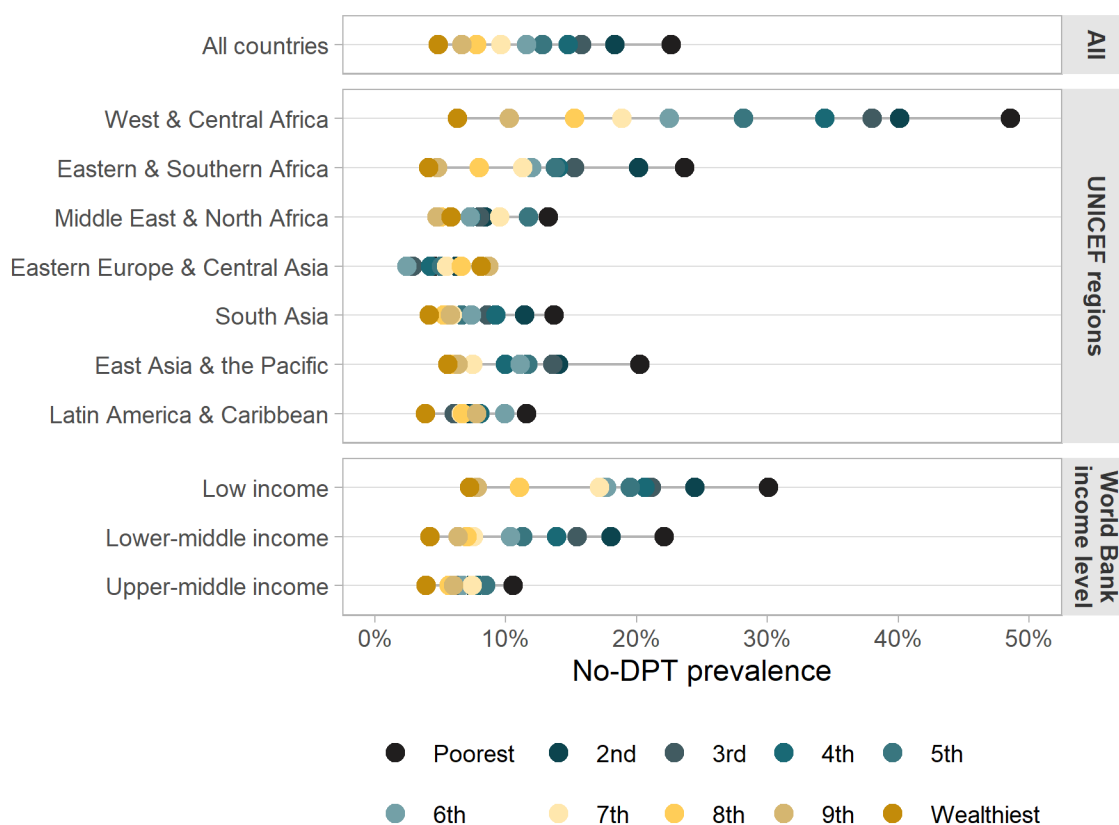


Figure 2 shows the corresponding results by wealth deciles, allowing further granularity of the analyses. For all countries combined, prevalence equals 22.6% in the poorest and 4.9% in the wealthiest deciles.

As expected, the absolute gaps between the poorest and wealthiest deciles are wider than for the poorest and wealthiest quintiles shown in Figure 1, whereas the ranking of regions in terms of the width of socioeconomic gaps are similar in both figures. Particularly when using wealth deciles, there is evidence of “bottom inequality”,(Victora, Fenn et al. 2005) that is, prevalence in the poorest group is considerably higher than in the second poorest group, a pattern that has also been described as “marginal exclusion”. (World Health Organization 2005)

Figure 2. No-DTP prevalence according to wealth deciles in 74 LMICs, grouped by UNICEF regions and World Bank country income groups.



The ten countries with the widest socioeconomic gaps in no-DTP prevalence are shown in Table 2. Nigeria and Angola lead the list, with SII values around 60 percentage points, that is, prevalence among the poorest children being remarkably higher than among children from the wealthiest families. Note that the SII is not simply the difference between prevalence in the extreme groups, but is a modeled estimate derived by analyzing all children in the national sample. Seven of these 10 countries are from Sub-Saharan Africa.

Another interesting and policy-relevant finding is that prevalence in the wealthiest decile does not vary markedly among regions or country income groups, whereas prevalence in the poorest decile shows huge fluctuations by these two groupings (region and country income). This suggests that regardless of national coverage levels, wealthy families – on average - have the resources available to ensure their children are vaccinated – a type of “safety net” phenomenon.

Table 2. Ten countries with the widest socioeconomic gaps in no-DTP prevalence

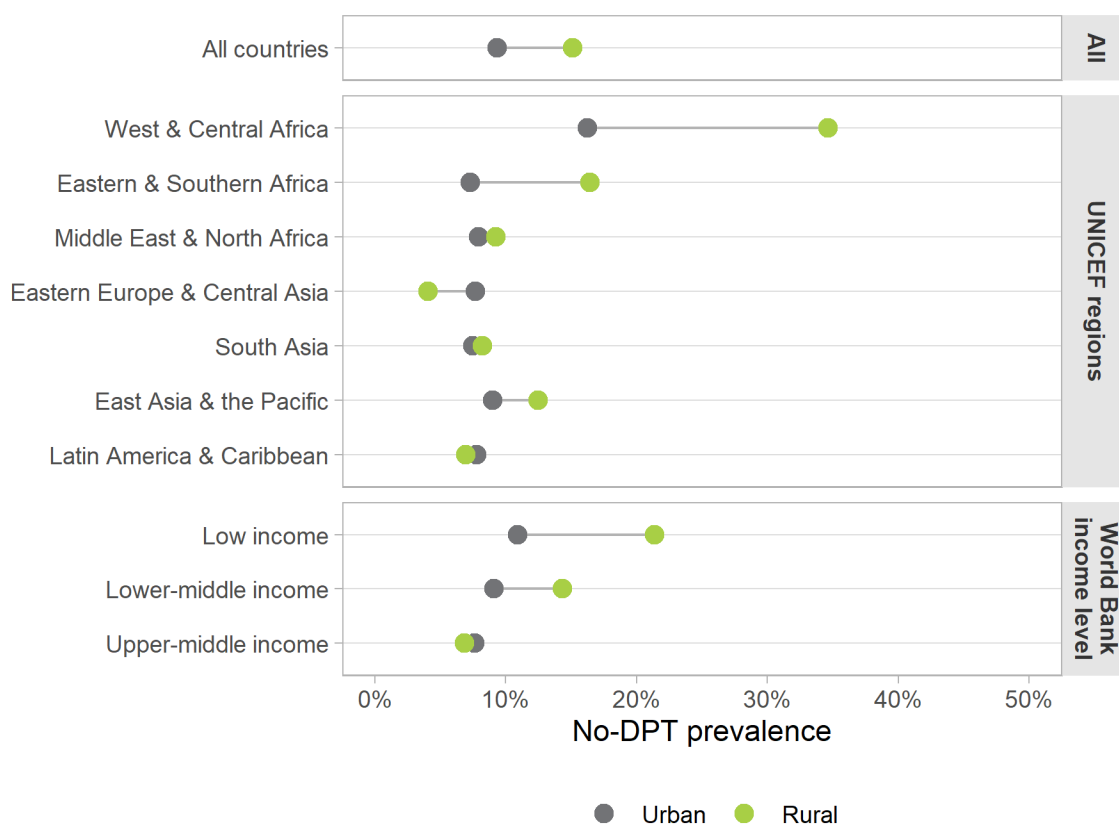
Country	No-DTP prevalence (%)		Slope index of inequality (pct points)
	Poorest decile	Wealthiest decile	
Nigeria	65.2	3.8	-62.5
Angola	54.6	5.5	-59.3
Papua New Guinea	58.6	10.1	-52.5
Central African Republic	62.9	12.7	-44.0
Guinea	59.9	21.5	-42.0
Ethiopia	46.9	4.8	-39.9
Congo, DR	50.7	11.4	-39.6
Laos	45.6	13.6	-34.8
Pakistan	33.4	1.8	-33.1
Madagascar	38.3	12.5	-31.7

### Prevalence by urban-rural residence

Our findings on no-DTP prevalence in urban and rural areas confirm the results from analyses of other immunization coverage indicators. (World Health Organization 2016) For all countries combined, 9.4% of urban and 15.1% of rural children failed to receive one or more doses of DTP.

Gaps are particularly wide in WCA where no-DTP prevalence levels are 16.2% among urban children and 34.6% among rural children. In EECA the gap is in the opposite direction, perhaps because of vaccine hesitancy among urban – on average being richer and more educated – households. Gaps tend to be widest in low-income countries, and non-existent in upper-middle-income countries (where most people live in cities).

Figure 3. No-DTP prevalence according to urban-rural residence in 74 LMICs, grouped by UNICEF regions and World Bank country income groups.





The 10 countries with the widest urban-rural gaps are shown in Table 3. Angola is ranked first, with no-DTP prevalence being 32.1 percentage points lower in urban than in rural areas. Except for Afghanistan and Papua New Guinea, all other countries in Table 3 are in Sub-Saharan Africa.

Table 3. Ten countries with the widest urban/rural gaps in no-DTP prevalence

Country	No-DTP prevalence (%)		Urban-rural gap (pct points)
	Rural children	Urban children	
<b>Angola</b>	50.6	18.5	-32.1
<b>Nigeria</b>	45.0	18.8	-26.2
<b>Central African Republic</b>	52.5	28.3	-24.2
<b>Guinea</b>	44.7	21.4	-23.3
<b>Papua New Guinea</b>	38.7	17.8	-20.8
<b>Ethiopia</b>	29.7	10.0	-19.7
<b>Congo, DR</b>	41.8	22.6	-19.3
<b>Cameroon</b>	22.5	9.1	-13.5
<b>Mali</b>	20.6	7.9	-12.7
<b>Afghanistan</b>	29.9	18.0	-11.9

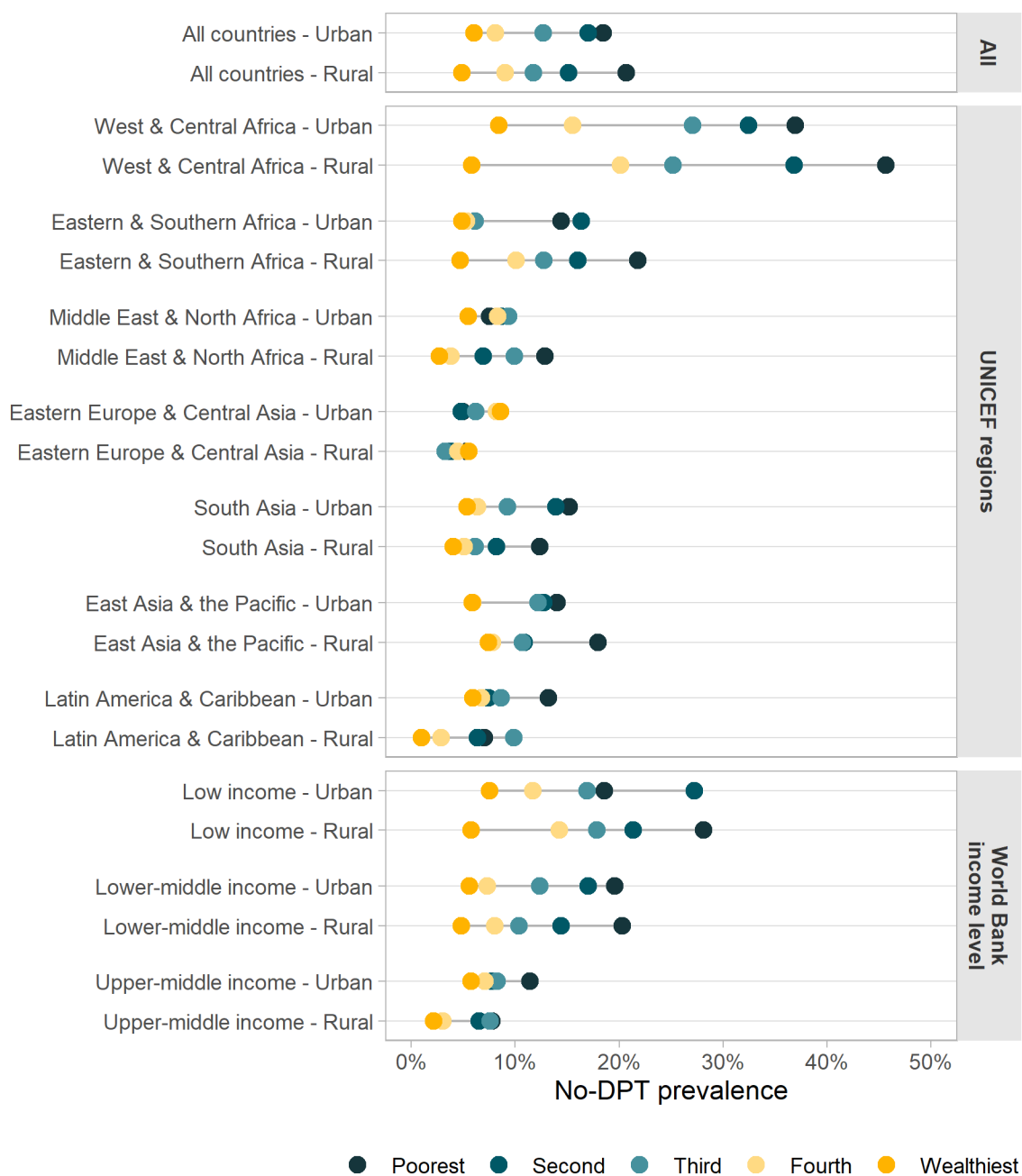
### Prevalence by urban-rural residence and wealth quintiles

Double stratification analyses - by wealth quintiles and place of residence (Figure 4) - show the intersectionalities between these two dimensions of inequality. Wealth-related gradients in no-DTP prevalence are observed both among urban and rural children in all world regions except for EECA.

For all countries combined, urban children show slightly narrower gaps between the poorest and wealthiest quintiles (18.5% and 6.0% prevalence, respectively) than is observed for rural children (20.7% and 5.0%). Perhaps surprisingly, there is no consistent rural disadvantage when wealth is accounted for. If anything, in most regions and country groups, no-DTP prevalence is slightly lower among wealthy rural children than for wealthy urban children, and higher among rural poor than urban poor children, possibly reflecting greater access to health services among the urban poor.

The widest socioeconomic gaps are observed among rural WCA children, where no-DTP prevalence equals 8.4% among the wealthiest urban children and 45.7% among the poorest rural children. Differences in EECA are small due to low prevalence of zero dose children, but socioeconomic gradients appear to be reversed compared to other regions, and urban prevalence tends to be higher, for the same quintile, compared to rural prevalence. Bottom inequality or marginal exclusion patterns are observed among rural children in several regions, including WCA, ESA, SA, and EAP.

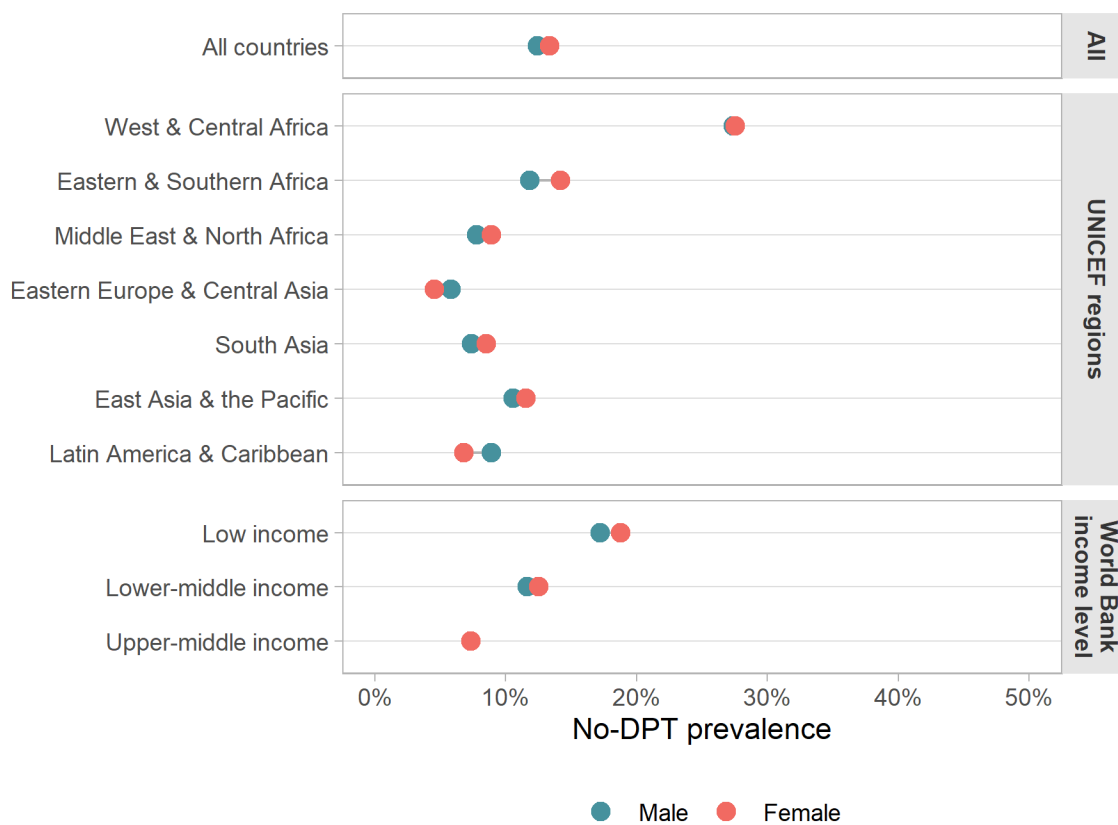
Figure 4. No-DTP prevalence according to urban-rural residence and wealth quintiles in 74 LMICs (double stratification), grouped by UNICEF regions and World Bank country income groups.



### Prevalence by sex of the child

The existing literature shows that boys and girls tend to have similar levels of several immunization coverage indicators in most countries. (World Health Organization 2016) Our analyses confirm that this is also the case for no-DTP prevalence (Figure 5) in all world regions and in the three country income groups. For all countries combined, prevalence equalled 12.4% among boys and 13.4% among girls. Of the 74 countries, only Haiti and India presented a statistically significant ( $p=0.016$  and  $p=0.029$ ) difference by sex, with higher no-DTP prevalence in boys (20.0% in Haiti and 6.0% in India) than among girls (12.8% in Haiti and 6.8% in India).

Figure 5. No-DTP prevalence according to sex of the child in 74 LMICs, grouped by UNICEF regions and World Bank country income groups.



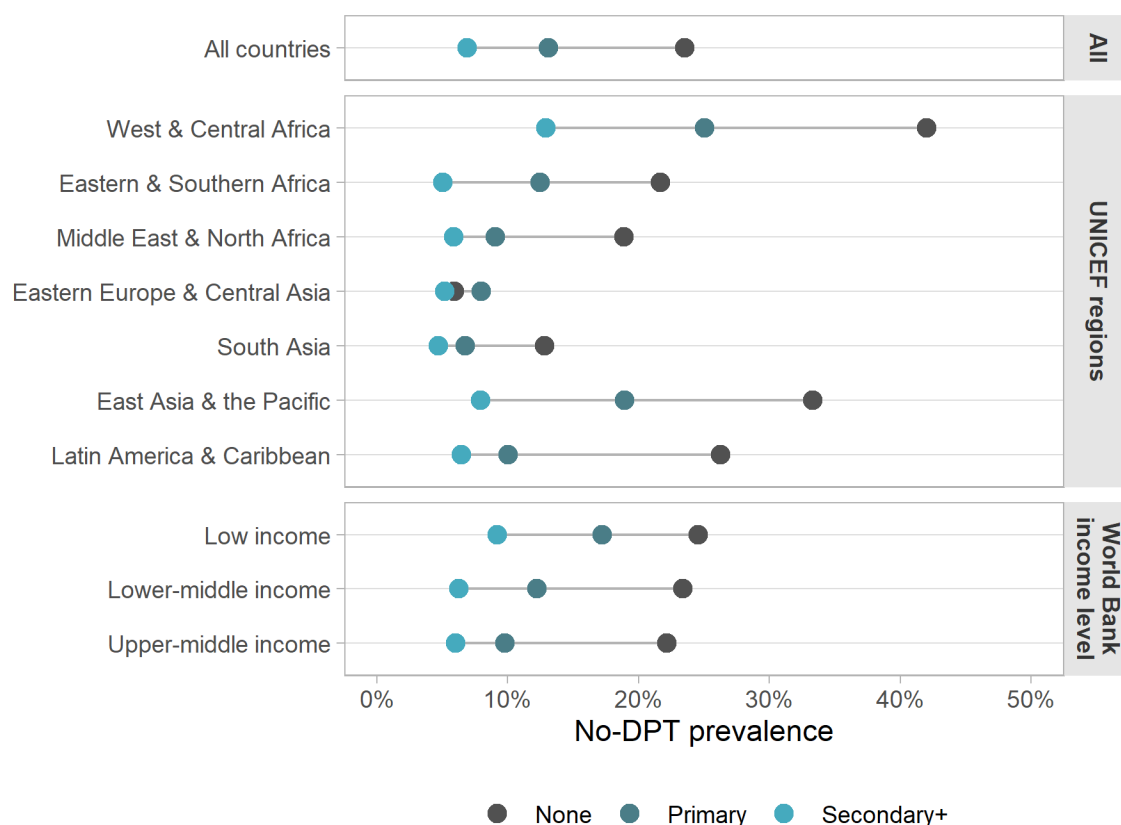
### Prevalence by maternal education

Figure 6 shows no-DTP prevalence by maternal education. Except for EECA, all regions present wide inequalities with the highest prevalence observed in children born to women without any formal education, and the lowest levels in those born to mothers with secondary education. The most striking gaps are found in WCA and EAP. Pooled results over the 74 countries show no-DTP prevalence of 6.9%, 13.1% and 23.5% among children born to women with secondary or higher, primary, and no education, respectively.

Gaps according to maternal education are more difficult to interpret than those according to wealth quintiles or deciles because the sizes of each educational category vary by country and by region. For example, women without any education represent a more extreme social category in upper-middle income countries than in low-income countries where average educational levels are low. The narrow gaps in EECA may be due to the small number of women without full secondary education, and the resulting imprecision in the estimates.

Despite these caveats, maternal education is a clear driver of no-DTP prevalence in virtually all countries.

Figure 6. No-DTP prevalence according to maternal education in 74 LMICs, grouped by UNICEF regions and World Bank country income groups.

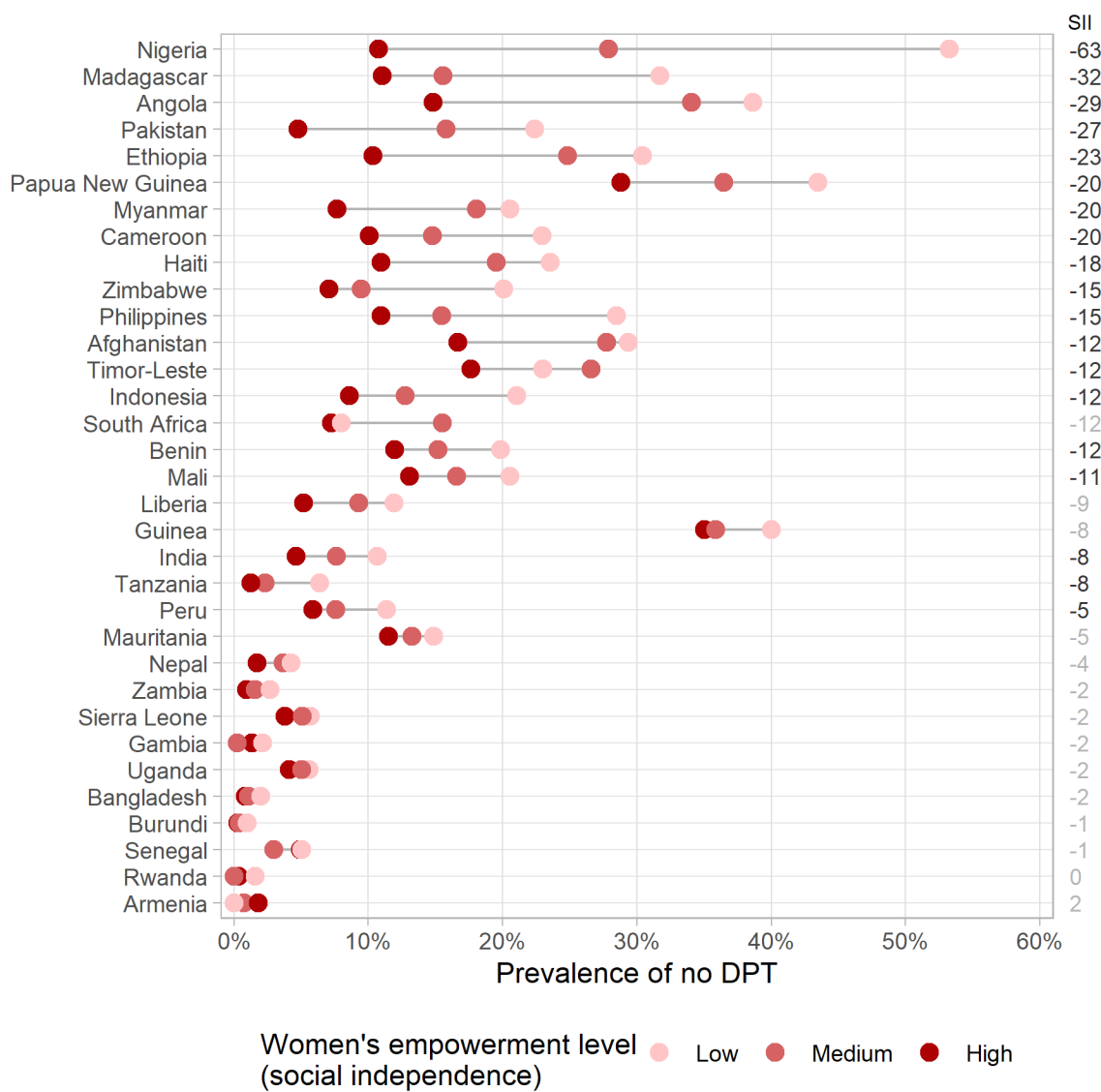


### Prevalence by maternal empowerment level

The variables required for characterizing maternal empowerment levels are only available in Demographic and Health Surveys for 33 countries. We focus on the social independence domain of the SWPER index,(Ewerling, Lynch et al. 2017, Ewerling, Raj et al. 2020) given that the two other domains (attitude to violence and decision making) are not strongly associated with child immunization.(Wendt, Santos et al. 2022)

Figure 7 shows that most of the 33 countries with available data had clear gradients, with zero-DTP prevalence being highest in children born to women in the lowest empowerment tercile, intermediate among those in the middle tercile, and lowest among those born to more empowered e women. The widest gaps are present in Nigeria, where over half (53.2%) of the children born to women in the lowest empowerment tercile are unvaccinated, compared to 10.8% in the highest tercile. The countries at the bottom of Figure 7 have low no-DTP prevalence, and the gaps according to empowerment terciles are not as evident as for high-prevalence countries. Yet, children born to less empowered women appear to be at slightly higher risk of not being immunized. We opted not to aggregate the results in Figure 7 by world region or by country income groups due to the smaller number of countries with data compared to the above analyses using other stratification variables.

Figure 7. No-DTP prevalence according to tertiles of women’s empowerment (social independence domain of the SWPER index) in 33 LMICs with available information from DHS surveys.



NOTE: SII estimates presented in light gray are not significantly different from zero ( $p > 0.05$ ).

### Prevalence by ethnic group

Although analyses of child health outcomes according to ethnicity are common for high-income countries and for regions of the world such as LAC (Mesenburg, Restrepo-Mendez et al. 2018), comprehensive multi-country analyses of immunization coverage have only become available very recently. (Cata-Preta, Santos et al. 2022)

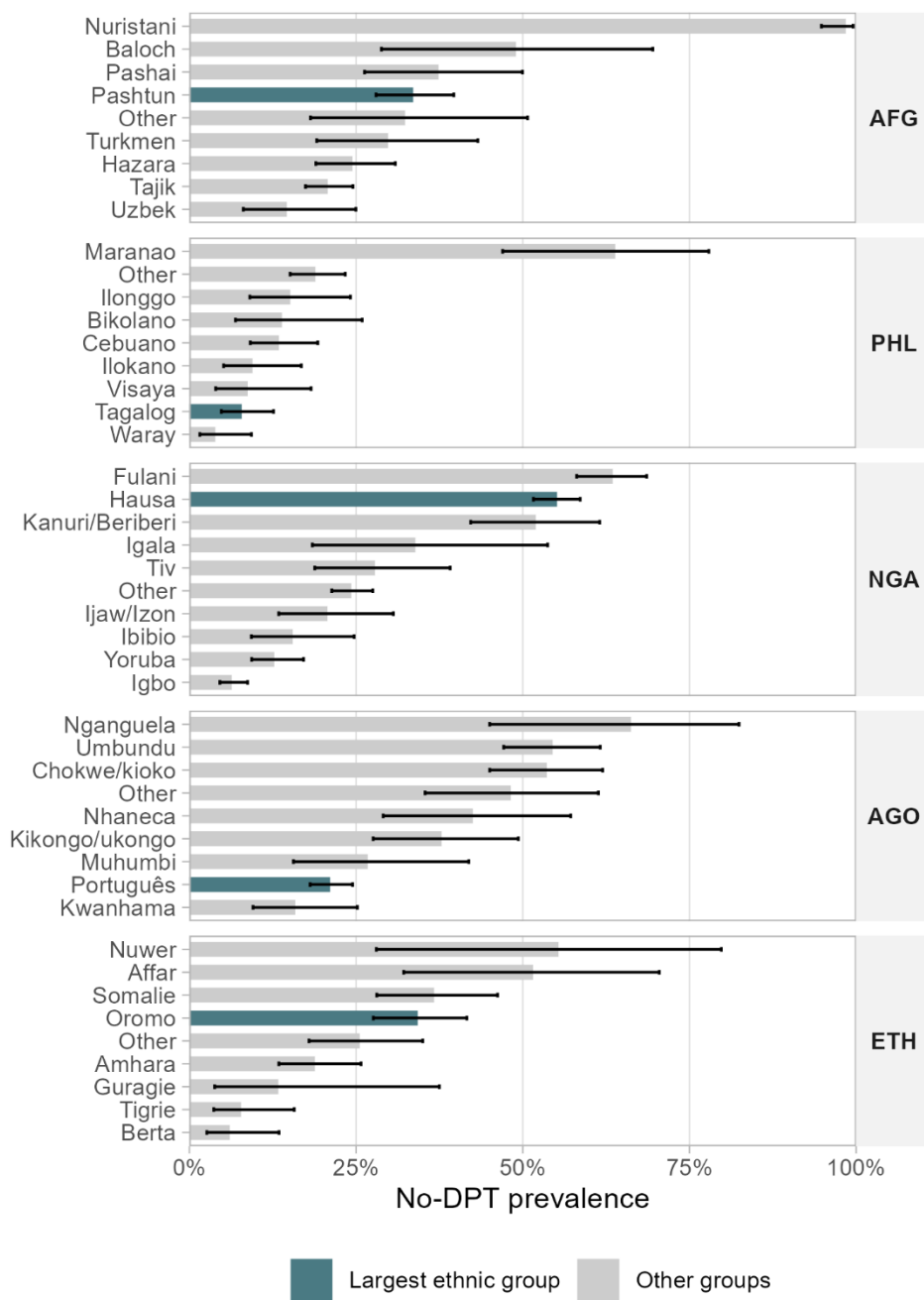
Of the 74 countries included in the present analyses, 53 had information on ethnic group affiliation, language, or another proxy variable for ethnicity such as skin color or caste. Figure 8 shows the five countries with the widest gaps in no-DTP prevalence among different ethnicities: Afghanistan, Philippines, Nigeria, Angola, and Ethiopia. In each of these five countries, there was at least one ethnic group with no-DTP prevalence above 50%. In Afghanistan, virtually no child from the Nuristani ethnic group had received one or more DTP doses.

The largest ethnic groups in each country sample are highlighted in Figure 8. There is no clear pattern in terms of prevalence in the largest group compared to other ethnicities.

Within a country, ethnic groups are usually easier to target for immunization activities than other dimensions of inequality, such as wealth, maternal education or empowerment because they often live together in specific communities. Information on ethnic gaps is therefore particularly relevant for policymakers and health services managers.



Figure 8. No-DTP prevalence and 95% CI according to ethnic or language groups in five LMICs with wide ethnic disparities.



Legend: AFG: Afghanistan; PHL: Philippines; NGA: Nigeria; AGO: Angola; ETH: Ethiopia.

### Prevalence by subnational areas

We analyzed no-DTP prevalence according to subnational geographic areas – as defined in the sampling domains for each survey - within the 74 countries. Because the numbers of areas vary by country, it is not possible to pool results across world regions or country income groups. Only subnational areas with 25 or more children aged 12-23 months in the sample were included in the analyses. Results for all countries are available in the Supplementary Materials.

Table 4 shows the 10 countries with at least a 50 percentage point gap in prevalence between the highest and lowest prevalence areas. The widest gap was observed in Afghanistan, where no-DTP prevalence equaled 98.6% in Nooristan and 6.2% in Badakhshan – a remarkable difference of 92.4 percentage points. The remarkably high prevalence in Nooristan corresponds to the above-mentioned near universal prevalence of zero dose children among the Nuristani ethnicity. One should bear in mind that the Nuristani represent only around 1% of the Afghan population.

The second largest gap was in Mali, where prevalence ranged from 6.7% in Bamako to 92.6% in Kidal, a gap of 85.9 percentage points. Because the number of areas and the proportions of the population in each area vary from country to country, detailed comparisons of country-by-country gaps are not possible. Other things being equal, countries with many subnational areas represented in the sampling frame will tend to show wider gaps between them than those with fewer such areas.

In addition to six countries from Sub-Saharan Africa (Angola, Central African Republic, DR Congo, Ethiopia, Nigeria and Mali), the list includes two from EAP (Lao and Philippines) and two from SA (Afghanistan and Pakistan). No countries from LAC, MENA or EECA were included among the 10 with the widest gaps.

Several of the countries with the widest gaps are affected by humanitarian conflict, which likely precluded immunization services to be delivered to children in parts of the country.

Table 4. Ten countries with the widest gaps among subnational areas. Areas with the highest and lowest prevalence inside each country are shown in bold font.

Country	Subnational region	no-DTP prevalence	High-low subnational gap
<b>Afghanistan</b>	<b>Badakhshan</b>	<b>6.2</b>	<b>92.4</b>
Afghanistan	Faryab	7.7	
Afghanistan	Wardak	8.7	
Afghanistan	Laghman	10.1	
Afghanistan	Nangarhar	10.3	
Afghanistan	Paktya	11.2	
Afghanistan	Bamyan	12.6	
Afghanistan	Parwan	14.2	
Afghanistan	Kapisa	15.5	
Afghanistan	Kabul	16.5	
Afghanistan	Kunduz	17.3	
Afghanistan	Nimroz	18.7	
Afghanistan	Paktika	18.7	
Afghanistan	Badghis	19.3	
Afghanistan	Herat	21.2	
Afghanistan	Sar-E-Pul	24.4	
Afghanistan	Balkh	24.4	
Afghanistan	Jawzjan	24.8	
Afghanistan	Takhar	25.1	
Afghanistan	Panjsher	26.5	
Afghanistan	Baghlan	27.0	
Afghanistan	Logar	29.2	
Afghanistan	Samangan	33.7	
Afghanistan	Khost	37.2	
Afghanistan	Ghazni	43.1	
Afghanistan	Daykundi	44.3	
Afghanistan	Helmand	45.6	
Afghanistan	Farah	50.3	
Afghanistan	Kunarha	50.5	
Afghanistan	Ghor	51.8	
Afghanistan	Zabul	54.8	
Afghanistan	Kandahar	59.3	
Afghanistan	Urozgan	94.3	
<b>Afghanistan</b>	<b>Nooristan</b>	<b>98.6</b>	

<b>Country</b>	<b>Subnational region</b>	<b>no-DTP prevalence</b>	<b>High-low subnational gap</b>
<b>Angola</b>	<b>Luanda</b>	<b>13.0</b>	<b>54.2</b>
Angola	Cabinda	13.9	
Angola	Cunene	19.0	
Angola	Huambo	19.3	
Angola	Lunda Sul	19.6	
Angola	Zaire	20.0	
Angola	Malanje	21.2	
Angola	Namibe	35.3	
Angola	Cuanza Norte	38.1	
Angola	Huíla	38.6	
Angola	Uíge	38.9	
Angola	Benguela	40.3	
Angola	Bengo	40.7	
Angola	Lunda Norte	48.2	
Angola	Bié	51.7	
Angola	Quando Cubango	54.6	
Angola	Cuanza Sul	57.8	
<b>Angola</b>	<b>Moxico</b>	<b>67.2</b>	
<b>CAR</b>	<b>Bangui</b>	<b>14.6</b>	<b>60.5</b>
CAR	Région 1	30.6	
CAR	Région 5	40.8	
CAR	Région 4	42.3	
CAR	Région 3	49.7	
CAR	Région 2	54.4	
CAR	Région 6	75.0	

<b>Country</b>	<b>Subnational region</b>	<b>no-DTP prevalence</b>	<b>High-low subnational gap</b>
Congo DR	<b>Nord Kivu</b>	<b>6.0</b>	<b>67.6</b>
Congo DR	Kasaï Central	15.4	
Congo DR	Haut Uele	17.0	
Congo DR	Kinshasa	19.6	
Congo DR	Sud Kivu	19.8	
Congo DR	Ituri	21.6	
Congo DR	Kongo Central	23.8	
Congo DR	Haut Katanga	26.8	
Congo DR	Kwilu	35.2	
Congo DR	Haut Lomami	36.2	
Congo DR	Bas Uele	36.3	
Congo DR	Kasaï Oriental	36.7	
Congo DR	Équateur	37.4	
Congo DR	Sud Ubangi	43.2	
Congo DR	Lomami	44.9	
Congo DR	Lualaba	48.4	
Congo DR	Kwango	54.0	
Congo DR	Tanganyika	56.7	
Congo DR	Nord Ubangi	58.8	
Congo DR	Tshuapa	59.4	
Congo DR	Tshopo	61.4	
Congo DR	Maindombe	61.8	
Congo DR	Kasaï	63.6	
Congo DR	Mongala	65.3	
Congo DR	Sankuru	67.3	
<b>Congo DR</b>	<b>Maniema</b>	<b>73.6</b>	
<b>Ethiopia</b>	<b>Addis Ababa</b>	<b>3.7</b>	<b>52.3</b>
Ethiopia	Tigray	4.6	
Ethiopia	Dire Dawa	4.8	
Ethiopia	Benishangul-Gumuz	10.7	
Ethiopia	Amhara	15.6	
Ethiopia	Gambela	23.7	
Ethiopia	Oromia	26.6	
Ethiopia	SNNPR	27.3	
Ethiopia	Harari	36.8	
Ethiopia	Afar	53.5	
<b>Ethiopia</b>	<b>Somali</b>	<b>56.0</b>	

<b>Country</b>	<b>Subnational region</b>	<b>no-DTP prevalence</b>	<b>High-low subnational gap</b>
<b>Lao</b>	<b>Borikhamxay</b>	<b>5.5</b>	<b>55.0</b>
Lao	Vientiane	9.9	
Lao	Xayabury	11.8	
Lao	Khammuane	12.0	
Lao	Saravane	19.0	
Lao	Luangnamtha	22.1	
Lao	Vientiane Capital	22.9	
Lao	Xiengkhuang	24.0	
Lao	Huaphanh	24.0	
Lao	Sekong	25.8	
Lao	Champasack	25.8	
Lao	Luangprabang	30.6	
Lao	Attapeu	30.8	
Lao	Phongsaly	35.6	
Lao	Bokeo	40.9	
Lao	Savannakhet	44.9	
Lao	Oudomxay	49.7	
<b>Lao</b>	<b>Xaysomboun</b>	<b>60.5</b>	

Country	Subnational region	no-DTP prevalence	High-low subnational gap
<b>Mali</b>	<b>Bamako</b>	<b>6.7</b>	<b>86.0</b>
Mali	Ségou	13.0	
Mali	Sikasso	14.3	
Mali	Koulikoro	20.1	
Mali	Mopti	22.4	
Mali	Kayes	24.7	
Mali	Tombouctou	27.9	
Mali	Gao	43.3	
<b>Mali</b>	<b>Kidal</b>	<b>92.6</b>	
<b>Pakistan</b>	<b>Punjab</b>	<b>4.7</b>	<b>52.1</b>
Pakistan	Islamabad (Ict)	5.6	
Pakistan	Sindh	19.4	
Pakistan	Khyber Pakhtunkhwa	21.4	
Pakistan	Fata	44.7	
<b>Pakistan</b>	<b>Balochistan</b>	<b>56.8</b>	
<b>Nigeria</b>	<b>South East</b>	<b>7.8</b>	<b>47.7</b>
Nigeria	South West	11.3	
Nigeria	South South	15.0	
Nigeria	North Central	29.6	
Nigeria	North East	44.8	
<b>Nigeria</b>	<b>North West</b>	<b>55.5</b>	
<b>Philippines</b>	<b>Davao</b>	<b>1.6</b>	<b>58.4</b>
Philippines	Eastern Visayas	1.9	
Philippines	Caraga	6.1	
Philippines	Cordillera Administrative	6.7	
Philippines	Calabarzon	6.8	
Philippines	National Capital	7.4	
Philippines	Central Luzon	11.0	
Philippines	Bicol	11.0	
Philippines	Cagayan Valley	11.5	
Philippines	Ilocos	12.8	
Philippines	Northern Mindanao	14.3	
Philippines	Zamboanga Peninsula	16.8	
Philippines	Central Visayas	17.6	
Philippines	Mimaropa	17.7	
Philippines	Western Visayas	21.3	
Philippines	Soccsksargen	34.1	
<b>Philippines</b>	<b>Armm</b>	<b>60.0</b>	

## Discussion

In our pooled analyses 12.9% (10.2 million) of one-year-old children living in the 74 countries included in our study failed to receive one or more doses of DTP. Zero-dose prevalence varied widely among countries, ranging from 0.4% in Rwanda to 45.0% in Angola. Although we did not carry out time trend analyses, evidence from international agencies suggest that after several years of sustained increases in global immunization coverage, there was an important reduction in 2020 and in 2021 compared to previous years.(Gavi - The Vaccine Alliance 2020)(<https://www.unicef.org/press-releases/WUENIC2022release>)

Socioeconomic gradients in no-DTP prevalence were observed within all regions of the world and in all country income groups. Globally, 22.6% of children in the poorest wealth decile were not immunized with DTP compared to 4.9% in the wealthiest decile. The widest gaps were in WCA with the corresponding percentages being 48.6% in the poorest wealth decile and 6.3% in the wealthiest decile. Nigeria presented the widest gaps of all countries studied, with prevalence of almost two thirds (62.5%) in the poorest and only 3.8% in the wealthiest deciles. When countries were disaggregated by national per capita income groups, the within-county socioeconomic gaps were widest in low-income, intermediate in lower-middle-income, and narrowest in upper-middle-income countries. In several regions, there was evidence of marginal exclusion (World Health Organization 2005) or bottom inequality (Victora, Fenn et al. 2005) with considerably higher prevalence of zero dose children in the poorest decile than in all other groups. Targeting children from the poorest families will be important for reducing inequalities in all countries, and even more important in countries with bottom-inequality patterns (see Supplementary Materials at the end of this document).

Place of residence is also an important driver of inequality. Overall prevalence of zero-DTP was equal to 15.1% among rural and 9.4% in urban children. Very wide gaps were observed in low-income countries, but in upper-middle income countries urban and rural areas showed similarly low prevalence. The most striking regional example was WCA where over one third (34.6%) of rural children failed to receive a single dose of DTP. The widest gaps were in Angola: 50.5% prevalence in rural areas compared to 18.5% among urban children. Within Sub-Saharan Africa, Rwanda was a positive outlier with urban prevalence of 0.2% and rural prevalence of only 1.1%. In countries where large proportions of rural children are being left out (see Supplementary Materials), health systems adjustments are urgently needed given that these children and their mothers are also likely to fail to receive other life-saving interventions.(Santos, de Oliveira Cata Preta et al. 2021)

Double breakdown by wealth quintiles and residence showed some unexpected results. Rich-poor gaps tended to be wider in rural than in urban areas, but once wealth was accounted for there was no clear rural disadvantage in coverage in most countries. Among poor children, no-DTP prevalence was lower in urban than in rural areas. Although there is an ample literature about immunization coverage for urban poor children,(Crocker-Buque, Mindra et al. 2017) the present analyses are the first to report on zero-dose prevalence after double stratification for wealth and residence.

Earlier research has failed to identify consistent differences in immunization coverage among boys and girls,(Hill and Upchurch 1995, Hilber 2010, World Health Organization 2018) and our present analyses confirm this finding. A significant difference was only observed in Haiti, where no-DTP prevalence was higher for boys than for girls. The absence of differences does not negate the importance of gender issues in immunization coverage.(Feletto and Sharkey 2019) Earlier results on the effect of maternal empowerment on coverage with child health interventions (Wendt, Santos et al. 2022) (Ewerling,



Wehrmeister et al. 2021) are confirmed in the present analyses showing inverse associations among levels of social independence and no-DTP prevalence. In Nigeria, over half (53.2%) of children whose mothers belonged to the lowest empowerment tercile failed to receive a single DTP dose, compared to 10.8% in the top empowerment tercile. In addition to maternal educational level, the social independence domain includes access to information, age at marriage and childbirth, age and educational differences between the woman and her spouse. The SWPER index has two other domains: decision making power (about shopping, health, visits outside the home) and attitude to violence (on when the husband is justified in beating the woman). Associations of these two domains with no-DTP prevalence were in the expected direction but were not as consistent as for social independence. The present analyses are purely descriptive and did not include controlling for confounding variables, but earlier analyses showed that coverage gaps associated with empowerment persisted after adjustment for household wealth and after the removal of the maternal education variable from the social independence index. (Wendt, Santos et al. 2022) (Ewerling, Wehrmeister et al. 2021)

Results on empowerment are highly consistent with the fact that low maternal education was a driver of no-DTP prevalence in most regions and country groups, with a pooled prevalence of 23.5% among children of mothers with no education compared to 6.9% among children whose mothers had completed secondary education. The exception was the EECA region, where a high proportion of all women had completed secondary education and gaps were small.

The policy implications from findings on maternal empowerment and education is that increased investments in women's education and prevention of child marriage and teen pregnancy are likely to contribute to reducing zero-dose prevalence. Multisectoral approaches are clearly essential.

Important ethnic and geographic gaps were also present in several countries. These gaps overlap given that in most countries ethnic groups tend to be concentrated in specific geographies. Of 53 countries with data on immunization by ethnic group, 27 showed significant gaps in no-DTP prevalence among these groups. Five countries (Afghanistan, Philippines, Nigeria, Angola, and Ethiopia) had at least one ethnic group with no-DTP prevalence above 50% and at least one other group with prevalence below 20%.

Ten countries had prevalence gaps of 50 percentage points or higher among their subnational areas. Wide prevalence gaps among different subnational areas were present in several countries, particularly in Mali and Afghanistan, with high-low gaps of 86.0 and 92.4 percentage points, respectively. Although geographic disaggregation is a standard feature of health information systems and survey analyses, ethnic group inequalities are seldom monitored and should become standard practice for guiding programs. Incorporation of ethnicity information in health management information systems should be made a priority.

The detailed country-by-country results available in the Supplementary Materials will help national stakeholders to identify policy implications and tailor future strategies. For example, several countries show marginal exclusion or bottom-inequality patterns (Victora, Fenn et al. 2005, World Health Organization 2005) with markedly higher no-DTP prevalence in the poorest decile than in all other groups. The detailed results will also help identify countries with evidence of higher prevalence among the wealthiest groups, a finding that seems to be more frequent in the EECA region than elsewhere, and may indicate the onset of vaccine hesitancy. (Cata-Preta BO, Wehrmeister FC et al. 2021) County-specific results will also be useful to identify ethnic groups and subnational regions where further efforts are needed to reach every child.

Our analyses have limitations. The 74 countries account for just over half (52.8%) of all LMICs in the world, and analyses by empowerment and ethnicity were limited to even fewer countries. A small proportion of upper-middle income countries were included, given that many such countries – including China and Brazil – did not have standardized surveys from 2015 to 2020. The narrow time period adopted

in the analyses limited the number of countries with available survey data. Although the time span of 2015-2020 resulted in relatively recent estimates, the impact of the COVID-19 pandemic on zero dose prevalence could not be assessed. Information on ethnicity was based on self-report and may be imprecise.(Anderson, Robson et al. 2016) Information on vaccines is mostly derived from inspection of vaccine cards, but for 23% of the children in the sample no cards were available in the home and the information was based on respondent’s recall.

The strengths of our findings include the large number of countries covered, the study of multiple dimensions of inequality, and the stratified analyses of no-DTP prevalence based on the original survey datasets using standardized definitions and statistical methods.

Monitoring of immunization levels and trends with an equity lens requires regular and frequent national surveys. This is because routine statistics often lack information on essential stratification variables for children who have been vaccinated, not to mention lack of information of those who were missed. This is particularly important in light of the impact of COVID-19 on immunization coverage, which is yet to be fully determined.(Lassi, Naseem et al. 2021) Survey-based monitoring of immunization inequalities is an essential component of the Immunization Agenda 2030’s vision of “a world where everyone, everywhere, at every age, fully benefits from vaccines to improve health and well-being”. (IA2030)

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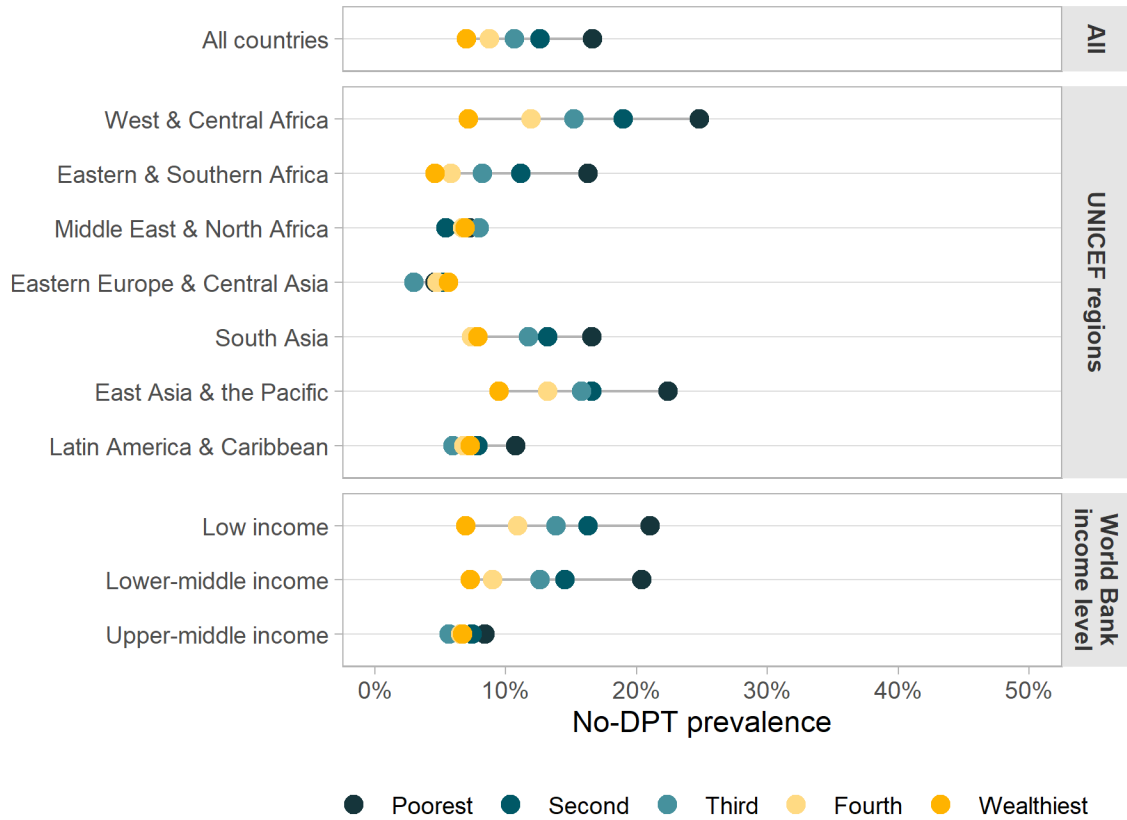
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## Supplementary Materials

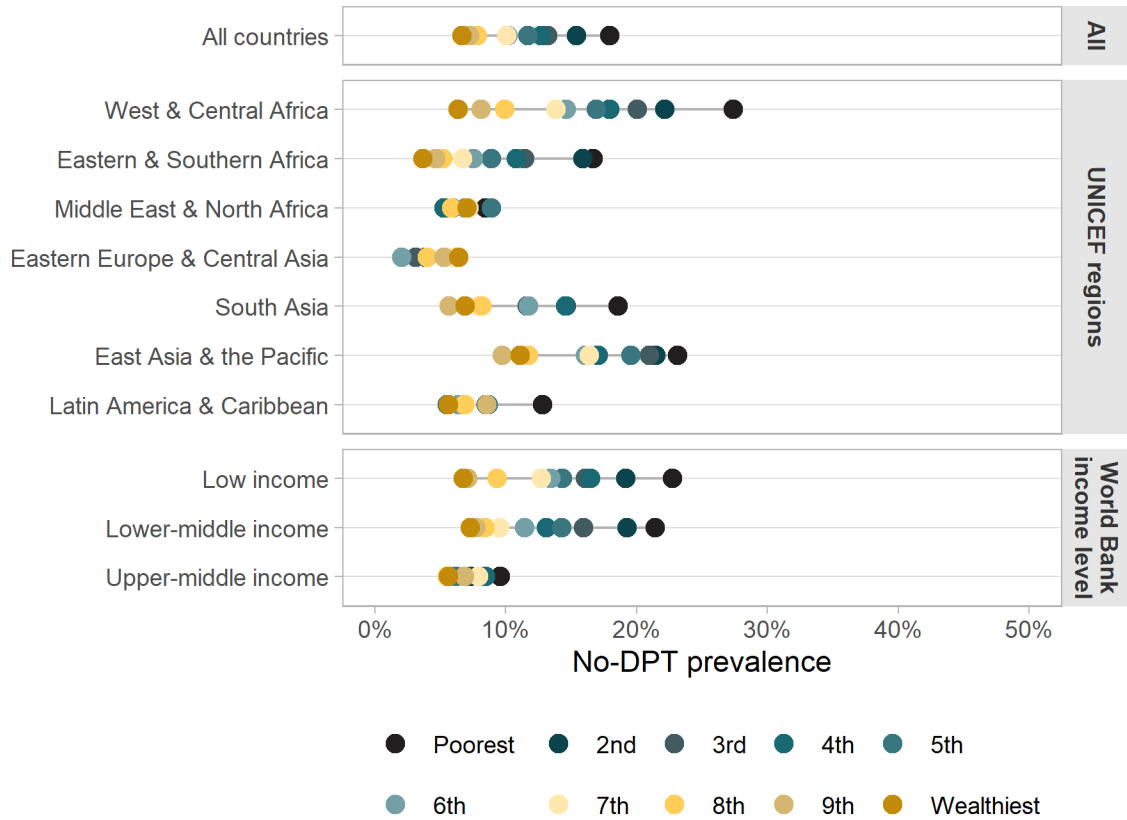
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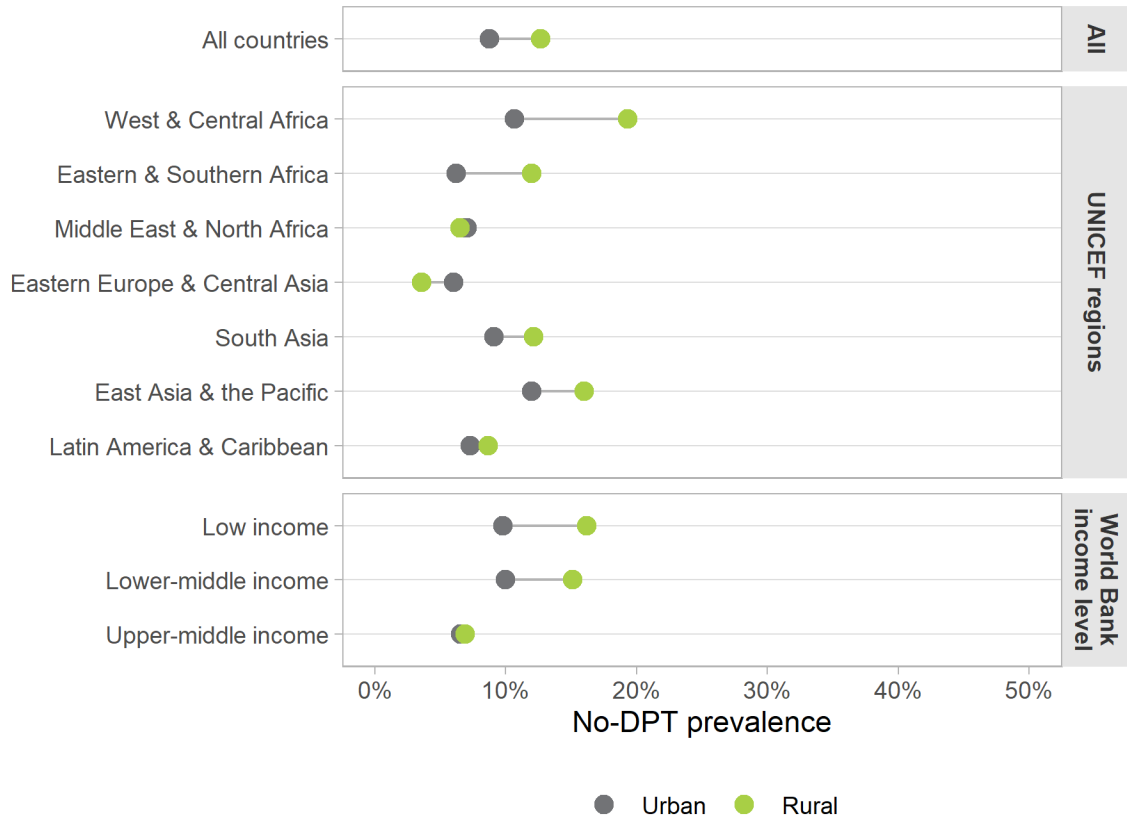


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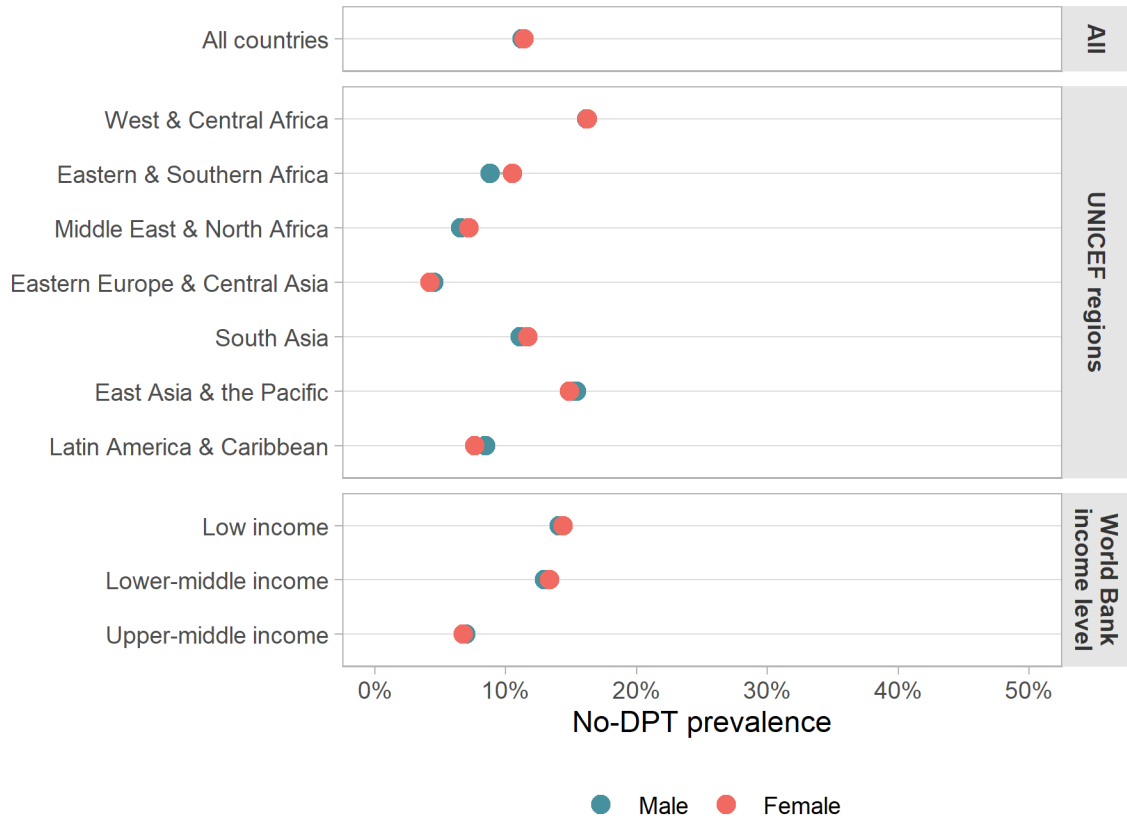
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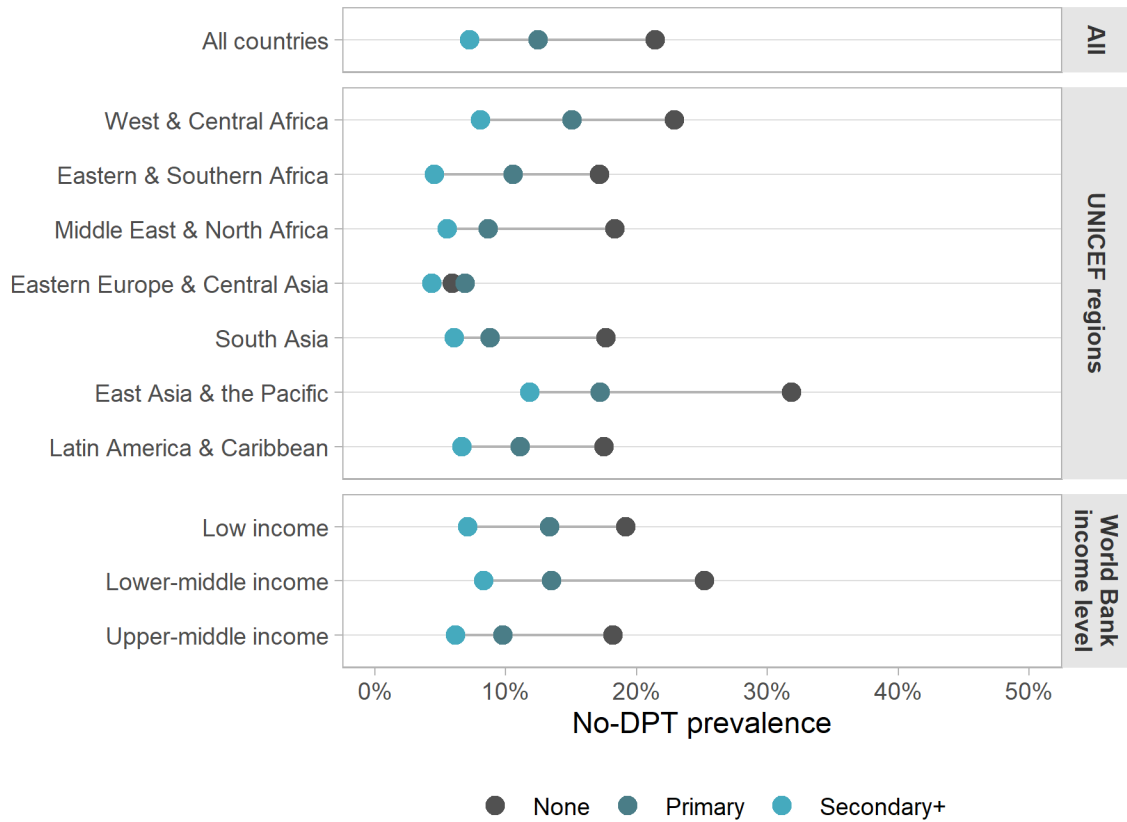
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Supplementary figure 5. No-DPT prevalence according to sex of the child in 74 LMICs using unweighted estimates, grouped by UNICEF regions and World Bank country income groups.

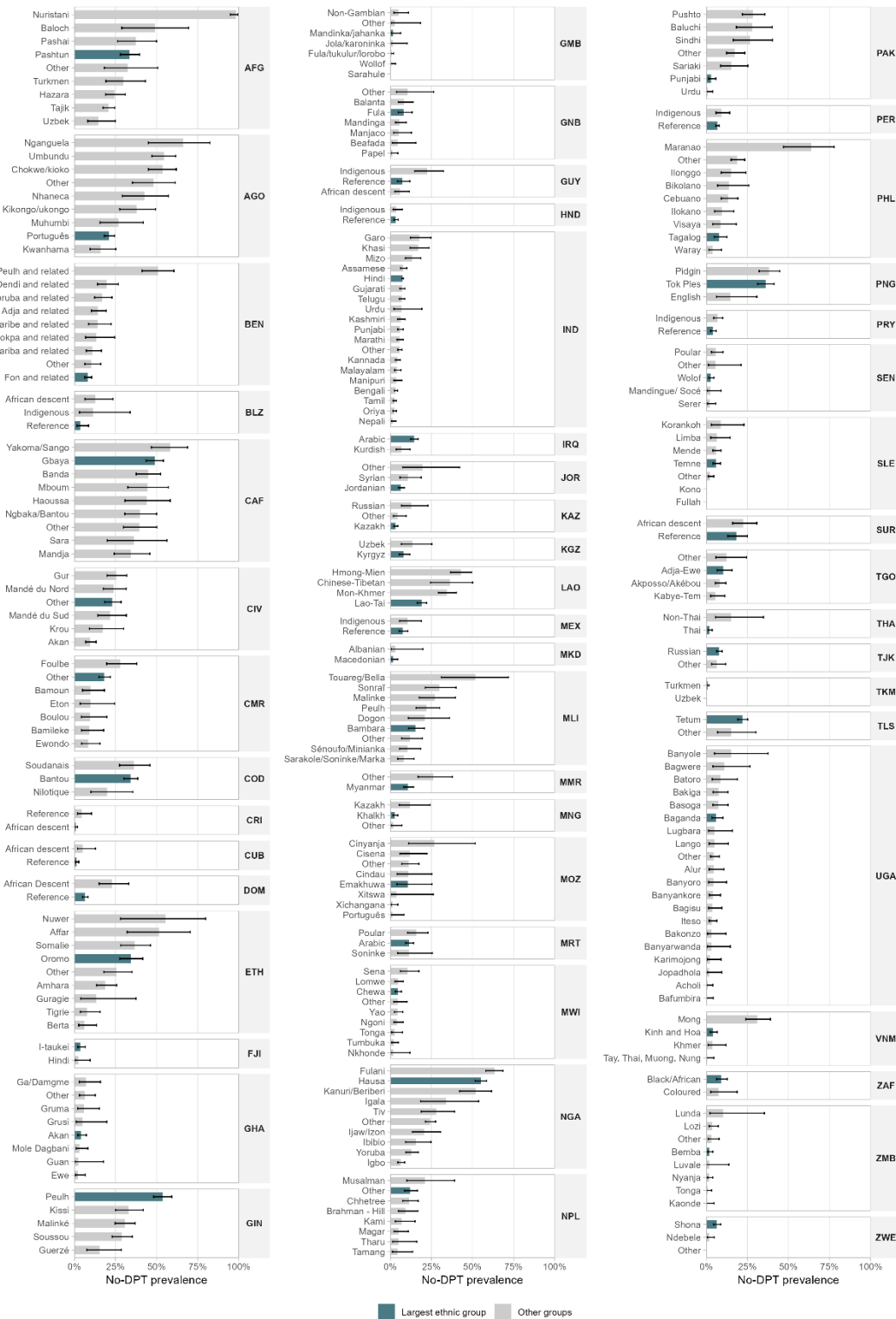


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## Supplementary figure 7. No-DPT prevalence according to ethnic or language groups in 53 LMICs.



Supplementary Table 1. No-DPT prevalence according to wealth quintiles in 74 LMICs.

Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Poorest	34.3	29.8	39.2
Afghanistan	2015	DHS	South Asia	Second	32.3	26.8	38.2
Afghanistan	2015	DHS	South Asia	Third	31.3	24.4	39.3
Afghanistan	2015	DHS	South Asia	Fourth	22.6	18.0	28.0
Afghanistan	2015	DHS	South Asia	Wealthiest	15.3	12.0	19.3
Algeria	2018	MICS	Middle East & North Africa	Poorest	6.9	5.0	9.5
Algeria	2018	MICS	Middle East & North Africa	Second	3.1	2.0	4.6
Algeria	2018	MICS	Middle East & North Africa	Third	5.2	3.3	8.3
Algeria	2018	MICS	Middle East & North Africa	Fourth	3.4	2.0	5.9
Algeria	2018	MICS	Middle East & North Africa	Wealthiest	3.3	1.6	6.4
Angola	2015	DHS	Eastern & Southern Africa	Poorest	57.5	51.6	63.2
Angola	2015	DHS	Eastern & Southern Africa	Second	42.7	37.9	47.6
Angola	2015	DHS	Eastern & Southern Africa	Third	21.7	17.6	26.4
Angola	2015	DHS	Eastern & Southern Africa	Fourth	12.1	7.6	18.6
Angola	2015	DHS	Eastern & Southern Africa	Wealthiest	9.4	5.8	14.8
Armenia	2015	DHS	Eastern Europe & Central Asia	Poorest	1.6	0.4	6.2
Armenia	2015	DHS	Eastern Europe & Central Asia	Second	2.4	0.3	14.9
Armenia	2015	DHS	Eastern Europe & Central Asia	Third	2.2	0.7	7.0
Armenia	2015	DHS	Eastern Europe & Central Asia	Fourth	2.0	0.5	8.0
Armenia	2015	DHS	Eastern Europe & Central Asia	Wealthiest	0.0		
Bangladesh	2017	DHS	South Asia	Poorest	2.6	1.3	5.3
Bangladesh	2017	DHS	South Asia	Second	1.0	0.3	3.2
Bangladesh	2017	DHS	South Asia	Third	1.9	0.8	4.7
Bangladesh	2017	DHS	South Asia	Fourth	1.7	0.7	4.1
Bangladesh	2017	DHS	South Asia	Wealthiest	0.3	0.1	1.3
Belize	2015	MICS	Latin America & Caribbean	Poorest	10.2	4.7	21.0
Belize	2015	MICS	Latin America & Caribbean	Second	1.5	0.5	4.5
Belize	2015	MICS	Latin America & Caribbean	Third	1.9	0.5	7.7
Belize	2015	MICS	Latin America & Caribbean	Fourth	7.1	1.8	23.8
Belize	2015	MICS	Latin America & Caribbean	Wealthiest	16.1	7.2	32.3
Benin	2017	DHS	West & Central Africa	Poorest	32.4	26.8	38.6
Benin	2017	DHS	West & Central Africa	Second	18.2	14.7	22.3
Benin	2017	DHS	West & Central Africa	Third	11.8	9.1	15.3
Benin	2017	DHS	West & Central Africa	Fourth	8.8	6.3	12.0
Benin	2017	DHS	West & Central Africa	Wealthiest	6.9	4.6	10.2
Burundi	2016	DHS	Eastern & Southern Africa	Poorest	1.9	0.9	3.6
Burundi	2016	DHS	Eastern & Southern Africa	Second	0.8	0.3	2.0
Burundi	2016	DHS	Eastern & Southern Africa	Third	0.2	0.0	1.3
Burundi	2016	DHS	Eastern & Southern Africa	Fourth	0.4	0.1	1.5

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Burundi	2016	DHS	Eastern & Southern Africa	Wealthiest	0.7	0.3	2.0
CAR	2018	MICS	West & Central Africa	Poorest	59.6	52.9	66.0
CAR	2018	MICS	West & Central Africa	Second	54.8	48.0	61.5
CAR	2018	MICS	West & Central Africa	Third	46.1	39.6	52.8
CAR	2018	MICS	West & Central Africa	Fourth	38.8	33.1	44.9
CAR	2018	MICS	West & Central Africa	Wealthiest	17.4	13.3	22.5
Cameroon	2018	DHS	West & Central Africa	Poorest	29.9	23.8	36.8
Cameroon	2018	DHS	West & Central Africa	Second	18.6	13.7	24.7
Cameroon	2018	DHS	West & Central Africa	Third	15.6	11.9	20.2
Cameroon	2018	DHS	West & Central Africa	Fourth	10.0	6.8	14.6
Cameroon	2018	DHS	West & Central Africa	Wealthiest	4.9	2.8	8.2
Congo, DR	2017	MICS	West & Central Africa	Poorest	47.4	41.1	53.8
Congo, DR	2017	MICS	West & Central Africa	Second	43.8	37.4	50.4
Congo, DR	2017	MICS	West & Central Africa	Third	32.1	25.6	39.4
Congo, DR	2017	MICS	West & Central Africa	Fourth	24.7	17.6	33.5
Congo, DR	2017	MICS	West & Central Africa	Wealthiest	14.7	10.3	20.6
Costa Rica	2018	MICS	Latin America & Caribbean	Poorest	4.1	2.2	7.6
Costa Rica	2018	MICS	Latin America & Caribbean	Second	3.2	0.8	12.1
Costa Rica	2018	MICS	Latin America & Caribbean	Third	1.2	0.3	5.3
Costa Rica	2018	MICS	Latin America & Caribbean	Fourth	0.1	0.0	0.6
Costa Rica	2018	MICS	Latin America & Caribbean	Wealthiest	2.0	0.5	7.4
Cote d'Ivoire	2016	MICS	West & Central Africa	Poorest	29.6	24.7	34.9
Cote d'Ivoire	2016	MICS	West & Central Africa	Second	18.9	14.7	23.9
Cote d'Ivoire	2016	MICS	West & Central Africa	Third	19.7	15.2	25.1
Cote d'Ivoire	2016	MICS	West & Central Africa	Fourth	11.8	7.6	17.9
Cote d'Ivoire	2016	MICS	West & Central Africa	Wealthiest	11.3	6.4	19.0
Cuba	2019	MICS	Latin America & Caribbean	Poorest	4.7	1.5	14.0
Cuba	2019	MICS	Latin America & Caribbean	Second	4.3	1.2	14.0
Cuba	2019	MICS	Latin America & Caribbean	Third	1.6	0.4	6.0
Cuba	2019	MICS	Latin America & Caribbean	Fourth	1.3	0.3	4.7
Cuba	2019	MICS	Latin America & Caribbean	Wealthiest	0.3	0.0	2.0
Dominican Republic	2019	MICS	Latin America & Caribbean	Poorest	11.8	8.5	16.1
Dominican Republic	2019	MICS	Latin America & Caribbean	Second	8.0	5.3	11.8
Dominican Republic	2019	MICS	Latin America & Caribbean	Third	4.5	2.6	7.9
Dominican Republic	2019	MICS	Latin America & Caribbean	Fourth	7.4	3.8	14.0
Dominican Republic	2019	MICS	Latin America & Caribbean	Wealthiest	8.0	4.1	14.9
Ethiopia	2019	DHS	Eastern & Southern Africa	Poorest	41.2	30.4	52.8
Ethiopia	2019	DHS	Eastern & Southern Africa	Second	24.2	16.3	34.3
Ethiopia	2019	DHS	Eastern & Southern Africa	Third	30.3	20.5	42.3
Ethiopia	2019	DHS	Eastern & Southern Africa	Fourth	22.0	13.3	34.1
Ethiopia	2019	DHS	Eastern & Southern Africa	Wealthiest	5.2	2.2	12.0

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Fiji	2021	MICS	East Asia & the Pacific	Poorest	3.8	1.4	10.0
Fiji	2021	MICS	East Asia & the Pacific	Second	3.7	1.4	9.5
Fiji	2021	MICS	East Asia & the Pacific	Third	6.1	2.3	15.3
Fiji	2021	MICS	East Asia & the Pacific	Fourth	1.8	0.2	11.9
Fiji	2021	MICS	East Asia & the Pacific	Wealthiest	0.0		
Gambia	2019	DHS	West & Central Africa	Poorest	1.0	0.4	2.7
Gambia	2019	DHS	West & Central Africa	Second	1.7	0.5	5.8
Gambia	2019	DHS	West & Central Africa	Third	0.7	0.3	1.9
Gambia	2019	DHS	West & Central Africa	Fourth	3.8	1.3	10.6
Gambia	2019	DHS	West & Central Africa	Wealthiest	1.2	0.2	6.2
Ghana	2017	MICS	West & Central Africa	Poorest	5.4	2.9	9.8
Ghana	2017	MICS	West & Central Africa	Second	5.2	2.5	10.4
Ghana	2017	MICS	West & Central Africa	Third	4.1	2.2	7.8
Ghana	2017	MICS	West & Central Africa	Fourth	3.3	1.4	7.3
Ghana	2017	MICS	West & Central Africa	Wealthiest	2.2	0.9	5.5
Guinea	2018	DHS	West & Central Africa	Poorest	55.4	47.2	63.2
Guinea	2018	DHS	West & Central Africa	Second	41.3	35.1	47.7
Guinea	2018	DHS	West & Central Africa	Third	41.6	34.6	48.8
Guinea	2018	DHS	West & Central Africa	Fourth	25.4	19.9	31.8
Guinea	2018	DHS	West & Central Africa	Wealthiest	19.0	13.6	26.0
Guinea Bissau	2018	MICS	West & Central Africa	Poorest	7.4	4.1	12.9
Guinea Bissau	2018	MICS	West & Central Africa	Second	7.8	5.0	12.2
Guinea Bissau	2018	MICS	West & Central Africa	Third	3.3	1.5	6.8
Guinea Bissau	2018	MICS	West & Central Africa	Fourth	9.6	6.1	14.8
Guinea Bissau	2018	MICS	West & Central Africa	Wealthiest	7.6	3.6	15.3
Guyana	2019	MICS	Latin America & Caribbean	Poorest	13.1	8.1	20.6
Guyana	2019	MICS	Latin America & Caribbean	Second	7.1	3.6	13.8
Guyana	2019	MICS	Latin America & Caribbean	Third	4.0	1.6	9.4
Guyana	2019	MICS	Latin America & Caribbean	Fourth	7.9	3.0	19.6
Guyana	2019	MICS	Latin America & Caribbean	Wealthiest	7.0	2.4	19.0
Haiti	2016	DHS	Latin America & Caribbean	Poorest	25.1	18.9	32.5
Haiti	2016	DHS	Latin America & Caribbean	Second	19.6	13.1	28.3
Haiti	2016	DHS	Latin America & Caribbean	Third	16.1	11.3	22.4
Haiti	2016	DHS	Latin America & Caribbean	Fourth	9.4	5.4	15.7
Haiti	2016	DHS	Latin America & Caribbean	Wealthiest	4.4	1.3	14.1
Honduras	2019	MICS	Latin America & Caribbean	Poorest	2.2	1.2	4.3
Honduras	2019	MICS	Latin America & Caribbean	Second	3.5	1.7	7.0
Honduras	2019	MICS	Latin America & Caribbean	Third	6.3	3.7	10.4
Honduras	2019	MICS	Latin America & Caribbean	Fourth	2.1	0.9	5.1
Honduras	2019	MICS	Latin America & Caribbean	Wealthiest	3.7	1.5	8.7
India	2019	DHS	South Asia	Poorest	8.4	7.7	9.1



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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
India	2019	DHS	South Asia	Second	6.7	6.0	7.5
India	2019	DHS	South Asia	Third	5.4	4.7	6.2
India	2019	DHS	South Asia	Fourth	5.1	4.4	5.8
India	2019	DHS	South Asia	Wealthiest	5.5	4.8	6.4
Indonesia	2017	DHS	East Asia & the Pacific	Poorest	16.2	13.3	19.7
Indonesia	2017	DHS	East Asia & the Pacific	Second	13.9	10.9	17.5
Indonesia	2017	DHS	East Asia & the Pacific	Third	10.2	7.7	13.3
Indonesia	2017	DHS	East Asia & the Pacific	Fourth	7.9	5.6	10.9
Indonesia	2017	DHS	East Asia & the Pacific	Wealthiest	7.6	5.4	10.6
Iraq	2018	MICS	Middle East & North Africa	Poorest	18.4	15.0	22.4
Iraq	2018	MICS	Middle East & North Africa	Second	14.0	10.5	18.4
Iraq	2018	MICS	Middle East & North Africa	Third	15.4	11.0	21.2
Iraq	2018	MICS	Middle East & North Africa	Fourth	12.5	8.2	18.5
Iraq	2018	MICS	Middle East & North Africa	Wealthiest	5.0	2.9	8.4
Jordan	2017	DHS	Middle East & North Africa	Poorest	9.4	6.3	13.9
Jordan	2017	DHS	Middle East & North Africa	Second	7.9	4.8	12.8
Jordan	2017	DHS	Middle East & North Africa	Third	4.7	2.6	8.4
Jordan	2017	DHS	Middle East & North Africa	Fourth	7.5	3.4	15.8
Jordan	2017	DHS	Middle East & North Africa	Wealthiest	7.5	2.5	20.0
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Poorest	3.6	1.6	7.6
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Second	2.4	1.1	5.0
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Third	2.9	1.4	5.9
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Fourth	6.3	3.5	10.9
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Wealthiest	8.0	3.9	15.7
Kiribati	2018	MICS	East Asia & the Pacific	Poorest	40.4	29.3	52.5
Kiribati	2018	MICS	East Asia & the Pacific	Second	36.3	26.7	47.0
Kiribati	2018	MICS	East Asia & the Pacific	Third	45.8	35.2	56.7
Kiribati	2018	MICS	East Asia & the Pacific	Fourth	45.8	35.1	56.9
Kiribati	2018	MICS	East Asia & the Pacific	Wealthiest	32.6	22.0	45.4
Kosovo	2019	MICS	Eastern Europe & Central Asia	Poorest	5.5	2.0	14.4
Kosovo	2019	MICS	Eastern Europe & Central Asia	Second	7.8	2.6	20.9
Kosovo	2019	MICS	Eastern Europe & Central Asia	Third	0.8	0.1	5.5
Kosovo	2019	MICS	Eastern Europe & Central Asia	Fourth	1.4	0.2	9.7
Kosovo	2019	MICS	Eastern Europe & Central Asia	Wealthiest	4.4	1.0	16.4
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Poorest	10.2	4.9	20.0
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Second	4.2	1.8	9.6
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Third	7.1	3.1	15.1
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Fourth	9.3	4.7	17.5
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Wealthiest	18.3	11.1	28.7
Laos	2017	MICS	East Asia & the Pacific	Poorest	43.3	38.0	48.7
Laos	2017	MICS	East Asia & the Pacific	Second	29.7	24.9	35.1

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Laos	2017	MICS	East Asia & the Pacific	Third	22.4	18.1	27.4
Laos	2017	MICS	East Asia & the Pacific	Fourth	19.5	15.2	24.5
Laos	2017	MICS	East Asia & the Pacific	Wealthiest	14.6	10.8	19.5
Lesotho	2018	MICS	Eastern & Southern Africa	Poorest	17.0	11.0	25.3
Lesotho	2018	MICS	Eastern & Southern Africa	Second	7.4	3.6	14.8
Lesotho	2018	MICS	Eastern & Southern Africa	Third	5.5	2.5	11.5
Lesotho	2018	MICS	Eastern & Southern Africa	Fourth	3.7	1.7	8.0
Lesotho	2018	MICS	Eastern & Southern Africa	Wealthiest	8.5	3.8	18.2
Liberia	2019	DHS	West & Central Africa	Poorest	11.4	8.1	15.9
Liberia	2019	DHS	West & Central Africa	Second	7.7	4.5	12.9
Liberia	2019	DHS	West & Central Africa	Third	8.7	3.7	19.2
Liberia	2019	DHS	West & Central Africa	Fourth	10.7	5.5	19.7
Liberia	2019	DHS	West & Central Africa	Wealthiest	0.2	0.0	1.2
Madagascar	2021	DHS	Eastern & Southern Africa	Poorest	36.1	30.6	41.9
Madagascar	2021	DHS	Eastern & Southern Africa	Second	22.5	18.2	27.6
Madagascar	2021	DHS	Eastern & Southern Africa	Third	18.5	14.2	23.8
Madagascar	2021	DHS	Eastern & Southern Africa	Fourth	12.2	8.6	17.1
Madagascar	2021	DHS	Eastern & Southern Africa	Wealthiest	10.1	6.8	14.8
Malawi	2019	MICS	Eastern & Southern Africa	Poorest	6.4	4.5	8.9
Malawi	2019	MICS	Eastern & Southern Africa	Second	4.3	2.5	7.1
Malawi	2019	MICS	Eastern & Southern Africa	Third	4.4	2.5	7.8
Malawi	2019	MICS	Eastern & Southern Africa	Fourth	3.8	2.3	6.4
Malawi	2019	MICS	Eastern & Southern Africa	Wealthiest	2.7	1.5	5.0
Maldives	2016	DHS	South Asia	Poorest	9.5	6.0	14.8
Maldives	2016	DHS	South Asia	Second	7.8	4.5	13.1
Maldives	2016	DHS	South Asia	Third	10.9	6.8	17.0
Maldives	2016	DHS	South Asia	Fourth	1.7	0.5	5.7
Maldives	2016	DHS	South Asia	Wealthiest	16.4	6.7	34.8
Mali	2018	DHS	West & Central Africa	Poorest	28.6	21.7	36.7
Mali	2018	DHS	West & Central Africa	Second	20.4	15.2	26.7
Mali	2018	DHS	West & Central Africa	Third	17.8	13.6	22.9
Mali	2018	DHS	West & Central Africa	Fourth	13.9	10.0	19.1
Mali	2018	DHS	West & Central Africa	Wealthiest	7.4	4.8	11.2
Mauritania	2019	DHS	West & Central Africa	Poorest	17.1	12.9	22.3
Mauritania	2019	DHS	West & Central Africa	Second	16.0	11.5	21.9
Mauritania	2019	DHS	West & Central Africa	Third	8.4	6.0	11.5
Mauritania	2019	DHS	West & Central Africa	Fourth	10.1	6.3	15.8
Mauritania	2019	DHS	West & Central Africa	Wealthiest	8.9	4.8	16.1
Mexico	2015	MICS	Latin America & Caribbean	Poorest	8.5	4.2	16.8
Mexico	2015	MICS	Latin America & Caribbean	Second	6.3	3.8	10.1
Mexico	2015	MICS	Latin America & Caribbean	Third	10.6	5.9	18.2

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Mexico	2015	MICS	Latin America & Caribbean	Fourth	6.9	3.5	13.2
Mexico	2015	MICS	Latin America & Caribbean	Wealthiest	5.8	1.7	18.0
Mongolia	2018	MICS	East Asia & the Pacific	Poorest	3.6	1.8	6.9
Mongolia	2018	MICS	East Asia & the Pacific	Second	2.0	0.9	4.3
Mongolia	2018	MICS	East Asia & the Pacific	Third	4.1	1.8	9.3
Mongolia	2018	MICS	East Asia & the Pacific	Fourth	3.2	1.2	7.8
Mongolia	2018	MICS	East Asia & the Pacific	Wealthiest	1.6	0.4	6.3
Mozambique	2015	DHS	Eastern & Southern Africa	Poorest	19.4	13.0	27.9
Mozambique	2015	DHS	Eastern & Southern Africa	Second	12.7	6.5	23.4
Mozambique	2015	DHS	Eastern & Southern Africa	Third	5.4	2.9	9.6
Mozambique	2015	DHS	Eastern & Southern Africa	Fourth	4.5	1.8	10.8
Mozambique	2015	DHS	Eastern & Southern Africa	Wealthiest	2.7	1.1	6.4
Myanmar	2015	DHS	East Asia & the Pacific	Poorest	18.1	12.1	26.1
Myanmar	2015	DHS	East Asia & the Pacific	Second	18.9	12.7	27.2
Myanmar	2015	DHS	East Asia & the Pacific	Third	18.3	10.7	29.4
Myanmar	2015	DHS	East Asia & the Pacific	Fourth	2.2	0.7	7.0
Myanmar	2015	DHS	East Asia & the Pacific	Wealthiest	3.7	1.2	10.9
Nepal	2019	MICS	South Asia	Poorest	13.8	10.1	18.7
Nepal	2019	MICS	South Asia	Second	14.5	10.1	20.4
Nepal	2019	MICS	South Asia	Third	9.4	5.5	15.4
Nepal	2019	MICS	South Asia	Fourth	7.1	3.9	12.4
Nepal	2019	MICS	South Asia	Wealthiest	6.6	3.6	12.0
Nigeria	2018	DHS	West & Central Africa	Poorest	59.8	56.0	63.4
Nigeria	2018	DHS	West & Central Africa	Second	48.9	44.8	53.1
Nigeria	2018	DHS	West & Central Africa	Third	31.0	27.7	34.5
Nigeria	2018	DHS	West & Central Africa	Fourth	19.1	16.3	22.3
Nigeria	2018	DHS	West & Central Africa	Wealthiest	6.6	4.9	8.8
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Poorest	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Second	12.9	4.3	32.7
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Third	3.1	0.7	12.3
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Fourth	5.9	1.1	25.6
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Wealthiest	0.6	0.1	4.3
Pakistan	2017	DHS	South Asia	Poorest	30.8	23.7	38.9
Pakistan	2017	DHS	South Asia	Second	17.1	12.2	23.3
Pakistan	2017	DHS	South Asia	Third	11.4	7.9	16.3
Pakistan	2017	DHS	South Asia	Fourth	6.1	3.8	9.7
Pakistan	2017	DHS	South Asia	Wealthiest	3.1	1.6	6.0
Papua New Guinea	2016	DHS	East Asia & the Pacific	Poorest	60.7	51.9	68.9
Papua New Guinea	2016	DHS	East Asia & the Pacific	Second	45.6	37.7	53.9
Papua New Guinea	2016	DHS	East Asia & the Pacific	Third	33.8	27.6	40.6
Papua New Guinea	2016	DHS	East Asia & the Pacific	Fourth	28.4	22.7	34.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Papua New Guinea	2016	DHS	East Asia & the Pacific	Wealthiest	13.4	9.1	19.1
Paraguay	2016	MICS	Latin America & Caribbean	Poorest	6.8	4.2	11.1
Paraguay	2016	MICS	Latin America & Caribbean	Second	3.7	1.6	8.6
Paraguay	2016	MICS	Latin America & Caribbean	Third	2.6	1.1	5.8
Paraguay	2016	MICS	Latin America & Caribbean	Fourth	8.2	5.1	13.2
Paraguay	2016	MICS	Latin America & Caribbean	Wealthiest	3.8	1.6	8.7
Peru	2021	DHS	Latin America & Caribbean	Poorest	9.1	7.4	11.2
Peru	2021	DHS	Latin America & Caribbean	Second	6.9	5.2	9.2
Peru	2021	DHS	Latin America & Caribbean	Third	5.5	3.8	8.0
Peru	2021	DHS	Latin America & Caribbean	Fourth	6.8	4.8	9.6
Peru	2021	DHS	Latin America & Caribbean	Wealthiest	7.7	4.9	11.9
Philippines	2017	DHS	East Asia & the Pacific	Poorest	23.6	19.8	28.0
Philippines	2017	DHS	East Asia & the Pacific	Second	9.4	6.5	13.5
Philippines	2017	DHS	East Asia & the Pacific	Third	13.4	8.8	19.7
Philippines	2017	DHS	East Asia & the Pacific	Fourth	8.0	4.6	13.4
Philippines	2017	DHS	East Asia & the Pacific	Wealthiest	5.6	2.6	11.5
Rwanda	2019	DHS	Eastern & Southern Africa	Poorest	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Second	0.7	0.2	2.8
Rwanda	2019	DHS	Eastern & Southern Africa	Third	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Fourth	0.3	0.0	2.2
Rwanda	2019	DHS	Eastern & Southern Africa	Wealthiest	1.1	0.4	3.6
Samoa	2019	MICS	East Asia & the Pacific	Poorest	31.9	22.9	42.5
Samoa	2019	MICS	East Asia & the Pacific	Second	34.2	23.4	47.0
Samoa	2019	MICS	East Asia & the Pacific	Third	28.0	20.3	37.3
Samoa	2019	MICS	East Asia & the Pacific	Fourth	25.1	16.9	35.7
Samoa	2019	MICS	East Asia & the Pacific	Wealthiest	26.1	17.6	36.8
Sao Tome and Principe	2019	MICS	West & Central Africa	Poorest	6.5	2.7	14.8
Sao Tome and Principe	2019	MICS	West & Central Africa	Second	1.3	0.2	8.8
Sao Tome and Principe	2019	MICS	West & Central Africa	Third	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	Fourth	2.0	0.3	12.4
Sao Tome and Principe	2019	MICS	West & Central Africa	Wealthiest	0.0		
Senegal	2019	DHS	West & Central Africa	Poorest	8.9	5.3	14.6
Senegal	2019	DHS	West & Central Africa	Second	2.3	1.0	5.5
Senegal	2019	DHS	West & Central Africa	Third	4.5	1.6	12.0
Senegal	2019	DHS	West & Central Africa	Fourth	1.9	0.6	5.5
Senegal	2019	DHS	West & Central Africa	Wealthiest	0.5	0.1	2.4
Serbia	2019	MICS	Eastern Europe & Central Asia	Poorest	7.6	2.9	18.6
Serbia	2019	MICS	Eastern Europe & Central Asia	Second	6.5	1.7	21.9
Serbia	2019	MICS	Eastern Europe & Central Asia	Third	1.5	0.2	10.6
Serbia	2019	MICS	Eastern Europe & Central Asia	Fourth	4.5	1.1	16.9
Serbia	2019	MICS	Eastern Europe & Central Asia	Wealthiest	0.5	0.1	3.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Sierra Leone	2019	DHS	West & Central Africa	Poorest	6.6	4.4	9.9
Sierra Leone	2019	DHS	West & Central Africa	Second	4.4	2.5	7.5
Sierra Leone	2019	DHS	West & Central Africa	Third	7.2	4.6	11.0
Sierra Leone	2019	DHS	West & Central Africa	Fourth	3.5	1.8	6.7
Sierra Leone	2019	DHS	West & Central Africa	Wealthiest	4.4	2.0	9.5
South Africa	2016	DHS	Eastern & Southern Africa	Poorest	9.9	5.4	17.5
South Africa	2016	DHS	Eastern & Southern Africa	Second	10.7	6.1	18.1
South Africa	2016	DHS	Eastern & Southern Africa	Third	6.3	3.0	13.0
South Africa	2016	DHS	Eastern & Southern Africa	Fourth	6.8	2.8	16.0
South Africa	2016	DHS	Eastern & Southern Africa	Wealthiest	10.1	3.3	26.8
State of Palestine	2019	MICS	Middle East & North Africa	Poorest	0.8	0.2	2.7
State of Palestine	2019	MICS	Middle East & North Africa	Second	0.9	0.3	2.5
State of Palestine	2019	MICS	Middle East & North Africa	Third	7.7	4.9	12.0
State of Palestine	2019	MICS	Middle East & North Africa	Fourth	5.8	3.6	9.3
State of Palestine	2019	MICS	Middle East & North Africa	Wealthiest	7.2	4.3	11.8
Suriname	2018	MICS	Latin America & Caribbean	Poorest	22.7	16.3	30.8
Suriname	2018	MICS	Latin America & Caribbean	Second	22.7	15.7	31.6
Suriname	2018	MICS	Latin America & Caribbean	Third	11.6	6.2	20.5
Suriname	2018	MICS	Latin America & Caribbean	Fourth	17.7	9.0	31.7
Suriname	2018	MICS	Latin America & Caribbean	Wealthiest	21.6	10.8	38.8
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Poorest	8.1	5.1	12.6
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Second	6.5	3.8	10.9
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Third	6.4	4.2	9.8
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Fourth	7.7	4.9	11.7
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Wealthiest	10.5	7.3	14.8
Tanzania	2015	DHS	Eastern & Southern Africa	Poorest	6.6	4.4	9.7
Tanzania	2015	DHS	Eastern & Southern Africa	Second	3.6	1.9	6.7
Tanzania	2015	DHS	Eastern & Southern Africa	Third	2.7	1.4	5.1
Tanzania	2015	DHS	Eastern & Southern Africa	Fourth	0.3	0.1	1.4
Tanzania	2015	DHS	Eastern & Southern Africa	Wealthiest	1.2	0.4	3.8
Thailand	2019	MICS	East Asia & the Pacific	Poorest	3.1	1.8	5.4
Thailand	2019	MICS	East Asia & the Pacific	Second	4.1	1.1	14.4
Thailand	2019	MICS	East Asia & the Pacific	Third	3.6	1.0	12.2
Thailand	2019	MICS	East Asia & the Pacific	Fourth	3.8	1.9	7.5
Thailand	2019	MICS	East Asia & the Pacific	Wealthiest	0.1	0.1	0.4
Timor Leste	2016	DHS	East Asia & the Pacific	Poorest	36.0	29.2	43.4
Timor Leste	2016	DHS	East Asia & the Pacific	Second	28.1	22.4	34.6
Timor Leste	2016	DHS	East Asia & the Pacific	Third	19.8	14.9	25.9
Timor Leste	2016	DHS	East Asia & the Pacific	Fourth	15.4	11.5	20.4
Timor Leste	2016	DHS	East Asia & the Pacific	Wealthiest	9.8	5.8	15.9
Togo	2017	MICS	West & Central Africa	Poorest	14.9	10.4	20.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Togo	2017	MICS	West & Central Africa	Second	11.1	5.9	19.9
Togo	2017	MICS	West & Central Africa	Third	6.2	3.2	11.8
Togo	2017	MICS	West & Central Africa	Fourth	5.2	2.1	12.1
Togo	2017	MICS	West & Central Africa	Wealthiest	8.0	4.0	15.3
Tonga	2019	MICS	East Asia & the Pacific	Poorest	0.0		
Tonga	2019	MICS	East Asia & the Pacific	Second	0.0		
Tonga	2019	MICS	East Asia & the Pacific	Third	7.1	1.5	27.2
Tonga	2019	MICS	East Asia & the Pacific	Fourth	9.7	2.2	34.5
Tonga	2019	MICS	East Asia & the Pacific	Wealthiest	4.2	1.0	16.2
Tunisia	2018	MICS	Middle East & North Africa	Poorest	0.8	0.1	5.4
Tunisia	2018	MICS	Middle East & North Africa	Second	1.1	0.3	4.4
Tunisia	2018	MICS	Middle East & North Africa	Third	6.7	3.3	13.2
Tunisia	2018	MICS	Middle East & North Africa	Fourth	4.2	1.8	9.5
Tunisia	2018	MICS	Middle East & North Africa	Wealthiest	11.5	6.4	19.7
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Poorest	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Second	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Third	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Fourth	1.2	0.3	4.7
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Wealthiest	2.6	1.0	7.0
Tuvalu	2019	MICS	East Asia & the Pacific	Poorest			
Tuvalu	2019	MICS	East Asia & the Pacific	Second	4.6	0.6	28.4
Tuvalu	2019	MICS	East Asia & the Pacific	Third	0.0		
Tuvalu	2019	MICS	East Asia & the Pacific	Fourth			
Tuvalu	2019	MICS	East Asia & the Pacific	Wealthiest			
Uganda	2016	DHS	Eastern & Southern Africa	Poorest	4.7	3.2	6.9
Uganda	2016	DHS	Eastern & Southern Africa	Second	5.1	3.3	7.7
Uganda	2016	DHS	Eastern & Southern Africa	Third	4.7	2.8	7.8
Uganda	2016	DHS	Eastern & Southern Africa	Fourth	5.6	3.6	8.7
Uganda	2016	DHS	Eastern & Southern Africa	Wealthiest	5.4	3.2	9.0
Vietnam	2020	MICS	East Asia & the Pacific	Poorest	10.4	6.8	15.5
Vietnam	2020	MICS	East Asia & the Pacific	Second	1.7	0.4	7.2
Vietnam	2020	MICS	East Asia & the Pacific	Third	8.7	4.0	17.9
Vietnam	2020	MICS	East Asia & the Pacific	Fourth	0.6	0.1	4.1
Vietnam	2020	MICS	East Asia & the Pacific	Wealthiest	3.8	1.2	11.6
Zambia	2018	DHS	Eastern & Southern Africa	Poorest	3.1	1.8	5.5
Zambia	2018	DHS	Eastern & Southern Africa	Second	2.5	1.2	5.1
Zambia	2018	DHS	Eastern & Southern Africa	Third	1.8	0.8	3.7
Zambia	2018	DHS	Eastern & Southern Africa	Fourth	1.6	0.5	5.1
Zambia	2018	DHS	Eastern & Southern Africa	Wealthiest	1.0	0.2	4.1
Zimbabwe	2019	MICS	Eastern & Southern Africa	Poorest	8.0	4.3	14.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	Second	7.8	4.3	13.7

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Zimbabwe	2019	MICS	Eastern & Southern Africa	Third	5.8	3.0	10.8
Zimbabwe	2019	MICS	Eastern & Southern Africa	Fourth	2.5	1.0	6.0
Zimbabwe	2019	MICS	Eastern & Southern Africa	Wealthiest	1.7	0.6	4.6

Supplementary Table 2. No-DPT prevalence according to according to wealth deciles in 74 LMICs.

Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Poorest	36.0	30.0	42.5
Afghanistan	2015	DHS	South Asia	2nd	32.8	27.4	38.8
Afghanistan	2015	DHS	South Asia	3rd	30.5	24.5	37.1
Afghanistan	2015	DHS	South Asia	4th	33.9	27.2	41.4
Afghanistan	2015	DHS	South Asia	5th	32.6	24.4	42.0
Afghanistan	2015	DHS	South Asia	6th	30.2	22.1	39.6
Afghanistan	2015	DHS	South Asia	7th	25.7	19.9	32.4
Afghanistan	2015	DHS	South Asia	8th	20.0	14.2	27.5
Afghanistan	2015	DHS	South Asia	9th	12.9	8.9	18.2
Afghanistan	2015	DHS	South Asia	Wealthiest	18.1	12.4	25.6
Algeria	2018	MICS	Middle East & North Africa	Poorest	9.3	6.4	13.4
Algeria	2018	MICS	Middle East & North Africa	2nd	4.3	2.4	7.5
Algeria	2018	MICS	Middle East & North Africa	3rd	2.5	1.5	4.2
Algeria	2018	MICS	Middle East & North Africa	4th	3.7	2.1	6.6
Algeria	2018	MICS	Middle East & North Africa	5th	6.5	3.4	12.1
Algeria	2018	MICS	Middle East & North Africa	6th	3.9	2.1	6.9
Algeria	2018	MICS	Middle East & North Africa	7th	3.6	1.8	7.3
Algeria	2018	MICS	Middle East & North Africa	8th	3.2	1.4	7.2
Algeria	2018	MICS	Middle East & North Africa	9th	2.6	1.0	6.7
Algeria	2018	MICS	Middle East & North Africa	Wealthiest	4.1	1.5	10.9
Angola	2015	DHS	Eastern & Southern Africa	Poorest	54.6	46.3	62.6
Angola	2015	DHS	Eastern & Southern Africa	2nd	60.3	53.0	67.1
Angola	2015	DHS	Eastern & Southern Africa	3rd	48.0	41.3	54.8
Angola	2015	DHS	Eastern & Southern Africa	4th	37.2	31.2	43.7
Angola	2015	DHS	Eastern & Southern Africa	5th	25.4	19.5	32.5
Angola	2015	DHS	Eastern & Southern Africa	6th	17.7	12.6	24.3
Angola	2015	DHS	Eastern & Southern Africa	7th	11.6	6.7	19.5
Angola	2015	DHS	Eastern & Southern Africa	8th	12.6	7.4	20.6
Angola	2015	DHS	Eastern & Southern Africa	9th	12.1	6.9	20.2
Angola	2015	DHS	Eastern & Southern Africa	Wealthiest	5.5	1.8	15.5
Armenia	2015	DHS	Eastern Europe & Central Asia	Poorest	2.4	0.3	15.6
Armenia	2015	DHS	Eastern Europe & Central Asia	2nd	1.0	0.1	7.2
Armenia	2015	DHS	Eastern Europe & Central Asia	3rd	4.8	0.7	25.7
Armenia	2015	DHS	Eastern Europe & Central Asia	4th	0.0		
Armenia	2015	DHS	Eastern Europe & Central Asia	5th	5.6	1.6	17.2
Armenia	2015	DHS	Eastern Europe & Central Asia	6th	0.0		
Armenia	2015	DHS	Eastern Europe & Central Asia	7th	0.0		
Armenia	2015	DHS	Eastern Europe & Central Asia	8th	4.0	1.0	15.1
Armenia	2015	DHS	Eastern Europe & Central Asia	9th	0.0		
Armenia	2015	DHS	Eastern Europe & Central Asia	Wealthiest	0.0		
Bangladesh	2017	DHS	South Asia	Poorest	4.2	1.9	8.9
Bangladesh	2017	DHS	South Asia	2nd	1.1	0.2	5.3
Bangladesh	2017	DHS	South Asia	3rd	1.7	0.5	5.9
Bangladesh	2017	DHS	South Asia	4th	0.1	0.0	0.8
Bangladesh	2017	DHS	South Asia	5th	1.4	0.4	4.2
Bangladesh	2017	DHS	South Asia	6th	2.4	0.7	7.7
Bangladesh	2017	DHS	South Asia	7th	1.8	0.5	7.0
Bangladesh	2017	DHS	South Asia	8th	1.6	0.5	5.4
Bangladesh	2017	DHS	South Asia	9th	0.4	0.1	2.6
Bangladesh	2017	DHS	South Asia	Wealthiest	0.3	0.0	1.9



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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Belize	2015	MICS	Latin America & Caribbean	Poorest	12.2	5.7	24.2
Belize	2015	MICS	Latin America & Caribbean	2nd	8.2	2.2	26.1
Belize	2015	MICS	Latin America & Caribbean	3rd	0.9	0.1	5.8
Belize	2015	MICS	Latin America & Caribbean	4th	2.1	0.5	8.6
Belize	2015	MICS	Latin America & Caribbean	5th	1.8	0.3	12.3
Belize	2015	MICS	Latin America & Caribbean	6th	2.0	0.3	13.3
Belize	2015	MICS	Latin America & Caribbean	7th	4.2	0.6	22.9
Belize	2015	MICS	Latin America & Caribbean	8th	10.3	1.8	41.7
Belize	2015	MICS	Latin America & Caribbean	9th	18.0	4.9	48.2
Belize	2015	MICS	Latin America & Caribbean	Wealthiest	13.1	3.5	38.4
Benin	2017	DHS	West & Central Africa	Poorest	38.2	30.2	46.8
Benin	2017	DHS	West & Central Africa	2nd	26.8	21.0	33.6
Benin	2017	DHS	West & Central Africa	3rd	20.3	15.4	26.3
Benin	2017	DHS	West & Central Africa	4th	16.2	11.9	21.5
Benin	2017	DHS	West & Central Africa	5th	14.5	10.4	19.9
Benin	2017	DHS	West & Central Africa	6th	9.1	6.1	13.3
Benin	2017	DHS	West & Central Africa	7th	7.0	4.1	11.7
Benin	2017	DHS	West & Central Africa	8th	10.5	6.9	15.7
Benin	2017	DHS	West & Central Africa	9th	6.7	4.0	11.1
Benin	2017	DHS	West & Central Africa	Wealthiest	7.1	3.6	13.6
Burundi	2016	DHS	Eastern & Southern Africa	Poorest	1.8	0.7	4.7
Burundi	2016	DHS	Eastern & Southern Africa	2nd	1.9	0.7	5.0
Burundi	2016	DHS	Eastern & Southern Africa	3rd	0.6	0.2	2.5
Burundi	2016	DHS	Eastern & Southern Africa	4th	0.9	0.2	3.5
Burundi	2016	DHS	Eastern & Southern Africa	5th	0.4	0.1	2.6
Burundi	2016	DHS	Eastern & Southern Africa	6th	0.0		
Burundi	2016	DHS	Eastern & Southern Africa	7th	0.0		
Burundi	2016	DHS	Eastern & Southern Africa	8th	0.7	0.2	3.0
Burundi	2016	DHS	Eastern & Southern Africa	9th	1.2	0.4	3.6
Burundi	2016	DHS	Eastern & Southern Africa	Wealthiest	0.2	0.0	1.3
CAR	2018	MICS	West & Central Africa	Poorest	62.9	54.4	70.7
CAR	2018	MICS	West & Central Africa	2nd	56.4	46.9	65.4
CAR	2018	MICS	West & Central Africa	3rd	53.7	44.4	62.7
CAR	2018	MICS	West & Central Africa	4th	56.1	46.3	65.4
CAR	2018	MICS	West & Central Africa	5th	44.2	35.1	53.7
CAR	2018	MICS	West & Central Africa	6th	47.9	38.7	57.3
CAR	2018	MICS	West & Central Africa	7th	44.7	35.7	54.1
CAR	2018	MICS	West & Central Africa	8th	32.3	25.1	40.5
CAR	2018	MICS	West & Central Africa	9th	21.5	15.2	29.6
CAR	2018	MICS	West & Central Africa	Wealthiest	12.7	7.9	19.9
Cameroon	2018	DHS	West & Central Africa	Poorest	38.0	28.1	49.1
Cameroon	2018	DHS	West & Central Africa	2nd	23.2	17.5	30.1
Cameroon	2018	DHS	West & Central Africa	3rd	21.5	14.5	30.8
Cameroon	2018	DHS	West & Central Africa	4th	15.9	11.0	22.3
Cameroon	2018	DHS	West & Central Africa	5th	17.0	11.7	24.1
Cameroon	2018	DHS	West & Central Africa	6th	14.0	9.6	19.9
Cameroon	2018	DHS	West & Central Africa	7th	10.2	6.4	15.7
Cameroon	2018	DHS	West & Central Africa	8th	10.1	5.3	18.2
Cameroon	2018	DHS	West & Central Africa	9th	5.6	2.7	11.1
Cameroon	2018	DHS	West & Central Africa	Wealthiest	4.0	1.7	9.1
Congo, DR	2017	MICS	West & Central Africa	Poorest	50.7	42.0	59.4
Congo, DR	2017	MICS	West & Central Africa	2nd	43.5	35.6	51.7
Congo, DR	2017	MICS	West & Central Africa	3rd	45.5	37.0	54.2
Congo, DR	2017	MICS	West & Central Africa	4th	42.4	36.1	49.0

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Congo, DR	2017	MICS	West & Central Africa	5th	34.8	27.4	43.0
Congo, DR	2017	MICS	West & Central Africa	6th	29.7	20.6	40.8
Congo, DR	2017	MICS	West & Central Africa	7th	31.6	22.0	43.0
Congo, DR	2017	MICS	West & Central Africa	8th	17.9	11.7	26.4
Congo, DR	2017	MICS	West & Central Africa	9th	17.4	10.8	26.9
Congo, DR	2017	MICS	West & Central Africa	Wealthiest	11.4	6.4	19.7
Costa Rica	2018	MICS	Latin America & Caribbean	Poorest	3.8	1.5	9.5
Costa Rica	2018	MICS	Latin America & Caribbean	2nd	4.5	2.0	9.6
Costa Rica	2018	MICS	Latin America & Caribbean	3rd	4.6	0.8	23.2
Costa Rica	2018	MICS	Latin America & Caribbean	4th	1.7	0.2	10.4
Costa Rica	2018	MICS	Latin America & Caribbean	5th	0.5	0.1	3.3
Costa Rica	2018	MICS	Latin America & Caribbean	6th	2.0	0.3	10.9
Costa Rica	2018	MICS	Latin America & Caribbean	7th	0.2	0.0	1.4
Costa Rica	2018	MICS	Latin America & Caribbean	8th	0.0		
Costa Rica	2018	MICS	Latin America & Caribbean	9th	2.9	0.6	12.9
Costa Rica	2018	MICS	Latin America & Caribbean	Wealthiest	1.0	0.1	7.3
Cote d'Ivoire	2016	MICS	West & Central Africa	Poorest	34.2	27.4	41.7
Cote d'Ivoire	2016	MICS	West & Central Africa	2nd	23.1	17.2	30.3
Cote d'Ivoire	2016	MICS	West & Central Africa	3rd	18.0	12.6	25.0
Cote d'Ivoire	2016	MICS	West & Central Africa	4th	19.8	14.0	27.2
Cote d'Ivoire	2016	MICS	West & Central Africa	5th	22.3	15.3	31.3
Cote d'Ivoire	2016	MICS	West & Central Africa	6th	17.5	11.9	24.9
Cote d'Ivoire	2016	MICS	West & Central Africa	7th	14.9	9.1	23.5
Cote d'Ivoire	2016	MICS	West & Central Africa	8th	8.0	3.2	18.8
Cote d'Ivoire	2016	MICS	West & Central Africa	9th	9.9	5.1	18.5
Cote d'Ivoire	2016	MICS	West & Central Africa	Wealthiest	13.7	5.1	31.9
Cuba	2019	MICS	Latin America & Caribbean	Poorest	1.6	0.4	6.4
Cuba	2019	MICS	Latin America & Caribbean	2nd	6.5	1.7	21.9
Cuba	2019	MICS	Latin America & Caribbean	3rd	0.4	0.1	3.2
Cuba	2019	MICS	Latin America & Caribbean	4th	7.5	2.1	24.0
Cuba	2019	MICS	Latin America & Caribbean	5th	2.5	0.5	12.1
Cuba	2019	MICS	Latin America & Caribbean	6th	0.7	0.1	5.1
Cuba	2019	MICS	Latin America & Caribbean	7th	2.5	0.6	9.2
Cuba	2019	MICS	Latin America & Caribbean	8th	0.0		
Cuba	2019	MICS	Latin America & Caribbean	9th	0.0		
Cuba	2019	MICS	Latin America & Caribbean	Wealthiest	0.5	0.1	3.7
Dominican Republic	2019	MICS	Latin America & Caribbean	Poorest	13.1	9.2	18.3
Dominican Republic	2019	MICS	Latin America & Caribbean	2nd	10.5	5.7	18.4
Dominican Republic	2019	MICS	Latin America & Caribbean	3rd	9.0	5.5	14.5
Dominican Republic	2019	MICS	Latin America & Caribbean	4th	6.7	3.4	13.0
Dominican Republic	2019	MICS	Latin America & Caribbean	5th	3.9	1.5	9.8
Dominican Republic	2019	MICS	Latin America & Caribbean	6th	5.2	2.5	10.3
Dominican Republic	2019	MICS	Latin America & Caribbean	7th	10.6	5.0	21.1
Dominican Republic	2019	MICS	Latin America & Caribbean	8th	5.1	1.4	16.3
Dominican Republic	2019	MICS	Latin America & Caribbean	9th	7.8	3.1	18.5
Dominican Republic	2019	MICS	Latin America & Caribbean	Wealthiest	8.2	3.2	19.8
Ethiopia	2019	DHS	Eastern & Southern Africa	Poorest	46.9	33.4	60.9
Ethiopia	2019	DHS	Eastern & Southern Africa	2nd	34.7	21.2	51.2
Ethiopia	2019	DHS	Eastern & Southern Africa	3rd	25.5	14.0	41.8
Ethiopia	2019	DHS	Eastern & Southern Africa	4th	22.8	12.1	38.8
Ethiopia	2019	DHS	Eastern & Southern Africa	5th	30.8	18.0	47.4
Ethiopia	2019	DHS	Eastern & Southern Africa	6th	29.8	16.6	47.6
Ethiopia	2019	DHS	Eastern & Southern Africa	7th	28.8	15.7	46.7
Ethiopia	2019	DHS	Eastern & Southern Africa	8th	18.2	8.0	36.4

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Ethiopia	2019	DHS	Eastern & Southern Africa	9th	5.7	1.7	17.1
Ethiopia	2019	DHS	Eastern & Southern Africa	Wealthiest	4.8	1.1	17.9
Fiji	2021	MICS	East Asia & the Pacific	Poorest	1.8	0.2	11.8
Fiji	2021	MICS	East Asia & the Pacific	2nd	6.0	1.8	18.6
Fiji	2021	MICS	East Asia & the Pacific	3rd	4.9	1.6	13.8
Fiji	2021	MICS	East Asia & the Pacific	4th	2.3	0.3	15.1
Fiji	2021	MICS	East Asia & the Pacific	5th	3.5	0.5	21.6
Fiji	2021	MICS	East Asia & the Pacific	6th	8.1	2.6	22.2
Fiji	2021	MICS	East Asia & the Pacific	7th			
Fiji	2021	MICS	East Asia & the Pacific	8th	2.8	0.4	17.8
Fiji	2021	MICS	East Asia & the Pacific	9th	0.0		
Fiji	2021	MICS	East Asia & the Pacific	Wealthiest			
Gambia	2019	DHS	West & Central Africa	Poorest	0.8	0.2	2.8
Gambia	2019	DHS	West & Central Africa	2nd	1.3	0.3	5.3
Gambia	2019	DHS	West & Central Africa	3rd	1.9	0.3	12.8
Gambia	2019	DHS	West & Central Africa	4th	1.4	0.4	5.0
Gambia	2019	DHS	West & Central Africa	5th	0.7	0.2	2.9
Gambia	2019	DHS	West & Central Africa	6th	0.8	0.2	3.2
Gambia	2019	DHS	West & Central Africa	7th	4.8	1.1	18.5
Gambia	2019	DHS	West & Central Africa	8th	2.7	0.7	10.6
Gambia	2019	DHS	West & Central Africa	9th	0.3	0.0	1.9
Gambia	2019	DHS	West & Central Africa	Wealthiest	2.3	0.4	12.9
Ghana	2017	MICS	West & Central Africa	Poorest	4.0	2.0	7.9
Ghana	2017	MICS	West & Central Africa	2nd	6.7	2.9	14.5
Ghana	2017	MICS	West & Central Africa	3rd	7.7	3.1	17.8
Ghana	2017	MICS	West & Central Africa	4th	2.7	1.0	6.8
Ghana	2017	MICS	West & Central Africa	5th	5.1	2.3	10.9
Ghana	2017	MICS	West & Central Africa	6th	3.2	1.0	9.3
Ghana	2017	MICS	West & Central Africa	7th	3.4	1.4	8.1
Ghana	2017	MICS	West & Central Africa	8th	3.1	1.0	8.8
Ghana	2017	MICS	West & Central Africa	9th	3.6	1.2	9.9
Ghana	2017	MICS	West & Central Africa	Wealthiest	0.7	0.2	2.7
Guinea	2018	DHS	West & Central Africa	Poorest	59.9	49.1	69.8
Guinea	2018	DHS	West & Central Africa	2nd	50.2	40.5	59.9
Guinea	2018	DHS	West & Central Africa	3rd	43.9	35.5	52.6
Guinea	2018	DHS	West & Central Africa	4th	38.6	30.4	47.6
Guinea	2018	DHS	West & Central Africa	5th	42.3	33.0	52.2
Guinea	2018	DHS	West & Central Africa	6th	40.8	31.9	50.5
Guinea	2018	DHS	West & Central Africa	7th	31.2	23.4	40.3
Guinea	2018	DHS	West & Central Africa	8th	18.9	12.0	28.4
Guinea	2018	DHS	West & Central Africa	9th	17.1	10.7	26.1
Guinea	2018	DHS	West & Central Africa	Wealthiest	21.5	13.4	32.8
Guinea Bissau	2018	MICS	West & Central Africa	Poorest	7.9	4.3	14.1
Guinea Bissau	2018	MICS	West & Central Africa	2nd	6.9	3.3	14.0
Guinea Bissau	2018	MICS	West & Central Africa	3rd	7.3	4.2	12.3
Guinea Bissau	2018	MICS	West & Central Africa	4th	8.4	4.4	15.6
Guinea Bissau	2018	MICS	West & Central Africa	5th	3.0	1.1	8.0
Guinea Bissau	2018	MICS	West & Central Africa	6th	3.6	1.2	10.7
Guinea Bissau	2018	MICS	West & Central Africa	7th	7.5	4.2	13.1
Guinea Bissau	2018	MICS	West & Central Africa	8th	11.7	6.1	21.1
Guinea Bissau	2018	MICS	West & Central Africa	9th	11.2	4.9	23.6
Guinea Bissau	2018	MICS	West & Central Africa	Wealthiest	1.9	0.3	12.5
Guyana	2019	MICS	Latin America & Caribbean	Poorest	18.6	11.1	29.4
Guyana	2019	MICS	Latin America & Caribbean	2nd	7.8	3.6	16.1

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Guyana	2019	MICS	Latin America & Caribbean	3rd	7.8	3.2	18.2
Guyana	2019	MICS	Latin America & Caribbean	4th	6.2	2.1	17.0
Guyana	2019	MICS	Latin America & Caribbean	5th	2.5	0.6	10.4
Guyana	2019	MICS	Latin America & Caribbean	6th	4.7	1.6	13.4
Guyana	2019	MICS	Latin America & Caribbean	7th	7.9	1.7	30.0
Guyana	2019	MICS	Latin America & Caribbean	8th	8.0	2.1	26.3
Guyana	2019	MICS	Latin America & Caribbean	9th	8.1	2.0	27.7
Guyana	2019	MICS	Latin America & Caribbean	Wealthiest	5.0	1.4	16.1
Haiti	2016	DHS	Latin America & Caribbean	Poorest	28.9	21.2	38.1
Haiti	2016	DHS	Latin America & Caribbean	2nd	21.0	13.7	30.9
Haiti	2016	DHS	Latin America & Caribbean	3rd	17.2	10.4	27.0
Haiti	2016	DHS	Latin America & Caribbean	4th	22.1	13.7	33.6
Haiti	2016	DHS	Latin America & Caribbean	5th	17.9	10.9	28.0
Haiti	2016	DHS	Latin America & Caribbean	6th	14.2	8.2	23.5
Haiti	2016	DHS	Latin America & Caribbean	7th	7.0	3.0	15.6
Haiti	2016	DHS	Latin America & Caribbean	8th	12.9	6.2	24.9
Haiti	2016	DHS	Latin America & Caribbean	9th	5.3	0.9	26.0
Haiti	2016	DHS	Latin America & Caribbean	Wealthiest	3.2	0.6	14.8
Honduras	2019	MICS	Latin America & Caribbean	Poorest	3.5	1.7	7.2
Honduras	2019	MICS	Latin America & Caribbean	2nd	0.6	0.1	2.9
Honduras	2019	MICS	Latin America & Caribbean	3rd	5.8	2.6	12.2
Honduras	2019	MICS	Latin America & Caribbean	4th	1.2	0.3	4.7
Honduras	2019	MICS	Latin America & Caribbean	5th	7.0	3.6	13.0
Honduras	2019	MICS	Latin America & Caribbean	6th	5.6	2.4	12.5
Honduras	2019	MICS	Latin America & Caribbean	7th	1.7	0.5	5.9
Honduras	2019	MICS	Latin America & Caribbean	8th	2.5	0.7	8.1
Honduras	2019	MICS	Latin America & Caribbean	9th	6.8	2.8	15.6
Honduras	2019	MICS	Latin America & Caribbean	Wealthiest	0.0		
India	2019	DHS	South Asia	Poorest	9.0	8.1	10.1
India	2019	DHS	South Asia	2nd	7.7	6.8	8.7
India	2019	DHS	South Asia	3rd	6.8	6.0	7.8
India	2019	DHS	South Asia	4th	6.7	5.6	8.0
India	2019	DHS	South Asia	5th	4.9	4.1	5.8
India	2019	DHS	South Asia	6th	5.9	4.7	7.3
India	2019	DHS	South Asia	7th	5.6	4.6	6.7
India	2019	DHS	South Asia	8th	4.6	3.8	5.6
India	2019	DHS	South Asia	9th	6.5	5.3	8.0
India	2019	DHS	South Asia	Wealthiest	4.4	3.5	5.5
Indonesia	2017	DHS	East Asia & the Pacific	Poorest	19.3	15.0	24.5
Indonesia	2017	DHS	East Asia & the Pacific	2nd	12.8	9.2	17.6
Indonesia	2017	DHS	East Asia & the Pacific	3rd	17.4	12.9	23.2
Indonesia	2017	DHS	East Asia & the Pacific	4th	10.4	7.1	15.1
Indonesia	2017	DHS	East Asia & the Pacific	5th	10.6	6.9	15.8
Indonesia	2017	DHS	East Asia & the Pacific	6th	9.8	6.9	13.9
Indonesia	2017	DHS	East Asia & the Pacific	7th	9.6	6.2	14.5
Indonesia	2017	DHS	East Asia & the Pacific	8th	6.2	3.7	10.3
Indonesia	2017	DHS	East Asia & the Pacific	9th	7.6	4.8	11.9
Indonesia	2017	DHS	East Asia & the Pacific	Wealthiest	7.6	4.4	12.8
Iraq	2018	MICS	Middle East & North Africa	Poorest	21.6	17.0	27.0
Iraq	2018	MICS	Middle East & North Africa	2nd	14.7	10.6	20.0
Iraq	2018	MICS	Middle East & North Africa	3rd	15.4	10.4	22.3
Iraq	2018	MICS	Middle East & North Africa	4th	12.7	8.6	18.2
Iraq	2018	MICS	Middle East & North Africa	5th	19.9	12.4	30.3
Iraq	2018	MICS	Middle East & North Africa	6th	10.7	7.5	15.2

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Iraq	2018	MICS	Middle East & North Africa	7th	17.4	10.4	27.6
Iraq	2018	MICS	Middle East & North Africa	8th	5.9	3.3	10.3
Iraq	2018	MICS	Middle East & North Africa	9th	4.0	2.3	7.2
Iraq	2018	MICS	Middle East & North Africa	Wealthiest	6.4	2.8	13.7
Jordan	2017	DHS	Middle East & North Africa	Poorest	11.1	6.4	18.5
Jordan	2017	DHS	Middle East & North Africa	2nd	7.6	4.3	13.2
Jordan	2017	DHS	Middle East & North Africa	3rd	8.5	4.4	16.0
Jordan	2017	DHS	Middle East & North Africa	4th	7.2	3.4	14.3
Jordan	2017	DHS	Middle East & North Africa	5th	3.6	1.7	7.2
Jordan	2017	DHS	Middle East & North Africa	6th	6.0	2.5	13.5
Jordan	2017	DHS	Middle East & North Africa	7th	9.0	3.7	20.3
Jordan	2017	DHS	Middle East & North Africa	8th	6.5	1.6	22.5
Jordan	2017	DHS	Middle East & North Africa	9th	10.5	2.8	32.3
Jordan	2017	DHS	Middle East & North Africa	Wealthiest	4.2	0.6	23.8
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Poorest	3.5	1.1	10.3
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	2nd	3.7	1.2	10.4
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	3rd	1.7	0.5	5.9
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	4th	3.0	1.2	7.2
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	5th	5.4	2.4	11.3
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	6th	0.5	0.1	3.4
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	7th	4.5	2.0	9.9
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	8th	8.0	3.7	16.7
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	9th	12.8	5.6	26.7
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Wealthiest	1.9	0.6	6.0
Kiribati	2018	MICS	East Asia & the Pacific	Poorest	33.9	21.4	49.2
Kiribati	2018	MICS	East Asia & the Pacific	2nd	46.1	30.8	62.1
Kiribati	2018	MICS	East Asia & the Pacific	3rd	40.1	26.1	56.0
Kiribati	2018	MICS	East Asia & the Pacific	4th	33.2	20.7	48.7
Kiribati	2018	MICS	East Asia & the Pacific	5th	57.0	42.3	70.6
Kiribati	2018	MICS	East Asia & the Pacific	6th	35.9	23.7	50.4
Kiribati	2018	MICS	East Asia & the Pacific	7th	47.9	35.3	60.8
Kiribati	2018	MICS	East Asia & the Pacific	8th	43.4	26.7	61.7
Kiribati	2018	MICS	East Asia & the Pacific	9th	26.7	14.7	43.5
Kiribati	2018	MICS	East Asia & the Pacific	Wealthiest	40.1	23.6	59.3
Kosovo	2019	MICS	Eastern Europe & Central Asia	Poorest	3.5	0.5	21.8
Kosovo	2019	MICS	Eastern Europe & Central Asia	2nd	7.3	2.3	20.9
Kosovo	2019	MICS	Eastern Europe & Central Asia	3rd	7.6	2.3	22.3
Kosovo	2019	MICS	Eastern Europe & Central Asia	4th			
Kosovo	2019	MICS	Eastern Europe & Central Asia	5th	1.7	0.2	11.2
Kosovo	2019	MICS	Eastern Europe & Central Asia	6th	0.0		
Kosovo	2019	MICS	Eastern Europe & Central Asia	7th			
Kosovo	2019	MICS	Eastern Europe & Central Asia	8th	0.0		
Kosovo	2019	MICS	Eastern Europe & Central Asia	9th	5.1	0.7	29.1
Kosovo	2019	MICS	Eastern Europe & Central Asia	Wealthiest	3.5	0.5	22.1
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Poorest	4.0	1.1	13.8
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	2nd	16.3	7.2	32.9
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	3rd	1.6	0.2	11.0
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	4th	6.8	2.5	17.1
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	5th	7.8	2.6	21.0
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	6th	5.9	1.8	17.5
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	7th	11.3	4.1	27.9
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	8th	7.3	3.0	16.5
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	9th	13.1	7.1	23.0
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Wealthiest	27.6	14.2	46.7

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Laos	2017	MICS	East Asia & the Pacific	Poorest	45.6	38.0	53.4
Laos	2017	MICS	East Asia & the Pacific	2nd	40.8	33.9	48.1
Laos	2017	MICS	East Asia & the Pacific	3rd	31.9	25.7	38.7
Laos	2017	MICS	East Asia & the Pacific	4th	27.5	21.0	35.2
Laos	2017	MICS	East Asia & the Pacific	5th	24.1	18.0	31.4
Laos	2017	MICS	East Asia & the Pacific	6th	20.5	14.6	28.0
Laos	2017	MICS	East Asia & the Pacific	7th	25.4	18.5	33.7
Laos	2017	MICS	East Asia & the Pacific	8th	14.0	9.1	20.9
Laos	2017	MICS	East Asia & the Pacific	9th	15.5	10.1	23.2
Laos	2017	MICS	East Asia & the Pacific	Wealthiest	13.6	8.3	21.4
Lesotho	2018	MICS	Eastern & Southern Africa	Poorest	14.4	8.2	24.0
Lesotho	2018	MICS	Eastern & Southern Africa	2nd	20.3	10.7	35.0
Lesotho	2018	MICS	Eastern & Southern Africa	3rd	6.1	1.8	18.3
Lesotho	2018	MICS	Eastern & Southern Africa	4th	8.7	3.5	19.8
Lesotho	2018	MICS	Eastern & Southern Africa	5th	3.8	1.1	12.5
Lesotho	2018	MICS	Eastern & Southern Africa	6th	7.3	2.6	18.8
Lesotho	2018	MICS	Eastern & Southern Africa	7th	4.8	1.7	12.8
Lesotho	2018	MICS	Eastern & Southern Africa	8th	2.7	0.8	8.8
Lesotho	2018	MICS	Eastern & Southern Africa	9th	10.1	3.6	25.7
Lesotho	2018	MICS	Eastern & Southern Africa	Wealthiest	6.3	1.9	19.4
Liberia	2019	DHS	West & Central Africa	Poorest	11.4	7.0	17.9
Liberia	2019	DHS	West & Central Africa	2nd	11.5	7.2	18.0
Liberia	2019	DHS	West & Central Africa	3rd	10.9	6.0	18.9
Liberia	2019	DHS	West & Central Africa	4th	4.5	1.4	14.0
Liberia	2019	DHS	West & Central Africa	5th	7.5	2.7	19.1
Liberia	2019	DHS	West & Central Africa	6th	10.6	3.9	25.8
Liberia	2019	DHS	West & Central Africa	7th	15.2	6.9	30.5
Liberia	2019	DHS	West & Central Africa	8th	6.7	1.7	22.6
Liberia	2019	DHS	West & Central Africa	9th	0.3	0.0	2.4
Liberia	2019	DHS	West & Central Africa	Wealthiest	0.0		
Madagascar	2021	DHS	Eastern & Southern Africa	Poorest	38.3	30.1	47.2
Madagascar	2021	DHS	Eastern & Southern Africa	2nd	33.9	28.1	40.2
Madagascar	2021	DHS	Eastern & Southern Africa	3rd	21.4	15.9	28.1
Madagascar	2021	DHS	Eastern & Southern Africa	4th	23.8	17.8	31.0
Madagascar	2021	DHS	Eastern & Southern Africa	5th	21.5	15.4	29.1
Madagascar	2021	DHS	Eastern & Southern Africa	6th	15.2	10.1	22.2
Madagascar	2021	DHS	Eastern & Southern Africa	7th	12.3	8.0	18.7
Madagascar	2021	DHS	Eastern & Southern Africa	8th	12.1	7.3	19.2
Madagascar	2021	DHS	Eastern & Southern Africa	9th	8.2	4.6	14.1
Madagascar	2021	DHS	Eastern & Southern Africa	Wealthiest	12.5	7.2	20.8
Malawi	2019	MICS	Eastern & Southern Africa	Poorest	5.8	3.8	8.9
Malawi	2019	MICS	Eastern & Southern Africa	2nd	7.0	4.3	11.2
Malawi	2019	MICS	Eastern & Southern Africa	3rd	4.8	2.5	9.0
Malawi	2019	MICS	Eastern & Southern Africa	4th	3.7	1.6	8.3
Malawi	2019	MICS	Eastern & Southern Africa	5th	5.6	2.5	11.9
Malawi	2019	MICS	Eastern & Southern Africa	6th	3.3	1.6	6.6
Malawi	2019	MICS	Eastern & Southern Africa	7th	3.7	1.8	7.4
Malawi	2019	MICS	Eastern & Southern Africa	8th	3.9	1.9	7.9
Malawi	2019	MICS	Eastern & Southern Africa	9th	2.8	1.2	6.4
Malawi	2019	MICS	Eastern & Southern Africa	Wealthiest	2.6	1.0	6.5
Maldives	2016	DHS	South Asia	Poorest	12.2	6.6	21.4
Maldives	2016	DHS	South Asia	2nd	7.5	3.5	15.4
Maldives	2016	DHS	South Asia	3rd	4.5	1.7	11.6
Maldives	2016	DHS	South Asia	4th	10.3	5.6	18.3

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Maldives	2016	DHS	South Asia	5th	10.3	5.5	18.5
Maldives	2016	DHS	South Asia	6th	11.8	6.1	21.5
Maldives	2016	DHS	South Asia	7th	2.8	0.8	9.1
Maldives	2016	DHS	South Asia	8th			
Maldives	2016	DHS	South Asia	9th			
Maldives	2016	DHS	South Asia	Wealthiest			
Mali	2018	DHS	West & Central Africa	Poorest	33.2	23.7	44.2
Mali	2018	DHS	West & Central Africa	2nd	23.8	16.4	33.1
Mali	2018	DHS	West & Central Africa	3rd	18.5	12.6	26.3
Mali	2018	DHS	West & Central Africa	4th	22.2	15.5	30.8
Mali	2018	DHS	West & Central Africa	5th	20.2	14.8	27.1
Mali	2018	DHS	West & Central Africa	6th	15.2	10.0	22.2
Mali	2018	DHS	West & Central Africa	7th	18.8	12.9	26.7
Mali	2018	DHS	West & Central Africa	8th	9.0	5.2	15.2
Mali	2018	DHS	West & Central Africa	9th	10.6	6.5	16.6
Mali	2018	DHS	West & Central Africa	Wealthiest	3.7	1.6	8.3
Mauritania	2019	DHS	West & Central Africa	Poorest	20.1	14.3	27.5
Mauritania	2019	DHS	West & Central Africa	2nd	13.8	9.1	20.3
Mauritania	2019	DHS	West & Central Africa	3rd	21.8	15.3	30.1
Mauritania	2019	DHS	West & Central Africa	4th	10.2	5.9	17.1
Mauritania	2019	DHS	West & Central Africa	5th	10.5	6.8	15.8
Mauritania	2019	DHS	West & Central Africa	6th	6.3	3.6	10.8
Mauritania	2019	DHS	West & Central Africa	7th	11.7	6.3	20.7
Mauritania	2019	DHS	West & Central Africa	8th	8.6	4.8	14.9
Mauritania	2019	DHS	West & Central Africa	9th	11.1	5.4	21.4
Mauritania	2019	DHS	West & Central Africa	Wealthiest	6.1	2.4	14.8
Mexico	2015	MICS	Latin America & Caribbean	Poorest	11.1	5.7	20.2
Mexico	2015	MICS	Latin America & Caribbean	2nd	6.4	1.4	25.2
Mexico	2015	MICS	Latin America & Caribbean	3rd	5.0	2.6	9.3
Mexico	2015	MICS	Latin America & Caribbean	4th	7.6	3.8	14.6
Mexico	2015	MICS	Latin America & Caribbean	5th	8.3	4.8	14.2
Mexico	2015	MICS	Latin America & Caribbean	6th	12.6	5.2	27.5
Mexico	2015	MICS	Latin America & Caribbean	7th	6.3	2.7	13.9
Mexico	2015	MICS	Latin America & Caribbean	8th	7.5	2.7	19.5
Mexico	2015	MICS	Latin America & Caribbean	9th	8.7	1.7	34.4
Mexico	2015	MICS	Latin America & Caribbean	Wealthiest	3.3	1.0	10.6
Mongolia	2018	MICS	East Asia & the Pacific	Poorest	0.7	0.2	2.8
Mongolia	2018	MICS	East Asia & the Pacific	2nd	6.9	3.3	13.9
Mongolia	2018	MICS	East Asia & the Pacific	3rd	2.0	0.8	4.7
Mongolia	2018	MICS	East Asia & the Pacific	4th	1.9	0.5	6.9
Mongolia	2018	MICS	East Asia & the Pacific	5th	3.3	1.2	8.3
Mongolia	2018	MICS	East Asia & the Pacific	6th	5.2	1.4	17.5
Mongolia	2018	MICS	East Asia & the Pacific	7th	3.0	0.9	9.3
Mongolia	2018	MICS	East Asia & the Pacific	8th	3.4	0.7	14.8
Mongolia	2018	MICS	East Asia & the Pacific	9th	0.0		
Mongolia	2018	MICS	East Asia & the Pacific	Wealthiest	3.5	0.8	13.4
Mozambique	2015	DHS	Eastern & Southern Africa	Poorest	20.4	11.5	33.5
Mozambique	2015	DHS	Eastern & Southern Africa	2nd	18.2	10.8	28.9
Mozambique	2015	DHS	Eastern & Southern Africa	3rd	12.4	5.2	26.8
Mozambique	2015	DHS	Eastern & Southern Africa	4th	12.7	6.5	23.4
Mozambique	2015	DHS	Eastern & Southern Africa	5th	6.0	2.5	13.8
Mozambique	2015	DHS	Eastern & Southern Africa	6th	4.8	2.1	10.5
Mozambique	2015	DHS	Eastern & Southern Africa	7th	7.2	2.6	18.2
Mozambique	2015	DHS	Eastern & Southern Africa	8th	1.6	0.2	9.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Mozambique	2015	DHS	Eastern & Southern Africa	9th	3.8	1.4	10.1
Mozambique	2015	DHS	Eastern & Southern Africa	Wealthiest	1.4	0.2	8.8
Myanmar	2015	DHS	East Asia & the Pacific	Poorest	19.7	11.3	32.0
Myanmar	2015	DHS	East Asia & the Pacific	2nd	16.3	9.9	25.6
Myanmar	2015	DHS	East Asia & the Pacific	3rd	18.1	10.8	28.7
Myanmar	2015	DHS	East Asia & the Pacific	4th	19.7	10.5	34.0
Myanmar	2015	DHS	East Asia & the Pacific	5th	23.1	12.5	38.6
Myanmar	2015	DHS	East Asia & the Pacific	6th	11.0	4.2	25.8
Myanmar	2015	DHS	East Asia & the Pacific	7th	2.5	0.5	12.3
Myanmar	2015	DHS	East Asia & the Pacific	8th	1.9	0.4	7.7
Myanmar	2015	DHS	East Asia & the Pacific	9th	5.0	1.3	17.1
Myanmar	2015	DHS	East Asia & the Pacific	Wealthiest	2.1	0.3	13.8
Nepal	2019	MICS	South Asia	Poorest	16.7	11.4	23.8
Nepal	2019	MICS	South Asia	2nd	10.4	5.9	17.6
Nepal	2019	MICS	South Asia	3rd	11.4	6.4	19.6
Nepal	2019	MICS	South Asia	4th	17.5	10.9	26.9
Nepal	2019	MICS	South Asia	5th	10.1	5.0	19.4
Nepal	2019	MICS	South Asia	6th	8.5	4.5	15.5
Nepal	2019	MICS	South Asia	7th	6.3	2.6	14.5
Nepal	2019	MICS	South Asia	8th	7.9	3.6	16.8
Nepal	2019	MICS	South Asia	9th	4.4	1.8	10.3
Nepal	2019	MICS	South Asia	Wealthiest	9.9	4.4	20.8
Nigeria	2018	DHS	West & Central Africa	Poorest	65.2	60.3	69.8
Nigeria	2018	DHS	West & Central Africa	2nd	54.8	49.9	59.6
Nigeria	2018	DHS	West & Central Africa	3rd	51.6	46.1	57.0
Nigeria	2018	DHS	West & Central Africa	4th	46.2	40.9	51.6
Nigeria	2018	DHS	West & Central Africa	5th	35.3	30.8	40.2
Nigeria	2018	DHS	West & Central Africa	6th	26.4	21.7	31.7
Nigeria	2018	DHS	West & Central Africa	7th	18.4	14.7	22.8
Nigeria	2018	DHS	West & Central Africa	8th	19.8	15.9	24.4
Nigeria	2018	DHS	West & Central Africa	9th	9.2	6.5	12.9
Nigeria	2018	DHS	West & Central Africa	Wealthiest	3.8	2.0	7.1
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Poorest	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	2nd	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	3rd	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	4th	26.3	7.9	59.7
North Macedonia	2018	MICS	Eastern Europe & Central Asia	5th	4.2	0.6	23.4
North Macedonia	2018	MICS	Eastern Europe & Central Asia	6th	2.3	0.3	16.3
North Macedonia	2018	MICS	Eastern Europe & Central Asia	7th	11.3	2.3	41.1
North Macedonia	2018	MICS	Eastern Europe & Central Asia	8th	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	9th	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Wealthiest	1.1	0.1	7.9
Pakistan	2017	DHS	South Asia	Poorest	33.4	23.5	45.1
Pakistan	2017	DHS	South Asia	2nd	28.2	20.3	37.8
Pakistan	2017	DHS	South Asia	3rd	15.0	9.6	22.7
Pakistan	2017	DHS	South Asia	4th	18.8	12.6	27.1
Pakistan	2017	DHS	South Asia	5th	11.2	7.0	17.5
Pakistan	2017	DHS	South Asia	6th	11.6	6.7	19.3
Pakistan	2017	DHS	South Asia	7th	5.4	2.5	11.4
Pakistan	2017	DHS	South Asia	8th	6.8	3.8	12.0
Pakistan	2017	DHS	South Asia	9th	4.2	1.9	9.0
Pakistan	2017	DHS	South Asia	Wealthiest	1.8	0.5	6.2
Papua New Guinea	2016	DHS	East Asia & the Pacific	Poorest	58.6	48.5	68.0
Papua New Guinea	2016	DHS	East Asia & the Pacific	2nd	63.2	51.2	73.7



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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Papua New Guinea	2016	DHS	East Asia & the Pacific	3rd	51.1	40.6	61.5
Papua New Guinea	2016	DHS	East Asia & the Pacific	4th	40.5	29.9	52.2
Papua New Guinea	2016	DHS	East Asia & the Pacific	5th	37.4	27.5	48.4
Papua New Guinea	2016	DHS	East Asia & the Pacific	6th	30.9	23.5	39.5
Papua New Guinea	2016	DHS	East Asia & the Pacific	7th	34.5	26.6	43.3
Papua New Guinea	2016	DHS	East Asia & the Pacific	8th	21.5	14.9	30.1
Papua New Guinea	2016	DHS	East Asia & the Pacific	9th	15.8	10.6	22.7
Papua New Guinea	2016	DHS	East Asia & the Pacific	Wealthiest	10.1	4.9	19.6
Paraguay	2016	MICS	Latin America & Caribbean	Poorest	8.8	5.0	15.3
Paraguay	2016	MICS	Latin America & Caribbean	2nd	4.1	1.6	10.2
Paraguay	2016	MICS	Latin America & Caribbean	3rd	1.5	0.4	6.1
Paraguay	2016	MICS	Latin America & Caribbean	4th	5.8	2.0	15.8
Paraguay	2016	MICS	Latin America & Caribbean	5th	3.6	1.3	10.0
Paraguay	2016	MICS	Latin America & Caribbean	6th	1.5	0.4	5.9
Paraguay	2016	MICS	Latin America & Caribbean	7th	9.4	4.9	17.3
Paraguay	2016	MICS	Latin America & Caribbean	8th	7.1	3.2	14.7
Paraguay	2016	MICS	Latin America & Caribbean	9th	4.1	1.2	12.6
Paraguay	2016	MICS	Latin America & Caribbean	Wealthiest	3.4	0.8	12.7
Peru	2021	DHS	Latin America & Caribbean	Poorest	11.4	8.8	14.6
Peru	2021	DHS	Latin America & Caribbean	2nd	6.8	4.8	9.6
Peru	2021	DHS	Latin America & Caribbean	3rd	6.4	4.3	9.5
Peru	2021	DHS	Latin America & Caribbean	4th	7.5	4.9	11.3
Peru	2021	DHS	Latin America & Caribbean	5th	5.1	3.1	8.3
Peru	2021	DHS	Latin America & Caribbean	6th	6.0	3.7	9.7
Peru	2021	DHS	Latin America & Caribbean	7th	8.6	5.5	13.2
Peru	2021	DHS	Latin America & Caribbean	8th	4.6	2.5	8.3
Peru	2021	DHS	Latin America & Caribbean	9th	8.3	4.7	14.2
Peru	2021	DHS	Latin America & Caribbean	Wealthiest	6.9	3.2	13.9
Philippines	2017	DHS	East Asia & the Pacific	Poorest	28.2	22.6	34.7
Philippines	2017	DHS	East Asia & the Pacific	2nd	18.8	14.1	24.5
Philippines	2017	DHS	East Asia & the Pacific	3rd	10.7	6.5	17.1
Philippines	2017	DHS	East Asia & the Pacific	4th	7.9	4.6	13.2
Philippines	2017	DHS	East Asia & the Pacific	5th	12.1	7.2	19.9
Philippines	2017	DHS	East Asia & the Pacific	6th	14.1	7.7	24.5
Philippines	2017	DHS	East Asia & the Pacific	7th	7.1	3.3	14.5
Philippines	2017	DHS	East Asia & the Pacific	8th	9.1	4.2	18.6
Philippines	2017	DHS	East Asia & the Pacific	9th	8.8	3.6	20.2
Philippines	2017	DHS	East Asia & the Pacific	Wealthiest	2.6	0.9	7.5
Rwanda	2019	DHS	Eastern & Southern Africa	Poorest	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	2nd	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	3rd	0.5	0.1	3.6
Rwanda	2019	DHS	Eastern & Southern Africa	4th	0.8	0.1	5.4
Rwanda	2019	DHS	Eastern & Southern Africa	5th	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	6th	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	7th	0.6	0.1	4.3
Rwanda	2019	DHS	Eastern & Southern Africa	8th	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	9th	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Wealthiest	2.4	0.8	7.3
Samoa	2019	MICS	East Asia & the Pacific	Poorest	33.4	21.0	48.5
Samoa	2019	MICS	East Asia & the Pacific	2nd	30.5	18.2	46.4
Samoa	2019	MICS	East Asia & the Pacific	3rd	39.1	23.1	57.9
Samoa	2019	MICS	East Asia & the Pacific	4th	30.3	16.9	48.1
Samoa	2019	MICS	East Asia & the Pacific	5th	30.6	20.3	43.3
Samoa	2019	MICS	East Asia & the Pacific	6th	25.8	14.8	41.0

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Samoa	2019	MICS	East Asia & the Pacific	7th	30.0	18.9	44.2
Samoa	2019	MICS	East Asia & the Pacific	8th	19.0	9.0	35.8
Samoa	2019	MICS	East Asia & the Pacific	9th	24.4	14.5	37.9
Samoa	2019	MICS	East Asia & the Pacific	Wealthiest	28.1	15.3	45.9
Sao Tome and Principe	2019	MICS	West & Central Africa	Poorest	7.2	2.3	20.1
Sao Tome and Principe	2019	MICS	West & Central Africa	2nd	5.7	1.7	17.0
Sao Tome and Principe	2019	MICS	West & Central Africa	3rd	3.3	0.4	21.4
Sao Tome and Principe	2019	MICS	West & Central Africa	4th	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	5th			
Sao Tome and Principe	2019	MICS	West & Central Africa	6th	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	7th	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	8th	3.5	0.5	19.9
Sao Tome and Principe	2019	MICS	West & Central Africa	9th	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	Wealthiest			
Senegal	2019	DHS	West & Central Africa	Poorest	12.0	6.2	22.1
Senegal	2019	DHS	West & Central Africa	2nd	5.8	3.2	10.3
Senegal	2019	DHS	West & Central Africa	3rd	2.9	1.1	7.2
Senegal	2019	DHS	West & Central Africa	4th	1.7	0.2	10.9
Senegal	2019	DHS	West & Central Africa	5th	3.9	1.4	10.5
Senegal	2019	DHS	West & Central Africa	6th	5.0	0.9	24.2
Senegal	2019	DHS	West & Central Africa	7th	1.5	0.2	8.3
Senegal	2019	DHS	West & Central Africa	8th	2.4	0.6	9.1
Senegal	2019	DHS	West & Central Africa	9th	0.8	0.1	6.6
Senegal	2019	DHS	West & Central Africa	Wealthiest	0.2	0.0	1.8
Serbia	2019	MICS	Eastern Europe & Central Asia	Poorest	10.6	3.9	26.1
Serbia	2019	MICS	Eastern Europe & Central Asia	2nd			
Serbia	2019	MICS	Eastern Europe & Central Asia	3rd			
Serbia	2019	MICS	Eastern Europe & Central Asia	4th	0.0		
Serbia	2019	MICS	Eastern Europe & Central Asia	5th	0.0		
Serbia	2019	MICS	Eastern Europe & Central Asia	6th	2.8	0.4	18.7
Serbia	2019	MICS	Eastern Europe & Central Asia	7th	7.0	1.3	30.8
Serbia	2019	MICS	Eastern Europe & Central Asia	8th	1.7	0.2	11.3
Serbia	2019	MICS	Eastern Europe & Central Asia	9th	1.1	0.1	7.5
Serbia	2019	MICS	Eastern Europe & Central Asia	Wealthiest	0.0		
Sierra Leone	2019	DHS	West & Central Africa	Poorest	6.4	3.7	11.0
Sierra Leone	2019	DHS	West & Central Africa	2nd	6.8	4.0	11.3
Sierra Leone	2019	DHS	West & Central Africa	3rd	2.3	0.8	6.3
Sierra Leone	2019	DHS	West & Central Africa	4th	6.7	3.5	12.3
Sierra Leone	2019	DHS	West & Central Africa	5th	6.9	3.9	11.9
Sierra Leone	2019	DHS	West & Central Africa	6th	7.6	4.0	13.9
Sierra Leone	2019	DHS	West & Central Africa	7th	5.2	2.5	10.8
Sierra Leone	2019	DHS	West & Central Africa	8th	1.8	0.6	5.8
Sierra Leone	2019	DHS	West & Central Africa	9th	4.6	1.8	11.2
Sierra Leone	2019	DHS	West & Central Africa	Wealthiest	4.0	1.5	10.2
South Africa	2016	DHS	Eastern & Southern Africa	Poorest	10.2	4.1	23.1
South Africa	2016	DHS	Eastern & Southern Africa	2nd	9.8	3.9	22.3
South Africa	2016	DHS	Eastern & Southern Africa	3rd	8.8	4.3	17.0
South Africa	2016	DHS	Eastern & Southern Africa	4th	12.6	5.6	25.9
South Africa	2016	DHS	Eastern & Southern Africa	5th	9.7	4.1	21.1
South Africa	2016	DHS	Eastern & Southern Africa	6th	2.9	0.6	11.8
South Africa	2016	DHS	Eastern & Southern Africa	7th	6.4	2.0	18.6
South Africa	2016	DHS	Eastern & Southern Africa	8th	7.2	1.9	24.2
South Africa	2016	DHS	Eastern & Southern Africa	9th	7.0	1.7	24.3
South Africa	2016	DHS	Eastern & Southern Africa	Wealthiest			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
State of Palestine	2019	MICS	Middle East & North Africa	Poorest	0.2	0.0	1.6
State of Palestine	2019	MICS	Middle East & North Africa	2nd	1.6	0.4	6.5
State of Palestine	2019	MICS	Middle East & North Africa	3rd	0.0		
State of Palestine	2019	MICS	Middle East & North Africa	4th	1.7	0.6	4.5
State of Palestine	2019	MICS	Middle East & North Africa	5th	9.5	5.0	17.3
State of Palestine	2019	MICS	Middle East & North Africa	6th	5.9	2.8	11.9
State of Palestine	2019	MICS	Middle East & North Africa	7th	4.0	1.8	8.5
State of Palestine	2019	MICS	Middle East & North Africa	8th	7.4	4.0	13.5
State of Palestine	2019	MICS	Middle East & North Africa	9th	5.5	2.6	11.0
State of Palestine	2019	MICS	Middle East & North Africa	Wealthiest	10.5	4.8	21.4
Suriname	2018	MICS	Latin America & Caribbean	Poorest	27.8	18.1	40.2
Suriname	2018	MICS	Latin America & Caribbean	2nd	17.2	9.9	28.2
Suriname	2018	MICS	Latin America & Caribbean	3rd	17.7	10.5	28.5
Suriname	2018	MICS	Latin America & Caribbean	4th	26.7	15.6	41.7
Suriname	2018	MICS	Latin America & Caribbean	5th	7.9	3.9	15.2
Suriname	2018	MICS	Latin America & Caribbean	6th	15.9	6.7	33.5
Suriname	2018	MICS	Latin America & Caribbean	7th	17.9	8.1	34.9
Suriname	2018	MICS	Latin America & Caribbean	8th	17.4	5.5	43.4
Suriname	2018	MICS	Latin America & Caribbean	9th	24.0	9.8	48.0
Suriname	2018	MICS	Latin America & Caribbean	Wealthiest	17.0	6.8	36.5
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Poorest	7.4	3.8	13.9
Tajikistan	2017	DHS	Eastern Europe & Central Asia	2nd	8.7	4.6	16.0
Tajikistan	2017	DHS	Eastern Europe & Central Asia	3rd	6.2	3.1	12.2
Tajikistan	2017	DHS	Eastern Europe & Central Asia	4th	6.9	3.5	13.3
Tajikistan	2017	DHS	Eastern Europe & Central Asia	5th	7.6	4.5	12.7
Tajikistan	2017	DHS	Eastern Europe & Central Asia	6th	5.0	2.5	9.9
Tajikistan	2017	DHS	Eastern Europe & Central Asia	7th	5.4	2.5	10.9
Tajikistan	2017	DHS	Eastern Europe & Central Asia	8th	10.3	6.0	17.0
Tajikistan	2017	DHS	Eastern Europe & Central Asia	9th	9.1	5.1	15.7
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Wealthiest	12.4	7.9	18.9
Tanzania	2015	DHS	Eastern & Southern Africa	Poorest	8.2	5.2	12.7
Tanzania	2015	DHS	Eastern & Southern Africa	2nd	4.7	2.3	9.4
Tanzania	2015	DHS	Eastern & Southern Africa	3rd	3.5	1.6	7.2
Tanzania	2015	DHS	Eastern & Southern Africa	4th	3.7	1.5	8.7
Tanzania	2015	DHS	Eastern & Southern Africa	5th	2.4	0.8	7.0
Tanzania	2015	DHS	Eastern & Southern Africa	6th	2.9	1.3	6.3
Tanzania	2015	DHS	Eastern & Southern Africa	7th	0.6	0.1	3.1
Tanzania	2015	DHS	Eastern & Southern Africa	8th	0.1	0.0	0.4
Tanzania	2015	DHS	Eastern & Southern Africa	9th	0.9	0.1	6.1
Tanzania	2015	DHS	Eastern & Southern Africa	Wealthiest	1.6	0.4	6.9
Thailand	2019	MICS	East Asia & the Pacific	Poorest	2.4	1.0	5.4
Thailand	2019	MICS	East Asia & the Pacific	2nd	3.6	1.7	7.5
Thailand	2019	MICS	East Asia & the Pacific	3rd	1.8	0.9	3.6
Thailand	2019	MICS	East Asia & the Pacific	4th	6.2	1.2	26.9
Thailand	2019	MICS	East Asia & the Pacific	5th	5.6	1.1	25.1
Thailand	2019	MICS	East Asia & the Pacific	6th	1.7	0.6	4.5
Thailand	2019	MICS	East Asia & the Pacific	7th	4.7	1.8	11.3
Thailand	2019	MICS	East Asia & the Pacific	8th	3.0	1.0	8.4
Thailand	2019	MICS	East Asia & the Pacific	9th	0.1	0.1	0.4
Thailand	2019	MICS	East Asia & the Pacific	Wealthiest	0.1	0.0	1.0
Timor Leste	2016	DHS	East Asia & the Pacific	Poorest	43.4	33.5	53.8
Timor Leste	2016	DHS	East Asia & the Pacific	2nd	28.6	20.5	38.4
Timor Leste	2016	DHS	East Asia & the Pacific	3rd	33.0	24.8	42.2
Timor Leste	2016	DHS	East Asia & the Pacific	4th	23.5	16.7	32.0

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Timor Leste	2016	DHS	East Asia & the Pacific	5th	21.2	14.5	29.9
Timor Leste	2016	DHS	East Asia & the Pacific	6th	18.1	12.3	25.8
Timor Leste	2016	DHS	East Asia & the Pacific	7th	15.6	10.5	22.7
Timor Leste	2016	DHS	East Asia & the Pacific	8th	15.4	9.8	23.3
Timor Leste	2016	DHS	East Asia & the Pacific	9th	11.9	5.8	22.6
Timor Leste	2016	DHS	East Asia & the Pacific	Wealthiest	7.8	3.9	14.9
Togo	2017	MICS	West & Central Africa	Poorest	13.4	8.1	21.4
Togo	2017	MICS	West & Central Africa	2nd	16.2	9.8	25.7
Togo	2017	MICS	West & Central Africa	3rd	9.8	4.4	20.5
Togo	2017	MICS	West & Central Africa	4th	12.6	6.5	22.9
Togo	2017	MICS	West & Central Africa	5th	2.3	0.8	6.3
Togo	2017	MICS	West & Central Africa	6th	11.0	4.9	22.8
Togo	2017	MICS	West & Central Africa	7th	9.1	3.1	23.9
Togo	2017	MICS	West & Central Africa	8th	2.3	0.6	8.5
Togo	2017	MICS	West & Central Africa	9th	7.7	2.9	18.7
Togo	2017	MICS	West & Central Africa	Wealthiest	8.3	3.0	20.8
Tonga	2019	MICS	East Asia & the Pacific	Poorest	0.0		
Tonga	2019	MICS	East Asia & the Pacific	2nd	0.0		
Tonga	2019	MICS	East Asia & the Pacific	3rd			
Tonga	2019	MICS	East Asia & the Pacific	4th			
Tonga	2019	MICS	East Asia & the Pacific	5th			
Tonga	2019	MICS	East Asia & the Pacific	6th			
Tonga	2019	MICS	East Asia & the Pacific	7th			
Tonga	2019	MICS	East Asia & the Pacific	8th			
Tonga	2019	MICS	East Asia & the Pacific	9th			
Tonga	2019	MICS	East Asia & the Pacific	Wealthiest			
Tunisia	2018	MICS	Middle East & North Africa	Poorest	0.0		
Tunisia	2018	MICS	Middle East & North Africa	2nd	1.3	0.2	8.5
Tunisia	2018	MICS	Middle East & North Africa	3rd	1.0	0.1	6.9
Tunisia	2018	MICS	Middle East & North Africa	4th	1.2	0.2	8.2
Tunisia	2018	MICS	Middle East & North Africa	5th	5.1	1.6	15.0
Tunisia	2018	MICS	Middle East & North Africa	6th	8.0	3.2	19.0
Tunisia	2018	MICS	Middle East & North Africa	7th	1.9	0.3	12.5
Tunisia	2018	MICS	Middle East & North Africa	8th	6.3	2.5	15.0
Tunisia	2018	MICS	Middle East & North Africa	9th	12.4	5.9	24.3
Tunisia	2018	MICS	Middle East & North Africa	Wealthiest	10.1	4.0	23.3
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Poorest	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	2nd	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	3rd	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	4th	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	5th	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	6th	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	7th	1.5	0.2	10.2
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	8th	0.9	0.1	6.0
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	9th	0.8	0.1	5.8
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Wealthiest	4.7	1.5	14.0
Tuvalu	2019	MICS	East Asia & the Pacific	Poorest			
Tuvalu	2019	MICS	East Asia & the Pacific	2nd			
Tuvalu	2019	MICS	East Asia & the Pacific	3rd			
Tuvalu	2019	MICS	East Asia & the Pacific	4th			
Tuvalu	2019	MICS	East Asia & the Pacific	5th			
Tuvalu	2019	MICS	East Asia & the Pacific	6th			
Tuvalu	2019	MICS	East Asia & the Pacific	7th			
Tuvalu	2019	MICS	East Asia & the Pacific	8th			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Tuvalu	2019	MICS	East Asia & the Pacific	9th			
Tuvalu	2019	MICS	East Asia & the Pacific	Wealthiest			
Uganda	2016	DHS	Eastern & Southern Africa	Poorest	4.8	2.9	7.8
Uganda	2016	DHS	Eastern & Southern Africa	2nd	4.7	2.6	8.3
Uganda	2016	DHS	Eastern & Southern Africa	3rd	5.4	3.1	9.2
Uganda	2016	DHS	Eastern & Southern Africa	4th	4.8	2.6	8.6
Uganda	2016	DHS	Eastern & Southern Africa	5th	3.9	1.5	9.8
Uganda	2016	DHS	Eastern & Southern Africa	6th	5.4	3.1	9.1
Uganda	2016	DHS	Eastern & Southern Africa	7th	7.1	3.9	12.5
Uganda	2016	DHS	Eastern & Southern Africa	8th	4.0	2.0	8.2
Uganda	2016	DHS	Eastern & Southern Africa	9th	3.9	2.0	7.3
Uganda	2016	DHS	Eastern & Southern Africa	Wealthiest	6.8	3.2	13.8
Vietnam	2020	MICS	East Asia & the Pacific	Poorest	13.5	9.1	19.7
Vietnam	2020	MICS	East Asia & the Pacific	2nd	5.3	1.2	19.7
Vietnam	2020	MICS	East Asia & the Pacific	3rd	1.9	0.4	8.2
Vietnam	2020	MICS	East Asia & the Pacific	4th	1.5	0.3	6.8
Vietnam	2020	MICS	East Asia & the Pacific	5th	6.0	1.8	17.9
Vietnam	2020	MICS	East Asia & the Pacific	6th	11.7	4.3	28.0
Vietnam	2020	MICS	East Asia & the Pacific	7th	0.0		
Vietnam	2020	MICS	East Asia & the Pacific	8th	1.1	0.2	7.9
Vietnam	2020	MICS	East Asia & the Pacific	9th	0.7	0.1	5.0
Vietnam	2020	MICS	East Asia & the Pacific	Wealthiest	6.6	1.9	20.6
Zambia	2018	DHS	Eastern & Southern Africa	Poorest	4.1	2.1	7.7
Zambia	2018	DHS	Eastern & Southern Africa	2nd	2.1	0.8	5.0
Zambia	2018	DHS	Eastern & Southern Africa	3rd	0.7	0.2	2.4
Zambia	2018	DHS	Eastern & Southern Africa	4th	4.4	1.9	9.9
Zambia	2018	DHS	Eastern & Southern Africa	5th	2.0	0.7	5.2
Zambia	2018	DHS	Eastern & Southern Africa	6th	1.4	0.5	4.5
Zambia	2018	DHS	Eastern & Southern Africa	7th	1.4	0.2	9.7
Zambia	2018	DHS	Eastern & Southern Africa	8th	1.7	0.4	7.0
Zambia	2018	DHS	Eastern & Southern Africa	9th	1.5	0.3	7.1
Zambia	2018	DHS	Eastern & Southern Africa	Wealthiest	0.2	0.0	1.8
Zimbabwe	2019	MICS	Eastern & Southern Africa	Poorest	7.1	3.1	15.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	2nd	9.0	4.5	17.3
Zimbabwe	2019	MICS	Eastern & Southern Africa	3rd	11.2	5.5	21.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	4th	4.3	1.6	11.0
Zimbabwe	2019	MICS	Eastern & Southern Africa	5th	4.3	1.6	11.0
Zimbabwe	2019	MICS	Eastern & Southern Africa	6th	7.2	3.0	16.1
Zimbabwe	2019	MICS	Eastern & Southern Africa	7th	2.6	0.6	11.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	8th	2.5	0.9	6.8
Zimbabwe	2019	MICS	Eastern & Southern Africa	9th	3.2	1.2	8.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	Wealthiest	0.0		

Supplementary Table 3. No-DPT prevalence according to urban-rural residence in 74 LMICs.

Country	Year	Source	UNICEF Region	Area	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Urban	18.0	14.7	21.9
Afghanistan	2015	DHS	South Asia	Rural	29.9	25.8	34.4
Algeria	2018	MICS	Middle East & North Africa	Urban	4.5	3.5	5.9
Algeria	2018	MICS	Middle East & North Africa	Rural	4.5	3.2	6.1
Angola	2015	DHS	Eastern & Southern Africa	Urban	18.5	15.7	21.8
Angola	2015	DHS	Eastern & Southern Africa	Rural	50.6	45.8	55.5
Armenia	2015	DHS	Eastern Europe & Central Asia	Urban	1.5	0.6	3.4
Armenia	2015	DHS	Eastern Europe & Central Asia	Rural	1.6	0.4	6.0
Bangladesh	2017	DHS	South Asia	Urban	1.5	0.7	3.4
Bangladesh	2017	DHS	South Asia	Rural	1.5	0.8	2.8
Belize	2015	MICS	Latin America & Caribbean	Urban	4.7	2.0	10.6
Belize	2015	MICS	Latin America & Caribbean	Rural	8.7	5.0	14.9
Benin	2017	DHS	West & Central Africa	Urban	12.0	9.3	15.3
Benin	2017	DHS	West & Central Africa	Rural	18.0	15.5	20.8
Burundi	2016	DHS	Eastern & Southern Africa	Urban	0.9	0.3	3.2
Burundi	2016	DHS	Eastern & Southern Africa	Rural	0.8	0.5	1.3
CAR	2018	MICS	West & Central Africa	Urban	28.3	23.6	33.4
CAR	2018	MICS	West & Central Africa	Rural	52.5	48.2	56.8
Cameroon	2018	DHS	West & Central Africa	Urban	9.1	6.9	11.8
Cameroon	2018	DHS	West & Central Africa	Rural	22.5	18.6	27.0
Congo, DR	2017	MICS	West & Central Africa	Urban	22.6	17.7	28.4
Congo, DR	2017	MICS	West & Central Africa	Rural	41.8	36.2	47.7
Costa Rica	2018	MICS	Latin America & Caribbean	Urban	1.9	0.6	5.7
Costa Rica	2018	MICS	Latin America & Caribbean	Rural	3.3	1.9	5.9
Cote d'Ivoire	2016	MICS	West & Central Africa	Urban	14.8	11.3	19.1
Cote d'Ivoire	2016	MICS	West & Central Africa	Rural	22.8	19.8	26.2
Cuba	2019	MICS	Latin America & Caribbean	Urban	2.6	1.3	5.3
Cuba	2019	MICS	Latin America & Caribbean	Rural	2.5	0.6	9.6
Dominican Republic	2019	MICS	Latin America & Caribbean	Urban	7.5	5.7	9.8
Dominican Republic	2019	MICS	Latin America & Caribbean	Rural	9.8	7.4	12.9
Ethiopia	2019	DHS	Eastern & Southern Africa	Urban	10.0	5.0	19.1
Ethiopia	2019	DHS	Eastern & Southern Africa	Rural	29.7	23.8	36.3
Fiji	2021	MICS	East Asia & the Pacific	Urban	3.1	1.4	6.8
Fiji	2021	MICS	East Asia & the Pacific	Rural	3.6	1.7	7.3
Gambia	2019	DHS	West & Central Africa	Urban	2.1	1.1	4.1
Gambia	2019	DHS	West & Central Africa	Rural	0.8	0.3	1.9
Ghana	2017	MICS	West & Central Africa	Urban	3.7	2.3	6.1
Ghana	2017	MICS	West & Central Africa	Rural	4.3	2.5	7.1
Guinea	2018	DHS	West & Central Africa	Urban	21.4	16.7	27.0
Guinea	2018	DHS	West & Central Africa	Rural	44.7	40.1	49.4
Guinea Bissau	2018	MICS	West & Central Africa	Urban	8.9	5.0	15.3
Guinea Bissau	2018	MICS	West & Central Africa	Rural	6.4	4.5	9.0
Guyana	2019	MICS	Latin America & Caribbean	Urban	8.8	4.6	15.9
Guyana	2019	MICS	Latin America & Caribbean	Rural	8.7	5.8	12.9
Haiti	2016	DHS	Latin America & Caribbean	Urban	11.5	8.1	16.0
Haiti	2016	DHS	Latin America & Caribbean	Rural	19.1	14.8	24.3
Honduras	2019	MICS	Latin America & Caribbean	Urban	3.1	1.8	5.3
Honduras	2019	MICS	Latin America & Caribbean	Rural	3.7	2.5	5.6
India	2019	DHS	South Asia	Urban	7.5	6.6	8.5
India	2019	DHS	South Asia	Rural	5.9	5.6	6.3
Indonesia	2017	DHS	East Asia & the Pacific	Urban	8.8	7.2	10.6

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Country	Year	Source	UNICEF Region	Area	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Indonesia	2017	DHS	East Asia & the Pacific	Rural	13.4	11.3	15.9
Iraq	2018	MICS	Middle East & North Africa	Urban	11.8	9.5	14.6
Iraq	2018	MICS	Middle East & North Africa	Rural	16.6	13.2	20.7
Jordan	2017	DHS	Middle East & North Africa	Urban	7.8	5.8	10.3
Jordan	2017	DHS	Middle East & North Africa	Rural	4.8	2.7	8.3
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Urban	6.3	4.3	9.2
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Rural	2.6	1.5	4.5
Kiribati	2018	MICS	East Asia & the Pacific	Urban	42.3	35.5	49.5
Kiribati	2018	MICS	East Asia & the Pacific	Rural	37.5	30.1	45.5
Kosovo	2019	MICS	Eastern Europe & Central Asia	Urban	3.8	1.7	8.4
Kosovo	2019	MICS	Eastern Europe & Central Asia	Rural	4.0	1.8	8.7
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Urban	14.6	9.4	22.1
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Rural	6.8	4.3	10.4
Laos	2017	MICS	East Asia & the Pacific	Urban	22.2	18.4	26.5
Laos	2017	MICS	East Asia & the Pacific	Rural	29.2	26.2	32.4
Lesotho	2018	MICS	Eastern & Southern Africa	Urban	7.7	4.7	12.3
Lesotho	2018	MICS	Eastern & Southern Africa	Rural	8.8	6.2	12.5
Liberia	2019	DHS	West & Central Africa	Urban	6.8	3.6	12.6
Liberia	2019	DHS	West & Central Africa	Rural	10.4	8.0	13.4
Madagascar	2021	DHS	Eastern & Southern Africa	Urban	13.5	9.3	19.3
Madagascar	2021	DHS	Eastern & Southern Africa	Rural	23.3	20.7	26.2
Malawi	2019	MICS	Eastern & Southern Africa	Urban	4.4	2.4	7.9
Malawi	2019	MICS	Eastern & Southern Africa	Rural	4.6	3.7	5.8
Maldives	2016	DHS	South Asia	Urban	8.4	3.3	19.7
Maldives	2016	DHS	South Asia	Rural	9.6	7.3	12.6
Mali	2018	DHS	West & Central Africa	Urban	7.9	5.6	11.2
Mali	2018	DHS	West & Central Africa	Rural	20.6	17.1	24.6
Mauritania	2019	DHS	West & Central Africa	Urban	10.2	7.3	14.0
Mauritania	2019	DHS	West & Central Africa	Rural	13.7	10.9	17.1
Mexico	2015	MICS	Latin America & Caribbean	Urban	8.6	5.9	12.5
Mexico	2015	MICS	Latin America & Caribbean	Rural	5.5	3.0	9.7
Mongolia	2018	MICS	East Asia & the Pacific	Urban	2.5	1.3	4.7
Mongolia	2018	MICS	East Asia & the Pacific	Rural	3.9	2.3	6.4
Mozambique	2015	DHS	Eastern & Southern Africa	Urban	4.6	2.4	8.8
Mozambique	2015	DHS	Eastern & Southern Africa	Rural	11.8	7.8	17.6
Myanmar	2015	DHS	East Asia & the Pacific	Urban	9.0	4.6	16.8
Myanmar	2015	DHS	East Asia & the Pacific	Rural	14.6	10.9	19.2
Nepal	2019	MICS	South Asia	Urban	11.3	8.6	14.7
Nepal	2019	MICS	South Asia	Rural	9.2	6.8	12.4
Nigeria	2018	DHS	West & Central Africa	Urban	18.8	16.3	21.7
Nigeria	2018	DHS	West & Central Africa	Rural	45.0	42.5	47.5
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Urban	6.2	2.4	15.0
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Rural	1.2	0.3	4.9
Pakistan	2017	DHS	South Asia	Urban	7.9	5.5	11.2
Pakistan	2017	DHS	South Asia	Rural	16.6	13.3	20.7
Papua New Guinea	2016	DHS	East Asia & the Pacific	Urban	17.8	11.1	27.4
Papua New Guinea	2016	DHS	East Asia & the Pacific	Rural	38.7	34.3	43.2
Paraguay	2016	MICS	Latin America & Caribbean	Urban	4.4	3.0	6.4
Paraguay	2016	MICS	Latin America & Caribbean	Rural	6.5	4.4	9.7
Peru	2021	DHS	Latin America & Caribbean	Urban	6.9	5.7	8.2
Peru	2021	DHS	Latin America & Caribbean	Rural	8.5	6.7	10.7
Philippines	2017	DHS	East Asia & the Pacific	Urban	11.1	8.3	14.7
Philippines	2017	DHS	East Asia & the Pacific	Rural	15.3	12.9	18.1
Rwanda	2019	DHS	Eastern & Southern Africa	Urban	1.1	0.4	3.6

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Country	Year	Source	UNICEF Region	Area	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Rwanda	2019	DHS	Eastern & Southern Africa	Rural	0.2	0.1	0.8
Samoa	2019	MICS	East Asia & the Pacific	Urban	21.5	14.7	30.4
Samoa	2019	MICS	East Asia & the Pacific	Rural	31.0	25.9	36.7
Sao Tome and Principe	2019	MICS	West & Central Africa	Urban	1.7	0.5	5.3
Sao Tome and Principe	2019	MICS	West & Central Africa	Rural	3.3	1.3	8.2
Senegal	2019	DHS	West & Central Africa	Urban	1.8	0.6	5.8
Senegal	2019	DHS	West & Central Africa	Rural	5.0	3.4	7.5
Serbia	2019	MICS	Eastern Europe & Central Asia	Urban	1.8	0.4	7.1
Serbia	2019	MICS	Eastern Europe & Central Asia	Rural	6.0	3.0	11.9
Sierra Leone	2019	DHS	West & Central Africa	Urban	4.2	2.6	6.7
Sierra Leone	2019	DHS	West & Central Africa	Rural	6.0	4.5	7.9
South Africa	2016	DHS	Eastern & Southern Africa	Urban	9.6	6.1	14.9
South Africa	2016	DHS	Eastern & Southern Africa	Rural	7.6	5.1	11.0
State of Palestine	2019	MICS	Middle East & North Africa	Urban	4.3	3.2	5.7
State of Palestine	2019	MICS	Middle East & North Africa	Rural	5.6	3.3	9.3
Suriname	2018	MICS	Latin America & Caribbean	Urban	20.3	14.8	27.1
Suriname	2018	MICS	Latin America & Caribbean	Rural	18.6	13.4	25.4
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Urban	11.9	8.6	16.3
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Rural	6.6	5.0	8.6
Tanzania	2015	DHS	Eastern & Southern Africa	Urban	1.0	0.4	2.5
Tanzania	2015	DHS	Eastern & Southern Africa	Rural	3.9	2.8	5.4
Thailand	2019	MICS	East Asia & the Pacific	Urban	5.1	2.1	12.2
Thailand	2019	MICS	East Asia & the Pacific	Rural	2.0	1.4	3.0
Timor Leste	2016	DHS	East Asia & the Pacific	Urban	13.2	9.2	18.6
Timor Leste	2016	DHS	East Asia & the Pacific	Rural	24.8	21.6	28.4
Togo	2017	MICS	West & Central Africa	Urban	6.9	3.7	12.5
Togo	2017	MICS	West & Central Africa	Rural	10.6	7.6	14.6
Tonga	2019	MICS	East Asia & the Pacific	Urban	3.1	0.8	11.4
Tonga	2019	MICS	East Asia & the Pacific	Rural	3.8	1.3	10.8
Tunisia	2018	MICS	Middle East & North Africa	Urban	6.9	4.6	10.2
Tunisia	2018	MICS	Middle East & North Africa	Rural	1.0	0.3	3.0
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Urban	1.9	0.8	4.1
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Rural	0.0		
Tuvalu	2019	MICS	East Asia & the Pacific	Urban	1.6	0.2	11.6
Tuvalu	2019	MICS	East Asia & the Pacific	Rural	1.9	0.2	13.8
Uganda	2016	DHS	Eastern & Southern Africa	Urban	5.4	3.2	8.8
Uganda	2016	DHS	Eastern & Southern Africa	Rural	5.0	4.0	6.3
Vietnam	2020	MICS	East Asia & the Pacific	Urban	6.3	3.3	12.0
Vietnam	2020	MICS	East Asia & the Pacific	Rural	4.2	2.7	6.4
Zambia	2018	DHS	Eastern & Southern Africa	Urban	1.5	0.7	3.3
Zambia	2018	DHS	Eastern & Southern Africa	Rural	2.4	1.6	3.7
Zimbabwe	2019	MICS	Eastern & Southern Africa	Urban	2.5	1.3	4.9
Zimbabwe	2019	MICS	Eastern & Southern Africa	Rural	6.7	4.6	9.6



Supplementary Table 4. No-DPT prevalence according to urban-rural residence and wealth quintiles in 74 LMICs (double stratification).

Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence <sup>e</sup>	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Poorest - Rural	35.2	30.5	40.2
Afghanistan	2015	DHS	South Asia	Poorest - Urban	13.9	7.3	25.0
Afghanistan	2015	DHS	South Asia	Second - Rural	32.0	26.5	38.0
Afghanistan	2015	DHS	South Asia	Second - Urban	42.0	13.6	76.8
Afghanistan	2015	DHS	South Asia	Third - Rural	31.7	24.5	40.0
Afghanistan	2015	DHS	South Asia	Third - Urban	22.4	13.4	34.9
Afghanistan	2015	DHS	South Asia	Fourth - Rural	23.3	17.8	29.8
Afghanistan	2015	DHS	South Asia	Fourth - Urban	20.4	13.0	30.6
Afghanistan	2015	DHS	South Asia	Wealthiest - Rural	9.4	3.9	21.3
Afghanistan	2015	DHS	South Asia	Wealthiest - Urban	16.2	12.7	20.4
Algeria	2018	MICS	Middle East & North Africa	Poorest - Rural	7.3	5.1	10.3
Algeria	2018	MICS	Middle East & North Africa	Poorest - Urban	5.6	2.5	12.1
Algeria	2018	MICS	Middle East & North Africa	Second - Rural	1.5	0.6	3.9
Algeria	2018	MICS	Middle East & North Africa	Second - Urban	5.3	3.4	7.9
Algeria	2018	MICS	Middle East & North Africa	Third - Rural	6.5	2.8	14.6
Algeria	2018	MICS	Middle East & North Africa	Third - Urban	4.5	2.7	7.5
Algeria	2018	MICS	Middle East & North Africa	Fourth - Rural	0.7	0.2	2.8
Algeria	2018	MICS	Middle East & North Africa	Fourth - Urban	4.3	2.4	7.3
Algeria	2018	MICS	Middle East & North Africa	Wealthiest - Rural	0.0		
Algeria	2018	MICS	Middle East & North Africa	Wealthiest - Urban	3.8	1.9	7.4
Angola	2015	DHS	Eastern & Southern Africa	Poorest - Rural	58.6	52.5	64.4
Angola	2015	DHS	Eastern & Southern Africa	Poorest - Urban	39.1	20.7	61.2
Angola	2015	DHS	Eastern & Southern Africa	Second - Rural	46.6	40.5	52.9
Angola	2015	DHS	Eastern & Southern Africa	Second - Urban	36.8	29.3	45.1
Angola	2015	DHS	Eastern & Southern Africa	Third - Rural	26.2	15.3	41.2
Angola	2015	DHS	Eastern & Southern Africa	Third - Urban	20.9	16.6	26.0
Angola	2015	DHS	Eastern & Southern Africa	Fourth - Rural	17.1	4.6	46.8
Angola	2015	DHS	Eastern & Southern Africa	Fourth - Urban	11.8	7.2	18.6
Angola	2015	DHS	Eastern & Southern Africa	Wealthiest - Rural			
Angola	2015	DHS	Eastern & Southern Africa	Wealthiest - Urban	9.5	5.9	14.9
Armenia	2015	DHS	Eastern Europe & Central Asia	Poorest - Rural	0.0		
Armenia	2015	DHS	Eastern Europe & Central Asia	Poorest - Urban			
Armenia	2015	DHS	Eastern Europe & Central Asia	Second - Rural	2.9	0.4	17.5
Armenia	2015	DHS	Eastern Europe & Central Asia	Second - Urban			
Armenia	2015	DHS	Eastern Europe & Central Asia	Third - Rural	1.4	0.2	9.8
Armenia	2015	DHS	Eastern Europe & Central Asia	Third - Urban	2.6	0.6	10.1
Armenia	2015	DHS	Eastern Europe & Central Asia	Fourth - Rural			
Armenia	2015	DHS	Eastern Europe & Central Asia	Fourth - Urban	1.2	0.2	8.1
Armenia	2015	DHS	Eastern Europe & Central Asia	Wealthiest - Rural			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Armenia	2015	DHS	Eastern Europe & Central Asia	Wealthiest - Urban	0.0		
Bangladesh	2017	DHS	South Asia	Poorest - Rural	2.4	1.0	5.5
Bangladesh	2017	DHS	South Asia	Poorest - Urban	5.0	1.7	13.9
Bangladesh	2017	DHS	South Asia	Second - Rural	1.0	0.3	3.5
Bangladesh	2017	DHS	South Asia	Second - Urban	0.6	0.1	4.0
Bangladesh	2017	DHS	South Asia	Third - Rural	2.4	0.9	5.8
Bangladesh	2017	DHS	South Asia	Third - Urban	0.0		
Bangladesh	2017	DHS	South Asia	Fourth - Rural	0.6	0.1	2.4
Bangladesh	2017	DHS	South Asia	Fourth - Urban	3.6	1.3	10.0
Bangladesh	2017	DHS	South Asia	Wealthiest - Rural	0.5	0.1	3.3
Bangladesh	2017	DHS	South Asia	Wealthiest - Urban	0.2	0.0	1.6
Belize	2015	MICS	Latin America & Caribbean	Poorest - Rural	11.7	5.2	24.4
Belize	2015	MICS	Latin America & Caribbean	Poorest - Urban			
Belize	2015	MICS	Latin America & Caribbean	Second - Rural	0.8	0.1	5.2
Belize	2015	MICS	Latin America & Caribbean	Second - Urban	2.5	0.6	10.3
Belize	2015	MICS	Latin America & Caribbean	Third - Rural	0.0		
Belize	2015	MICS	Latin America & Caribbean	Third - Urban	4.0	0.9	15.7
Belize	2015	MICS	Latin America & Caribbean	Fourth - Rural	5.5	0.8	28.3
Belize	2015	MICS	Latin America & Caribbean	Fourth - Urban	8.2	1.4	36.5
Belize	2015	MICS	Latin America & Caribbean	Wealthiest - Rural	27.7	11.1	54.2
Belize	2015	MICS	Latin America & Caribbean	Wealthiest - Urban	4.6	1.7	11.8
Benin	2017	DHS	West & Central Africa	Poorest - Rural	36.7	30.7	43.1
Benin	2017	DHS	West & Central Africa	Poorest - Urban	22.1	12.3	36.6
Benin	2017	DHS	West & Central Africa	Second - Rural	17.9	14.1	22.5
Benin	2017	DHS	West & Central Africa	Second - Urban	19.9	12.4	30.3
Benin	2017	DHS	West & Central Africa	Third - Rural	12.0	8.9	15.9
Benin	2017	DHS	West & Central Africa	Third - Urban	11.4	6.6	18.9
Benin	2017	DHS	West & Central Africa	Fourth - Rural	7.2	4.4	11.6
Benin	2017	DHS	West & Central Africa	Fourth - Urban	10.8	7.0	16.2
Benin	2017	DHS	West & Central Africa	Wealthiest - Rural	6.5	3.0	13.5
Benin	2017	DHS	West & Central Africa	Wealthiest - Urban	7.0	4.4	10.9
Burundi	2016	DHS	Eastern & Southern Africa	Poorest - Rural	1.9	1.0	3.6
Burundi	2016	DHS	Eastern & Southern Africa	Poorest - Urban			
Burundi	2016	DHS	Eastern & Southern Africa	Second - Rural	0.8	0.3	2.0
Burundi	2016	DHS	Eastern & Southern Africa	Second - Urban			
Burundi	2016	DHS	Eastern & Southern Africa	Third - Rural	0.2	0.0	1.3
Burundi	2016	DHS	Eastern & Southern Africa	Third - Urban			
Burundi	2016	DHS	Eastern & Southern Africa	Fourth - Rural	0.4	0.1	1.5
Burundi	2016	DHS	Eastern & Southern Africa	Fourth - Urban	0.0		
Burundi	2016	DHS	Eastern & Southern Africa	Wealthiest - Rural	0.4	0.1	2.6
Burundi	2016	DHS	Eastern & Southern Africa	Wealthiest - Urban	1.2	0.3	4.0
CAR	2018	MICS	West & Central Africa	Poorest - Rural	60.1	52.8	66.9
CAR	2018	MICS	West & Central Africa	Poorest - Urban	56.1	39.1	71.8
CAR	2018	MICS	West & Central Africa	Second - Rural	54.5	47.4	61.3
CAR	2018	MICS	West & Central Africa	Second - Urban			
CAR	2018	MICS	West & Central Africa	Third - Rural	47.7	40.8	54.7
CAR	2018	MICS	West & Central Africa	Third - Urban	39.1	22.0	59.4
CAR	2018	MICS	West & Central Africa	Fourth - Rural	44.2	35.7	53.1
CAR	2018	MICS	West & Central Africa	Fourth - Urban	32.7	25.2	41.1
CAR	2018	MICS	West & Central Africa	Wealthiest - Rural			
CAR	2018	MICS	West & Central Africa	Wealthiest - Urban	15.4	11.7	20.0

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Cameroon	2018	DHS	West & Central Africa	Poorest - Rural	31.1	24.8	38.3
Cameroon	2018	DHS	West & Central Africa	Poorest - Urban			
Cameroon	2018	DHS	West & Central Africa	Second - Rural	19.9	14.4	26.8
Cameroon	2018	DHS	West & Central Africa	Second - Urban	10.7	4.9	21.9
Cameroon	2018	DHS	West & Central Africa	Third - Rural	17.3	12.4	23.6
Cameroon	2018	DHS	West & Central Africa	Third - Urban	13.4	8.4	20.9
Cameroon	2018	DHS	West & Central Africa	Fourth - Rural	9.6	4.5	19.2
Cameroon	2018	DHS	West & Central Africa	Fourth - Urban	10.1	6.5	15.4
Cameroon	2018	DHS	West & Central Africa	Wealthiest - Rural	5.0	0.6	30.5
Cameroon	2018	DHS	West & Central Africa	Wealthiest - Urban	4.8	2.8	8.4
Congo, DR	2017	MICS	West & Central Africa	Poorest - Rural	50.5	43.9	57.1
Congo, DR	2017	MICS	West & Central Africa	Poorest - Urban	17.8	9.0	32.0
Congo, DR	2017	MICS	West & Central Africa	Second - Rural	44.8	37.9	51.9
Congo, DR	2017	MICS	West & Central Africa	Second - Urban	33.5	26.1	41.8
Congo, DR	2017	MICS	West & Central Africa	Third - Rural	29.8	22.4	38.5
Congo, DR	2017	MICS	West & Central Africa	Third - Urban	40.9	32.3	50.2
Congo, DR	2017	MICS	West & Central Africa	Fourth - Rural	24.9	14.7	38.9
Congo, DR	2017	MICS	West & Central Africa	Fourth - Urban	24.7	16.7	34.9
Congo, DR	2017	MICS	West & Central Africa	Wealthiest - Rural			
Congo, DR	2017	MICS	West & Central Africa	Wealthiest - Urban	14.8	10.3	20.7
Costa Rica	2018	MICS	Latin America & Caribbean	Poorest - Rural	6.2	3.1	12.2
Costa Rica	2018	MICS	Latin America & Caribbean	Poorest - Urban	2.7	0.9	7.8
Costa Rica	2018	MICS	Latin America & Caribbean	Second - Rural	0.0		
Costa Rica	2018	MICS	Latin America & Caribbean	Second - Urban	4.3	1.1	15.8
Costa Rica	2018	MICS	Latin America & Caribbean	Third - Rural	1.1	0.2	5.0
Costa Rica	2018	MICS	Latin America & Caribbean	Third - Urban	1.3	0.2	8.9
Costa Rica	2018	MICS	Latin America & Caribbean	Fourth - Rural	0.6	0.1	4.6
Costa Rica	2018	MICS	Latin America & Caribbean	Fourth - Urban	0.0		
Costa Rica	2018	MICS	Latin America & Caribbean	Wealthiest - Rural			
Costa Rica	2018	MICS	Latin America & Caribbean	Wealthiest - Urban	1.4	0.2	9.8
Cote d'Ivoire	2016	MICS	West & Central Africa	Poorest - Rural	29.6	24.7	35.0
Cote d'Ivoire	2016	MICS	West & Central Africa	Poorest - Urban			
Cote d'Ivoire	2016	MICS	West & Central Africa	Second - Rural	18.2	13.9	23.4
Cote d'Ivoire	2016	MICS	West & Central Africa	Second - Urban	23.3	11.3	42.1
Cote d'Ivoire	2016	MICS	West & Central Africa	Third - Rural	17.4	12.5	23.7
Cote d'Ivoire	2016	MICS	West & Central Africa	Third - Urban	22.3	15.0	31.7
Cote d'Ivoire	2016	MICS	West & Central Africa	Fourth - Rural	19.8	11.7	31.5
Cote d'Ivoire	2016	MICS	West & Central Africa	Fourth - Urban	9.9	5.5	17.2
Cote d'Ivoire	2016	MICS	West & Central Africa	Wealthiest - Rural			
Cote d'Ivoire	2016	MICS	West & Central Africa	Wealthiest - Urban	11.6	6.6	19.6
Cuba	2019	MICS	Latin America & Caribbean	Poorest - Rural	4.9	1.1	19.5
Cuba	2019	MICS	Latin America & Caribbean	Poorest - Urban	4.2	1.5	11.3
Cuba	2019	MICS	Latin America & Caribbean	Second - Rural	0.5	0.1	3.4
Cuba	2019	MICS	Latin America & Caribbean	Second - Urban	8.4	2.3	26.2
Cuba	2019	MICS	Latin America & Caribbean	Third - Rural	0.0		
Cuba	2019	MICS	Latin America & Caribbean	Third - Urban	2.3	0.6	8.7
Cuba	2019	MICS	Latin America & Caribbean	Fourth - Rural			
Cuba	2019	MICS	Latin America & Caribbean	Fourth - Urban	1.4	0.4	5.0
Cuba	2019	MICS	Latin America & Caribbean	Wealthiest - Rural			
Cuba	2019	MICS	Latin America & Caribbean	Wealthiest - Urban	0.3	0.0	2.2
Dominican Republic	2019	MICS	Latin America & Caribbean	Poorest - Rural	11.0	7.2	16.4
Dominican Republic	2019	MICS	Latin America & Caribbean	Poorest - Urban	12.7	7.8	19.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence <sup>e</sup>	95% Confidence interval	
						lower limit	upper limit
Dominican Republic	2019	MICS	Latin America & Caribbean	Second - Rural	8.0	4.0	15.6
Dominican Republic	2019	MICS	Latin America & Caribbean	Second - Urban	8.0	4.9	12.7
Dominican Republic	2019	MICS	Latin America & Caribbean	Third - Rural	9.1	2.8	26.1
Dominican Republic	2019	MICS	Latin America & Caribbean	Third - Urban	3.9	2.0	7.3
Dominican Republic	2019	MICS	Latin America & Caribbean	Fourth - Rural	14.1	4.5	36.1
Dominican Republic	2019	MICS	Latin America & Caribbean	Fourth - Urban	6.7	3.0	13.9
Dominican Republic	2019	MICS	Latin America & Caribbean	Wealthiest - Rural			
Dominican Republic	2019	MICS	Latin America & Caribbean	Wealthiest - Urban	8.5	4.2	16.2
Ethiopia	2019	DHS	Eastern & Southern Africa	Poorest - Rural	41.3	30.0	53.6
Ethiopia	2019	DHS	Eastern & Southern Africa	Poorest - Urban			
Ethiopia	2019	DHS	Eastern & Southern Africa	Second - Rural	27.6	18.8	38.4
Ethiopia	2019	DHS	Eastern & Southern Africa	Second - Urban			
Ethiopia	2019	DHS	Eastern & Southern Africa	Third - Rural	28.7	18.6	41.5
Ethiopia	2019	DHS	Eastern & Southern Africa	Third - Urban			
Ethiopia	2019	DHS	Eastern & Southern Africa	Fourth - Rural	22.8	14.3	34.4
Ethiopia	2019	DHS	Eastern & Southern Africa	Fourth - Urban			
Ethiopia	2019	DHS	Eastern & Southern Africa	Wealthiest - Rural	7.7	1.4	32.1
Ethiopia	2019	DHS	Eastern & Southern Africa	Wealthiest - Urban	4.7	1.7	12.4
Fiji	2021	MICS	East Asia & the Pacific	Poorest - Rural	3.2	1.0	10.0
Fiji	2021	MICS	East Asia & the Pacific	Poorest - Urban			
Fiji	2021	MICS	East Asia & the Pacific	Second - Rural	3.1	0.8	11.2
Fiji	2021	MICS	East Asia & the Pacific	Second - Urban	4.4	1.0	16.8
Fiji	2021	MICS	East Asia & the Pacific	Third - Rural	7.6	2.1	23.4
Fiji	2021	MICS	East Asia & the Pacific	Third - Urban	5.4	1.3	19.7
Fiji	2021	MICS	East Asia & the Pacific	Fourth - Rural			
Fiji	2021	MICS	East Asia & the Pacific	Fourth - Urban	2.0	0.3	13.1
Fiji	2021	MICS	East Asia & the Pacific	Wealthiest - Rural			
Fiji	2021	MICS	East Asia & the Pacific	Wealthiest - Urban	0.0		
Gambia	2019	DHS	West & Central Africa	Poorest - Rural	1.2	0.5	3.0
Gambia	2019	DHS	West & Central Africa	Poorest - Urban	0.0		
Gambia	2019	DHS	West & Central Africa	Second - Rural	0.0		
Gambia	2019	DHS	West & Central Africa	Second - Urban	3.0	0.8	10.5
Gambia	2019	DHS	West & Central Africa	Third - Rural	0.9	0.1	6.3
Gambia	2019	DHS	West & Central Africa	Third - Urban	0.7	0.2	2.1
Gambia	2019	DHS	West & Central Africa	Fourth - Rural			
Gambia	2019	DHS	West & Central Africa	Fourth - Urban	4.0	1.4	11.0
Gambia	2019	DHS	West & Central Africa	Wealthiest - Rural			
Gambia	2019	DHS	West & Central Africa	Wealthiest - Urban	1.2	0.2	6.2
Ghana	2017	MICS	West & Central Africa	Poorest - Rural	5.1	2.6	9.9
Ghana	2017	MICS	West & Central Africa	Poorest - Urban	7.6	2.0	24.7
Ghana	2017	MICS	West & Central Africa	Second - Rural	6.3	2.9	13.1
Ghana	2017	MICS	West & Central Africa	Second - Urban	1.8	0.3	11.4
Ghana	2017	MICS	West & Central Africa	Third - Rural	3.1	1.1	8.8
Ghana	2017	MICS	West & Central Africa	Third - Urban	5.5	2.5	11.9
Ghana	2017	MICS	West & Central Africa	Fourth - Rural	1.8	0.3	11.6
Ghana	2017	MICS	West & Central Africa	Fourth - Urban	3.9	1.6	9.5
Ghana	2017	MICS	West & Central Africa	Wealthiest - Rural	0.5	0.1	4.1
Ghana	2017	MICS	West & Central Africa	Wealthiest - Urban	2.7	1.0	7.0
Guinea	2018	DHS	West & Central Africa	Poorest - Rural	55.4	47.2	63.2
Guinea	2018	DHS	West & Central Africa	Poorest - Urban			
Guinea	2018	DHS	West & Central Africa	Second - Rural	41.4	35.1	48.1
Guinea	2018	DHS	West & Central Africa	Second - Urban			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence <sup>e</sup>	95% Confidence interval	
						lower limit	upper limit
Guinea	2018	DHS	West & Central Africa	Third - Rural	41.2	34.0	48.9
Guinea	2018	DHS	West & Central Africa	Third - Urban	44.2	24.3	66.1
Guinea	2018	DHS	West & Central Africa	Fourth - Rural	32.9	25.1	41.7
Guinea	2018	DHS	West & Central Africa	Fourth - Urban	19.7	12.8	29.0
Guinea	2018	DHS	West & Central Africa	Wealthiest - Rural			
Guinea	2018	DHS	West & Central Africa	Wealthiest - Urban	18.8	13.3	26.0
Guinea Bissau	2018	MICS	West & Central Africa	Poorest - Rural	7.5	4.1	13.2
Guinea Bissau	2018	MICS	West & Central Africa	Poorest - Urban			
Guinea Bissau	2018	MICS	West & Central Africa	Second - Rural	8.1	5.1	12.5
Guinea Bissau	2018	MICS	West & Central Africa	Second - Urban			
Guinea Bissau	2018	MICS	West & Central Africa	Third - Rural	2.7	1.1	6.2
Guinea Bissau	2018	MICS	West & Central Africa	Third - Urban	9.5	1.8	37.0
Guinea Bissau	2018	MICS	West & Central Africa	Fourth - Rural	8.7	4.9	15.0
Guinea Bissau	2018	MICS	West & Central Africa	Fourth - Urban	10.4	5.3	19.4
Guinea Bissau	2018	MICS	West & Central Africa	Wealthiest - Rural			
Guinea Bissau	2018	MICS	West & Central Africa	Wealthiest - Urban	8.3	3.9	16.6
Guyana	2019	MICS	Latin America & Caribbean	Poorest - Rural	12.1	7.1	19.8
Guyana	2019	MICS	Latin America & Caribbean	Poorest - Urban	21.0	6.8	49.0
Guyana	2019	MICS	Latin America & Caribbean	Second - Rural	6.9	3.0	15.0
Guyana	2019	MICS	Latin America & Caribbean	Second - Urban	8.1	2.3	25.3
Guyana	2019	MICS	Latin America & Caribbean	Third - Rural	3.4	1.0	10.9
Guyana	2019	MICS	Latin America & Caribbean	Third - Urban	5.7	1.7	17.6
Guyana	2019	MICS	Latin America & Caribbean	Fourth - Rural	8.2	2.6	22.8
Guyana	2019	MICS	Latin America & Caribbean	Fourth - Urban			
Guyana	2019	MICS	Latin America & Caribbean	Wealthiest - Rural	8.4	2.2	27.4
Guyana	2019	MICS	Latin America & Caribbean	Wealthiest - Urban	4.5	1.2	15.0
Haiti	2016	DHS	Latin America & Caribbean	Poorest - Rural	25.2	18.9	32.7
Haiti	2016	DHS	Latin America & Caribbean	Poorest - Urban			
Haiti	2016	DHS	Latin America & Caribbean	Second - Rural	19.3	12.4	28.9
Haiti	2016	DHS	Latin America & Caribbean	Second - Urban	21.8	9.7	41.9
Haiti	2016	DHS	Latin America & Caribbean	Third - Rural	14.1	8.6	22.1
Haiti	2016	DHS	Latin America & Caribbean	Third - Urban	19.1	11.4	30.2
Haiti	2016	DHS	Latin America & Caribbean	Fourth - Rural	7.9	2.6	21.5
Haiti	2016	DHS	Latin America & Caribbean	Fourth - Urban	10.0	5.3	18.0
Haiti	2016	DHS	Latin America & Caribbean	Wealthiest - Rural	0.0		
Haiti	2016	DHS	Latin America & Caribbean	Wealthiest - Urban	5.4	1.6	17.0
Honduras	2019	MICS	Latin America & Caribbean	Poorest - Rural	2.1	1.0	4.3
Honduras	2019	MICS	Latin America & Caribbean	Poorest - Urban	4.9	1.6	14.3
Honduras	2019	MICS	Latin America & Caribbean	Second - Rural	3.5	1.6	7.3
Honduras	2019	MICS	Latin America & Caribbean	Second - Urban	3.7	0.7	17.3
Honduras	2019	MICS	Latin America & Caribbean	Third - Rural	9.1	5.0	16.0
Honduras	2019	MICS	Latin America & Caribbean	Third - Urban	3.2	1.1	8.9
Honduras	2019	MICS	Latin America & Caribbean	Fourth - Rural	2.5	0.8	7.7
Honduras	2019	MICS	Latin America & Caribbean	Fourth - Urban	2.0	0.6	6.3
Honduras	2019	MICS	Latin America & Caribbean	Wealthiest - Rural	0.7	0.1	4.8
Honduras	2019	MICS	Latin America & Caribbean	Wealthiest - Urban	4.2	1.7	10.2
India	2019	DHS	South Asia	Poorest - Rural	8.0	7.4	8.7
India	2019	DHS	South Asia	Poorest - Urban	15.3	10.8	21.3
India	2019	DHS	South Asia	Second - Rural	5.8	5.2	6.5
India	2019	DHS	South Asia	Second - Urban	13.8	10.0	18.7
India	2019	DHS	South Asia	Third - Rural	4.6	4.0	5.2
India	2019	DHS	South Asia	Third - Urban	7.9	5.7	10.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
India	2019	DHS	South Asia	Fourth - Rural	4.2	3.6	5.0
India	2019	DHS	South Asia	Fourth - Urban	6.2	5.0	7.7
India	2019	DHS	South Asia	Wealthiest - Rural	4.7	3.7	5.9
India	2019	DHS	South Asia	Wealthiest - Urban	6.0	4.9	7.2
Indonesia	2017	DHS	East Asia & the Pacific	Poorest - Rural	16.7	13.5	20.6
Indonesia	2017	DHS	East Asia & the Pacific	Poorest - Urban	13.6	8.0	22.0
Indonesia	2017	DHS	East Asia & the Pacific	Second - Rural	13.6	9.9	18.3
Indonesia	2017	DHS	East Asia & the Pacific	Second - Urban	14.5	9.9	20.7
Indonesia	2017	DHS	East Asia & the Pacific	Third - Rural	11.0	7.1	16.7
Indonesia	2017	DHS	East Asia & the Pacific	Third - Urban	9.5	6.6	13.4
Indonesia	2017	DHS	East Asia & the Pacific	Fourth - Rural	9.7	5.6	16.4
Indonesia	2017	DHS	East Asia & the Pacific	Fourth - Urban	6.8	4.4	10.2
Indonesia	2017	DHS	East Asia & the Pacific	Wealthiest - Rural	10.8	5.7	19.4
Indonesia	2017	DHS	East Asia & the Pacific	Wealthiest - Urban	6.8	4.5	10.1
Iraq	2018	MICS	Middle East & North Africa	Poorest - Rural	22.6	18.1	27.9
Iraq	2018	MICS	Middle East & North Africa	Poorest - Urban	9.7	6.3	14.6
Iraq	2018	MICS	Middle East & North Africa	Second - Rural	13.7	8.7	20.9
Iraq	2018	MICS	Middle East & North Africa	Second - Urban	14.1	9.8	20.0
Iraq	2018	MICS	Middle East & North Africa	Third - Rural	14.5	8.8	23.0
Iraq	2018	MICS	Middle East & North Africa	Third - Urban	15.7	10.4	23.0
Iraq	2018	MICS	Middle East & North Africa	Fourth - Rural	6.5	3.0	13.5
Iraq	2018	MICS	Middle East & North Africa	Fourth - Urban	13.4	8.6	20.3
Iraq	2018	MICS	Middle East & North Africa	Wealthiest - Rural	5.2	1.4	17.5
Iraq	2018	MICS	Middle East & North Africa	Wealthiest - Urban	4.9	2.7	8.8
Jordan	2017	DHS	Middle East & North Africa	Poorest - Rural	6.1	2.3	15.2
Jordan	2017	DHS	Middle East & North Africa	Poorest - Urban	9.9	6.4	15.0
Jordan	2017	DHS	Middle East & North Africa	Second - Rural	3.4	1.5	7.3
Jordan	2017	DHS	Middle East & North Africa	Second - Urban	9.2	5.3	15.4
Jordan	2017	DHS	Middle East & North Africa	Third - Rural	6.1	1.8	19.1
Jordan	2017	DHS	Middle East & North Africa	Third - Urban	4.6	2.4	8.6
Jordan	2017	DHS	Middle East & North Africa	Fourth - Rural			
Jordan	2017	DHS	Middle East & North Africa	Fourth - Urban	7.6	3.4	16.2
Jordan	2017	DHS	Middle East & North Africa	Wealthiest - Rural			
Jordan	2017	DHS	Middle East & North Africa	Wealthiest - Urban	7.6	2.6	20.4
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Poorest - Rural	3.4	1.5	7.8
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Poorest - Urban	4.2	0.6	24.8
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Second - Rural	1.9	0.7	4.8
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Second - Urban	4.8	1.6	13.4
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Third - Rural	2.3	0.7	7.5
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Third - Urban	3.7	1.6	8.4
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Fourth - Rural	4.4	1.0	16.5
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Fourth - Urban	6.6	3.6	12.0
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Wealthiest - Rural			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Wealthiest - Urban	8.4	4.1	16.5
Kiribati	2018	MICS	East Asia & the Pacific	Poorest - Rural	40.4	29.3	52.5
Kiribati	2018	MICS	East Asia & the Pacific	Poorest - Urban			
Kiribati	2018	MICS	East Asia & the Pacific	Second - Rural	33.2	24.1	43.9
Kiribati	2018	MICS	East Asia & the Pacific	Second - Urban			
Kiribati	2018	MICS	East Asia & the Pacific	Third - Rural	38.4	24.1	55.1
Kiribati	2018	MICS	East Asia & the Pacific	Third - Urban	48.1	35.1	61.5
Kiribati	2018	MICS	East Asia & the Pacific	Fourth - Rural			
Kiribati	2018	MICS	East Asia & the Pacific	Fourth - Urban	45.5	34.0	57.5
Kiribati	2018	MICS	East Asia & the Pacific	Wealthiest - Rural			
Kiribati	2018	MICS	East Asia & the Pacific	Wealthiest - Urban	32.8	21.9	46.0
Kosovo	2019	MICS	Eastern Europe & Central Asia	Poorest - Rural	6.9	2.2	20.1
Kosovo	2019	MICS	Eastern Europe & Central Asia	Poorest - Urban			
Kosovo	2019	MICS	Eastern Europe & Central Asia	Second - Rural	7.1	1.7	25.6
Kosovo	2019	MICS	Eastern Europe & Central Asia	Second - Urban			
Kosovo	2019	MICS	Eastern Europe & Central Asia	Third - Rural	0.0		
Kosovo	2019	MICS	Eastern Europe & Central Asia	Third - Urban			
Kosovo	2019	MICS	Eastern Europe & Central Asia	Fourth - Rural	0.0		
Kosovo	2019	MICS	Eastern Europe & Central Asia	Fourth - Urban			
Kosovo	2019	MICS	Eastern Europe & Central Asia	Wealthiest - Rural			
Kosovo	2019	MICS	Eastern Europe & Central Asia	Wealthiest - Urban	2.5	0.3	16.4
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Poorest - Rural	10.8	4.9	22.3
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Poorest - Urban	6.8	2.0	20.3
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Second - Rural	4.5	1.9	10.2
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Second - Urban			
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Third - Rural	5.0	1.9	12.7
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Third - Urban	17.4	5.5	43.3
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Fourth - Rural	7.4	2.7	18.5
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Fourth - Urban	11.4	4.6	25.6
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Wealthiest - Rural			
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Wealthiest - Urban	18.4	11.2	28.8

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence <sup>e</sup>	95% Confidence interval	
						lower limit	upper limit
Laos	2017	MICS	East Asia & the Pacific	Poorest - Rural	42.8	37.4	48.4
Laos	2017	MICS	East Asia & the Pacific	Poorest - Urban	53.0	30.7	74.2
Laos	2017	MICS	East Asia & the Pacific	Second - Rural	29.2	24.2	34.8
Laos	2017	MICS	East Asia & the Pacific	Second - Urban	33.1	19.1	51.1
Laos	2017	MICS	East Asia & the Pacific	Third - Rural	21.1	16.4	26.7
Laos	2017	MICS	East Asia & the Pacific	Third - Urban	27.2	18.3	38.5
Laos	2017	MICS	East Asia & the Pacific	Fourth - Rural	18.5	12.8	25.9
Laos	2017	MICS	East Asia & the Pacific	Fourth - Urban	20.6	14.7	28.1
Laos	2017	MICS	East Asia & the Pacific	Wealthiest - Rural	9.0	4.3	17.7
Laos	2017	MICS	East Asia & the Pacific	Wealthiest - Urban	16.4	11.8	22.4
Lesotho	2018	MICS	Eastern & Southern Africa	Poorest - Rural	17.1	10.9	25.7
Lesotho	2018	MICS	Eastern & Southern Africa	Poorest - Urban			
Lesotho	2018	MICS	Eastern & Southern Africa	Second - Rural	6.9	3.0	15.2
Lesotho	2018	MICS	Eastern & Southern Africa	Second - Urban			
Lesotho	2018	MICS	Eastern & Southern Africa	Third - Rural	6.4	2.7	14.5
Lesotho	2018	MICS	Eastern & Southern Africa	Third - Urban	3.2	0.5	19.1
Lesotho	2018	MICS	Eastern & Southern Africa	Fourth - Rural	2.1	0.4	9.5
Lesotho	2018	MICS	Eastern & Southern Africa	Fourth - Urban	5.2	2.1	12.1
Lesotho	2018	MICS	Eastern & Southern Africa	Wealthiest - Rural			
Lesotho	2018	MICS	Eastern & Southern Africa	Wealthiest - Urban	10.9	4.8	22.9
Liberia	2019	DHS	West & Central Africa	Poorest - Rural	14.0	10.0	19.2
Liberia	2019	DHS	West & Central Africa	Poorest - Urban	1.6	0.3	9.4
Liberia	2019	DHS	West & Central Africa	Second - Rural	8.1	4.8	13.4
Liberia	2019	DHS	West & Central Africa	Second - Urban	6.2	0.9	32.0
Liberia	2019	DHS	West & Central Africa	Third - Rural	4.7	1.9	11.0
Liberia	2019	DHS	West & Central Africa	Third - Urban	12.0	4.0	31.0
Liberia	2019	DHS	West & Central Africa	Fourth - Rural			
Liberia	2019	DHS	West & Central Africa	Fourth - Urban	10.0	4.8	19.7
Liberia	2019	DHS	West & Central Africa	Wealthiest - Rural			
Liberia	2019	DHS	West & Central Africa	Wealthiest - Urban	0.2	0.0	1.2
Madagascar	2021	DHS	Eastern & Southern Africa	Poorest - Rural	35.9	30.2	41.9
Madagascar	2021	DHS	Eastern & Southern Africa	Poorest - Urban	38.9	22.1	58.9
Madagascar	2021	DHS	Eastern & Southern Africa	Second - Rural	22.5	18.1	27.7
Madagascar	2021	DHS	Eastern & Southern Africa	Second - Urban			
Madagascar	2021	DHS	Eastern & Southern Africa	Third - Rural	19.2	14.6	24.8
Madagascar	2021	DHS	Eastern & Southern Africa	Third - Urban	7.0	2.1	20.5
Madagascar	2021	DHS	Eastern & Southern Africa	Fourth - Rural	11.0	7.1	16.6
Madagascar	2021	DHS	Eastern & Southern Africa	Fourth - Urban	17.4	10.0	28.4
Madagascar	2021	DHS	Eastern & Southern Africa	Wealthiest - Rural	13.7	6.7	25.8
Madagascar	2021	DHS	Eastern & Southern Africa	Wealthiest - Urban	7.9	5.1	12.0
Malawi	2019	MICS	Eastern & Southern Africa	Poorest - Rural	6.4	4.5	8.9
Malawi	2019	MICS	Eastern & Southern Africa	Poorest - Urban			
Malawi	2019	MICS	Eastern & Southern Africa	Second - Rural	3.7	2.2	6.0
Malawi	2019	MICS	Eastern & Southern Africa	Second - Urban			
Malawi	2019	MICS	Eastern & Southern Africa	Third - Rural	4.6	2.6	8.1
Malawi	2019	MICS	Eastern & Southern Africa	Third - Urban	0.0		
Malawi	2019	MICS	Eastern & Southern Africa	Fourth - Rural	3.6	2.1	6.3
Malawi	2019	MICS	Eastern & Southern Africa	Fourth - Urban	4.8	1.3	16.5
Malawi	2019	MICS	Eastern & Southern Africa	Wealthiest - Rural	1.8	0.6	5.3
Malawi	2019	MICS	Eastern & Southern Africa	Wealthiest - Urban	3.3	1.6	6.9
Maldives	2016	DHS	South Asia	Poorest - Rural	9.5	6.0	14.8
Maldives	2016	DHS	South Asia	Poorest - Urban			



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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence <sup>e</sup>	95% Confidence interval	
						lower limit	upper limit
Maldives	2016	DHS	South Asia	Second - Rural	8.1	4.7	13.6
Maldives	2016	DHS	South Asia	Second - Urban			
Maldives	2016	DHS	South Asia	Third - Rural	12.3	7.8	18.9
Maldives	2016	DHS	South Asia	Third - Urban			
Maldives	2016	DHS	South Asia	Fourth - Rural	5.5	1.7	16.1
Maldives	2016	DHS	South Asia	Fourth - Urban			
Maldives	2016	DHS	South Asia	Wealthiest - Rural			
Maldives	2016	DHS	South Asia	Wealthiest - Urban	16.4	6.7	34.8
Mali	2018	DHS	West & Central Africa	Poorest - Rural	28.5	21.6	36.7
Mali	2018	DHS	West & Central Africa	Poorest - Urban	100.0		
Mali	2018	DHS	West & Central Africa	Second - Rural	20.4	15.2	26.7
Mali	2018	DHS	West & Central Africa	Second - Urban			
Mali	2018	DHS	West & Central Africa	Third - Rural	17.7	13.6	22.9
Mali	2018	DHS	West & Central Africa	Third - Urban			
Mali	2018	DHS	West & Central Africa	Fourth - Rural	15.6	10.5	22.6
Mali	2018	DHS	West & Central Africa	Fourth - Urban	10.1	5.6	17.6
Mali	2018	DHS	West & Central Africa	Wealthiest - Rural	11.5	4.8	24.8
Mali	2018	DHS	West & Central Africa	Wealthiest - Urban	6.8	4.1	10.9
Mauritania	2019	DHS	West & Central Africa	Poorest - Rural	16.7	12.5	22.1
Mauritania	2019	DHS	West & Central Africa	Poorest - Urban			
Mauritania	2019	DHS	West & Central Africa	Second - Rural	17.0	12.0	23.6
Mauritania	2019	DHS	West & Central Africa	Second - Urban	9.9	3.9	22.6
Mauritania	2019	DHS	West & Central Africa	Third - Rural	7.2	4.5	11.4
Mauritania	2019	DHS	West & Central Africa	Third - Urban	10.4	6.5	16.0
Mauritania	2019	DHS	West & Central Africa	Fourth - Rural	5.4	1.6	16.7
Mauritania	2019	DHS	West & Central Africa	Fourth - Urban	11.2	6.7	18.0
Mauritania	2019	DHS	West & Central Africa	Wealthiest - Rural			
Mauritania	2019	DHS	West & Central Africa	Wealthiest - Urban	8.7	4.5	16.1
Mexico	2015	MICS	Latin America & Caribbean	Poorest - Rural	4.4	2.3	8.3
Mexico	2015	MICS	Latin America & Caribbean	Poorest - Urban	16.5	6.1	37.5
Mexico	2015	MICS	Latin America & Caribbean	Second - Rural	5.7	1.3	22.0
Mexico	2015	MICS	Latin America & Caribbean	Second - Urban	6.5	3.9	10.5
Mexico	2015	MICS	Latin America & Caribbean	Third - Rural	12.2	4.4	29.5
Mexico	2015	MICS	Latin America & Caribbean	Third - Urban	10.3	5.3	19.1
Mexico	2015	MICS	Latin America & Caribbean	Fourth - Rural	1.4	0.2	10.9
Mexico	2015	MICS	Latin America & Caribbean	Fourth - Urban	7.1	3.6	13.7
Mexico	2015	MICS	Latin America & Caribbean	Wealthiest - Rural			
Mexico	2015	MICS	Latin America & Caribbean	Wealthiest - Urban	5.9	1.7	18.3
Mongolia	2018	MICS	East Asia & the Pacific	Poorest - Rural	3.5	1.7	7.0
Mongolia	2018	MICS	East Asia & the Pacific	Poorest - Urban			
Mongolia	2018	MICS	East Asia & the Pacific	Second - Rural	4.1	1.4	11.2
Mongolia	2018	MICS	East Asia & the Pacific	Second - Urban	1.0	0.3	2.9
Mongolia	2018	MICS	East Asia & the Pacific	Third - Rural	6.7	2.8	15.5
Mongolia	2018	MICS	East Asia & the Pacific	Third - Urban	3.7	1.3	10.3
Mongolia	2018	MICS	East Asia & the Pacific	Fourth - Rural	2.5	0.6	10.3
Mongolia	2018	MICS	East Asia & the Pacific	Fourth - Urban	3.3	1.1	9.5
Mongolia	2018	MICS	East Asia & the Pacific	Wealthiest - Rural			
Mongolia	2018	MICS	East Asia & the Pacific	Wealthiest - Urban	1.6	0.4	6.3
Mozambique	2015	DHS	Eastern & Southern Africa	Poorest - Rural	19.0	12.5	27.9
Mozambique	2015	DHS	Eastern & Southern Africa	Poorest - Urban			
Mozambique	2015	DHS	Eastern & Southern Africa	Second - Rural	13.2	6.7	24.5
Mozambique	2015	DHS	Eastern & Southern Africa	Second - Urban			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Mozambique	2015	DHS	Eastern & Southern Africa	Third - Rural	5.3	2.7	10.1
Mozambique	2015	DHS	Eastern & Southern Africa	Third - Urban	5.8	1.5	19.8
Mozambique	2015	DHS	Eastern & Southern Africa	Fourth - Rural	5.0	2.0	12.1
Mozambique	2015	DHS	Eastern & Southern Africa	Fourth - Urban	3.9	0.6	22.3
Mozambique	2015	DHS	Eastern & Southern Africa	Wealthiest - Rural			
Mozambique	2015	DHS	Eastern & Southern Africa	Wealthiest - Urban	3.0	1.3	7.1
Myanmar	2015	DHS	East Asia & the Pacific	Poorest - Rural	16.0	10.3	23.9
Myanmar	2015	DHS	East Asia & the Pacific	Poorest - Urban			
Myanmar	2015	DHS	East Asia & the Pacific	Second - Rural	17.1	11.0	25.6
Myanmar	2015	DHS	East Asia & the Pacific	Second - Urban			
Myanmar	2015	DHS	East Asia & the Pacific	Third - Rural	19.1	10.8	31.4
Myanmar	2015	DHS	East Asia & the Pacific	Third - Urban			
Myanmar	2015	DHS	East Asia & the Pacific	Fourth - Rural	2.4	0.5	11.1
Myanmar	2015	DHS	East Asia & the Pacific	Fourth - Urban	2.0	0.4	8.6
Myanmar	2015	DHS	East Asia & the Pacific	Wealthiest - Rural	9.7	2.3	32.4
Myanmar	2015	DHS	East Asia & the Pacific	Wealthiest - Urban	2.0	0.3	12.4
Nepal	2019	MICS	South Asia	Poorest - Rural	11.7	7.9	17.1
Nepal	2019	MICS	South Asia	Poorest - Urban	17.7	10.6	28.2
Nepal	2019	MICS	South Asia	Second - Rural	5.9	2.1	15.7
Nepal	2019	MICS	South Asia	Second - Urban	19.1	13.1	27.1
Nepal	2019	MICS	South Asia	Third - Rural	8.2	4.3	15.2
Nepal	2019	MICS	South Asia	Third - Urban	10.1	4.8	20.0
Nepal	2019	MICS	South Asia	Fourth - Rural	6.2	2.5	14.6
Nepal	2019	MICS	South Asia	Fourth - Urban	7.3	3.7	14.0
Nepal	2019	MICS	South Asia	Wealthiest - Rural			
Nepal	2019	MICS	South Asia	Wealthiest - Urban	6.3	3.3	11.8
Nigeria	2018	DHS	West & Central Africa	Poorest - Rural	61.0	57.2	64.7
Nigeria	2018	DHS	West & Central Africa	Poorest - Urban	44.5	29.6	60.4
Nigeria	2018	DHS	West & Central Africa	Second - Rural	49.8	45.3	54.3
Nigeria	2018	DHS	West & Central Africa	Second - Urban	44.0	34.2	54.3
Nigeria	2018	DHS	West & Central Africa	Third - Rural	32.0	27.9	36.5
Nigeria	2018	DHS	West & Central Africa	Third - Urban	29.3	24.1	35.2
Nigeria	2018	DHS	West & Central Africa	Fourth - Rural	24.3	19.4	30.0
Nigeria	2018	DHS	West & Central Africa	Fourth - Urban	16.6	13.4	20.2
Nigeria	2018	DHS	West & Central Africa	Wealthiest - Rural	6.0	3.2	10.9
Nigeria	2018	DHS	West & Central Africa	Wealthiest - Urban	6.7	4.8	9.4
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Poorest - Rural	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Poorest - Urban			
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Second - Rural	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Second - Urban			
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Third - Rural	3.2	0.4	20.5
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Third - Urban	3.0	0.4	19.6
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Fourth - Rural			
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Fourth - Urban	5.7	0.8	31.8

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Wealthiest - Rural			
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Wealthiest - Urban	0.6	0.1	4.6
Pakistan	2017	DHS	South Asia	Poorest - Rural	31.2	23.8	39.6
Pakistan	2017	DHS	South Asia	Poorest - Urban	20.0	9.4	37.4
Pakistan	2017	DHS	South Asia	Second - Rural	17.3	12.0	24.3
Pakistan	2017	DHS	South Asia	Second - Urban	15.4	8.0	27.8
Pakistan	2017	DHS	South Asia	Third - Rural	9.1	5.4	14.9
Pakistan	2017	DHS	South Asia	Third - Urban	16.9	9.9	27.1
Pakistan	2017	DHS	South Asia	Fourth - Rural	7.2	3.4	14.3
Pakistan	2017	DHS	South Asia	Fourth - Urban	5.4	3.0	9.4
Pakistan	2017	DHS	South Asia	Wealthiest - Rural	2.3	0.6	8.8
Pakistan	2017	DHS	South Asia	Wealthiest - Urban	3.5	1.6	7.3
Papua New Guinea	2016	DHS	East Asia & the Pacific	Poorest - Rural	60.9	52.0	69.1
Papua New Guinea	2016	DHS	East Asia & the Pacific	Poorest - Urban			
Papua New Guinea	2016	DHS	East Asia & the Pacific	Second - Rural	45.8	37.6	54.2
Papua New Guinea	2016	DHS	East Asia & the Pacific	Second - Urban			
Papua New Guinea	2016	DHS	East Asia & the Pacific	Third - Rural	34.4	28.1	41.4
Papua New Guinea	2016	DHS	East Asia & the Pacific	Third - Urban			
Papua New Guinea	2016	DHS	East Asia & the Pacific	Fourth - Rural	29.3	23.2	36.2
Papua New Guinea	2016	DHS	East Asia & the Pacific	Fourth - Urban	23.4	10.0	45.8
Papua New Guinea	2016	DHS	East Asia & the Pacific	Wealthiest - Rural	12.8	6.9	22.4
Papua New Guinea	2016	DHS	East Asia & the Pacific	Wealthiest - Urban	14.3	10.6	18.9
Paraguay	2016	MICS	Latin America & Caribbean	Poorest - Rural	7.9	4.7	12.9
Paraguay	2016	MICS	Latin America & Caribbean	Poorest - Urban	3.4	0.7	15.0
Paraguay	2016	MICS	Latin America & Caribbean	Second - Rural	5.2	1.6	15.7
Paraguay	2016	MICS	Latin America & Caribbean	Second - Urban	2.6	0.8	8.3
Paraguay	2016	MICS	Latin America & Caribbean	Third - Rural	7.3	2.9	17.2
Paraguay	2016	MICS	Latin America & Caribbean	Third - Urban	0.5	0.1	3.7
Paraguay	2016	MICS	Latin America & Caribbean	Fourth - Rural	2.2	0.3	14.3
Paraguay	2016	MICS	Latin America & Caribbean	Fourth - Urban	9.0	5.5	14.5
Paraguay	2016	MICS	Latin America & Caribbean	Wealthiest - Rural			
Paraguay	2016	MICS	Latin America & Caribbean	Wealthiest - Urban	4.1	1.7	9.5
Peru	2021	DHS	Latin America & Caribbean	Poorest - Rural	9.3	7.3	11.8
Peru	2021	DHS	Latin America & Caribbean	Poorest - Urban	8.5	5.7	12.4
Peru	2021	DHS	Latin America & Caribbean	Second - Rural	6.0	3.2	11.3
Peru	2021	DHS	Latin America & Caribbean	Second - Urban	7.1	5.2	9.8
Peru	2021	DHS	Latin America & Caribbean	Third - Rural	3.8	0.8	16.7
Peru	2021	DHS	Latin America & Caribbean	Third - Urban	5.6	3.8	8.1
Peru	2021	DHS	Latin America & Caribbean	Fourth - Rural			
Peru	2021	DHS	Latin America & Caribbean	Fourth - Urban	6.9	4.8	9.7
Peru	2021	DHS	Latin America & Caribbean	Wealthiest - Rural			
Peru	2021	DHS	Latin America & Caribbean	Wealthiest - Urban	7.7	4.9	11.9
Philippines	2017	DHS	East Asia & the Pacific	Poorest - Rural	25.9	21.4	31.0
Philippines	2017	DHS	East Asia & the Pacific	Poorest - Urban	15.5	8.6	26.4
Philippines	2017	DHS	East Asia & the Pacific	Second - Rural	7.8	5.2	11.6
Philippines	2017	DHS	East Asia & the Pacific	Second - Urban	12.3	6.5	22.0
Philippines	2017	DHS	East Asia & the Pacific	Third - Rural	9.8	5.7	16.4
Philippines	2017	DHS	East Asia & the Pacific	Third - Urban	16.1	9.2	26.8
Philippines	2017	DHS	East Asia & the Pacific	Fourth - Rural	9.5	4.1	20.8
Philippines	2017	DHS	East Asia & the Pacific	Fourth - Urban	7.3	3.7	13.8

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Philippines	2017	DHS	East Asia & the Pacific	Wealthiest - Rural	6.2	1.2	26.3
Philippines	2017	DHS	East Asia & the Pacific	Wealthiest - Urban	5.3	2.5	10.8
Rwanda	2019	DHS	Eastern & Southern Africa	Poorest - Rural	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Poorest - Urban	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Second - Rural	0.7	0.2	2.8
Rwanda	2019	DHS	Eastern & Southern Africa	Second - Urban			
Rwanda	2019	DHS	Eastern & Southern Africa	Third - Rural	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Third - Urban	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Fourth - Rural	0.4	0.1	2.9
Rwanda	2019	DHS	Eastern & Southern Africa	Fourth - Urban	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Wealthiest - Rural	0.0		
Rwanda	2019	DHS	Eastern & Southern Africa	Wealthiest - Urban	2.1	0.7	6.2
Samoa	2019	MICS	East Asia & the Pacific	Poorest - Rural	33.0	23.5	44.1
Samoa	2019	MICS	East Asia & the Pacific	Poorest - Urban			
Samoa	2019	MICS	East Asia & the Pacific	Second - Rural	35.2	23.6	48.8
Samoa	2019	MICS	East Asia & the Pacific	Second - Urban			
Samoa	2019	MICS	East Asia & the Pacific	Third - Rural	29.6	21.1	39.8
Samoa	2019	MICS	East Asia & the Pacific	Third - Urban			
Samoa	2019	MICS	East Asia & the Pacific	Fourth - Rural	24.6	15.2	37.3
Samoa	2019	MICS	East Asia & the Pacific	Fourth - Urban	27.2	14.7	44.8
Samoa	2019	MICS	East Asia & the Pacific	Wealthiest - Rural	29.9	18.6	44.3
Samoa	2019	MICS	East Asia & the Pacific	Wealthiest - Urban	21.8	10.8	39.2
Sao Tome and Principe	2019	MICS	West & Central Africa	Poorest - Rural	8.8	3.1	22.9
Sao Tome and Principe	2019	MICS	West & Central Africa	Poorest - Urban	4.5	1.0	17.3
Sao Tome and Principe	2019	MICS	West & Central Africa	Second - Rural	3.0	0.4	18.9
Sao Tome and Principe	2019	MICS	West & Central Africa	Second - Urban	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	Third - Rural			
Sao Tome and Principe	2019	MICS	West & Central Africa	Third - Urban	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	Fourth - Rural	0.0		
Sao Tome and Principe	2019	MICS	West & Central Africa	Fourth - Urban	2.9	0.4	17.7
Sao Tome and Principe	2019	MICS	West & Central Africa	Wealthiest - Rural			
Sao Tome and Principe	2019	MICS	West & Central Africa	Wealthiest - Urban	0.0		
Senegal	2019	DHS	West & Central Africa	Poorest - Rural	9.1	5.4	14.9
Senegal	2019	DHS	West & Central Africa	Poorest - Urban			
Senegal	2019	DHS	West & Central Africa	Second - Rural	2.6	1.1	6.2
Senegal	2019	DHS	West & Central Africa	Second - Urban	0.0		
Senegal	2019	DHS	West & Central Africa	Third - Rural	3.2	1.1	8.5
Senegal	2019	DHS	West & Central Africa	Third - Urban	6.4	1.2	28.1
Senegal	2019	DHS	West & Central Africa	Fourth - Rural	3.6	1.0	12.1
Senegal	2019	DHS	West & Central Africa	Fourth - Urban	0.9	0.1	5.9
Senegal	2019	DHS	West & Central Africa	Wealthiest - Rural			
Senegal	2019	DHS	West & Central Africa	Wealthiest - Urban	0.6	0.1	2.7

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Serbia	2019	MICS	Eastern Europe & Central Asia	Poorest - Rural	8.9	3.4	21.4
Serbia	2019	MICS	Eastern Europe & Central Asia	Poorest - Urban			
Serbia	2019	MICS	Eastern Europe & Central Asia	Second - Rural	9.3	2.5	29.3
Serbia	2019	MICS	Eastern Europe & Central Asia	Second - Urban			
Serbia	2019	MICS	Eastern Europe & Central Asia	Third - Rural	3.0	0.4	19.9
Serbia	2019	MICS	Eastern Europe & Central Asia	Third - Urban	0.0		
Serbia	2019	MICS	Eastern Europe & Central Asia	Fourth - Rural			
Serbia	2019	MICS	Eastern Europe & Central Asia	Fourth - Urban	6.4	1.5	23.2
Serbia	2019	MICS	Eastern Europe & Central Asia	Wealthiest - Rural			
Serbia	2019	MICS	Eastern Europe & Central Asia	Wealthiest - Urban	0.0		
Sierra Leone	2019	DHS	West & Central Africa	Poorest - Rural	6.7	4.4	10.0
Sierra Leone	2019	DHS	West & Central Africa	Poorest - Urban			
Sierra Leone	2019	DHS	West & Central Africa	Second - Rural	4.3	2.5	7.5
Sierra Leone	2019	DHS	West & Central Africa	Second - Urban			
Sierra Leone	2019	DHS	West & Central Africa	Third - Rural	7.5	4.6	11.9
Sierra Leone	2019	DHS	West & Central Africa	Third - Urban	5.9	2.1	15.9
Sierra Leone	2019	DHS	West & Central Africa	Fourth - Rural	2.8	0.4	17.6
Sierra Leone	2019	DHS	West & Central Africa	Fourth - Urban	3.7	1.9	7.2
Sierra Leone	2019	DHS	West & Central Africa	Wealthiest - Rural			
Sierra Leone	2019	DHS	West & Central Africa	Wealthiest - Urban	4.2	1.8	9.4
South Africa	2016	DHS	Eastern & Southern Africa	Poorest - Rural	5.7	3.0	10.6
South Africa	2016	DHS	Eastern & Southern Africa	Poorest - Urban	18.9	8.1	38.2
South Africa	2016	DHS	Eastern & Southern Africa	Second - Rural	12.8	7.4	21.3
South Africa	2016	DHS	Eastern & Southern Africa	Second - Urban	8.4	2.5	24.4
South Africa	2016	DHS	Eastern & Southern Africa	Third - Rural	3.7	1.2	10.6
South Africa	2016	DHS	Eastern & Southern Africa	Third - Urban	7.7	3.1	17.8
South Africa	2016	DHS	Eastern & Southern Africa	Fourth - Rural			
South Africa	2016	DHS	Eastern & Southern Africa	Fourth - Urban	6.9	2.6	17.3
South Africa	2016	DHS	Eastern & Southern Africa	Wealthiest - Rural			
South Africa	2016	DHS	Eastern & Southern Africa	Wealthiest - Urban	10.8	3.6	28.2
State of Palestine	2019	MICS	Middle East & North Africa	Poorest - Rural	8.0	2.8	20.8
State of Palestine	2019	MICS	Middle East & North Africa	Poorest - Urban	0.5	0.1	3.0
State of Palestine	2019	MICS	Middle East & North Africa	Second - Rural	8.1	2.0	27.8
State of Palestine	2019	MICS	Middle East & North Africa	Second - Urban	0.5	0.1	1.9
State of Palestine	2019	MICS	Middle East & North Africa	Third - Rural	5.5	1.7	16.1
State of Palestine	2019	MICS	Middle East & North Africa	Third - Urban	8.1	5.0	13.0
State of Palestine	2019	MICS	Middle East & North Africa	Fourth - Rural	6.1	2.8	12.7
State of Palestine	2019	MICS	Middle East & North Africa	Fourth - Urban	5.6	3.0	10.3
State of Palestine	2019	MICS	Middle East & North Africa	Wealthiest - Rural	3.6	1.0	12.2
State of Palestine	2019	MICS	Middle East & North Africa	Wealthiest - Urban	8.3	4.7	14.3
Suriname	2018	MICS	Latin America & Caribbean	Poorest - Rural	22.0	14.8	31.5
Suriname	2018	MICS	Latin America & Caribbean	Poorest - Urban	24.3	13.0	40.8

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Suriname	2018	MICS	Latin America & Caribbean	Second - Rural	17.2	9.8	28.2
Suriname	2018	MICS	Latin America & Caribbean	Second - Urban	24.8	15.8	36.5
Suriname	2018	MICS	Latin America & Caribbean	Third - Rural	11.7	4.7	26.4
Suriname	2018	MICS	Latin America & Caribbean	Third - Urban	11.6	5.4	22.9
Suriname	2018	MICS	Latin America & Caribbean	Fourth - Rural	3.4	0.5	20.0
Suriname	2018	MICS	Latin America & Caribbean	Fourth - Urban	19.2	9.7	34.5
Suriname	2018	MICS	Latin America & Caribbean	Wealthiest - Rural			
Suriname	2018	MICS	Latin America & Caribbean	Wealthiest - Urban	22.2	10.7	40.4
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Poorest - Rural	7.9	4.9	12.4
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Poorest - Urban			
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Second - Rural	6.7	3.9	11.2
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Second - Urban			
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Third - Rural	6.1	3.9	9.6
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Third - Urban			
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Fourth - Rural	5.7	3.2	10.1
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Fourth - Urban	13.9	7.2	25.1
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Wealthiest - Rural	5.5	1.4	19.6
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Wealthiest - Urban	11.6	8.0	16.5
Tanzania	2015	DHS	Eastern & Southern Africa	Poorest - Rural	6.9	4.6	10.1
Tanzania	2015	DHS	Eastern & Southern Africa	Poorest - Urban	0.0		
Tanzania	2015	DHS	Eastern & Southern Africa	Second - Rural	3.7	1.9	6.9
Tanzania	2015	DHS	Eastern & Southern Africa	Second - Urban			
Tanzania	2015	DHS	Eastern & Southern Africa	Third - Rural	2.5	1.2	5.1
Tanzania	2015	DHS	Eastern & Southern Africa	Third - Urban	4.7	1.0	18.8
Tanzania	2015	DHS	Eastern & Southern Africa	Fourth - Rural	0.7	0.2	2.8
Tanzania	2015	DHS	Eastern & Southern Africa	Fourth - Urban	0.0		
Tanzania	2015	DHS	Eastern & Southern Africa	Wealthiest - Rural	0.0		
Tanzania	2015	DHS	Eastern & Southern Africa	Wealthiest - Urban	1.3	0.4	4.2
Thailand	2019	MICS	East Asia & the Pacific	Poorest - Rural	2.8	1.5	5.1
Thailand	2019	MICS	East Asia & the Pacific	Poorest - Urban	4.2	1.2	13.0
Thailand	2019	MICS	East Asia & the Pacific	Second - Rural	1.9	1.0	3.6
Thailand	2019	MICS	East Asia & the Pacific	Second - Urban	8.2	1.2	39.3
Thailand	2019	MICS	East Asia & the Pacific	Third - Rural	1.3	0.5	3.2
Thailand	2019	MICS	East Asia & the Pacific	Third - Urban	8.8	1.6	35.8
Thailand	2019	MICS	East Asia & the Pacific	Fourth - Rural	3.2	1.4	7.2
Thailand	2019	MICS	East Asia & the Pacific	Fourth - Urban	5.0	1.6	14.4
Thailand	2019	MICS	East Asia & the Pacific	Wealthiest - Rural	0.1	0.0	0.3
Thailand	2019	MICS	East Asia & the Pacific	Wealthiest - Urban	0.2	0.0	0.7
Timor Leste	2016	DHS	East Asia & the Pacific	Poorest - Rural	36.0	29.1	43.6
Timor Leste	2016	DHS	East Asia & the Pacific	Poorest - Urban			
Timor Leste	2016	DHS	East Asia & the Pacific	Second - Rural	28.5	22.6	35.2
Timor Leste	2016	DHS	East Asia & the Pacific	Second - Urban			

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Timor Leste	2016	DHS	East Asia & the Pacific	Third - Rural	20.8	15.4	27.6
Timor Leste	2016	DHS	East Asia & the Pacific	Third - Urban	12.6	5.8	25.0
Timor Leste	2016	DHS	East Asia & the Pacific	Fourth - Rural	14.7	10.1	20.9
Timor Leste	2016	DHS	East Asia & the Pacific	Fourth - Urban	16.4	10.2	25.2
Timor Leste	2016	DHS	East Asia & the Pacific	Wealthiest - Rural	9.0	4.0	19.0
Timor Leste	2016	DHS	East Asia & the Pacific	Wealthiest - Urban	10.0	5.3	18.0
Togo	2017	MICS	West & Central Africa	Poorest - Rural	14.9	10.4	20.9
Togo	2017	MICS	West & Central Africa	Poorest - Urban			
Togo	2017	MICS	West & Central Africa	Second - Rural	11.2	6.0	20.1
Togo	2017	MICS	West & Central Africa	Second - Urban			
Togo	2017	MICS	West & Central Africa	Third - Rural	6.5	3.0	13.8
Togo	2017	MICS	West & Central Africa	Third - Urban	5.4	1.7	16.0
Togo	2017	MICS	West & Central Africa	Fourth - Rural	1.4	0.2	9.4
Togo	2017	MICS	West & Central Africa	Fourth - Urban	5.8	2.3	13.7
Togo	2017	MICS	West & Central Africa	Wealthiest - Rural			
Togo	2017	MICS	West & Central Africa	Wealthiest - Urban	8.6	4.3	16.3
Tonga	2019	MICS	East Asia & the Pacific	Poorest - Rural	0.0		
Tonga	2019	MICS	East Asia & the Pacific	Poorest - Urban			
Tonga	2019	MICS	East Asia & the Pacific	Second - Rural	0.0		
Tonga	2019	MICS	East Asia & the Pacific	Second - Urban			
Tonga	2019	MICS	East Asia & the Pacific	Third - Rural	10.7	2.3	37.5
Tonga	2019	MICS	East Asia & the Pacific	Third - Urban			
Tonga	2019	MICS	East Asia & the Pacific	Fourth - Rural			
Tonga	2019	MICS	East Asia & the Pacific	Fourth - Urban			
Tonga	2019	MICS	East Asia & the Pacific	Wealthiest - Rural			
Tonga	2019	MICS	East Asia & the Pacific	Wealthiest - Urban			
Tunisia	2018	MICS	Middle East & North Africa	Poorest - Rural	0.0		
Tunisia	2018	MICS	Middle East & North Africa	Poorest - Urban			
Tunisia	2018	MICS	Middle East & North Africa	Second - Rural	0.9	0.1	6.1
Tunisia	2018	MICS	Middle East & North Africa	Second - Urban	1.4	0.2	9.4
Tunisia	2018	MICS	Middle East & North Africa	Third - Rural			
Tunisia	2018	MICS	Middle East & North Africa	Third - Urban	6.5	2.8	14.2
Tunisia	2018	MICS	Middle East & North Africa	Fourth - Rural			
Tunisia	2018	MICS	Middle East & North Africa	Fourth - Urban	4.6	2.0	10.3
Tunisia	2018	MICS	Middle East & North Africa	Wealthiest - Rural			
Tunisia	2018	MICS	Middle East & North Africa	Wealthiest - Urban	12.5	7.0	21.3
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Poorest - Rural	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Poorest - Urban			
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Second - Rural	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Second - Urban			
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Third - Rural	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Third - Urban			
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Fourth - Rural	0.0		
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Fourth - Urban	1.5	0.4	5.9

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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence <sup>e</sup>	95% Confidence interval	
						lower limit	upper limit
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Wealthiest - Rural			
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Wealthiest - Urban	2.6	1.0	7.0
Tuvalu	2019	MICS	East Asia & the Pacific	Poorest - Rural			
Tuvalu	2019	MICS	East Asia & the Pacific	Poorest - Urban			
Tuvalu	2019	MICS	East Asia & the Pacific	Second - Rural			
Tuvalu	2019	MICS	East Asia & the Pacific	Second - Urban			
Tuvalu	2019	MICS	East Asia & the Pacific	Third - Rural			
Tuvalu	2019	MICS	East Asia & the Pacific	Third - Urban			
Tuvalu	2019	MICS	East Asia & the Pacific	Fourth - Rural			
Tuvalu	2019	MICS	East Asia & the Pacific	Fourth - Urban			
Tuvalu	2019	MICS	East Asia & the Pacific	Wealthiest - Rural			
Tuvalu	2019	MICS	East Asia & the Pacific	Wealthiest - Urban			
Uganda	2016	DHS	Eastern & Southern Africa	Poorest - Rural	5.0	3.4	7.4
Uganda	2016	DHS	Eastern & Southern Africa	Poorest - Urban	1.4	0.2	8.8
Uganda	2016	DHS	Eastern & Southern Africa	Second - Rural	4.7	2.9	7.3
Uganda	2016	DHS	Eastern & Southern Africa	Second - Urban	12.4	3.9	33.2
Uganda	2016	DHS	Eastern & Southern Africa	Third - Rural	5.0	2.9	8.4
Uganda	2016	DHS	Eastern & Southern Africa	Third - Urban	1.5	0.2	10.5
Uganda	2016	DHS	Eastern & Southern Africa	Fourth - Rural	5.7	3.5	9.3
Uganda	2016	DHS	Eastern & Southern Africa	Fourth - Urban	5.3	1.9	14.2
Uganda	2016	DHS	Eastern & Southern Africa	Wealthiest - Rural	4.7	2.0	10.8
Uganda	2016	DHS	Eastern & Southern Africa	Wealthiest - Urban	5.7	3.0	10.5
Vietnam	2020	MICS	East Asia & the Pacific	Poorest - Rural	10.9	7.1	16.3
Vietnam	2020	MICS	East Asia & the Pacific	Poorest - Urban			
Vietnam	2020	MICS	East Asia & the Pacific	Second - Rural	0.4	0.1	1.8
Vietnam	2020	MICS	East Asia & the Pacific	Second - Urban	8.7	1.5	38.0
Vietnam	2020	MICS	East Asia & the Pacific	Third - Rural	5.9	1.7	18.1
Vietnam	2020	MICS	East Asia & the Pacific	Third - Urban	15.7	6.0	35.4
Vietnam	2020	MICS	East Asia & the Pacific	Fourth - Rural	1.1	0.1	7.3
Vietnam	2020	MICS	East Asia & the Pacific	Fourth - Urban	0.0		
Vietnam	2020	MICS	East Asia & the Pacific	Wealthiest - Rural	0.0		
Vietnam	2020	MICS	East Asia & the Pacific	Wealthiest - Urban	6.5	2.0	18.8
Zambia	2018	DHS	Eastern & Southern Africa	Poorest - Rural	3.1	1.8	5.5
Zambia	2018	DHS	Eastern & Southern Africa	Poorest - Urban			
Zambia	2018	DHS	Eastern & Southern Africa	Second - Rural	2.5	1.1	5.3
Zambia	2018	DHS	Eastern & Southern Africa	Second - Urban	2.5	0.6	10.5
Zambia	2018	DHS	Eastern & Southern Africa	Third - Rural	1.9	0.9	4.3
Zambia	2018	DHS	Eastern & Southern Africa	Third - Urban	1.1	0.2	7.5
Zambia	2018	DHS	Eastern & Southern Africa	Fourth - Rural	0.0		
Zambia	2018	DHS	Eastern & Southern Africa	Fourth - Urban	2.0	0.6	6.5
Zambia	2018	DHS	Eastern & Southern Africa	Wealthiest - Rural	0.0		
Zambia	2018	DHS	Eastern & Southern Africa	Wealthiest - Urban	1.0	0.2	4.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	Poorest - Rural	8.0	4.3	14.4
Zimbabwe	2019	MICS	Eastern & Southern Africa	Poorest - Urban			
Zimbabwe	2019	MICS	Eastern & Southern Africa	Second - Rural	7.8	4.3	13.8
Zimbabwe	2019	MICS	Eastern & Southern Africa	Second - Urban			
Zimbabwe	2019	MICS	Eastern & Southern Africa	Third - Rural	5.8	3.0	11.2
Zimbabwe	2019	MICS	Eastern & Southern Africa	Third - Urban			
Zimbabwe	2019	MICS	Eastern & Southern Africa	Fourth - Rural	1.2	0.2	8.2
Zimbabwe	2019	MICS	Eastern & Southern Africa	Fourth - Urban	3.3	1.2	8.4



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Country	Year	Source	UNICEF Region	Wealth quintiles	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Zimbabwe	2019	MICS	Eastern & Southern Africa	Wealthiest - Rural			
Zimbabwe	2019	MICS	Eastern & Southern Africa	Wealthiest - Urban	1.8	0.7	4.9

Supplementary Table 5. No-DPT prevalence according to sex of the child in 74 LMICs.

Country	Year	Source	UNICEF Region	Sex	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Male	26.5	23.1	30.2
Afghanistan	2015	DHS	South Asia	Female	27.6	24.0	31.6
Algeria	2018	MICS	Middle East & North Africa	Male	4.3	3.2	5.7
Algeria	2018	MICS	Middle East & North Africa	Female	4.7	3.5	6.3
Angola	2015	DHS	Eastern & Southern Africa	Male	30.8	27.3	34.6
Angola	2015	DHS	Eastern & Southern Africa	Female	31.6	28.3	35.1
Armenia	2015	DHS	Eastern Europe & Central Asia	Male	1.3	0.5	3.5
Armenia	2015	DHS	Eastern Europe & Central Asia	Female	1.8	0.5	5.6
Bangladesh	2017	DHS	South Asia	Male	1.1	0.5	2.4
Bangladesh	2017	DHS	South Asia	Female	1.9	1.2	3.2
Belize	2015	MICS	Latin America & Caribbean	Male	8.7	4.9	14.9
Belize	2015	MICS	Latin America & Caribbean	Female	5.2	2.3	11.0
Benin	2017	DHS	West & Central Africa	Male	15.1	12.8	17.8
Benin	2017	DHS	West & Central Africa	Female	16.4	13.9	19.2
Burundi	2016	DHS	Eastern & Southern Africa	Male	1.0	0.6	1.7
Burundi	2016	DHS	Eastern & Southern Africa	Female	0.6	0.3	1.3
CAR	2018	MICS	West & Central Africa	Male	47.2	42.6	51.8
CAR	2018	MICS	West & Central Africa	Female	42.7	38.4	47.2
Cameroon	2018	DHS	West & Central Africa	Male	17.3	13.9	21.3
Cameroon	2018	DHS	West & Central Africa	Female	16.1	13.1	19.6
Congo, DR	2017	MICS	West & Central Africa	Male	33.5	29.3	38.0
Congo, DR	2017	MICS	West & Central Africa	Female	34.6	29.9	39.6
Costa Rica	2018	MICS	Latin America & Caribbean	Male	2.0	1.0	3.8
Costa Rica	2018	MICS	Latin America & Caribbean	Female	2.6	1.0	6.5
Cote d'Ivoire	2016	MICS	West & Central Africa	Male	20.0	16.8	23.6
Cote d'Ivoire	2016	MICS	West & Central Africa	Female	19.2	16.0	23.0
Cuba	2019	MICS	Latin America & Caribbean	Male	4.1	1.8	9.1
Cuba	2019	MICS	Latin America & Caribbean	Female	1.1	0.4	2.7
Dominican Republic	2019	MICS	Latin America & Caribbean	Male	8.0	5.9	10.7
Dominican Republic	2019	MICS	Latin America & Caribbean	Female	8.1	6.0	11.0
Ethiopia	2019	DHS	Eastern & Southern Africa	Male	21.0	15.9	27.3
Ethiopia	2019	DHS	Eastern & Southern Africa	Female	26.2	20.4	32.9
Fiji	2021	MICS	East Asia & the Pacific	Male	4.3	2.1	8.6
Fiji	2021	MICS	East Asia & the Pacific	Female	2.4	1.0	5.6
Gambia	2019	DHS	West & Central Africa	Male	1.5	0.7	3.1
Gambia	2019	DHS	West & Central Africa	Female	1.9	0.8	4.5
Ghana	2017	MICS	West & Central Africa	Male	3.2	2.1	4.9
Ghana	2017	MICS	West & Central Africa	Female	4.8	2.9	7.9
Guinea	2018	DHS	West & Central Africa	Male	37.0	32.6	41.6
Guinea	2018	DHS	West & Central Africa	Female	38.5	33.9	43.3
Guinea Bissau	2018	MICS	West & Central Africa	Male	8.0	5.3	11.9
Guinea Bissau	2018	MICS	West & Central Africa	Female	6.1	4.2	8.9
Guyana	2019	MICS	Latin America & Caribbean	Male	8.1	5.4	12.0
Guyana	2019	MICS	Latin America & Caribbean	Female	9.2	5.4	15.2
Haiti	2016	DHS	Latin America & Caribbean	Male	20.0	16.0	24.7
Haiti	2016	DHS	Latin America & Caribbean	Female	12.9	8.9	18.2
Honduras	2019	MICS	Latin America & Caribbean	Male	4.0	2.6	6.0

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Country	Year	Source	UNICEF Region	Sex	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Honduras	2019	MICS	Latin America & Caribbean	Female	2.9	1.8	4.7
India	2019	DHS	South Asia	Male	6.0	5.6	6.4
India	2019	DHS	South Asia	Female	6.8	6.2	7.4
Indonesia	2017	DHS	East Asia & the Pacific	Male	10.6	8.9	12.6
Indonesia	2017	DHS	East Asia & the Pacific	Female	11.7	9.7	13.9
Iraq	2018	MICS	Middle East & North Africa	Male	12.2	9.7	15.2
Iraq	2018	MICS	Middle East & North Africa	Female	14.5	11.9	17.5
Jordan	2017	DHS	Middle East & North Africa	Male	8.8	6.2	12.3
Jordan	2017	DHS	Middle East & North Africa	Female	5.8	4.1	8.3
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Male	4.9	3.3	7.2
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Female	3.9	2.3	6.6
Kiribati	2018	MICS	East Asia & the Pacific	Male	41.1	34.9	47.6
Kiribati	2018	MICS	East Asia & the Pacific	Female	39.1	31.7	47.0
Kosovo	2019	MICS	Eastern Europe & Central Asia	Male	2.9	1.1	7.9
Kosovo	2019	MICS	Eastern Europe & Central Asia	Female	5.0	2.3	10.1
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Male	11.6	7.9	16.7
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Female	6.8	4.0	11.3
Laos	2017	MICS	East Asia & the Pacific	Male	26.5	23.5	29.7
Laos	2017	MICS	East Asia & the Pacific	Female	27.9	24.6	31.4
Lesotho	2018	MICS	Eastern & Southern Africa	Male	7.1	4.8	10.5
Lesotho	2018	MICS	Eastern & Southern Africa	Female	9.8	6.6	14.2
Liberia	2019	DHS	West & Central Africa	Male	7.2	4.9	10.4
Liberia	2019	DHS	West & Central Africa	Female	9.8	6.7	14.3
Madagascar	2021	DHS	Eastern & Southern Africa	Male	21.2	18.4	24.3
Madagascar	2021	DHS	Eastern & Southern Africa	Female	22.3	19.4	25.5
Malawi	2019	MICS	Eastern & Southern Africa	Male	3.7	2.7	5.1
Malawi	2019	MICS	Eastern & Southern Africa	Female	5.4	4.0	7.1
Maldives	2016	DHS	South Asia	Male	10.5	6.6	16.3
Maldives	2016	DHS	South Asia	Female	7.8	4.8	12.4
Mali	2018	DHS	West & Central Africa	Male	17.8	14.6	21.5
Mali	2018	DHS	West & Central Africa	Female	18.1	14.8	21.9
Mauritania	2019	DHS	West & Central Africa	Male	12.6	10.0	15.6
Mauritania	2019	DHS	West & Central Africa	Female	11.7	9.2	14.9
Mexico	2015	MICS	Latin America & Caribbean	Male	9.5	6.1	14.5
Mexico	2015	MICS	Latin America & Caribbean	Female	6.3	3.9	10.1
Mongolia	2018	MICS	East Asia & the Pacific	Male	2.7	1.6	4.4
Mongolia	2018	MICS	East Asia & the Pacific	Female	3.3	1.8	5.9
Mozambique	2015	DHS	Eastern & Southern Africa	Male	8.3	5.2	12.9
Mozambique	2015	DHS	Eastern & Southern Africa	Female	11.7	7.6	17.4
Myanmar	2015	DHS	East Asia & the Pacific	Male	11.9	8.4	16.5
Myanmar	2015	DHS	East Asia & the Pacific	Female	14.8	10.8	19.9
Nepal	2019	MICS	South Asia	Male	10.2	7.6	13.6
Nepal	2019	MICS	South Asia	Female	11.0	8.2	14.5
Nigeria	2018	DHS	West & Central Africa	Male	34.8	32.4	37.3
Nigeria	2018	DHS	West & Central Africa	Female	34.5	32.1	37.0

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Country	Year	Source	UNICEF Region	Sex	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Male	2.1	0.5	9.0
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Female	6.3	1.9	18.7
Pakistan	2017	DHS	South Asia	Male	12.3	9.6	15.6
Pakistan	2017	DHS	South Asia	Female	15.1	11.7	19.3
Papua New Guinea	2016	DHS	East Asia & the Pacific	Male	37.1	31.5	43.0
Papua New Guinea	2016	DHS	East Asia & the Pacific	Female	35.0	30.4	39.9
Paraguay	2016	MICS	Latin America & Caribbean	Male	3.7	2.4	5.8
Paraguay	2016	MICS	Latin America & Caribbean	Female	6.8	4.7	9.7
Peru	2021	DHS	Latin America & Caribbean	Male	6.5	5.3	7.9
Peru	2021	DHS	Latin America & Caribbean	Female	8.0	6.6	9.8
Philippines	2017	DHS	East Asia & the Pacific	Male	13.7	11.2	16.7
Philippines	2017	DHS	East Asia & the Pacific	Female	13.0	10.5	16.2
Rwanda	2019	DHS	Eastern & Southern Africa	Male	0.4	0.2	1.1
Rwanda	2019	DHS	Eastern & Southern Africa	Female	0.4	0.1	1.5
Samoa	2019	MICS	East Asia & the Pacific	Male	32.1	26.3	38.5
Samoa	2019	MICS	East Asia & the Pacific	Female	26.6	20.8	33.4
Sao Tome and Principe	2019	MICS	West & Central Africa	Male	2.1	0.7	5.5
Sao Tome and Principe	2019	MICS	West & Central Africa	Female	2.6	0.9	7.2
Senegal	2019	DHS	West & Central Africa	Male	2.9	1.8	4.7
Senegal	2019	DHS	West & Central Africa	Female	4.6	2.7	7.6
Serbia	2019	MICS	Eastern Europe & Central Asia	Male	4.5	1.9	10.0
Serbia	2019	MICS	Eastern Europe & Central Asia	Female	2.4	0.9	6.0
Sierra Leone	2019	DHS	West & Central Africa	Male	5.2	3.6	7.5
Sierra Leone	2019	DHS	West & Central Africa	Female	5.5	4.1	7.5
South Africa	2016	DHS	Eastern & Southern Africa	Male	6.9	4.3	10.9
South Africa	2016	DHS	Eastern & Southern Africa	Female	11.0	7.0	17.0
State of Palestine	2019	MICS	Middle East & North Africa	Male	4.4	3.0	6.3
State of Palestine	2019	MICS	Middle East & North Africa	Female	4.6	3.1	6.7
Suriname	2018	MICS	Latin America & Caribbean	Male	18.5	13.4	25.1
Suriname	2018	MICS	Latin America & Caribbean	Female	21.1	15.6	27.9
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Male	8.0	6.0	10.6
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Female	7.1	5.4	9.3
Tanzania	2015	DHS	Eastern & Southern Africa	Male	2.8	1.8	4.2
Tanzania	2015	DHS	Eastern & Southern Africa	Female	3.4	2.3	4.9
Thailand	2019	MICS	East Asia & the Pacific	Male	3.4	1.6	7.1
Thailand	2019	MICS	East Asia & the Pacific	Female	2.8	1.3	6.1
Timor Leste	2016	DHS	East Asia & the Pacific	Male	22.9	19.4	26.9
Timor Leste	2016	DHS	East Asia & the Pacific	Female	20.2	16.6	24.3
Togo	2017	MICS	West & Central Africa	Male	9.8	6.9	13.6
Togo	2017	MICS	West & Central Africa	Female	8.5	5.5	12.9
Tonga	2019	MICS	East Asia & the Pacific	Male	2.3	0.8	6.3
Tonga	2019	MICS	East Asia & the Pacific	Female	4.7	1.4	14.5
Tunisia	2018	MICS	Middle East & North Africa	Male	3.2	1.6	6.2
Tunisia	2018	MICS	Middle East & North Africa	Female	6.3	3.9	9.9

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Country	Year	Source	UNICEF Region	Sex	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Male	0.7	0.3	2.0
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Female	0.6	0.2	1.9
Tuvalu	2019	MICS	East Asia & the Pacific	Male	3.7	0.9	14.3
Tuvalu	2019	MICS	East Asia & the Pacific	Female	0.0		
Uganda	2016	DHS	Eastern & Southern Africa	Male	4.8	3.5	6.5
Uganda	2016	DHS	Eastern & Southern Africa	Female	5.4	4.1	7.2
Vietnam	2020	MICS	East Asia & the Pacific	Male	3.3	2.0	5.5
Vietnam	2020	MICS	East Asia & the Pacific	Female	6.7	4.0	11.0
Zambia	2018	DHS	Eastern & Southern Africa	Male	1.8	1.0	3.1
Zambia	2018	DHS	Eastern & Southern Africa	Female	2.4	1.5	3.9
Zimbabwe	2019	MICS	Eastern & Southern Africa	Male	4.4	2.6	7.5
Zimbabwe	2019	MICS	Eastern & Southern Africa	Female	6.6	4.6	9.3

Supplementary Table 6. No-DPT prevalence according to maternal education in 72 LMICs.

Country	Year	Source	UNICEF Region	Level of education	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	None	30.4	27.1	34.0
Afghanistan	2015	DHS	South Asia	Primary	14.5	9.2	22.0
Afghanistan	2015	DHS	South Asia	Secondary	11.9	7.0	19.6
Algeria	2018	MICS	Middle East & North Africa	None	12.0	8.6	16.5
Algeria	2018	MICS	Middle East & North Africa	Primary	5.0	3.1	7.9
Algeria	2018	MICS	Middle East & North Africa	Secondary	3.4	2.5	4.5
Angola	2015	DHS	Eastern & Southern Africa	None	50.1	45.1	55.1
Angola	2015	DHS	Eastern & Southern Africa	Primary	31.8	27.7	36.1
Angola	2015	DHS	Eastern & Southern Africa	Secondary	13.8	10.2	18.5
Armenia	2015	DHS	Eastern Europe & Central Asia	None			
Armenia	2015	DHS	Eastern Europe & Central Asia	Primary			
Armenia	2015	DHS	Eastern Europe & Central Asia	Secondary	1.5	0.7	3.3
Bangladesh	2017	DHS	South Asia	None	2.2	0.7	7.0
Bangladesh	2017	DHS	South Asia	Primary	2.9	1.6	5.2
Bangladesh	2017	DHS	South Asia	Secondary	0.8	0.4	1.7
Belize	2015	MICS	Latin America & Caribbean	None			
Belize	2015	MICS	Latin America & Caribbean	Primary	7.1	3.8	12.7
Belize	2015	MICS	Latin America & Caribbean	Secondary	6.2	2.9	12.5
Benin	2017	DHS	West & Central Africa	None	20.6	17.9	23.6
Benin	2017	DHS	West & Central Africa	Primary	9.1	6.7	12.3
Benin	2017	DHS	West & Central Africa	Secondary	5.1	3.1	8.2
Burundi	2016	DHS	Eastern & Southern Africa	None	1.3	0.7	2.3
Burundi	2016	DHS	Eastern & Southern Africa	Primary	0.4	0.2	1.0
Burundi	2016	DHS	Eastern & Southern Africa	Secondary	0.4	0.1	2.0
CAR	2018	MICS	West & Central Africa	None	55.2	50.1	60.3
CAR	2018	MICS	West & Central Africa	Primary	46.5	42.0	51.0
CAR	2018	MICS	West & Central Africa	Secondary	17.5	13.5	22.4
Cameroon	2018	DHS	West & Central Africa	None	28.8	22.7	35.9
Cameroon	2018	DHS	West & Central Africa	Primary	18.5	14.9	22.7
Cameroon	2018	DHS	West & Central Africa	Secondary	8.0	6.2	10.3
Congo, DR	2017	MICS	West & Central Africa	None	42.6	35.5	50.0

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Country	Year	Source	UNICEF Region	Level of education	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Congo, DR	2017	MICS	West & Central Africa	Primary	40.8	35.2	46.7
Congo, DR	2017	MICS	West & Central Africa	Secondary	26.4	22.1	31.3
Costa Rica	2018	MICS	Latin America & Caribbean	None			
Costa Rica	2018	MICS	Latin America & Caribbean	Primary	3.0	1.1	7.7
Costa Rica	2018	MICS	Latin America & Caribbean	Secondary	2.0	0.9	4.4
Cote d'Ivoire	2016	MICS	West & Central Africa	None	23.8	20.7	27.2
Cote d'Ivoire	2016	MICS	West & Central Africa	Primary	16.4	12.0	21.9
Cote d'Ivoire	2016	MICS	West & Central Africa	Secondary	10.6	6.8	16.2
Cuba	2019	MICS	Latin America & Caribbean	None			
Cuba	2019	MICS	Latin America & Caribbean	Primary			
Cuba	2019	MICS	Latin America & Caribbean	Secondary	1.8	0.9	3.5
Dominican Republic	2019	MICS	Latin America & Caribbean	None	21.7	9.9	41.2
Dominican Republic	2019	MICS	Latin America & Caribbean	Primary	16.8	10.8	25.0
Dominican Republic	2019	MICS	Latin America & Caribbean	Secondary	6.6	5.1	8.5
Ethiopia	2019	DHS	Eastern & Southern Africa	None	33.5	27.7	39.9
Ethiopia	2019	DHS	Eastern & Southern Africa	Primary	19.3	13.1	27.6
Ethiopia	2019	DHS	Eastern & Southern Africa	Secondary	4.9	1.9	12.0
Fiji	2021	MICS	East Asia & the Pacific	None			
Fiji	2021	MICS	East Asia & the Pacific	Primary	3.9	0.5	23.4
Fiji	2021	MICS	East Asia & the Pacific	Secondary	3.3	1.9	5.7
Gambia	2019	DHS	West & Central Africa	None	2.1	1.0	4.3
Gambia	2019	DHS	West & Central Africa	Primary	2.3	0.9	5.8
Gambia	2019	DHS	West & Central Africa	Secondary	0.7	0.2	2.9
Ghana	2017	MICS	West & Central Africa	None	5.4	3.2	9.0
Ghana	2017	MICS	West & Central Africa	Primary	3.8	1.8	7.9
Ghana	2017	MICS	West & Central Africa	Secondary	3.5	2.0	6.3
Guinea	2018	DHS	West & Central Africa	None	42.6	38.2	47.1
Guinea	2018	DHS	West & Central Africa	Primary	34.4	26.6	43.1
Guinea	2018	DHS	West & Central Africa	Secondary	17.0	12.2	23.3
Guinea Bissau	2018	MICS	West & Central Africa	None	8.5	6.0	11.8
Guinea Bissau	2018	MICS	West & Central Africa	Primary	5.9	3.7	9.4
Guinea Bissau	2018	MICS	West & Central Africa	Secondary	4.7	2.3	9.1
Guyana	2019	MICS	Latin America & Caribbean	None			
Guyana	2019	MICS	Latin America & Caribbean	Primary	9.0	3.5	21.6
Guyana	2019	MICS	Latin America & Caribbean	Secondary	8.0	5.6	11.4
Haiti	2016	DHS	Latin America & Caribbean	None	26.9	19.8	35.4
Haiti	2016	DHS	Latin America & Caribbean	Primary	18.9	14.6	24.0
Haiti	2016	DHS	Latin America & Caribbean	Secondary	9.6	6.6	13.6
Honduras	2019	MICS	Latin America & Caribbean	None	10.9	4.1	25.7
Honduras	2019	MICS	Latin America & Caribbean	Primary	3.1	1.8	5.2
Honduras	2019	MICS	Latin America & Caribbean	Secondary	3.3	2.0	5.2
India	2019	DHS	South Asia	None	10.1	9.3	11.0
India	2019	DHS	South Asia	Primary	6.5	5.7	7.5
India	2019	DHS	South Asia	Secondary	5.3	4.9	5.8
Indonesia	2017	DHS	East Asia & the Pacific	None	27.7	13.4	48.6
Indonesia	2017	DHS	East Asia & the Pacific	Primary	19.3	15.7	23.6
Indonesia	2017	DHS	East Asia & the Pacific	Secondary	8.4	7.2	9.8
Iraq	2018	MICS	Middle East & North Africa	None	25.4	21.0	30.5
Iraq	2018	MICS	Middle East & North Africa	Primary	13.0	10.7	15.8
Iraq	2018	MICS	Middle East & North Africa	Secondary	8.5	5.9	12.0
Jordan	2017	DHS	Middle East & North Africa	None	35.9	14.4	65.0
Jordan	2017	DHS	Middle East & North Africa	Primary	12.5	6.1	23.9
Jordan	2017	DHS	Middle East & North Africa	Secondary	6.6	4.8	9.0
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	None			

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Country	Year	Source	UNICEF Region	Level of education	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Primary			
Kazakhstan	2015	MICS	Eastern Europe & Central Asia	Secondary	4.4	3.2	6.0
Kiribati	2018	MICS	East Asia & the Pacific	None			
Kiribati	2018	MICS	East Asia & the Pacific	Primary			
Kiribati	2018	MICS	East Asia & the Pacific	Secondary	39.8	34.6	45.1
Kosovo	2019	MICS	Eastern Europe & Central Asia	None			
Kosovo	2019	MICS	Eastern Europe & Central Asia	Primary	5.6	2.2	13.4
Kosovo	2019	MICS	Eastern Europe & Central Asia	Secondary	3.5	1.6	7.5
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	None			
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Primary			
Kyrgyzstan	2018	MICS	Eastern Europe & Central Asia	Secondary	9.4	6.8	12.9
Laos	2017	MICS	East Asia & the Pacific	None	45.3	39.0	51.8
Laos	2017	MICS	East Asia & the Pacific	Primary	27.0	23.5	30.8
Laos	2017	MICS	East Asia & the Pacific	Secondary	19.3	16.5	22.5
Lesotho	2018	MICS	Eastern & Southern Africa	None			
Lesotho	2018	MICS	Eastern & Southern Africa	Primary	13.8	9.6	19.6
Lesotho	2018	MICS	Eastern & Southern Africa	Secondary	5.1	3.2	8.1
Liberia	2019	DHS	West & Central Africa	None	12.4	8.6	17.7
Liberia	2019	DHS	West & Central Africa	Primary	8.7	5.6	13.1
Liberia	2019	DHS	West & Central Africa	Secondary	5.0	1.8	12.9
Madagascar	2021	DHS	Eastern & Southern Africa	None	39.2	33.7	45.0
Madagascar	2021	DHS	Eastern & Southern Africa	Primary	21.9	18.7	25.4
Madagascar	2021	DHS	Eastern & Southern Africa	Secondary	10.5	8.2	13.4
Malawi	2019	MICS	Eastern & Southern Africa	None	8.9	5.6	13.9
Malawi	2019	MICS	Eastern & Southern Africa	Primary	4.8	3.7	6.2
Malawi	2019	MICS	Eastern & Southern Africa	Secondary	2.1	1.2	3.6
Maldives	2016	DHS	South Asia	None			
Maldives	2016	DHS	South Asia	Primary	8.8	3.2	21.7
Maldives	2016	DHS	South Asia	Secondary	9.4	6.5	13.3
Mali	2018	DHS	West & Central Africa	None	21.3	18.0	25.1
Mali	2018	DHS	West & Central Africa	Primary	15.5	10.8	21.9
Mali	2018	DHS	West & Central Africa	Secondary	5.7	3.5	9.3
Mauritania	2019	DHS	West & Central Africa	None	18.1	14.1	22.9
Mauritania	2019	DHS	West & Central Africa	Primary	9.0	6.8	11.8
Mauritania	2019	DHS	West & Central Africa	Secondary	8.1	5.1	12.8
Mexico	2015	MICS	Latin America & Caribbean	None	34.3	19.0	53.7
Mexico	2015	MICS	Latin America & Caribbean	Primary	8.9	4.5	16.6
Mexico	2015	MICS	Latin America & Caribbean	Secondary	6.9	4.6	10.2
Mongolia	2018	MICS	East Asia & the Pacific	None	2.4	0.3	15.6
Mongolia	2018	MICS	East Asia & the Pacific	Primary	5.4	1.9	14.7
Mongolia	2018	MICS	East Asia & the Pacific	Secondary	2.8	1.8	4.5
Mozambique	2015	DHS	Eastern & Southern Africa	None	13.6	8.4	21.3
Mozambique	2015	DHS	Eastern & Southern Africa	Primary	9.7	5.3	17.1
Mozambique	2015	DHS	Eastern & Southern Africa	Secondary	4.2	1.4	12.1
Myanmar	2015	DHS	East Asia & the Pacific	None	29.9	19.0	43.7
Myanmar	2015	DHS	East Asia & the Pacific	Primary	11.7	8.4	16.1
Myanmar	2015	DHS	East Asia & the Pacific	Secondary	8.6	5.5	13.4
Nepal	2019	MICS	South Asia	None	20.3	15.3	26.4
Nepal	2019	MICS	South Asia	Primary	12.5	8.0	19.0
Nepal	2019	MICS	South Asia	Secondary	6.4	4.7	8.7
Nigeria	2018	DHS	West & Central Africa	None	60.1	57.2	63.0
Nigeria	2018	DHS	West & Central Africa	Primary	27.3	23.3	31.7
Nigeria	2018	DHS	West & Central Africa	Secondary	11.4	10.0	13.0
North Macedonia	2018	MICS	Eastern Europe & Central Asia	None			

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Country	Year	Source	UNICEF Region	Level of education	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Primary			
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Secondary	4.2	1.8	9.7
Pakistan	2017	DHS	South Asia	None	25.3	20.7	30.6
Pakistan	2017	DHS	South Asia	Primary	7.5	4.4	12.6
Pakistan	2017	DHS	South Asia	Secondary	2.5	1.5	4.2
Papua New Guinea	2016	DHS	East Asia & the Pacific	None	55.3	47.8	62.5
Papua New Guinea	2016	DHS	East Asia & the Pacific	Primary	36.3	31.7	41.1
Papua New Guinea	2016	DHS	East Asia & the Pacific	Secondary	17.3	12.5	23.5
Paraguay	2016	MICS	Latin America & Caribbean	None	0.5	0.1	4.0
Paraguay	2016	MICS	Latin America & Caribbean	Primary	8.8	5.8	13.2
Paraguay	2016	MICS	Latin America & Caribbean	Secondary	4.0	2.7	5.8
Peru	2021	DHS	Latin America & Caribbean	None	8.3	2.5	24.7
Peru	2021	DHS	Latin America & Caribbean	Primary	11.5	9.0	14.5
Peru	2021	DHS	Latin America & Caribbean	Secondary	6.4	5.4	7.7
Philippines	2017	DHS	East Asia & the Pacific	None	58.4	37.5	76.6
Philippines	2017	DHS	East Asia & the Pacific	Primary	27.8	22.0	34.5
Philippines	2017	DHS	East Asia & the Pacific	Secondary	10.2	8.4	12.3
Rwanda	2019	DHS	Eastern & Southern Africa	None	0.9	0.1	6.4
Rwanda	2019	DHS	Eastern & Southern Africa	Primary	0.3	0.1	0.8
Rwanda	2019	DHS	Eastern & Southern Africa	Secondary	0.5	0.1	2.2
Samoa	2019	MICS	East Asia & the Pacific	None			
Samoa	2019	MICS	East Asia & the Pacific	Primary			
Samoa	2019	MICS	East Asia & the Pacific	Secondary	28.4	23.8	33.6
Sao Tome and Principe	2019	MICS	West & Central Africa	None			
Sao Tome and Principe	2019	MICS	West & Central Africa	Primary	3.1	1.3	7.3
Sao Tome and Principe	2019	MICS	West & Central Africa	Secondary	1.4	0.3	5.8
Senegal	2019	DHS	West & Central Africa	None	5.0	3.1	7.9
Senegal	2019	DHS	West & Central Africa	Primary	2.4	1.0	5.5
Senegal	2019	DHS	West & Central Africa	Secondary	1.7	0.5	5.2
Serbia	2019	MICS	Eastern Europe & Central Asia	None			
Serbia	2019	MICS	Eastern Europe & Central Asia	Primary			
Serbia	2019	MICS	Eastern Europe & Central Asia	Secondary	3.5	1.8	6.8
Sierra Leone	2019	DHS	West & Central Africa	None	5.9	4.4	7.9
Sierra Leone	2019	DHS	West & Central Africa	Primary	3.9	1.9	7.7
Sierra Leone	2019	DHS	West & Central Africa	Secondary	5.2	3.4	7.9
South Africa	2016	DHS	Eastern & Southern Africa	None			
South Africa	2016	DHS	Eastern & Southern Africa	Primary	14.3	5.0	34.9
South Africa	2016	DHS	Eastern & Southern Africa	Secondary	8.4	6.0	11.8
State of Palestine	2019	MICS	Middle East & North Africa	None			
State of Palestine	2019	MICS	Middle East & North Africa	Primary	7.4	1.6	28.4
State of Palestine	2019	MICS	Middle East & North Africa	Secondary	4.4	3.5	5.7
Suriname	2018	MICS	Latin America & Caribbean	None	19.9	7.5	43.5
Suriname	2018	MICS	Latin America & Caribbean	Primary	23.9	15.1	35.6
Suriname	2018	MICS	Latin America & Caribbean	Secondary	18.7	14.1	24.4
Tajikistan	2017	DHS	Eastern Europe & Central Asia	None	5.9	1.9	17.2
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Primary	8.2	3.8	16.9
Tajikistan	2017	DHS	Eastern Europe & Central Asia	Secondary	7.6	6.1	9.5
Tanzania	2015	DHS	Eastern & Southern Africa	None	8.3	5.5	12.4
Tanzania	2015	DHS	Eastern & Southern Africa	Primary	1.9	1.2	3.1
Tanzania	2015	DHS	Eastern & Southern Africa	Secondary	1.2	0.4	3.8
Thailand	2019	MICS	East Asia & the Pacific	None	5.8	1.6	18.6
Thailand	2019	MICS	East Asia & the Pacific	Primary	4.1	1.4	11.7
Thailand	2019	MICS	East Asia & the Pacific	Secondary	2.6	1.4	4.8
Timor Leste	2016	DHS	East Asia & the Pacific	None	33.6	27.8	40.0



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Country	Year	Source	UNICEF Region	Level of education	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Timor Leste	2016	DHS	East Asia & the Pacific	Primary	22.6	17.4	29.0
Timor Leste	2016	DHS	East Asia & the Pacific	Secondary	16.6	13.5	20.3
Togo	2017	MICS	West & Central Africa	None	13.6	9.7	18.7
Togo	2017	MICS	West & Central Africa	Primary	8.7	4.9	14.8
Togo	2017	MICS	West & Central Africa	Secondary	4.6	2.2	9.3
Tonga	2019	MICS	East Asia & the Pacific	None			
Tonga	2019	MICS	East Asia & the Pacific	Primary			
Tonga	2019	MICS	East Asia & the Pacific	Secondary	3.6	1.4	9.0
Tunisia	2018	MICS	Middle East & North Africa	None	0.0		
Tunisia	2018	MICS	Middle East & North Africa	Primary	5.4	2.3	11.8
Tunisia	2018	MICS	Middle East & North Africa	Secondary	4.8	3.1	7.4
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	None			
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Primary			
Turkmenistan	2015	MICS	Eastern Europe & Central Asia	Secondary	0.7	0.3	1.5
Tuvalu	2019	MICS	East Asia & the Pacific	None			
Tuvalu	2019	MICS	East Asia & the Pacific	Primary			
Tuvalu	2019	MICS	East Asia & the Pacific	Secondary	2.0	0.5	8.3
Uganda	2016	DHS	Eastern & Southern Africa	None	7.8	4.8	12.3
Uganda	2016	DHS	Eastern & Southern Africa	Primary	5.1	4.0	6.6
Uganda	2016	DHS	Eastern & Southern Africa	Secondary	4.3	2.9	6.2
Vietnam	2020	MICS	East Asia & the Pacific	None	28.3	17.8	41.9
Vietnam	2020	MICS	East Asia & the Pacific	Primary	14.1	6.4	28.2
Vietnam	2020	MICS	East Asia & the Pacific	Secondary	2.9	1.6	5.0
Zambia	2018	DHS	Eastern & Southern Africa	None	7.9	4.1	14.7
Zambia	2018	DHS	Eastern & Southern Africa	Primary	1.9	1.1	3.2
Zambia	2018	DHS	Eastern & Southern Africa	Secondary	0.9	0.4	2.0
Zimbabwe	2019	MICS	Eastern & Southern Africa	None			
Zimbabwe	2019	MICS	Eastern & Southern Africa	Primary	11.7	8.0	17.0
Zimbabwe	2019	MICS	Eastern & Southern Africa	Secondary	3.0	1.8	4.9

1 Supplementary Table 7. No-DPT prevalence according to subnational areas in 72 LMICs.

Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Badakhshan	6.2	2.4	15.0
Afghanistan	2015	DHS	South Asia	Badghis	19.3	12.4	28.8
Afghanistan	2015	DHS	South Asia	Baghlan	27.0	12.8	48.2
Afghanistan	2015	DHS	South Asia	Balkh	24.4	17.3	33.3
Afghanistan	2015	DHS	South Asia	Bamyan	12.6	8.0	19.3
Afghanistan	2015	DHS	South Asia	Daykundi	44.3	35.3	53.6
Afghanistan	2015	DHS	South Asia	Farah	50.3	35.9	64.6
Afghanistan	2015	DHS	South Asia	Faryab	7.7	2.8	19.5
Afghanistan	2015	DHS	South Asia	Ghazni	43.1	35.0	51.7
Afghanistan	2015	DHS	South Asia	Ghor	51.8	43.3	60.3
Afghanistan	2015	DHS	South Asia	Helmand	45.6	37.3	54.1
Afghanistan	2015	DHS	South Asia	Herat	21.2	11.3	36.5
Afghanistan	2015	DHS	South Asia	Jawzjan	24.8	14.4	39.3
Afghanistan	2015	DHS	South Asia	Kabul	16.5	11.1	23.8
Afghanistan	2015	DHS	South Asia	Kandahar	59.3	38.6	77.1
Afghanistan	2015	DHS	South Asia	Kapisa	15.5	8.6	26.5
Afghanistan	2015	DHS	South Asia	Khost	37.2	29.4	45.8
Afghanistan	2015	DHS	South Asia	Kunarha	50.5	36.9	64.1
Afghanistan	2015	DHS	South Asia	Kunduz	17.3	10.9	26.3
Afghanistan	2015	DHS	South Asia	Laghman	10.1	5.8	17.0
Afghanistan	2015	DHS	South Asia	Logar	29.2	17.9	43.9
Afghanistan	2015	DHS	South Asia	Nangarhar	10.3	6.0	17.4
Afghanistan	2015	DHS	South Asia	Nimroz	18.7	13.7	24.9
Afghanistan	2015	DHS	South Asia	Nooristan	98.6	95.6	99.6

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Afghanistan	2015	DHS	South Asia	Paktika	18.7	13.4	25.5
Afghanistan	2015	DHS	South Asia	Paktya	11.2	6.5	18.8
Afghanistan	2015	DHS	South Asia	Panjsher	26.5	17.3	38.3
Afghanistan	2015	DHS	South Asia	Parwan	14.2	10.7	18.5
Afghanistan	2015	DHS	South Asia	Samangan	33.7	21.7	48.4
Afghanistan	2015	DHS	South Asia	Sar-E-Pul	24.4	19.4	30.2
Afghanistan	2015	DHS	South Asia	Takhar	25.1	19.0	32.4
Afghanistan	2015	DHS	South Asia	Urozgan	94.3	88.5	97.3
Afghanistan	2015	DHS	South Asia	Wardak	8.7	3.0	22.7
Afghanistan	2015	DHS	South Asia	Zabul	54.8	40.4	68.4
Algeria	2018	MI CS	Middle East & North Africa	Haut Plateau Centre	14.9	10.8	20.2
Algeria	2018	MI CS	Middle East & North Africa	Haut Plateau Est	6.0	4.0	8.8
Algeria	2018	MI CS	Middle East & North Africa	Haut Plateau Ouest	5.1	3.2	8.2
Algeria	2018	MI CS	Middle East & North Africa	Nord Centre	3.1	1.7	5.7
Algeria	2018	MI CS	Middle East & North Africa	Nord Est	1.6	0.6	4.0
Algeria	2018	MI CS	Middle East & North Africa	Nord Ouest	4.3	2.5	7.0
Algeria	2018	MI CS	Middle East & North Africa	Sud	2.6	1.4	4.6
Angola	2015	DHS	Eastern & Southern Africa	Bengo	40.7	30.4	51.9
Angola	2015	DHS	Eastern & Southern Africa	Benguela	40.3	31.5	49.7
Angola	2015	DHS	Eastern & Southern Africa	Bié	51.7	42.6	60.7
Angola	2015	DHS	Eastern & Southern Africa	Cabinda	13.9	6.6	26.9
Angola	2015	DHS	Eastern & Southern Africa	Cuando Cubango	54.6	41.1	67.5
Angola	2015	DHS	Eastern & Southern Africa	Cuanza Norte	38.1	29.2	47.8
Angola	2015	DHS	Eastern & Southern Africa	Cuanza Sul	57.8	46.4	68.4
Angola	2015	DHS	Eastern & Southern Africa	Cunene	19.0	13.5	26.2

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Angola	2015	DH S	Eastern & Southern Africa	Huambo	19.3	13.3	27.1
Angola	2015	DH S	Eastern & Southern Africa	Huíla	38.6	27.7	50.8
Angola	2015	DH S	Eastern & Southern Africa	Luanda	13.0	8.4	19.5
Angola	2015	DH S	Eastern & Southern Africa	Lunda Norte	48.2	35.5	61.1
Angola	2015	DH S	Eastern & Southern Africa	Lunda Sul	19.6	12.6	29.1
Angola	2015	DH S	Eastern & Southern Africa	Malanje	21.2	14.7	29.6
Angola	2015	DH S	Eastern & Southern Africa	Moxico	67.2	54.4	77.8
Angola	2015	DH S	Eastern & Southern Africa	Namibe	35.3	23.8	48.7
Angola	2015	DH S	Eastern & Southern Africa	Uíge	38.9	28.0	50.9
Angola	2015	DH S	Eastern & Southern Africa	Zaire	20.0	12.6	30.2
Armenia	2015	DH S	Eastern Europe & Central Asia	Aragatsotn			
Armenia	2015	DH S	Eastern Europe & Central Asia	Ararat	4.8	1.1	17.9
Armenia	2015	DH S	Eastern Europe & Central Asia	Armavir	0.0		
Armenia	2015	DH S	Eastern Europe & Central Asia	Gegharkunik			
Armenia	2015	DH S	Eastern Europe & Central Asia	Kotayk	0.0		
Armenia	2015	DH S	Eastern Europe & Central Asia	Lori			
Armenia	2015	DH S	Eastern Europe & Central Asia	Shirak	0.0		
Armenia	2015	DH S	Eastern Europe & Central Asia	Syunik			
Armenia	2015	DH S	Eastern Europe & Central Asia	Tavush	1.8	0.3	11.8
Armenia	2015	DH S	Eastern Europe & Central Asia	Vayots Dzor	4.5	0.6	28.1
Armenia	2015	DH S	Eastern Europe & Central Asia	Yerevan	0.0		
Bangladesh	2017	DH S	South Asia	Barishal	2.8	1.1	6.9
Bangladesh	2017	DH S	South Asia	Chattogram	1.2	0.4	3.7
Bangladesh	2017	DH S	South Asia	Dhaka	2.1	0.7	6.2
Bangladesh	2017	DH S	South Asia	Khulna	0.0		

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Bangladesh	2017	DHS	South Asia	Mymensingh	1.8	0.6	5.4
Bangladesh	2017	DHS	South Asia	Rajshahi	0.0		
Bangladesh	2017	DHS	South Asia	Rangpur	0.6	0.1	4.3
Bangladesh	2017	DHS	South Asia	Sylhet	4.2	2.0	8.7
Belize	2015	MI CS	Latin America & Caribbean	Belize (Excluding Belize City South Side)	10.3	3.6	26.5
Belize	2015	MI CS	Latin America & Caribbean	Belize City South Side	2.8	0.9	8.1
Belize	2015	MI CS	Latin America & Caribbean	Cayo	10.5	4.3	23.3
Belize	2015	MI CS	Latin America & Caribbean	Corozal	8.1	2.1	26.7
Belize	2015	MI CS	Latin America & Caribbean	Orange Walk	1.5	0.2	10.4
Belize	2015	MI CS	Latin America & Caribbean	Stann Creek	1.0	0.1	6.6
Belize	2015	MI CS	Latin America & Caribbean	Toledo	11.1	4.7	24.0
Benin	2017	DHS	West & Central Africa	Alibori	22.2	16.1	29.8
Benin	2017	DHS	West & Central Africa	Atacora	18.2	11.8	26.9
Benin	2017	DHS	West & Central Africa	Atlantique	8.0	4.9	12.8
Benin	2017	DHS	West & Central Africa	Borgou	30.6	23.4	39.0
Benin	2017	DHS	West & Central Africa	Collines	6.3	3.1	12.4
Benin	2017	DHS	West & Central Africa	Couffo	23.1	16.3	31.6
Benin	2017	DHS	West & Central Africa	Donga	12.7	6.6	23.0
Benin	2017	DHS	West & Central Africa	Littoral	7.5	3.2	16.3
Benin	2017	DHS	West & Central Africa	Mono	4.8	1.7	12.4
Benin	2017	DHS	West & Central Africa	Ouémé	5.0	2.4	9.9
Benin	2017	DHS	West & Central Africa	Plateau	30.0	23.1	37.8
Benin	2017	DHS	West & Central Africa	Zou	6.4	3.6	11.2
Burundi	2016	DHS	Eastern & Southern Africa	Bubanza	2.6	1.1	6.3
Burundi	2016	DHS	Eastern & Southern Africa	Bujumbura Mairie	1.5	0.3	6.2

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Burundi	2016	DH S	Eastern & Southern Africa	Bujumbura Rural	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Bururi	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Cankuzo	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Cibitoke	1.3	0.3	4.9
Burundi	2016	DH S	Eastern & Southern Africa	Gitega	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Karusi	0.9	0.1	5.6
Burundi	2016	DH S	Eastern & Southern Africa	Kayanza	0.2	0.0	1.5
Burundi	2016	DH S	Eastern & Southern Africa	Kirundo	2.7	1.0	6.7
Burundi	2016	DH S	Eastern & Southern Africa	Makamba	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Muramvya	0.8	0.1	5.2
Burundi	2016	DH S	Eastern & Southern Africa	Muyinga	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Mwaro	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Ngozi	1.2	0.3	4.8
Burundi	2016	DH S	Eastern & Southern Africa	Rumonge	0.7	0.1	5.2
Burundi	2016	DH S	Eastern & Southern Africa	Rutana	0.0		
Burundi	2016	DH S	Eastern & Southern Africa	Ruyigi	0.6	0.1	4.2
CAR	2018	MI CS	West & Central Africa	Bangui	14.6	11.0	19.1
CAR	2018	MI CS	West & Central Africa	Région 1	30.6	24.0	38.1
CAR	2018	MI CS	West & Central Africa	Région 2	54.4	46.9	61.7
CAR	2018	MI CS	West & Central Africa	Région 3	49.7	42.3	57.0
CAR	2018	MI CS	West & Central Africa	Région 4	42.3	34.6	50.3
CAR	2018	MI CS	West & Central Africa	Région 5	40.8	33.0	49.2
CAR	2018	MI CS	West & Central Africa	Région 6	75.0	64.9	83.0
Cameroon	2018	DH S	West & Central Africa	Adamaoua	26.0	18.4	35.3
Cameroon	2018	DH S	West & Central Africa	Centre	11.6	7.2	18.1

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Cameroon	2018	DH S	West & Central Africa	Douala	8.7	4.1	17.3
Cameroon	2018	DH S	West & Central Africa	Est	22.0	15.2	30.9
Cameroon	2018	DH S	West & Central Africa	Extrême Nord	23.2	16.0	32.4
Cameroon	2018	DH S	West & Central Africa	Littoral	13.5	8.3	21.1
Cameroon	2018	DH S	West & Central Africa	Nord	25.7	17.8	35.7
Cameroon	2018	DH S	West & Central Africa	Nord-Ouest	7.2	2.1	21.5
Cameroon	2018	DH S	West & Central Africa	Ouest	12.8	8.5	18.8
Cameroon	2018	DH S	West & Central Africa	Sud	11.2	7.0	17.6
Cameroon	2018	DH S	West & Central Africa	Sud Ouest			
Cameroon	2018	DH S	West & Central Africa	Yaoundé	8.7	4.6	15.6
Congo, DR	2017	MI CS	West & Central Africa	Bas Uele	36.3	20.8	55.3
Congo, DR	2017	MI CS	West & Central Africa	Haut Katanga	26.8	14.4	44.3
Congo, DR	2017	MI CS	West & Central Africa	Haut Lomami	36.2	25.8	48.1
Congo, DR	2017	MI CS	West & Central Africa	Haut Uele	17.0	11.6	24.3
Congo, DR	2017	MI CS	West & Central Africa	Ituri	21.6	10.5	39.4
Congo, DR	2017	MI CS	West & Central Africa	Kasaï	63.6	46.6	77.8
Congo, DR	2017	MI CS	West & Central Africa	Kasaï Central	15.4	9.0	25.1
Congo, DR	2017	MI CS	West & Central Africa	Kasaï Oriental	36.7	22.8	53.3
Congo, DR	2017	MI CS	West & Central Africa	Kinshasa	19.6	8.0	40.3
Congo, DR	2017	MI CS	West & Central Africa	Kongo Central	23.8	15.8	34.1
Congo, DR	2017	MI CS	West & Central Africa	Kwango	54.0	42.8	64.9
Congo, DR	2017	MI CS	West & Central Africa	Kwilu	35.2	22.0	51.1
Congo, DR	2017	MI CS	West & Central Africa	Lomami	44.9	28.1	62.9
Congo, DR	2017	MI CS	West & Central Africa	Lualaba	48.4	37.8	59.2
Congo, DR	2017	MI CS	West & Central Africa	Maindombe	61.8	38.3	80.9

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Congo, DR	2017	MI CS	West & Central Africa	Maniema	73.6	59.0	84.4
Congo, DR	2017	MI CS	West & Central Africa	Mongala	65.3	45.3	81.1
Congo, DR	2017	MI CS	West & Central Africa	Nord Kivu	6.0	2.4	14.1
Congo, DR	2017	MI CS	West & Central Africa	Nord Ubangi	58.8	46.0	70.5
Congo, DR	2017	MI CS	West & Central Africa	Sankuru	67.3	49.5	81.2
Congo, DR	2017	MI CS	West & Central Africa	Sud Kivu	19.8	13.9	27.4
Congo, DR	2017	MI CS	West & Central Africa	Sud Ubangi	43.2	32.2	55.0
Congo, DR	2017	MI CS	West & Central Africa	Tanganyika	56.7	36.7	74.7
Congo, DR	2017	MI CS	West & Central Africa	Tshopo	61.4	43.0	77.0
Congo, DR	2017	MI CS	West & Central Africa	Tshuapa	59.4	44.6	72.7
Congo, DR	2017	MI CS	West & Central Africa	Équateur	37.4	28.0	48.0
Costa Rica	2018	MI CS	Latin America & Caribbean	Alajuela	0.0		
Costa Rica	2018	MI CS	Latin America & Caribbean	Cartago	14.1	3.9	39.5
Costa Rica	2018	MI CS	Latin America & Caribbean	Guanacaste	1.1	0.1	7.8
Costa Rica	2018	MI CS	Latin America & Caribbean	Heredia	0.9	0.2	4.5
Costa Rica	2018	MI CS	Latin America & Caribbean	Limón	0.0		
Costa Rica	2018	MI CS	Latin America & Caribbean	Puntarenas	7.4	3.9	13.7
Costa Rica	2018	MI CS	Latin America & Caribbean	San José	0.6	0.1	3.3
Cote d'Ivoire	2016	MI CS	West & Central Africa	Centre	19.1	12.8	27.7
Cote d'Ivoire	2016	MI CS	West & Central Africa	Centre-Est	13.6	7.0	24.5
Cote d'Ivoire	2016	MI CS	West & Central Africa	Centre-Nord	13.7	8.6	21.0
Cote d'Ivoire	2016	MI CS	West & Central Africa	Centre-Ouest	20.1	13.2	29.4
Cote d'Ivoire	2016	MI CS	West & Central Africa	Nord	35.9	26.6	46.5
Cote d'Ivoire	2016	MI CS	West & Central Africa	Nord-Est	19.5	11.7	30.8
Cote d'Ivoire	2016	MI CS	West & Central Africa	Nord-Ouest	33.6	25.8	42.4



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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Cote d'Ivoire	2016	MI CS	West & Central Africa	Ouest	24.2	17.2	32.8
Cote d'Ivoire	2016	MI CS	West & Central Africa	Sud sans Ville d'Abidjan	12.8	7.4	21.3
Cote d'Ivoire	2016	MI CS	West & Central Africa	Sud-Ouest	14.7	9.5	22.0
Cote d'Ivoire	2016	MI CS	West & Central Africa	Ville d'Abidjan	14.5	9.4	21.8
Cuba	2019	MI CS	Latin America & Caribbean	Artemisa	0.0		
Cuba	2019	MI CS	Latin America & Caribbean	Camagüey	1.9	0.2	14.4
Cuba	2019	MI CS	Latin America & Caribbean	Ciego De Ávila	4.5	0.9	20.3
Cuba	2019	MI CS	Latin America & Caribbean	Cienfuegos	0.7	0.1	5.0
Cuba	2019	MI CS	Latin America & Caribbean	Granma	9.0	1.3	42.6
Cuba	2019	MI CS	Latin America & Caribbean	Guantánamo	0.6	0.1	4.4
Cuba	2019	MI CS	Latin America & Caribbean	Holguín	4.4	1.7	11.2
Cuba	2019	MI CS	Latin America & Caribbean	Isla De La Juventud			
Cuba	2019	MI CS	Latin America & Caribbean	La Habana	2.1	0.6	7.3
Cuba	2019	MI CS	Latin America & Caribbean	Las Tunas	1.8	0.4	8.1
Cuba	2019	MI CS	Latin America & Caribbean	Matanzas	8.9	1.5	38.9
Cuba	2019	MI CS	Latin America & Caribbean	Mayabeque	0.0		
Cuba	2019	MI CS	Latin America & Caribbean	Pinar Del Río	0.0		
Cuba	2019	MI CS	Latin America & Caribbean	Sancti Spiritus	1.0	0.1	7.1
Cuba	2019	MI CS	Latin America & Caribbean	Santiago De Cuba	0.0		
Cuba	2019	MI CS	Latin America & Caribbean	Villa Clara	1.6	0.4	6.6
Dominican Republic	2019	MI CS	Latin America & Caribbean	Cibao Nordeste	9.9	5.8	16.4
Dominican Republic	2019	MI CS	Latin America & Caribbean	Cibao Noroeste	24.5	17.4	33.2
Dominican Republic	2019	MI CS	Latin America & Caribbean	Cibao Norte	11.2	7.1	17.3
Dominican Republic	2019	MI CS	Latin America & Caribbean	Cibao Sur	5.1	2.2	11.5
Dominican Republic	2019	MI CS	Latin America & Caribbean	El Valle	11.7	6.7	19.6

## Within-Country Inequalities in Zero-dose Prevalence – UNICEF Background Paper

Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Dominican Republic	2019	MI CS	Latin America & Caribbean	Enriquillo	9.0	5.0	15.6
Dominican Republic	2019	MI CS	Latin America & Caribbean	Higuamo	9.6	4.9	17.8
Dominican Republic	2019	MI CS	Latin America & Caribbean	Ozama	4.6	2.2	9.2
Dominican Republic	2019	MI CS	Latin America & Caribbean	Valdesia	4.7	2.8	7.8
Dominican Republic	2019	MI CS	Latin America & Caribbean	Yuma	13.0	8.7	19.1
Ethiopia	2019	DH S	Eastern & Southern Africa	Addis Ababa	3.7	1.0	12.8
Ethiopia	2019	DH S	Eastern & Southern Africa	Afar	53.5	40.6	66.0
Ethiopia	2019	DH S	Eastern & Southern Africa	Amhara	15.6	8.9	26.0
Ethiopia	2019	DH S	Eastern & Southern Africa	Benishangul-Gumuz	10.7	5.4	20.0
Ethiopia	2019	DH S	Eastern & Southern Africa	Dire Dawa	4.8	1.9	11.4
Ethiopia	2019	DH S	Eastern & Southern Africa	Gambela	23.7	12.0	41.4
Ethiopia	2019	DH S	Eastern & Southern Africa	Harari	36.8	23.7	52.1
Ethiopia	2019	DH S	Eastern & Southern Africa	Oromia	26.6	17.8	37.6
Ethiopia	2019	DH S	Eastern & Southern Africa	SNNPR	27.3	19.7	36.7
Ethiopia	2019	DH S	Eastern & Southern Africa	Somali	56.0	41.6	69.4
Ethiopia	2019	DH S	Eastern & Southern Africa	Tigray	4.6	1.7	11.9
Fiji	2021	MI CS	East Asia & the Pacific	Central	1.9	0.6	5.7
Fiji	2021	MI CS	East Asia & the Pacific	Eastern	2.7	0.3	18.1
Fiji	2021	MI CS	East Asia & the Pacific	Northern	4.7	1.6	12.8
Fiji	2021	MI CS	East Asia & the Pacific	Western	4.5	2.0	9.6
Gambia	2019	DH S	West & Central Africa	Banjul	2.3	0.3	14.1
Gambia	2019	DH S	West & Central Africa	Basse	2.9	1.4	6.1
Gambia	2019	DH S	West & Central Africa	Brikama	0.9	0.2	3.4
Gambia	2019	DH S	West & Central Africa	Janjanbureh	1.4	0.3	6.3
Gambia	2019	DH S	West & Central Africa	Kanifing	4.9	1.8	12.7

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Gambia	2019	DH S	West & Central Africa	Kerewan	0.0		
Gambia	2019	DH S	West & Central Africa	Kuntaur	0.0		
Gambia	2019	DH S	West & Central Africa	Mansakonko	0.9	0.1	6.0
Ghana	2017	MI CS	West & Central Africa	Ashanti	3.9	1.4	10.4
Ghana	2017	MI CS	West & Central Africa	Brong Ahafo	4.0	1.4	10.8
Ghana	2017	MI CS	West & Central Africa	Central	5.6	1.9	15.1
Ghana	2017	MI CS	West & Central Africa	Eastern	4.8	2.0	11.0
Ghana	2017	MI CS	West & Central Africa	Greater Accra	4.0	1.8	8.9
Ghana	2017	MI CS	West & Central Africa	Northern	6.9	3.2	13.9
Ghana	2017	MI CS	West & Central Africa	Upper East	0.6	0.1	2.8
Ghana	2017	MI CS	West & Central Africa	Upper West	2.1	0.7	6.1
Ghana	2017	MI CS	West & Central Africa	Volta	1.4	0.4	5.0
Ghana	2017	MI CS	West & Central Africa	Western	2.9	1.2	6.4
Guinea	2018	DH S	West & Central Africa	Boké	48.2	38.6	58.0
Guinea	2018	DH S	West & Central Africa	Conakry	22.6	14.3	33.9
Guinea	2018	DH S	West & Central Africa	Faranah	37.2	24.5	52.0
Guinea	2018	DH S	West & Central Africa	Kankan	24.8	17.7	33.5
Guinea	2018	DH S	West & Central Africa	Kindia	37.2	29.3	45.9
Guinea	2018	DH S	West & Central Africa	Labé	58.7	47.7	68.8
Guinea	2018	DH S	West & Central Africa	Mamou	46.7	34.7	59.0
Guinea	2018	DH S	West & Central Africa	N'Zérékoré	40.0	30.6	50.1
Guinea Bissau	2018	MI CS	West & Central Africa	Bafatá	0.0		
Guinea Bissau	2018	MI CS	West & Central Africa	Biombo	1.2	0.3	4.9
Guinea Bissau	2018	MI CS	West & Central Africa	Bolama/Bijagós	1.9	0.5	7.6
Guinea Bissau	2018	MI CS	West & Central Africa	Cacheu	7.3	4.1	12.6

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Guinea	20	MI	West & Central	Gabú	10.6	4.9	21.5
Bissau	18	CS	Africa				
Guinea	20	MI	West & Central	Oio	9.5	5.6	15.7
Bissau	18	CS	Africa				
Guinea	20	MI	West & Central	Quinara	6.4	3.7	11.0
Bissau	18	CS	Africa				
Guinea	20	MI	West & Central	SAB	9.1	3.8	20.1
Bissau	18	CS	Africa				
Guinea	20	MI	West & Central	Tombali	19.1	13.8	25.8
Bissau	18	CS	Africa				
Guyana	20	MI	Latin America & Caribbean	Barima Waini	12.8	6.1	24.7
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Cuyuni-Mazaruni	23.9	10.5	45.5
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Demerara-Mahaica	4.5	1.7	11.6
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	East Berbice-Corentyne	3.5	1.0	11.8
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Essequibo Islands-West Demerara	0.9	0.1	6.0
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Mahaica-Berbice	26.7	18.5	36.8
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Pomeroon Supenaam	16.3	6.3	35.8
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Potaro-Siparuni	10.9	3.6	28.5
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Upper Demerara-Berbice	10.7	3.0	31.4
Guyana	19	CS	Caribbean				
Guyana	20	MI	Latin America & Caribbean	Upper Takutu-Upper Essequibo	33.7	20.4	50.2
Guyana	19	CS	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Aire Métropolitaine	15.2	9.9	22.8
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Artibonite	15.0	9.3	23.4
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Centre	18.1	11.3	27.8
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Grande Anse	18.3	9.9	31.4
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Nippes	2.9	0.7	11.0
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Nord	11.0	5.4	21.0
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Nord-Est	8.5	4.2	16.7
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Nord-Ouest	19.4	11.5	30.7
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Reste-Ouest	21.1	11.7	35.2
Haiti	16	S	Caribbean				
Haiti	20	DH	Latin America & Caribbean	Sud	25.0	10.1	49.7
Haiti	16	S	Caribbean				

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Haiti	2016	DHS	Latin America & Caribbean	Sud-Est	14.3	6.3	29.4
Honduras	2019	MICS	Latin America & Caribbean	Atlantida	11.2	5.1	23.0
Honduras	2019	MICS	Latin America & Caribbean	Choluteca	2.6	0.7	9.7
Honduras	2019	MICS	Latin America & Caribbean	Colon	0.0		
Honduras	2019	MICS	Latin America & Caribbean	Comayagua	5.8	1.5	19.6
Honduras	2019	MICS	Latin America & Caribbean	Copan	1.5	0.2	10.2
Honduras	2019	MICS	Latin America & Caribbean	Cortes	6.6	3.2	13.0
Honduras	2019	MICS	Latin America & Caribbean	Distrito Central	4.6	1.5	13.3
Honduras	2019	MICS	Latin America & Caribbean	El Paraiso	1.1	0.2	7.3
Honduras	2019	MICS	Latin America & Caribbean	Francisco Morazan	0.3	0.0	2.3
Honduras	2019	MICS	Latin America & Caribbean	Gracias a Dios	10.1	6.0	16.7
Honduras	2019	MICS	Latin America & Caribbean	Intibuca	2.5	0.5	11.7
Honduras	2019	MICS	Latin America & Caribbean	Islas de la Bahia	2.7	0.4	16.9
Honduras	2019	MICS	Latin America & Caribbean	La Paz	1.7	0.4	6.9
Honduras	2019	MICS	Latin America & Caribbean	Lempira	1.2	0.2	8.1
Honduras	2019	MICS	Latin America & Caribbean	Ocotepeque	2.0	0.3	13.2
Honduras	2019	MICS	Latin America & Caribbean	Olancho	1.7	0.5	6.3
Honduras	2019	MICS	Latin America & Caribbean	San Pedro Sula	4.4	1.1	16.4
Honduras	2019	MICS	Latin America & Caribbean	Santa Barbara	0.0		
Honduras	2019	MICS	Latin America & Caribbean	Valle	1.3	0.2	9.2
Honduras	2019	MICS	Latin America & Caribbean	Yoro	3.6	1.3	9.6
India	2019	DHS	South Asia	Andaman & Nicobar Islands	2.2	1.3	3.9
India	2019	DHS	South Asia	Andhra Pradesh	7.0	4.9	9.8
India	2019	DHS	South Asia	Arunachal Pradesh	13.4	10.7	16.7
India	2019	DHS	South Asia	Assam	9.3	7.8	11.0

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
India	2019	DHS	South Asia	Bihar	6.4	5.6	7.5
India	2019	DHS	South Asia	Chandigarh	6.6	1.6	23.8
India	2019	DHS	South Asia	Chhattisgarh	4.8	3.6	6.4
India	2019	DHS	South Asia	Dadra & Nagar Haveli and Daman & Diu	2.2	0.8	5.4
India	2019	DHS	South Asia	Delhi	6.3	4.2	9.4
India	2019	DHS	South Asia	Goa	2.1	0.3	13.4
India	2019	DHS	South Asia	Gujarat	7.4	6.0	9.0
India	2019	DHS	South Asia	Haryana	6.0	4.8	7.6
India	2019	DHS	South Asia	Himachal Pradesh	2.0	1.0	4.3
India	2019	DHS	South Asia	Jammu & Kashmir	5.4	3.9	7.3
India	2019	DHS	South Asia	Jharkhand	7.5	5.9	9.4
India	2019	DHS	South Asia	Karnataka	4.1	2.9	5.9
India	2019	DHS	South Asia	Kerala	4.2	2.6	6.6
India	2019	DHS	South Asia	Ladakh	0.9	0.1	6.5
India	2019	DHS	South Asia	Lakshadweep	9.0	3.8	20.0
India	2019	DHS	South Asia	Madhya Pradesh	6.0	5.0	7.0
India	2019	DHS	South Asia	Maharashtra	7.6	5.4	10.6
India	2019	DHS	South Asia	Manipur	6.6	4.6	9.2
India	2019	DHS	South Asia	Meghalaya	17.8	14.3	22.0
India	2019	DHS	South Asia	Mizoram	14.5	10.3	20.0
India	2019	DHS	South Asia	Nagaland	15.8	11.9	20.6
India	2019	DHS	South Asia	Odisha	2.7	1.9	4.0
India	2019	DHS	South Asia	Puducherry	0.6	0.2	2.0
India	2019	DHS	South Asia	Punjab	6.3	4.8	8.2
India	2019	DHS	South Asia	Rajasthan	5.4	4.4	6.6

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
India	2019	DHS	South Asia	Sikkim	4.9	1.9	12.2
India	2019	DHS	South Asia	Tamil Nadu	2.5	1.8	3.7
India	2019	DHS	South Asia	Telangana	7.5	5.6	10.0
India	2019	DHS	South Asia	Tripura	5.4	3.4	8.6
India	2019	DHS	South Asia	Uttar Pradesh	9.1	8.3	10.0
India	2019	DHS	South Asia	Uttarakhand	5.2	3.4	7.9
India	2019	DHS	South Asia	West Bengal	2.3	1.5	3.6
Indonesia	2017	DHS	East Asia & the Pacific	Aceh	36.2	28.1	45.0
Indonesia	2017	DHS	East Asia & the Pacific	Bali	2.6	0.4	16.5
Indonesia	2017	DHS	East Asia & the Pacific	Bangka Belitung	1.6	0.2	11.5
Indonesia	2017	DHS	East Asia & the Pacific	Banten	22.1	13.8	33.4
Indonesia	2017	DHS	East Asia & the Pacific	Bengkulu	9.1	4.0	19.3
Indonesia	2017	DHS	East Asia & the Pacific	Central Java	3.0	1.3	6.4
Indonesia	2017	DHS	East Asia & the Pacific	Central Kalimantan	15.7	7.0	31.4
Indonesia	2017	DHS	East Asia & the Pacific	Central Sulawesi	15.5	8.9	25.7
Indonesia	2017	DHS	East Asia & the Pacific	East Java	5.8	3.4	9.7
Indonesia	2017	DHS	East Asia & the Pacific	East Kalimantan	8.6	4.4	16.4
Indonesia	2017	DHS	East Asia & the Pacific	East Nusa Tenggara	5.3	2.8	10.1
Indonesia	2017	DHS	East Asia & the Pacific	Gorontalo	9.1	3.8	20.0
Indonesia	2017	DHS	East Asia & the Pacific	Jakarta	5.6	2.5	12.0
Indonesia	2017	DHS	East Asia & the Pacific	Jambi	9.2	2.6	27.5
Indonesia	2017	DHS	East Asia & the Pacific	Lampung	4.1	1.3	12.4
Indonesia	2017	DHS	East Asia & the Pacific	Maluku	20.1	13.2	29.4
Indonesia	2017	DHS	East Asia & the Pacific	North Kalimantan	4.2	1.0	15.8
Indonesia	2017	DHS	East Asia & the Pacific	North Maluku	12.4	6.7	21.8

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Indonesia	2017	DH S	East Asia & the Pacific	North Sulawesi	0.0		
Indonesia	2017	DH S	East Asia & the Pacific	North Sumatera	19.5	13.1	28.0
Indonesia	2017	DH S	East Asia & the Pacific	Papua	21.2	9.9	39.6
Indonesia	2017	DH S	East Asia & the Pacific	Riau	38.0	23.8	54.6
Indonesia	2017	DH S	East Asia & the Pacific	Riau Islands	7.7	3.1	17.9
Indonesia	2017	DH S	East Asia & the Pacific	South Kalimantan	7.3	2.4	19.8
Indonesia	2017	DH S	East Asia & the Pacific	South Sulawesi	8.4	4.9	13.9
Indonesia	2017	DH S	East Asia & the Pacific	South Sumatera	10.0	5.0	19.0
Indonesia	2017	DH S	East Asia & the Pacific	Southeast Sulawesi	7.6	3.9	14.2
Indonesia	2017	DH S	East Asia & the Pacific	West Java	12.5	9.0	17.0
Indonesia	2017	DH S	East Asia & the Pacific	West Kalimantan	10.0	3.7	24.3
Indonesia	2017	DH S	East Asia & the Pacific	West Nusa Tenggara	4.1	1.6	9.7
Indonesia	2017	DH S	East Asia & the Pacific	West Papua	17.4	6.9	37.4
Indonesia	2017	DH S	East Asia & the Pacific	West Sulawesi	14.5	8.7	23.2
Indonesia	2017	DH S	East Asia & the Pacific	West Sumatera	25.7	15.1	40.2
Indonesia	2017	DH S	East Asia & the Pacific	Yogyakarta	4.1	1.0	14.5
Iraq	2018	MI CS	Middle East & North Africa	Anbar	33.8	25.6	43.1
Iraq	2018	MI CS	Middle East & North Africa	Babil	14.7	9.5	22.1
Iraq	2018	MI CS	Middle East & North Africa	Baghdad	10.2	6.4	15.9
Iraq	2018	MI CS	Middle East & North Africa	Basrah	5.2	2.5	10.5
Iraq	2018	MI CS	Middle East & North Africa	Diala	11.8	6.0	21.6
Iraq	2018	MI CS	Middle East & North Africa	Duhok	4.8	2.5	8.9
Iraq	2018	MI CS	Middle East & North Africa	Erbil	9.0	3.5	21.3
Iraq	2018	MI CS	Middle East & North Africa	Karbalah	7.6	4.7	12.1
Iraq	2018	MI CS	Middle East & North Africa	Kirkuk	10.2	5.5	18.3



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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Iraq	2018	MI CS	Middle East & North Africa	Misan	5.9	3.0	11.4
Iraq	2018	MI CS	Middle East & North Africa	Muthana	31.4	21.4	43.6
Iraq	2018	MI CS	Middle East & North Africa	Nainawa	20.0	13.2	29.0
Iraq	2018	MI CS	Middle East & North Africa	Najaf	21.3	16.6	26.8
Iraq	2018	MI CS	Middle East & North Africa	Qadisyah	22.0	16.2	29.2
Iraq	2018	MI CS	Middle East & North Africa	Salahaddin	23.1	15.9	32.3
Iraq	2018	MI CS	Middle East & North Africa	Sulaimaniya	6.7	2.5	16.6
Iraq	2018	MI CS	Middle East & North Africa	Thiqr	21.2	15.3	28.5
Iraq	2018	MI CS	Middle East & North Africa	Wasit	7.6	3.8	14.6
Jordan	2017	DH S	Middle East & North Africa	Aljoun	2.8	1.2	6.5
Jordan	2017	DH S	Middle East & North Africa	Amman	9.0	5.2	14.9
Jordan	2017	DH S	Middle East & North Africa	Aquaba	17.1	10.4	27.0
Jordan	2017	DH S	Middle East & North Africa	Balqa	2.7	0.6	11.4
Jordan	2017	DH S	Middle East & North Africa	Irbid	6.2	3.3	11.3
Jordan	2017	DH S	Middle East & North Africa	Jerash	6.1	3.2	11.3
Jordan	2017	DH S	Middle East & North Africa	Karak	2.2	0.5	8.4
Jordan	2017	DH S	Middle East & North Africa	Maan	26.1	17.2	37.5
Jordan	2017	DH S	Middle East & North Africa	Madaba	6.2	2.9	12.9
Jordan	2017	DH S	Middle East & North Africa	Mafrq	4.6	2.5	8.3
Jordan	2017	DH S	Middle East & North Africa	Tafilh	3.5	1.6	7.4
Jordan	2017	DH S	Middle East & North Africa	Zarqu	7.6	3.6	15.3
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Akmola	5.9	2.0	16.2
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Aktobe	1.9	0.4	8.4
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Almaty City	15.8	6.3	34.3
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Almaty Oblast	3.0	0.8	10.9

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Astana City	9.1	3.1	24.0
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Atyrau	1.7	0.4	6.3
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	East Kazakhstan	0.0		
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Karaganda	8.6	3.5	19.3
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Kostanai	4.1	1.3	11.7
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Kyzylorda	1.8	0.4	6.9
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Mangistau	3.9	1.5	9.6
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	North Kazakhstan	8.4	2.4	25.1
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Pavlodar	8.0	2.4	23.2
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	South Kazakhstan	0.9	0.1	6.1
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	West Kazakhstan	5.1	1.6	14.6
Kazakhstan	2015	MI CS	Eastern Europe & Central Asia	Zhambyl	5.6	2.6	11.9
Kiribati	2018	MI CS	East Asia & the Pacific	Central Gilbert	31.8	18.4	49.2
Kiribati	2018	MI CS	East Asia & the Pacific	Line And Phoenix Group	32.8	20.8	47.6
Kiribati	2018	MI CS	East Asia & the Pacific	Northern Gilbert	51.4	35.9	66.5
Kiribati	2018	MI CS	East Asia & the Pacific	South Tarawa	42.3	35.5	49.5
Kiribati	2018	MI CS	East Asia & the Pacific	Southern Gilbert	27.2	17.3	40.0
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Ferizaj	7.7	2.1	24.6
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Gjakova	6.2	1.5	22.3
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Gjilan	0.0		
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Mitrovica	3.7	0.5	23.4
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Peja	6.7	1.5	25.2
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Pristina	2.3	0.5	9.5
Kosovo	2019	MI CS	Eastern Europe & Central Asia	Prizren	5.3	1.7	15.5
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Batken	0.0		

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Bishkek City	25.3	16.1	37.3
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Chui	14.8	9.0	23.4
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Issyk-Kul	8.7	3.6	19.2
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Jalal-Abad	5.1	1.9	12.9
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Naryn	4.4	1.4	12.6
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Osh	4.5	1.5	12.8
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Osh City	0.0		
Kyrgyzstan	2018	MI CS	Eastern Europe & Central Asia	Talas	11.2	4.5	25.3
Laos	2017	MI CS	East Asia & the Pacific	Attapeu	30.8	21.8	41.5
Laos	2017	MI CS	East Asia & the Pacific	Bokeo	40.9	31.1	51.4
Laos	2017	MI CS	East Asia & the Pacific	Borikhamxay	5.5	2.1	13.1
Laos	2017	MI CS	East Asia & the Pacific	Champasack	25.8	17.7	36.1
Laos	2017	MI CS	East Asia & the Pacific	Huaphanh	24.0	16.6	33.3
Laos	2017	MI CS	East Asia & the Pacific	Khammuane	12.0	6.7	20.6
Laos	2017	MI CS	East Asia & the Pacific	Luangnamtha	22.1	15.0	31.2
Laos	2017	MI CS	East Asia & the Pacific	Luangprabang	30.6	22.4	40.2
Laos	2017	MI CS	East Asia & the Pacific	Oudomxay	49.7	40.1	59.3
Laos	2017	MI CS	East Asia & the Pacific	Phongsaly	35.6	22.5	51.2
Laos	2017	MI CS	East Asia & the Pacific	Saravane	19.0	13.1	26.7
Laos	2017	MI CS	East Asia & the Pacific	Savannakhet	44.9	35.7	54.5
Laos	2017	MI CS	East Asia & the Pacific	Sekong	25.8	16.5	37.9
Laos	2017	MI CS	East Asia & the Pacific	Vientiane	9.9	5.9	16.1
Laos	2017	MI CS	East Asia & the Pacific	Vientiane Capital	22.9	16.2	31.4
Laos	2017	MI CS	East Asia & the Pacific	Xayabury	11.8	6.6	20.3
Laos	2017	MI CS	East Asia & the Pacific	Xaysomboun	60.5	50.9	69.3

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Laos	2017	MI CS	East Asia & the Pacific	Xiengkhuang	24.0	15.1	35.8
Lesotho	2018	MI CS	Eastern & Southern Africa	Foothills	13.4	7.1	23.9
Lesotho	2018	MI CS	Eastern & Southern Africa	Lowlands	6.6	4.1	10.3
Lesotho	2018	MI CS	Eastern & Southern Africa	Mountains	11.4	6.8	18.5
Lesotho	2018	MI CS	Eastern & Southern Africa	Senqu River Valley	8.6	3.7	18.6
Liberia	2019	DH S	West & Central Africa	North Central	7.9	5.3	11.7
Liberia	2019	DH S	West & Central Africa	North Western	6.0	3.1	11.2
Liberia	2019	DH S	West & Central Africa	South Central	9.6	5.4	16.4
Liberia	2019	DH S	West & Central Africa	South Eastern A	8.5	4.0	17.4
Liberia	2019	DH S	West & Central Africa	South Eastern B	9.7	4.9	18.5
Madagascar	2021	DH S	Eastern & Southern Africa	01 Antananarivo	9.1	5.2	15.4
Madagascar	2021	DH S	Eastern & Southern Africa	02 Analamanga	3.9	1.3	11.2
Madagascar	2021	DH S	Eastern & Southern Africa	03 Vakinankaratra	7.5	3.2	16.4
Madagascar	2021	DH S	Eastern & Southern Africa	04 Itasy	4.5	1.8	11.1
Madagascar	2021	DH S	Eastern & Southern Africa	05 Bongolava	17.2	12.2	23.6
Madagascar	2021	DH S	Eastern & Southern Africa	06 Haute Matsiatra	5.1	2.4	10.5
Madagascar	2021	DH S	Eastern & Southern Africa	07 Amoron I Mania	7.5	3.3	16.1
Madagascar	2021	DH S	Eastern & Southern Africa	08 Vatovavy Fitovinany	12.0	6.2	21.9
Madagascar	2021	DH S	Eastern & Southern Africa	09 Ihorombe	35.2	24.6	47.5
Madagascar	2021	DH S	Eastern & Southern Africa	10 Atsimo Atsinanana	24.4	16.4	34.7
Madagascar	2021	DH S	Eastern & Southern Africa	11 Atsinanana	19.3	10.5	32.7
Madagascar	2021	DH S	Eastern & Southern Africa	12 Analanjirofo	10.5	5.4	19.5
Madagascar	2021	DH S	Eastern & Southern Africa	13 ALaostra Mangoro	11.5	5.2	23.5
Madagascar	2021	DH S	Eastern & Southern Africa	14 Boeny	32.7	19.4	49.6
Madagascar	2021	DH S	Eastern & Southern Africa	15 Sofia	37.1	26.9	48.7

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Madagascar	20 21	DH S	Eastern & Southern Africa	16 Betsiboka	38.2	24.5	54.1
Madagascar	20 21	DH S	Eastern & Southern Africa	17 Melaky	31.0	21.1	43.0
Madagascar	20 21	DH S	Eastern & Southern Africa	18 Atsimo Andrefana	46.9	35.5	58.7
Madagascar	20 21	DH S	Eastern & Southern Africa	19 Androy	36.8	28.0	46.6
Madagascar	20 21	DH S	Eastern & Southern Africa	20 Anosy	32.1	19.7	47.8
Madagascar	20 21	DH S	Eastern & Southern Africa	21 Menabe	32.2	15.9	54.6
Madagascar	20 21	DH S	Eastern & Southern Africa	22 Diana	23.9	16.4	33.6
Madagascar	20 21	DH S	Eastern & Southern Africa	23 Sava	34.1	23.6	46.5
Malawi	20 19	MI CS	Eastern & Southern Africa	Central	4.2	2.9	6.1
Malawi	20 19	MI CS	Eastern & Southern Africa	North	1.7	0.8	3.4
Malawi	20 19	MI CS	Eastern & Southern Africa	South	5.6	4.3	7.3
Maldives	20 16	DH S	South Asia	Central	6.5	2.8	14.5
Maldives	20 16	DH S	South Asia	Malé	8.4	3.3	19.7
Maldives	20 16	DH S	South Asia	North	2.8	0.8	8.9
Maldives	20 16	DH S	South Asia	North Central	17.6	11.4	26.3
Maldives	20 16	DH S	South Asia	South	12.4	7.1	20.7
Maldives	20 16	DH S	South Asia	South Central	7.8	5.0	12.0
Mali	20 18	DH S	West & Central Africa	Bamako	6.7	4.0	10.9
Mali	20 18	DH S	West & Central Africa	Gao	43.3	30.1	57.7
Mali	20 18	DH S	West & Central Africa	Kayes	24.7	17.0	34.3
Mali	20 18	DH S	West & Central Africa	Kidal	92.6	82.1	97.2
Mali	20 18	DH S	West & Central Africa	Koulikoro	20.1	12.9	30.0
Mali	20 18	DH S	West & Central Africa	Mopti	22.4	12.5	36.8
Mali	20 18	DH S	West & Central Africa	Sikasso	14.3	9.7	20.7
Mali	20 18	DH S	West & Central Africa	Ségou	13.0	8.4	19.7

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Mali	2018	DH S	West & Central Africa	Tombouctou	27.9	17.3	41.7
Mauritania	2019	DH S	West & Central Africa	Adrar	4.4	1.4	13.2
Mauritania	2019	DH S	West & Central Africa	Assaba	5.6	3.0	10.3
Mauritania	2019	DH S	West & Central Africa	Brakna	8.6	5.3	13.7
Mauritania	2019	DH S	West & Central Africa	Dakhlet Nouadhibou	1.6	0.2	10.0
Mauritania	2019	DH S	West & Central Africa	Gorgol	15.8	9.7	24.7
Mauritania	2019	DH S	West & Central Africa	Guidimaka	8.7	5.1	14.3
Mauritania	2019	DH S	West & Central Africa	Hodh Echargui	25.2	17.4	35.1
Mauritania	2019	DH S	West & Central Africa	Hodh Gharbi	14.2	9.1	21.6
Mauritania	2019	DH S	West & Central Africa	Nouakchott Nord	6.5	2.7	14.8
Mauritania	2019	DH S	West & Central Africa	Nouakchott Ouest	21.4	7.3	48.8
Mauritania	2019	DH S	West & Central Africa	Nouakchott Sud	11.5	5.4	23.0
Mauritania	2019	DH S	West & Central Africa	Tagant	7.9	3.8	15.6
Mauritania	2019	DH S	West & Central Africa	Tiris Zemmour et Inchiri	7.5	3.3	16.1
Mauritania	2019	DH S	West & Central Africa	Trarza	8.9	4.9	15.8
Mexico	2015	MI CS	Latin America & Caribbean	CDMX-Edo México	11.0	5.5	21.0
Mexico	2015	MI CS	Latin America & Caribbean	Centro	9.2	3.8	20.8
Mexico	2015	MI CS	Latin America & Caribbean	Noreste	7.3	4.0	12.9
Mexico	2015	MI CS	Latin America & Caribbean	Noroeste	4.7	2.2	9.5
Mexico	2015	MI CS	Latin America & Caribbean	Sur	6.8	3.6	12.4
Mongolia	2018	MI CS	East Asia & the Pacific	Central	3.4	1.0	10.9
Mongolia	2018	MI CS	East Asia & the Pacific	Eastern	5.4	2.5	11.3
Mongolia	2018	MI CS	East Asia & the Pacific	Khangai	2.4	1.2	5.0
Mongolia	2018	MI CS	East Asia & the Pacific	Ulaanbaatar	2.1	0.9	5.2
Mongolia	2018	MI CS	East Asia & the Pacific	Western	4.9	2.4	9.8

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Mozambique	2015	DH S	Eastern & Southern Africa	Cabo Delgado	0.0		
Mozambique	2015	DH S	Eastern & Southern Africa	Gaza	1.6	0.4	7.1
Mozambique	2015	DH S	Eastern & Southern Africa	Inhambane	4.9	1.6	14.3
Mozambique	2015	DH S	Eastern & Southern Africa	Manica	4.0	1.0	15.1
Mozambique	2015	DH S	Eastern & Southern Africa	Maputo Cidade	3.9	1.0	13.5
Mozambique	2015	DH S	Eastern & Southern Africa	Maputo Província	0.0		
Mozambique	2015	DH S	Eastern & Southern Africa	Nampula	13.1	4.6	31.8
Mozambique	2015	DH S	Eastern & Southern Africa	Niassa	4.1	1.1	14.5
Mozambique	2015	DH S	Eastern & Southern Africa	Sofala	13.1	8.5	19.6
Mozambique	2015	DH S	Eastern & Southern Africa	Tete	25.3	13.7	41.8
Mozambique	2015	DH S	Eastern & Southern Africa	Zambézia	16.4	9.5	26.9
Myanmar	2015	DH S	East Asia & the Pacific	Ayeyarwaddy	23.3	15.4	33.6
Myanmar	2015	DH S	East Asia & the Pacific	Bago	16.6	7.9	31.6
Myanmar	2015	DH S	East Asia & the Pacific	Chin	8.5	3.6	19.0
Myanmar	2015	DH S	East Asia & the Pacific	Kachin	1.6	0.2	10.5
Myanmar	2015	DH S	East Asia & the Pacific	Kayah	0.0		
Myanmar	2015	DH S	East Asia & the Pacific	Kayin	13.1	6.4	24.9
Myanmar	2015	DH S	East Asia & the Pacific	Magway	6.7	2.2	18.4
Myanmar	2015	DH S	East Asia & the Pacific	Mandalay	6.6	1.7	22.0
Myanmar	2015	DH S	East Asia & the Pacific	Mon	4.6	1.2	16.6
Myanmar	2015	DH S	East Asia & the Pacific	Naypyitaw	9.0	4.1	18.6
Myanmar	2015	DH S	East Asia & the Pacific	Rakhine	9.4	4.6	18.4
Myanmar	2015	DH S	East Asia & the Pacific	Sagaing	13.5	6.6	25.8
Myanmar	2015	DH S	East Asia & the Pacific	Shan	25.3	12.7	44.0
Myanmar	2015	DH S	East Asia & the Pacific	Taninthayi	1.9	0.3	12.5

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Myanmar	2015	DHS	East Asia & the Pacific	Yangon	3.6	0.9	12.9
Nepal	2019	MICS	South Asia	Gandaki	5.5	2.9	10.2
Nepal	2019	MICS	South Asia	Karnali	12.6	8.0	19.2
Nepal	2019	MICS	South Asia	Lumbini	9.2	5.6	14.9
Nepal	2019	MICS	South Asia	Province 1	7.8	4.0	14.8
Nepal	2019	MICS	South Asia	Province 2	15.7	10.2	23.4
Nepal	2019	MICS	South Asia	Province No. 3	7.8	4.3	13.6
Nepal	2019	MICS	South Asia	Sudoorpaschim	14.9	8.8	24.2
Nigeria	2018	DHS	West & Central Africa	North Central	29.6	24.7	34.9
Nigeria	2018	DHS	West & Central Africa	North East	44.8	41.0	48.7
Nigeria	2018	DHS	West & Central Africa	North West	55.5	51.7	59.2
Nigeria	2018	DHS	West & Central Africa	South East	7.8	5.5	10.8
Nigeria	2018	DHS	West & Central Africa	South South	15.0	11.9	18.7
Nigeria	2018	DHS	West & Central Africa	South West	11.3	8.5	14.9
North Macedonia	2018	MICS	Eastern Europe & Central Asia	East	2.5	0.3	16.4
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Northeast	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Pelagonia	0.0		
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Polog	1.5	0.2	11.3
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Skopje	10.0	4.1	22.3
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Southeast			
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Southwest	2.4	0.3	16.5
North Macedonia	2018	MICS	Eastern Europe & Central Asia	Vardar	0.0		
Pakistan	2017	DHS	South Asia	Ajk			
Pakistan	2017	DHS	South Asia	Balochistan	56.8	48.1	65.1
Pakistan	2017	DHS	South Asia	Fata	44.7	29.2	61.3



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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Pakistan	2017	DHS	South Asia	Gilgit Baltistan			
Pakistan	2017	DHS	South Asia	Islamabad (Ict)	5.6	2.8	10.8
Pakistan	2017	DHS	South Asia	Khyber Pakhtunkhwa	21.4	14.5	30.5
Pakistan	2017	DHS	South Asia	Punjab	4.7	2.8	7.7
Pakistan	2017	DHS	South Asia	Sindh	19.4	13.4	27.3
Papua New Guinea	2016	DHS	East Asia & the Pacific	Highlands Region	45.4	37.3	53.9
Papua New Guinea	2016	DHS	East Asia & the Pacific	Islands Region	20.6	15.5	26.8
Papua New Guinea	2016	DHS	East Asia & the Pacific	Momase Region	41.5	33.4	50.1
Papua New Guinea	2016	DHS	East Asia & the Pacific	Southern Region	24.6	19.7	30.4
Paraguay	2016	MI CS	Latin America & Caribbean	Alto Paraguay	5.5	1.2	22.0
Paraguay	2016	MI CS	Latin America & Caribbean	Alto Paraná	8.8	5.1	14.9
Paraguay	2016	MI CS	Latin America & Caribbean	Asunción	2.3	0.5	9.1
Paraguay	2016	MI CS	Latin America & Caribbean	Boquerón	26.8	12.8	47.8
Paraguay	2016	MI CS	Latin America & Caribbean	Caaguazú	5.0	2.1	11.7
Paraguay	2016	MI CS	Latin America & Caribbean	Central	3.6	1.9	6.8
Paraguay	2016	MI CS	Latin America & Caribbean	Itapúa	5.8	2.3	13.9
Paraguay	2016	MI CS	Latin America & Caribbean	Resto	3.9	2.0	7.2
Paraguay	2016	MI CS	Latin America & Caribbean	San Pedro	4.5	1.5	12.7
Peru	2021	DHS	Latin America & Caribbean	01 Amazonas	9.2	5.3	15.6
Peru	2021	DHS	Latin America & Caribbean	02 Áncash	5.8	2.8	11.5
Peru	2021	DHS	Latin America & Caribbean	03 Apurímac	6.8	3.4	12.9
Peru	2021	DHS	Latin America & Caribbean	04 Arequipa	1.6	0.5	5.3
Peru	2021	DHS	Latin America & Caribbean	05 Ayacucho	8.0	4.4	14.1
Peru	2021	DHS	Latin America & Caribbean	06 Cajamarca	8.0	4.3	14.3
Peru	2021	DHS	Latin America & Caribbean	07 Provincia Constitucional del Callaos	6.3	3.5	11.2

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Peru	2021	DH S	Latin America & Caribbean	08 Cusco	5.9	2.1	15.6
Peru	2021	DH S	Latin America & Caribbean	09 Huancavelica	4.9	2.2	10.6
Peru	2021	DH S	Latin America & Caribbean	10 Huánuco	6.1	3.3	11.3
Peru	2021	DH S	Latin America & Caribbean	11 Ica	4.9	2.6	9.0
Peru	2021	DH S	Latin America & Caribbean	12 Junín	3.6	1.5	8.2
Peru	2021	DH S	Latin America & Caribbean	13 La Libertad	12.0	7.3	19.1
Peru	2021	DH S	Latin America & Caribbean	14 Lambayeque	10.6	6.4	17.0
Peru	2021	DH S	Latin America & Caribbean	15 Lima	6.7	4.6	9.6
Peru	2021	DH S	Latin America & Caribbean	16 Loreto	19.6	13.6	27.3
Peru	2021	DH S	Latin America & Caribbean	17 Madre De Dios	11.6	7.9	16.9
Peru	2021	DH S	Latin America & Caribbean	18 Moquegua	6.7	3.8	11.8
Peru	2021	DH S	Latin America & Caribbean	19 Pasco	6.7	3.5	12.5
Peru	2021	DH S	Latin America & Caribbean	20 Piura	3.5	1.6	7.4
Peru	2021	DH S	Latin America & Caribbean	21 Puno	5.5	2.5	11.7
Peru	2021	DH S	Latin America & Caribbean	22 San Martín	7.8	3.9	15.0
Peru	2021	DH S	Latin America & Caribbean	23 Tacna	7.5	4.1	13.2
Peru	2021	DH S	Latin America & Caribbean	24 Tumbes	3.2	1.5	6.7
Peru	2021	DH S	Latin America & Caribbean	25 Ucayali	8.7	5.1	14.5
Philippines	2017	DH S	East Asia & the Pacific	Armm	60.0	48.6	70.4
Philippines	2017	DH S	East Asia & the Pacific	Bicol	11.0	6.3	18.5
Philippines	2017	DH S	East Asia & the Pacific	Cagayan Valley	11.5	5.2	23.4
Philippines	2017	DH S	East Asia & the Pacific	Calabarzon	6.8	3.5	12.8
Philippines	2017	DH S	East Asia & the Pacific	Caraga	6.1	2.8	12.8
Philippines	2017	DH S	East Asia & the Pacific	Central Luzon	11.0	6.2	18.8
Philippines	2017	DH S	East Asia & the Pacific	Central Visayas	17.6	9.4	30.7

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Philippines	2017	DH S	East Asia & the Pacific	Cordillera Administrative	6.7	4.0	11.0
Philippines	2017	DH S	East Asia & the Pacific	Davao	1.6	0.7	3.9
Philippines	2017	DH S	East Asia & the Pacific	Eastern Visayas	1.9	0.7	4.9
Philippines	2017	DH S	East Asia & the Pacific	Ilocos	12.8	6.8	22.9
Philippines	2017	DH S	East Asia & the Pacific	Mimaropa	17.7	10.1	29.3
Philippines	2017	DH S	East Asia & the Pacific	National Capital	7.4	3.3	15.7
Philippines	2017	DH S	East Asia & the Pacific	Northern Mindanao	14.3	8.8	22.2
Philippines	2017	DH S	East Asia & the Pacific	Soccsksargen	34.1	24.0	45.9
Philippines	2017	DH S	East Asia & the Pacific	Western Visayas	21.3	13.4	32.2
Philippines	2017	DH S	East Asia & the Pacific	Zamboanga Peninsula	16.8	9.7	27.5
Rwanda	2019	DH S	Eastern & Southern Africa	City of Kigali	1.0	0.2	4.2
Rwanda	2019	DH S	Eastern & Southern Africa	East	0.3	0.0	2.5
Rwanda	2019	DH S	Eastern & Southern Africa	North	0.7	0.2	2.7
Rwanda	2019	DH S	Eastern & Southern Africa	South	0.0		
Rwanda	2019	DH S	Eastern & Southern Africa	West	0.3	0.0	1.9
Samoa	2019	MI CS	East Asia & the Pacific	Apia Urban Area	21.5	14.7	30.4
Samoa	2019	MI CS	East Asia & the Pacific	North West Upolu	37.4	29.1	46.5
Samoa	2019	MI CS	East Asia & the Pacific	Rest of Upolu	33.0	24.6	42.7
Samoa	2019	MI CS	East Asia & the Pacific	Savaii	16.1	9.5	26.0
Sao Tome and Principe	2019	MI CS	West & Central Africa	Distrito de Mé-Zóchi	1.4	0.2	8.6
Sao Tome and Principe	2019	MI CS	West & Central Africa	Distrito de Água Grande	2.5	0.6	9.5
Sao Tome and Principe	2019	MI CS	West & Central Africa	Região A. do Príncipe	0.0		
Sao Tome and Principe	2019	MI CS	West & Central Africa	Região Norte Oeste	5.4	2.0	13.5
Sao Tome and Principe	2019	MI CS	West & Central Africa	Região Sul Este	0.0		
Senegal	2019	DH S	West & Central Africa	Dakar	2.3	0.4	13.4

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Senegal	2019	DH S	West & Central Africa	Diourbel	2.1	0.6	7.1
Senegal	2019	DH S	West & Central Africa	Fatick	3.6	0.9	12.9
Senegal	2019	DH S	West & Central Africa	Kaffrine	3.3	1.2	8.9
Senegal	2019	DH S	West & Central Africa	Kaolack	3.4	1.2	9.2
Senegal	2019	DH S	West & Central Africa	Kolda	11.3	5.4	22.1
Senegal	2019	DH S	West & Central Africa	Kédougou	9.2	2.4	29.7
Senegal	2019	DH S	West & Central Africa	Louga	10.6	3.1	30.5
Senegal	2019	DH S	West & Central Africa	Matam	0.0		
Senegal	2019	DH S	West & Central Africa	Saint-Louis	3.8	0.5	24.7
Senegal	2019	DH S	West & Central Africa	Sédhiou	7.6	3.7	15.2
Senegal	2019	DH S	West & Central Africa	Tambacounda	6.2	2.6	14.0
Senegal	2019	DH S	West & Central Africa	Thiès	1.7	0.5	5.7
Senegal	2019	DH S	West & Central Africa	Ziguinchor	0.0		
Serbia	2019	MI CS	Eastern Europe & Central Asia	Belgrade	4.3	1.1	14.9
Serbia	2019	MI CS	Eastern Europe & Central Asia	Southern and Eastern Serbia	10.6	4.9	21.4
Serbia	2019	MI CS	Eastern Europe & Central Asia	Sumadija and Western Serbia	0.0		
Serbia	2019	MI CS	Eastern Europe & Central Asia	Vojvodina	0.6	0.1	4.3
Sierra Leone	2019	DH S	West & Central Africa	East	6.9	4.6	10.4
Sierra Leone	2019	DH S	West & Central Africa	North	5.6	3.2	9.4
Sierra Leone	2019	DH S	West & Central Africa	North Western	6.2	3.8	10.0
Sierra Leone	2019	DH S	West & Central Africa	South	3.9	1.8	8.1
Sierra Leone	2019	DH S	West & Central Africa	West	4.3	2.0	8.9
South Africa	2016	DH S	Eastern & Southern Africa	Eastern Cape	5.0	1.8	13.2
South Africa	2016	DH S	Eastern & Southern Africa	Free State	2.2	0.3	14.7
South Africa	2016	DH S	Eastern & Southern Africa	Gauteng	12.1	5.8	23.5

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
South Africa	2016	DH S	Eastern & Southern Africa	Kwazulu-Natal	8.4	4.3	15.7
South Africa	2016	DH S	Eastern & Southern Africa	Limpopo	5.3	2.2	12.3
South Africa	2016	DH S	Eastern & Southern Africa	Mpumalanga	19.1	11.7	29.6
South Africa	2016	DH S	Eastern & Southern Africa	North West	0.8	0.1	6.5
South Africa	2016	DH S	Eastern & Southern Africa	Northern Cape	4.2	1.0	15.7
South Africa	2016	DH S	Eastern & Southern Africa	Western Cape	10.4	4.1	23.8
State of Palestine	2019	MI CS	Middle East & North Africa	Ariha & Al Aghwar	1.7	0.2	11.5
State of Palestine	2019	MI CS	Middle East & North Africa	Bethlehem	0.8	0.1	5.8
State of Palestine	2019	MI CS	Middle East & North Africa	Deir Al-Balah	0.0		
State of Palestine	2019	MI CS	Middle East & North Africa	Gaza	0.0		
State of Palestine	2019	MI CS	Middle East & North Africa	Hebron	3.4	1.6	6.9
State of Palestine	2019	MI CS	Middle East & North Africa	Jenin	11.4	6.3	19.8
State of Palestine	2019	MI CS	Middle East & North Africa	Jerusalem	34.1	25.3	44.2
State of Palestine	2019	MI CS	Middle East & North Africa	Khan Yunis	0.0		
State of Palestine	2019	MI CS	Middle East & North Africa	Nablus	5.1	1.5	16.4
State of Palestine	2019	MI CS	Middle East & North Africa	North Gaza	1.2	0.2	8.7
State of Palestine	2019	MI CS	Middle East & North Africa	Qalqiliya	4.7	1.1	17.7
State of Palestine	2019	MI CS	Middle East & North Africa	Rafah	0.0		
State of Palestine	2019	MI CS	Middle East & North Africa	Ramallah & Al-Bireh	3.0	0.9	9.0
State of Palestine	2019	MI CS	Middle East & North Africa	Salfit	4.0	0.6	22.9
State of Palestine	2019	MI CS	Middle East & North Africa	Tubas & Northen Valley	0.0		
State of Palestine	2019	MI CS	Middle East & North Africa	Tulkarm	1.0	0.1	6.5
Suriname	2018	MI CS	Latin America & Caribbean	Brokopondo	18.3	7.1	39.6
Suriname	2018	MI CS	Latin America & Caribbean	Commewijne	19.6	7.9	40.7
Suriname	2018	MI CS	Latin America & Caribbean	Coronie			

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Suriname	2018	MI CS	Latin America & Caribbean	Marowijne	33.4	18.2	53.1
Suriname	2018	MI CS	Latin America & Caribbean	Nickerie	8.0	3.3	18.0
Suriname	2018	MI CS	Latin America & Caribbean	Para	8.6	3.6	19.2
Suriname	2018	MI CS	Latin America & Caribbean	Paramaribo	22.7	15.8	31.6
Suriname	2018	MI CS	Latin America & Caribbean	Saramacca	9.4	2.3	31.4
Suriname	2018	MI CS	Latin America & Caribbean	Sipaliwini	33.4	18.1	53.1
Suriname	2018	MI CS	Latin America & Caribbean	Wanica	18.4	9.7	32.0
Tajikistan	2017	DH S	Eastern Europe & Central Asia	Drs	16.4	12.6	21.1
Tajikistan	2017	DH S	Eastern Europe & Central Asia	Dushanbe	11.1	6.8	17.7
Tajikistan	2017	DH S	Eastern Europe & Central Asia	Gbao	11.0	5.7	20.4
Tajikistan	2017	DH S	Eastern Europe & Central Asia	Khatlon	6.1	4.0	9.3
Tajikistan	2017	DH S	Eastern Europe & Central Asia	Sughd	1.5	0.6	3.6
Tanzania	2015	DH S	Eastern & Southern Africa	Arusha	2.6	0.5	13.2
Tanzania	2015	DH S	Eastern & Southern Africa	Dar Es Salaam	1.9	0.5	7.0
Tanzania	2015	DH S	Eastern & Southern Africa	Dodoma	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Geita	5.0	2.3	10.8
Tanzania	2015	DH S	Eastern & Southern Africa	Iringa	2.0	0.4	10.1
Tanzania	2015	DH S	Eastern & Southern Africa	Kagera	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Katavi	12.7	5.1	28.1
Tanzania	2015	DH S	Eastern & Southern Africa	Kigoma	4.3	1.2	14.2
Tanzania	2015	DH S	Eastern & Southern Africa	Kilimanjaro	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Lindi	1.9	0.2	13.6
Tanzania	2015	DH S	Eastern & Southern Africa	Manyara	2.9	0.5	15.3
Tanzania	2015	DH S	Eastern & Southern Africa	Mara	1.8	0.5	6.4
Tanzania	2015	DH S	Eastern & Southern Africa	Mbeya	0.0		

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Tanzania	2015	DH S	Eastern & Southern Africa	Mjini Magharibi	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Morogoro	4.1	1.0	15.1
Tanzania	2015	DH S	Eastern & Southern Africa	Mtwara	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Mwanza	2.9	0.4	17.7
Tanzania	2015	DH S	Eastern & Southern Africa	Njombe	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Pemba North	10.1	3.3	26.5
Tanzania	2015	DH S	Eastern & Southern Africa	Pemba South	4.3	1.4	12.2
Tanzania	2015	DH S	Eastern & Southern Africa	Pwani	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Rukwa	4.8	1.7	13.2
Tanzania	2015	DH S	Eastern & Southern Africa	Ruvuma	0.0		
Tanzania	2015	DH S	Eastern & Southern Africa	Shinyanga	9.1	3.6	21.2
Tanzania	2015	DH S	Eastern & Southern Africa	Simiyu	2.8	0.4	17.0
Tanzania	2015	DH S	Eastern & Southern Africa	Singida	2.8	0.4	17.4
Tanzania	2015	DH S	Eastern & Southern Africa	Tabora	8.2	4.3	15.1
Tanzania	2015	DH S	Eastern & Southern Africa	Tanga	1.5	0.2	10.4
Tanzania	2015	DH S	Eastern & Southern Africa	Zanzibar North	3.1	0.5	17.9
Tanzania	2015	DH S	Eastern & Southern Africa	Zanzibar South	0.0		
Thailand	2019	MI CS	East Asia & the Pacific	Bangkok	0.7	0.1	4.8
Thailand	2019	MI CS	East Asia & the Pacific	Central	7.1	2.6	17.5
Thailand	2019	MI CS	East Asia & the Pacific	North	2.4	1.1	5.1
Thailand	2019	MI CS	East Asia & the Pacific	North East	0.6	0.3	1.3
Thailand	2019	MI CS	East Asia & the Pacific	South	4.1	2.6	6.4
Timor Leste	2016	DH S	East Asia & the Pacific	Aileu	11.2	5.8	20.4
Timor Leste	2016	DH S	East Asia & the Pacific	Ainaro	30.8	21.8	41.4
Timor Leste	2016	DH S	East Asia & the Pacific	Baucau	12.5	7.0	21.3

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Timor Leste	2016	DH S	East Asia & the Pacific	Bobonaro	24.1	18.0	31.4
Timor Leste	2016	DH S	East Asia & the Pacific	Covalima	32.2	18.7	49.6
Timor Leste	2016	DH S	East Asia & the Pacific	Dili	11.1	6.7	17.8
Timor Leste	2016	DH S	East Asia & the Pacific	Ermera	41.4	29.7	54.1
Timor Leste	2016	DH S	East Asia & the Pacific	Lautem	24.8	16.3	35.8
Timor Leste	2016	DH S	East Asia & the Pacific	Liquiçá	23.0	15.0	33.6
Timor Leste	2016	DH S	East Asia & the Pacific	Manatuto	18.3	11.0	28.9
Timor Leste	2016	DH S	East Asia & the Pacific	Manufahi	30.6	18.1	46.9
Timor Leste	2016	DH S	East Asia & the Pacific	Oecussi	18.0	10.0	30.3
Timor Leste	2016	DH S	East Asia & the Pacific	Viqueque	25.9	18.1	35.6
Togo	2017	MI CS	West & Central Africa	Centrale	8.1	3.1	19.4
Togo	2017	MI CS	West & Central Africa	Golfe Urbain	8.3	2.4	25.5
Togo	2017	MI CS	West & Central Africa	Kara	11.0	6.6	17.9
Togo	2017	MI CS	West & Central Africa	Lomé Commune	7.2	3.6	14.1
Togo	2017	MI CS	West & Central Africa	Maritime	13.6	7.7	23.0
Togo	2017	MI CS	West & Central Africa	Plateaux	7.8	3.3	17.6
Togo	2017	MI CS	West & Central Africa	Savanes	7.9	4.9	12.4
Tonga	2019	MI CS	East Asia & the Pacific	'Eua	5.4	1.5	17.6
Tonga	2019	MI CS	East Asia & the Pacific	Ha'apai	1.7	0.2	12.1
Tonga	2019	MI CS	East Asia & the Pacific	Ongo Niua			
Tonga	2019	MI CS	East Asia & the Pacific	Tongatapu	4.3	1.4	12.8
Tonga	2019	MI CS	East Asia & the Pacific	Vava'u	1.8	0.2	11.9
Tunisia	2018	MI CS	Middle East & North Africa	Centre Est	2.8	1.0	7.7
Tunisia	2018	MI CS	Middle East & North Africa	Centre Ouest	4.0	1.1	13.2
Tunisia	2018	MI CS	Middle East & North Africa	District Tunis	8.0	4.1	15.2



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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Tunisia	2018	MI CS	Middle East & North Africa	Nord Est	5.6	2.0	14.7
Tunisia	2018	MI CS	Middle East & North Africa	Nord Ouest	1.2	0.2	8.7
Tunisia	2018	MI CS	Middle East & North Africa	Sud Est	4.9	1.9	11.9
Tunisia	2018	MI CS	Middle East & North Africa	Sud Ouest	5.8	2.2	14.4
Turkmenistan	2015	MI CS	Eastern Europe & Central Asia	Ahal Velayat	1.4	0.4	5.7
Turkmenistan	2015	MI CS	Eastern Europe & Central Asia	Ashgabat City	3.1	1.0	9.1
Turkmenistan	2015	MI CS	Eastern Europe & Central Asia	Balkan Velayat	0.0		
Turkmenistan	2015	MI CS	Eastern Europe & Central Asia	Dashoguz Velayat	0.0		
Turkmenistan	2015	MI CS	Eastern Europe & Central Asia	Lebap Velayat	0.7	0.1	4.6
Turkmenistan	2015	MI CS	Eastern Europe & Central Asia	Mary Velayat	0.0		
Tuvalu	2019	MI CS	East Asia & the Pacific	Funafuti	1.6	0.2	11.6
Tuvalu	2019	MI CS	East Asia & the Pacific	Nanumaga			
Tuvalu	2019	MI CS	East Asia & the Pacific	Nanumea			
Tuvalu	2019	MI CS	East Asia & the Pacific	Niutao			
Tuvalu	2019	MI CS	East Asia & the Pacific	Nui			
Tuvalu	2019	MI CS	East Asia & the Pacific	Nukufetau			
Tuvalu	2019	MI CS	East Asia & the Pacific	Vaitupu			
Uganda	2016	DH S	Eastern & Southern Africa	Acholi	1.3	0.3	5.0
Uganda	2016	DH S	Eastern & Southern Africa	Ankole	3.1	1.4	6.9
Uganda	2016	DH S	Eastern & Southern Africa	Bugisu	2.1	0.8	5.5
Uganda	2016	DH S	Eastern & Southern Africa	Bukedi	4.4	2.6	7.5
Uganda	2016	DH S	Eastern & Southern Africa	Bunyoro	5.6	3.1	10.1
Uganda	2016	DH S	Eastern & Southern Africa	Busoga	6.9	3.7	12.7
Uganda	2016	DH S	Eastern & Southern Africa	Kampala	5.2	2.8	9.7
Uganda	2016	DH S	Eastern & Southern Africa	Karamoja	1.5	0.5	4.5

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Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Uganda	2016	DH S	Eastern & Southern Africa	Kigezi	1.7	0.5	5.5
Uganda	2016	DH S	Eastern & Southern Africa	Lango	4.5	1.5	12.7
Uganda	2016	DH S	Eastern & Southern Africa	North Central	8.0	4.6	13.7
Uganda	2016	DH S	Eastern & Southern Africa	South Central	9.1	5.1	15.7
Uganda	2016	DH S	Eastern & Southern Africa	Teso	2.1	0.9	4.9
Uganda	2016	DH S	Eastern & Southern Africa	Tooro	6.3	3.7	10.7
Uganda	2016	DH S	Eastern & Southern Africa	West Nile	2.4	1.0	5.6
Vietnam	2020	MI CS	East Asia & the Pacific	Red River Delta	0.6	0.1	4.3
Vietnam	2020	MI CS	East Asia & the Pacific	Northern Midlands and Montains	7.3	4.0	12.9
Vietnam	2020	MI CS	East Asia & the Pacific	North Central and Central Coastal	6.5	2.8	14.5
Vietnam	2020	MI CS	East Asia & the Pacific	Central Highlands	7.8	4.3	13.8
Vietnam	2020	MI CS	East Asia & the Pacific	South East	4.3	1.7	10.7
Vietnam	2020	MI CS	East Asia & the Pacific	Mekong River Delta	6.3	2.1	17.6
Zambia	2018	DH S	Eastern & Southern Africa	Central	0.7	0.2	2.7
Zambia	2018	DH S	Eastern & Southern Africa	Copperbelt	1.8	0.4	7.0
Zambia	2018	DH S	Eastern & Southern Africa	East	1.5	0.6	3.9
Zambia	2018	DH S	Eastern & Southern Africa	Luapula	1.5	0.6	3.8
Zambia	2018	DH S	Eastern & Southern Africa	Lusaka	1.8	0.6	5.1
Zambia	2018	DH S	Eastern & Southern Africa	Muchinga	4.8	1.3	15.9
Zambia	2018	DH S	Eastern & Southern Africa	North Western	1.9	0.4	8.3
Zambia	2018	DH S	Eastern & Southern Africa	Northern	3.8	1.2	11.9
Zambia	2018	DH S	Eastern & Southern Africa	South	1.1	0.3	4.2
Zambia	2018	DH S	Eastern & Southern Africa	West	4.9	2.6	9.1
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Bulawayo	4.8	1.8	12.0
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Harare	1.3	0.3	5.3

Country	Year	Source	UNICEF Region	Subnational areas	Zero-DPT prevalence	95% Confidence interval	
						lower limit	upper limit
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Manicaland	13.9	8.9	21.0
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Mashonaland Central	2.6	0.8	7.8
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Mashonaland East	4.1	1.1	13.6
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Mashonaland West	8.4	3.3	19.4
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Masvingo	6.1	2.8	12.9
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Matabeleland North	0.0		
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Matabeleland South	1.1	0.2	7.9
Zimbabwe	2019	MI CS	Eastern & Southern Africa	Midlands	2.4	0.7	7.2

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