Country urbanization profiles:
A review of national health or immunization policies and immunization strategies

June 2017

Discussion Paper

UNICEF Health Section, Program Division

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June 2017

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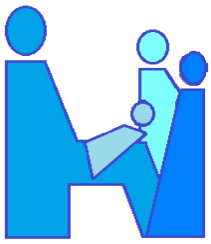

UNICEF HEALTH SECTION, IMMUNIZATION TEAM

DISCUSSION PAPER

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Country Urbanization Profiles:

A review of national health or immunization policies and immunization strategies

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Keywords: (urban, crowd, dens*, slum[s], hard-to-reach, migra*, and informal settlement[s])

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List of Abbreviations

CMYP	Comprehensive Multi-year Plan
DTP	Diphtheria Tetanus Pertussis
EPI	Expanded Programme on Immunization
Gavi	Global Alliance for Vaccines and Immunization
GDP	Gross Domestic Product
GVAP	Global Vaccine Action Plan
IDP	Internally Displaced Person
PEF	Performance Engagement Framework
NHP	National Health Policy
UN	United Nations
UNICEF	United Nations Children's Fund
WB	World Bank
WHO	World Health Organization

Executive Summary

Over half of the global population resides in urban areas, and the population of urban poor in slum environments is growing rapidly—especially in Africa and Asia. These communities face unique challenges due to surrounding environment and socioeconomic characteristics, and might not be prioritized during national priority setting processes and delivery of social services, further increasing their vulnerability. The urban poor in slums face a wide range of deprivations: exclusion from vaccinations and other basic social services, yet their population is growing as a consequence of poorly controlled urbanization. With low vaccination coverage in urban poor communities and mobile populations, the population of susceptible will increase in these 'hidden' urban communities, predisposing these populations to vaccine-preventable diseases and outbreaks; the control of these outbreaks is challenging and resource intensive.

We explored whether countries acknowledged current urbanization trends and the extent to which governments and partners prioritized the needs of urban poor communities by reviewing national health policies, immunization policies, and comprehensive multi-year plans from ten priority Gavi tier 1 countries searching for themes related to urbanization, the urban poor, and communities in slums. The ten countries are prioritized by Gavi based on high number of under-immunized children.

This study employs desk review of health policies and immunization strategies from ten priority countries. We solicited existing health policies and immunization strategy documents from UNICEF country offices, and reviewed these documents for whether countries have prioritized urban poor populations, including populations in slums, for health or immunization services or not. We reviewed world urbanization prospects document for trends in urbanization for each country. We assigned four categories to indicate level of priority given to urbanization trend and growing population of urban poor in slums in these documents: 1) not mentioned; 2) mentioned but not key priority; 3) urban poor listed as key priority/challenge but no detailed description; and 4) listed as key priority and described in detail.

Health policies and plans reflect the aspirations and priorities of national governments and stakeholders. We found that while four of the selected countries highlight the challenges of accelerating urbanization and the difficulties in meeting the health needs of urban poor populations in their policies and plans, the majority do not prioritize, recognize, or develop strategies to address the needs of the greater than 250 million slum-dwelling individuals in these countries.

Urban poor communities are ‘socially hidden’ and hard-to-reach, requiring commitment and specific strategies and interventions to attain good health. Urban poor communities should be prioritized during national and subnational planning, implementation, and monitoring of immunization services. This prioritization process is a critical step towards improving and sustaining vaccination coverage in urban poor communities so that the risks of vaccine-preventable diseases and outbreaks in urban areas can be mitigated. Governments and partners should ensure that every child, everywhere enjoys the benefits of vaccines to survive, thrive and grow.

BACKGROUND

Over half (54%) of the global population currently resides in urban areas, which is nearly double the proportion (30%) in 1950; however, the absolute number of those living in urban areas has actually increased more than 500-folds, from an estimated 7.5 million in 1950 to more than 3.9 billion people in 2016.[1] This upward trend of urbanization is expected to continue, driven by increases in urban populations across Africa and Asia.*ibid* As a result of uncontrolled urbanization, slums have emerged as common informal urban habitats—dense populations living in substandard housing and squalor.[2] In Africa and Asia this is inevitable as conflicts, disasters, famine will drive more people towards the cities.[3] These communities face unique challenges due to their geospatial and social characteristics as well as neighbourhood effects.[4–7] For instance, though child mortality rates in rural areas is higher than in urban areas,[8] rates in slums are higher than either the rural average or urban-rich rates in many countries.[4]

Childhood vaccination coverage in the poorest urban areas is typically lower than coverage in the richest urban areas (**Figure 1**),[8,9] exposing children in slum environments unnecessarily to preventable diseases, disabilities, and deaths. Additionally, the gap in immunity and prevailing environmental conditions in slums provides favourable conditions for intense disease transmission and outbreaks, including vaccine preventable diseases. Public health interventions to prevent disease occurrence in slum environments, such as vaccinations, should therefore take precedence for children to survive, thrive and grow. Vaccination is one of the safest and cost-effective public health interventions to prevent disease, disability, and death from conditions such as poliomyelitis, measles, pneumonia, pertussis, diphtheria, rubella etc.[10-12] Given rapid urbanization trends, which are associated with increasing populations of persons living in slum environments—who disproportionately miss the benefits of vaccinations, it is imperative that national policies, strategies, and plans recognize urbanization trends and prioritize the needs of urban poor populations, particularly those in slum environments.

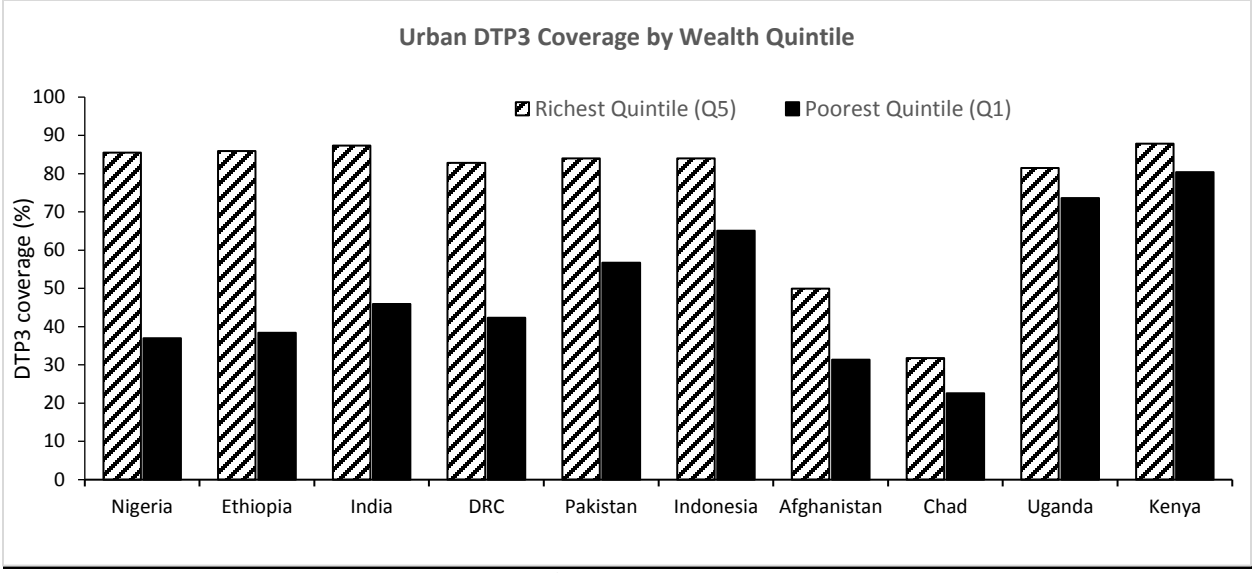


Figure 1: ***Urban DTP coverage by wealth quintile*** [13]

We examined national urbanization trends and reviewed national health policies, immunization policies, and immunization plans of ten Gavi priority countries, those with largest number of under-immunized children, to assess whether policies or strategies acknowledge the current rapid trend of urbanization and its challenges, and prioritize the needs of urban poor communities.

Table 1: Country Demographics

For the most part, the countries included in this analysis with the largest absolute number of slum-dwellers are located in Asia while countries with the largest proportion of urbanites who live in slums are located in Africa.

	Total Population (*1,000)[1]	**Total Urban Population (*1000)[1]**	**Percent of Overall Population in Urban Areas**	**Total Urban Slum Population (*1,000)[1]**	Percent of Urban Population in Slum Areas
India	1,267,402	410,204	32.4%	98,449	24.0%
Nigeria	178,517	83,799	46.9%	42,067	50.2%
Pakistan	185,133	70,912	38.3%	32,265	45.5%
Indonesia	252,812	133,999	53.0%	29,212	21.8%
DR Congo	69,360	29,115	42.0%	21,778	74.8%
Ethiopia	96,506	18,363	19.0%	13,570	73.9%
Kenya	45,546	11,476	25.2%	6,427	56.0%
Afghanistan	31,281	8,221	26.3%	5,155	62.7%
Uganda	38,845	6,124	15.8%	3,283	53.6%
Chad	13,211	2,951	22.3%	2,603	88.2%

Source: *World Urbanization Prospects: The 2014 Revision*. (United Nations, Department of Economic and Social Affairs, Population Division, 2014).

METHODS

We reviewed national health policies, immunization policies, and comprehensive multi-year plans (cMYP) from ten priority countries for themes related to urbanization, the urban poor, and communities in slum environments (**Table 2**). The ten countries, part of the 20 global vaccine alliance high priority countries, were selected based on high number of under-immunized children and high inequities or presence of conflict. We requested UNICEF country and regional offices to send current or available policy and cMYP documents, and if unavailable, we searched online databases.

We analysed policy and plan documents in three steps:
First, documents were scanned via an automated word search for the following terms: urban, crowd, dens*, slum(s), hard-to-reach, migra*, and informal settlement(s). Non-English documents were searched for key terms in the appropriate language. In addition to an automated word search, we manually examined all health visions, mission statements, priority areas of work, and sections listing key challenges. We noted segments containing key terms by noting the exact quote, the section in which it was located, and relevant sentences from nearby texts.

Second, we assigned documents to one of four categories: (1) urbanization or slum-dwelling populations were not mentioned; (2) urbanization or slum-dwelling populations mentioned but not included as a key challenge, priority, in the mission, or vision; (3) urbanization or slum-dwelling populations included as part of the mission or vision or listed as a key challenge or priority; or (4) urbanization or slum-dwelling populations listed as a key priority or challenge AND described in detail.

Third, if a document mentioned urbanization or slum-dwelling populations, it was assessed for the presence of any urban- or slum-specific interventions aimed at increasing vaccination coverage.

Table 2: Key Terms

Documents analysed:
(1) National Health Policies and
(2) National immunization policies — defined as documents that describe a directive in health or immunization that has been endorsed by government or a government agency.
(3) Comprehensive multiyear plans (cMYP) for immunization programmes are a written set of instructions agreed upon by national immunization stakeholders that guide delivery of national immunization programmes.

Urbanization is the process of people transitioning from dispersed rural settlements to high-density environments, typically motivated by industrial and service-based economic activity.[2]

Slums, distinct spatial entities within an urban area, are considered to be "contiguous settlement where the inhabitants are characterised as having inadequate housing or basic social services." [14] In an operational sense, the UN-Habitat defines a slum household as, "a group of individuals that live under the same roof that lack one or more of the following conditions: access to improved water, access to improved sanitation, sufficient living space, durability of house, and secure land tenure." [2]

Immunization coverage is the proportion of the eligible population that has received particular vaccines.

An **equity-based approach** to programme delivery can be measured by the level of programme activity target at removing avoidable differences, typically affecting the most disadvantaged communities.

Universal immunization coverage is when *all* children in a country access and utilize immunization services.

COUNTRY URBANIZATION PROFILES

Nigeria
DR Congo
Uganda
Kenya
Pakistan
Afganistán
Indonesia
India
Chad
Ethiopia

Nigeria

Urbanization Context

Of Nigeria's 178.5 million people in 2014,[1] over 46.9% (or 83.8 million) live in urban areas. Of this urban population, 50.2% (or 42.1 million) live in slums.[2] Of the birth cohort in 2015, almost half resided in urban areas. One in four infants in urban areas resided in slum environments in 2015. Compared with 2015, land occupied by urban settlements, conservatively assuming a constant urban population density, is expected to triple by 2030.[15] These trends of rapidly changing demography are driven by declining urban mortality, high fertility rates, and the reclassification of previously rural areas as urban due to increasingly dense populations. Nigeria has grown through the expansion of cities into informal settlements urban peripheries as well as housing densification (e.g. multiple houses replacing the site of a single home) in city centres.

The World Bank (WB) points to a lack of jobs in urban areas and an inability to reduce poverty as key barriers to a productive urban future in Nigeria.[16] While the former is attributed to "low productivity in labour-intensive markets, lack of economies of scale, a poor business environment, and market fragmentation," the latter is caused by Nigeria's lack of institutions for land planning, inability to provide basic services, and ineffective interventions for the poor. If these issues are left unaddressed, the WB warns that Nigeria will lose its opportunity to cultivate its cities into the economic hubs that they have the potential to become.

Nigeria National Health Policy

Nigeria's national health policy (NHP)[17] does not specifically call out rapid urbanization or its associated rising population of slum-dwelling communities as a challenge. The NHP states that planning for health services delivery shall include ensuring the equitable distribution of human resources for health care between urban and rural areas. Additionally, the health policy indicators underscore the need for health resources, financial, manpower, physical facilities to reflect the degree of equity by geography and urban/rural ratios.

The NHP never mentions the term slum, however it does include overcrowding as an indicator to be tracked as a principal source of health data.

Immunization Policy

No immunization policy was available at time of this analysis.

Immunization Comprehensive Multi-Year Plan (cMYP)

Nigeria's cMYP[18] includes the concept of "urban" in its situational analysis, where the overall and female childbearing populations are disaggregated by area (rural and urban). The specific objective of the cMYP includes reducing the percent gap between the highest and lowest socio-economic quintiles in urban areas from 70% in 2013 to 30% in 2020. Several activities were listed to achieve the preceding objective, involving increasing the frequency of routine immunization sessions in urban facilities. Although the cMYP calls for development of new approaches for community engagement in urban and peri-urban areas, the plan makes no mention and outlines no specific plans to deliver immunization services in slum-dwelling populations.

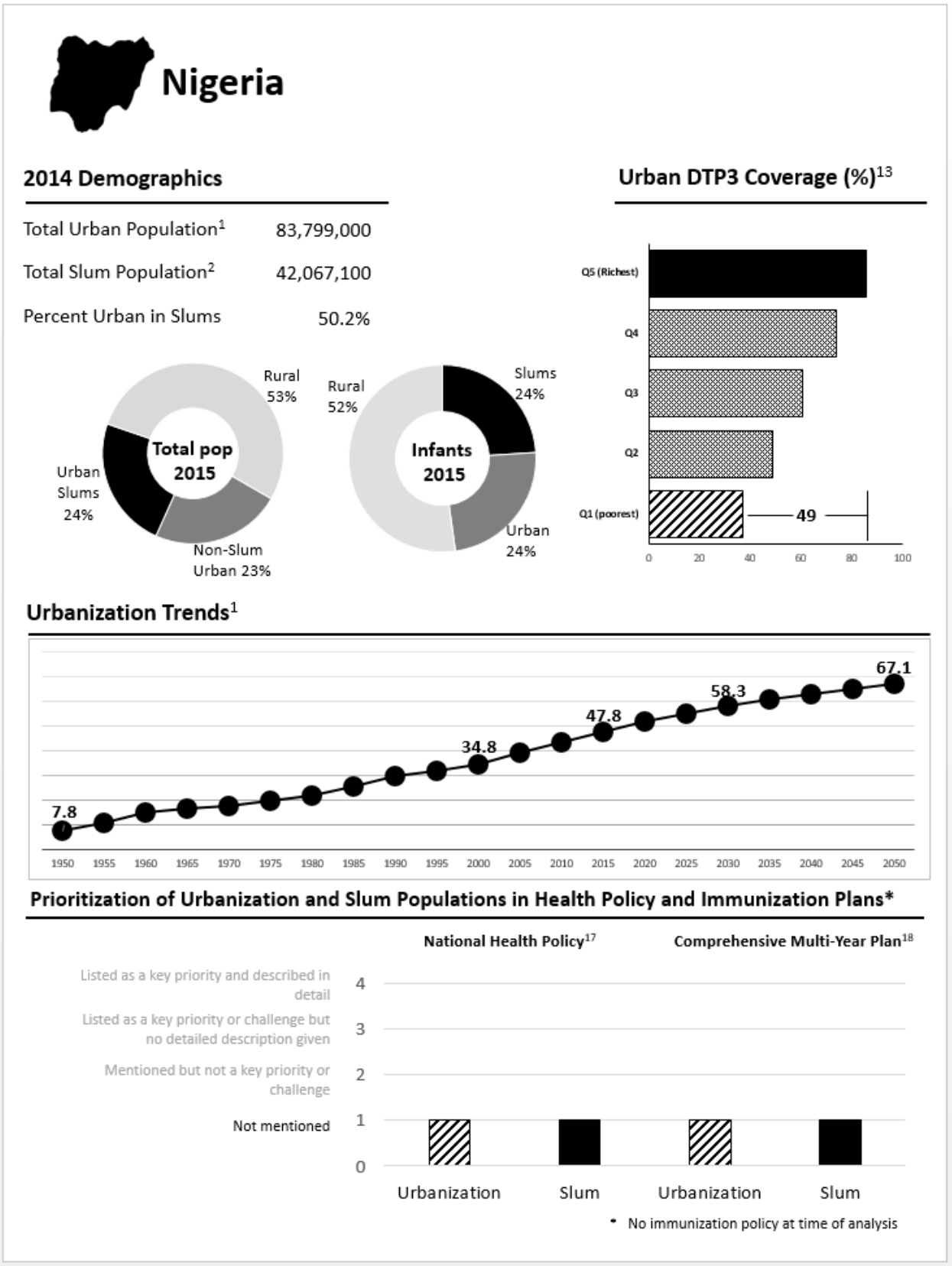

Nigeria
2014 Demographics
Total Urban Population[1] 83,799,000
Total Slum Population[2] 42,067,100
Percent Urban in Slums 50.2%
Rural 53%
Total pop 2015
Urban Slums 24%
Non-Slum Urban 23%
Rural 52%
Slums 24%
Infants 2015
Urban 24%
Urban DTP3 Coverage (%)[13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
49
0
20
40
60
80
100
Urbanization Trends[1]
7.8
34.8
47.8
58.3
67.1
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
2035
2040
2045
2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy[17]
Comprehensive Multi-Year Plan[18]
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
4
3
2
1
0
Urbanization
Slum
Urbanization
Slum
* No immunization policy at time of analysis

Figure 2

DR. Congo

Urbanization Context

Nearly 42% (29 million) of the Democratic Republic of Congo's 77 million inhabitants reside in urban areas.[1] Of this urban population, 74.8% or 21.7 million, reside in slums.[2] Literature about urbanization in the DR Congo is nearly non-existent, but a few articles provide insight on the city of Kinshasa and its 11.6 million inhabitants.[19]

Urbanization and the growth of informal settlements in Kinshasa are driven by migration as a result of conflict[20] and the economic demand for cheap labour from rural areas.[21] Until 2010, Kinshasa's growth was chaotic and generally unplanned. Over time, however, certain social and economic aspects of city-dweller's rural roots re-emerged. Parts of Kinshasa's urban wastelands and occupied spaces, such as cemeteries and the Malebo Pool, have been reclaimed as farmland and fields. In other parts of the city, mega-gullies have appeared due to overwhelming drainage from housing and street construction.[22] The urban poor have developed large-scale, inventive informal markets, with 45% of Kinshasa's residents depending on solid waste as a "source of livelihood and income generation." [23]

National Health Policy

No health policy was available at the time of analysis

Immunization Policy

No immunization policy was available at time of this analysis.

Immunization Comprehensive Multi-Year Plan (cMYP) 2015-2019

DRC's immunization cMYP[24] does not list low access and uptake of vaccines in urban areas or slums as a challenge. The cMYP only uses the word "urbaines" once, to describe where a majority of its fixed posts are located, without detailing who is targeted with these outreaches and how outreaches are conducted.

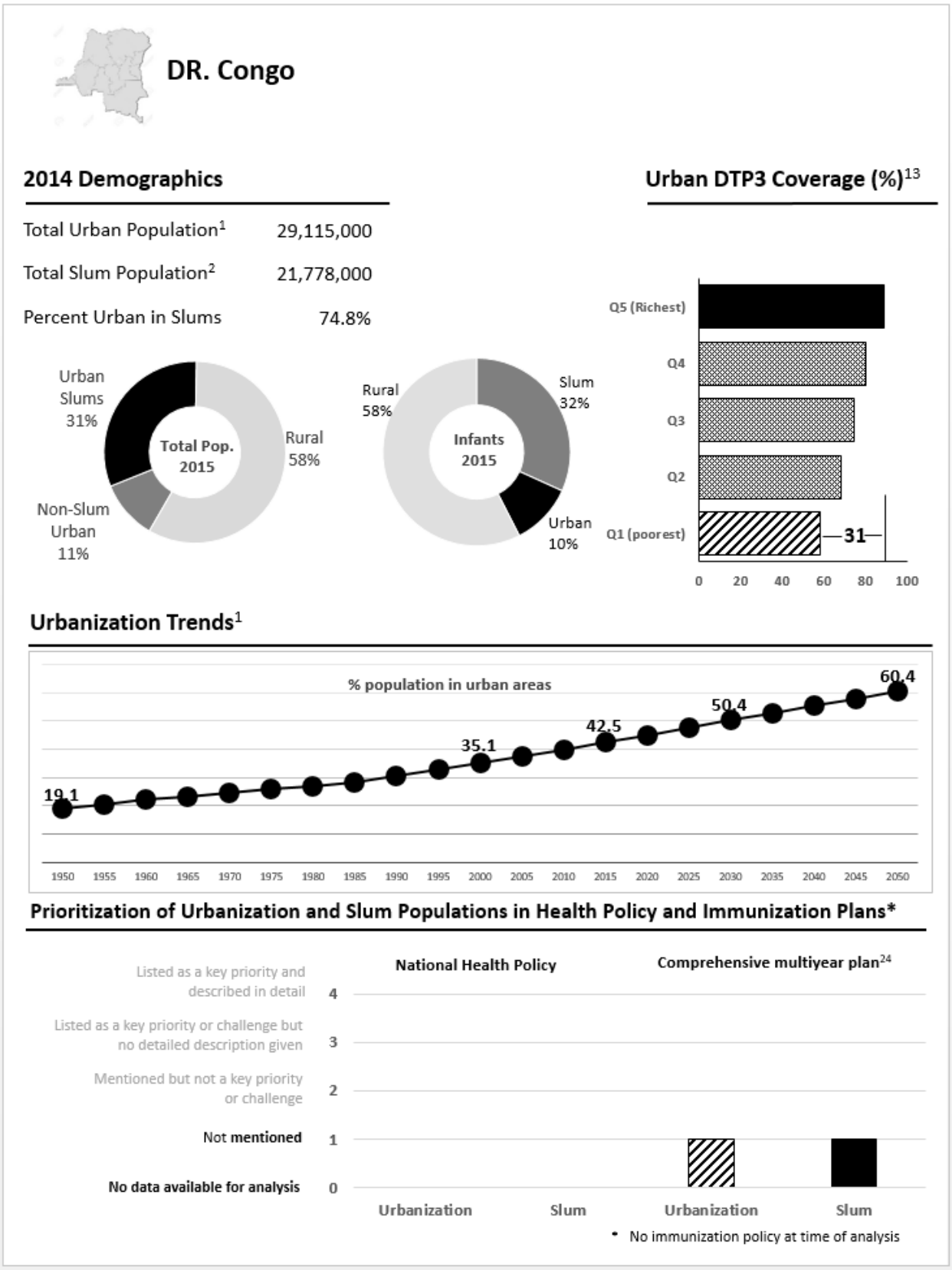

DR. Congo
2014 Demographics
Total Urban Population[1] 29,115,000
Total Slum Population[2] 21,778,000
Percent Urban in Slums 74.8%
Urban Slums 31%
Non-Slum Urban 11%
Rural 58%
Total Pop. 2015
Rural 58%
Slum 32%
Urban 10%
Infants 2015
Urban DTP3 Coverage (%)[13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
31
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
19.1
35.1
42.5
50.4
60.4
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy
Comprehensive multiyear plan[24]
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
No data available for analysis
4
3
2
1
0
Urbanization
Slum
Urbanization
Slum
* No immunization policy at time of analysis

Figure 3

Uganda

Urbanization Context

Of Uganda's 38.8 million people in 2014,[1] an estimated 15.8% (or 6.1 million) live in urban areas. Of this urban population, 53.6% (or 3.3 million) live in slums.[2] The scope of urbanization in Uganda remains low in comparison to neighbouring countries, but the rate of urbanization recently increased from 4.5% to 6.8% between 1991 and 2002.[25] While subsistence agriculture engages the majority of Uganda's labourers, the urban population is increasing faster than those in rural areas. High fertility rates and decreasing mortality rates, rather than migration from rural to urban areas, have been major driving factors for urban growth.

National Health Policy (July 2010)

The Ugandan national health policy[26] makes no mention of urbanization or slums in its situational analysis, vision, mission, goals, guiding principles, or priority areas. The NHP targets delivery of health services to poor communities in underserved areas.

Immunization Act (2016)

Although the government of Uganda passed into law the 2016 immunization Act,[27] there is no mention of priority communities, urban communities, or urban poor communities in the Act despite existing disparities between urban richest and poorest.

Immunization Comprehensive Multi-Year Plan (cMYP) 2016-2020

Uganda's cMYP[28] includes the term "urban" in its situation analysis, where it describes the lack of urban specific micro-plans as a weakness within immunization service delivery. Secondly, the cMYP includes the GVAP checklist, which includes development of new approaches to community engagement for urban and peri-urban areas.

Urbanization and concomitant development of slums are not mentioned as challenges to inform the goals, objectives and strategies of the cMYP.

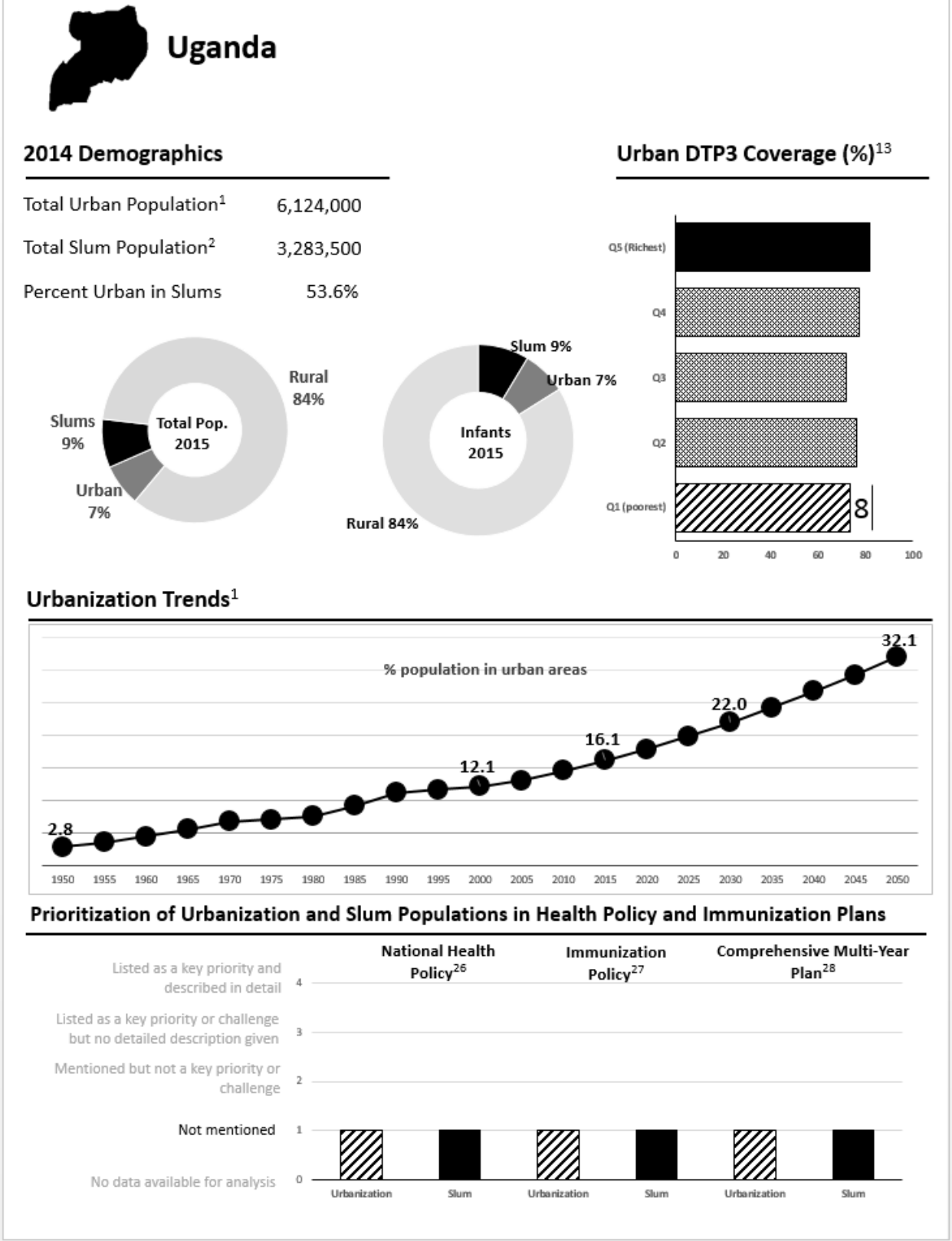

Uganda
2014 Demographics
Total Urban Population[1] 6,124,000
Total Slum Population[2] 3,283,500
Percent Urban in Slums 53.6%
Slums 9%
Total Pop. 2015
Rural 84%
Urban 7%
Slum 9%
Urban 7%
Infants 2015
Rural 84%
Urban DTP3 Coverage (%)[13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
8
0
20
40
60
80
100
Urbanization Trends[1]
% population in urban areas
2.8
12.1
16.1
22.0
32.1
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
2035
2040
2045
2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans
National Health Policy[26]
Immunization Policy[27]
Comprehensive Multi-Year Plan[28]
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
No data available for analysis
4
3
2
1
0
Urbanization
Slum
Urbanization
Slum
Urbanization
Slum

Figure 4

Kenya

Urbanization Context

Of Kenya's 45.5 million people in 2014,[1] an estimated 25.2% (or 11.4 million) live in urban areas. Of this urban population, 56.0% (or 6.4 million) live in slums.[2] Early in its stage of urbanization, Kenya still has opportunity to leverage urbanization for its economic growth.[29] The World Bank posits that urbanization in Kenya has been driven by increasingly productive agricultural practices, leading to the need for fewer labourers and hence increasing unemployment in rural areas. Kenya's government owns few empty, urban plots, and as a result, there are few efforts for regulated land development. The majority of Kenya's urban poor population reside in informal settlements and, as in many other Africa cities, lack access to basic services such as piped water, sanitation, and electricity.

National Health Policy (2014-2030)

The Kenyan National Health Policy[30] acknowledges the risk of rapid urbanization as a social determinant of health in its situation analysis section. As part of its devolved system of government, Kenya sets out ten objectives, one of which is to protect and promote the health interests and rights of minorities and marginalized communities, including populations in informal settlements such as slums and other under-served populations.

Immunization Policy

No immunization policy was available at time of this analysis

Immunization Comprehensive Multi-Year Plan (cMYP) 2011-2015

The Kenyan immunization cMYP[31] does not specifically call out urbanization or slums although it does include a section where it states that the cMYP is guided by the goals set out by its National Health Policy.

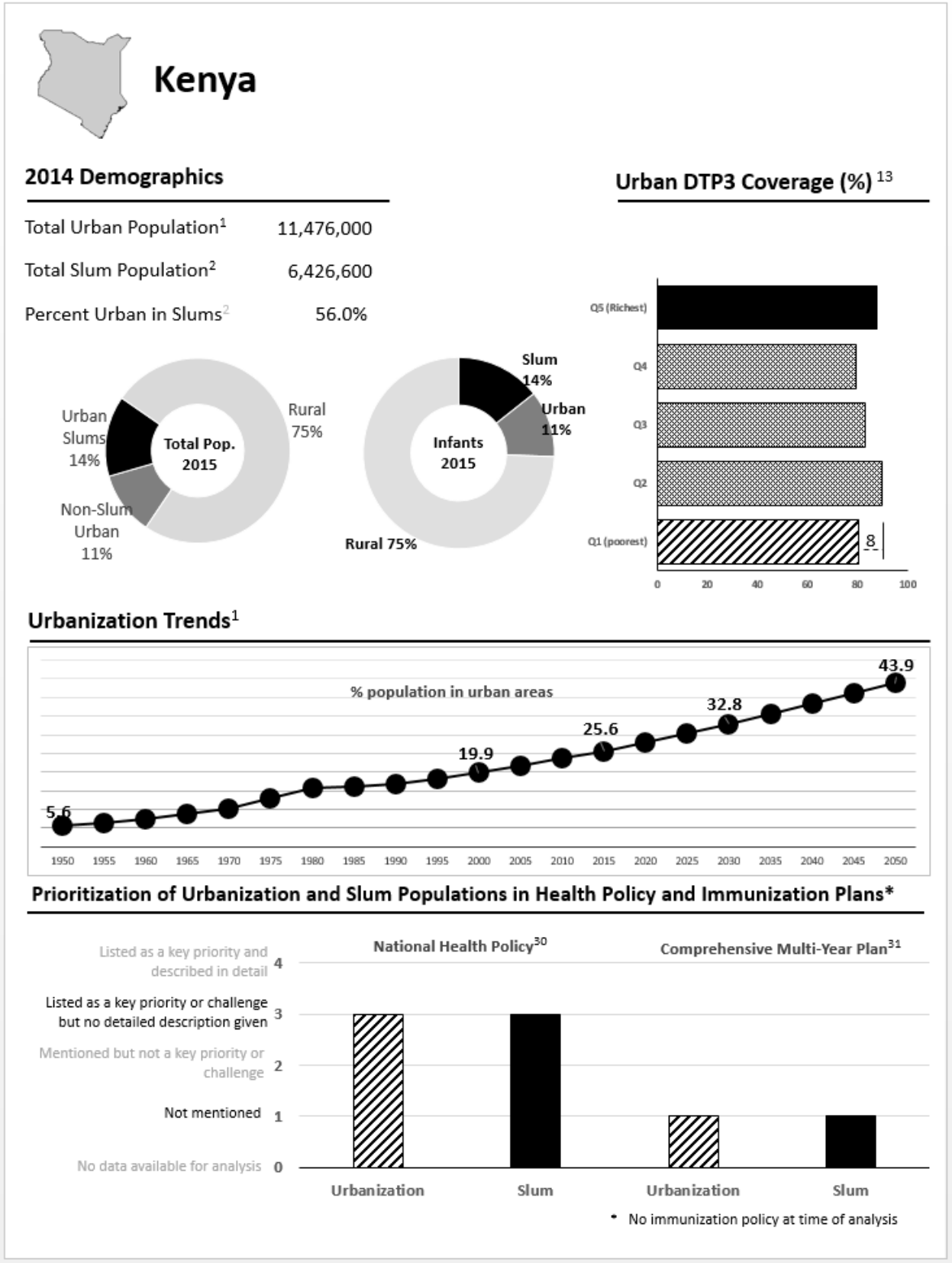

Kenya
2014 Demographics
Total Urban Population[1] 11,476,000
Total Slum Population[2] 6,426,600
Percent Urban in Slums[2] 56.0%
Urban Slums 14%
Non-Slum Urban 11%
Rural 75%
Total Pop. 2015
Slum 14%
Urban 11%
Rural 75%
Infants 2015
Urban DTP3 Coverage (%) [13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
8
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
5.6
19.9
25.6
32.8
43.9
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy[30]
Comprehensive Multi-Year Plan[31]
Listed as a key priority and described in detail 4
Listed as a key priority or challenge but no detailed description given 3
Mentioned but not a key priority or challenge 2
Not mentioned 1
No data available for analysis 0
Urbanization
Slum
Urbanization
Slum
* No immunization policy at time of analysis

Figure 5

Pakistan

Urbanization Context

Pakistan's last official national census was conducted in 1998 and per the United Nations, 38.3% (70.9 million) of Pakistan's 185 million inhabitants reside in urban areas;[1] Of the urban population, 46.6%, or 32 million people, reside in slums.[2] Pakistan's official estimate of the national population living in urban areas, however, is an underestimate as compared to the 56% estimate based on an Agglomeration Index, which is determined by three factors: population density, population of the "large" urban centre, and travel time to that urban centre.[32] More than half (56.4%) of infants in 2015 were urban residents, and of those in urban areas, 1 in 3 infants live in slum environments. Urbanization in Pakistan has been driven both by its high fertility rates as well as economic and conflict-induced migration, and unchecked by policies or city zoning, urban development has sprawled and competed with productive agricultural lands.[33] This government supported urban development is primarily aimed at building roads and housing for the privileged; as a result, affordable housing and communal space are in short supply. The Pakistani government estimates that >13% of urban dwellers live below the poverty line. *ibido*

National Health Policy (2014-2018)

Pakistan's 2009 National Health Policy[34] advocates for the delivery of basic package of quality Essential Health Care Services, but does not outright promise universal health coverage. Additionally, the health policy states that essential health services will be available "for all" by optimizing available funds, improving health manpower, gathering and using reliable health information to guide program effectiveness and design, and strategically employing emerging technology.

The National Health Policy, which is guided by the Pakistan Poverty Reduction Strategy Paper (PRSP) from the Finance Division, mentions urbanization (as a determinant of health, alongside food insecurity, social exclusion, natural disasters, etc.) only once with no further details.[35] In the PRSP, Pakistan's rapid urbanization and the proliferation of slums, also known as *katchi abadis*, are acknowledged as key challenges to the delivery of basic services. The PRSP states that Pakistan's policy is to improve the lives of slum dwellers and to legalize and improve the slums ("regularizing" the slums). The government's strategic policy document also recognizes the growth of low-income settlements outside officially recognized *katchi abadis* and the need to target all low-income areas, which remain underserved, with services. Immunization is listed as an "essential service" under the policy document's strategic priorities. The PRSP outlines the government's commitment to beef up the national cold chain network and district

immunization programme and increase coverage by focusing on low performing areas, but no explicit definition of “low performing” areas is provided.

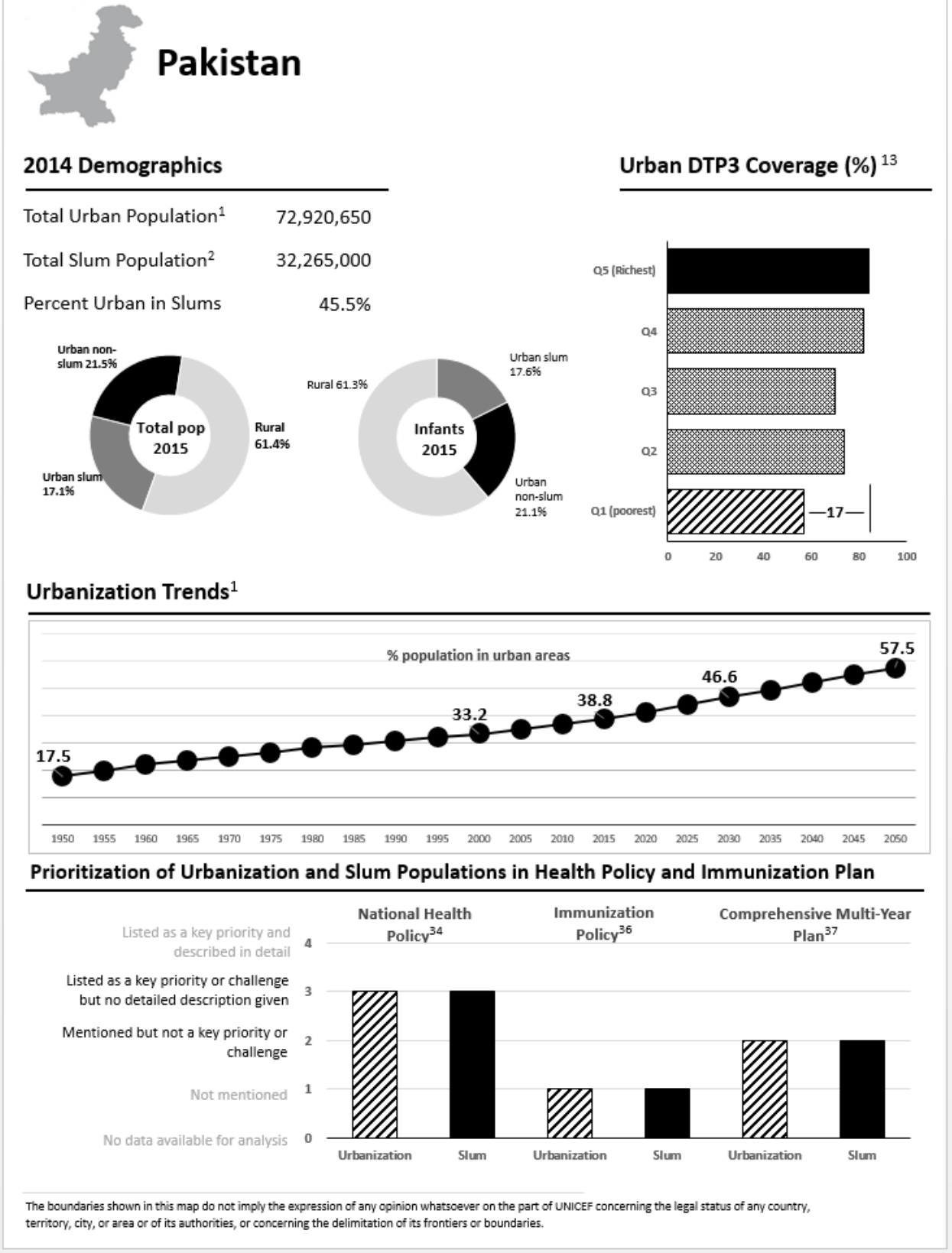
Immunization Policy (2015)

The national EPI policy[36] states that in the allocation of skilled workers for immunization, the ratio will be 1 worker to 5,000 population in rural areas while in urban locations the ratio will be 1 worker to 10,000 population. The policy does not mention urbanization as a challenge or the urban poor or slum communities as priority populations.

Immunization Comprehensive Multi-Year Plan (cMYP) 2015-2018

The immunization cMYP for Pakistan (2015-2018)[37] lists the need to improve immunization coverage in urban areas in the programme objectives, strategies, and main activities.

The cMYP mentions urban areas and slums several times in various sections. Under the immunization services delivery section; the plan states that geographical access to immunization should be increased by ensuring that there is 10,000 population per skilled immunization staff in urban areas. The plan also acknowledges inadequate immunization fixed sites in slums particularly in mega cities. Additionally, the plan discusses rural-urban inequalities with respect to education, the distribution of health workers, and access to healthcare. The need to address immunization challenges in urban areas is outlined in the analyses of strengths, weaknesses, opportunities and threats by province. Punjab province was cited as having fewer vaccination fixed sites in slums particularly in the mega cities. The immunization cMYP states the need to expand immunization demand generation activities to include urban slum populations and develop new approaches for community engagement in urban and peri-urban areas.


Pakistan
2014 Demographics
Total Urban Population[1] 72,920,650
Total Slum Population[2] 32,265,000
Percent Urban in Slums 45.5%
Urban non-slum 21.5%
Total pop 2015
Rural 61.4%
Urban slum 17.1%
Rural 61.3%
Infants 2015
Urban slum 17.6%
Urban non-slum 21.1%
Urban DTP3 Coverage (%)[13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
17
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
17.5
33.2
38.8
46.6
57.5
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plan
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
No data available for analysis
National Health Policy[34]
Immunization Policy[36]
Comprehensive Multi-Year Plan[37]
4
3
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Urbanization
Slum
Urbanization
Slum
Urbanization
Slum
The boundaries shown in this map do not imply the expression of any opinion whatsoever on the part of UNICEF concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Figure 6

Afghanistan

Urbanization Context

Afghanistan's last official national census was in 1979, which impairs accurate estimations of its urban and slum-dwelling populations. Based on data from the United Nations, it is estimated that 26.3%, or 8.2 million, of Afghanistan's 31 million inhabitants reside in urban areas.[1] Of these urban population, 62% (5.2 million people) reside in slums.[2] Afghanistan's urbanization is driven by natural increases, i.e. larger number of births than deaths in urban areas, and forced migration due to the protracted conflict as opposed to voluntary migration from rural areas.[38]

Internally displaced persons (IDPs) are at a particular disadvantage in urban areas; for instance, only 30% of IDPs have electricity as compared with 82% of the urban poor.[39,40] Forced migration, and hence internal displacement of populations, is mainly the result of Afghanistan's long history of conflict. In 2015, the country was home to 948,000 IDPs, more than half of whom resided in urban areas.[40,41]

The proportion of Afghanistan's population residing in urban areas is expected to nearly double by 2050, and an analysis of night-time lights shows that Afghanistan's urban areas are growing faster than any other country in South Asia with an annual growth of nearly 14% between 1999-2000.[1,3] To meet the needs of the expanding population, lands for urban development must increase more than 350% between 2010 and 2050.

National Health Policy (2005-2009)

Afghanistan's National Health Policy, 2005-2009,[42] and the accompanying National EPI Policy[43] underscore accelerating urbanization and growing urban areas as areas to access to essential health services but maintain more focus on rural areas. In fact, the national policy explicitly guides the Ministry of Public Health to invest resources on strategies and interventions designed for rural populations when describing its core values as promoting the "right to a healthy life; greater equity; concern for women, children and other socially disadvantaged groups; and the need to address the problem of poverty by being pro-rural." To achieve a pro-rural focus, the policy states under Principle 3 of its Working Principles that the Ministry of Public Health will further promote equity in the distribution of resources and health services between provinces, between primary and secondary care providers, and between rural and urban areas. Neither the health policy nor EPI policy make any reference to the immunization needs of the urban poor or slum-dwelling populations.

Immunization Policy

The National Immunization Policy of Afghanistan[43] does not mention the process of urbanization or its slum-dwelling population.

Immunization Comprehensive Multi-Year Plan (cMYP) 2011-2015

Afghanistan's immunization cMYP for 2011-2015[44] envisions extending services to “hard-to-reach” communities, but does not explicitly define which populations are "hard-to-reach." In the cMYP, rural populations are classified as "under-served.” Delivery of immunization services in rural populations or underserved populations is challenged by following factors: dispersed population, geographical barriers, and lack of transportation infrastructure, insecurity. There is no mention of prevailing urbanization trend, the urban poor or slum-dwellers in the cMYP. This finding aligns with the NHP, which affirms that Afghanistan’s policies and immunization plans do not address its steadily urbanizing population.

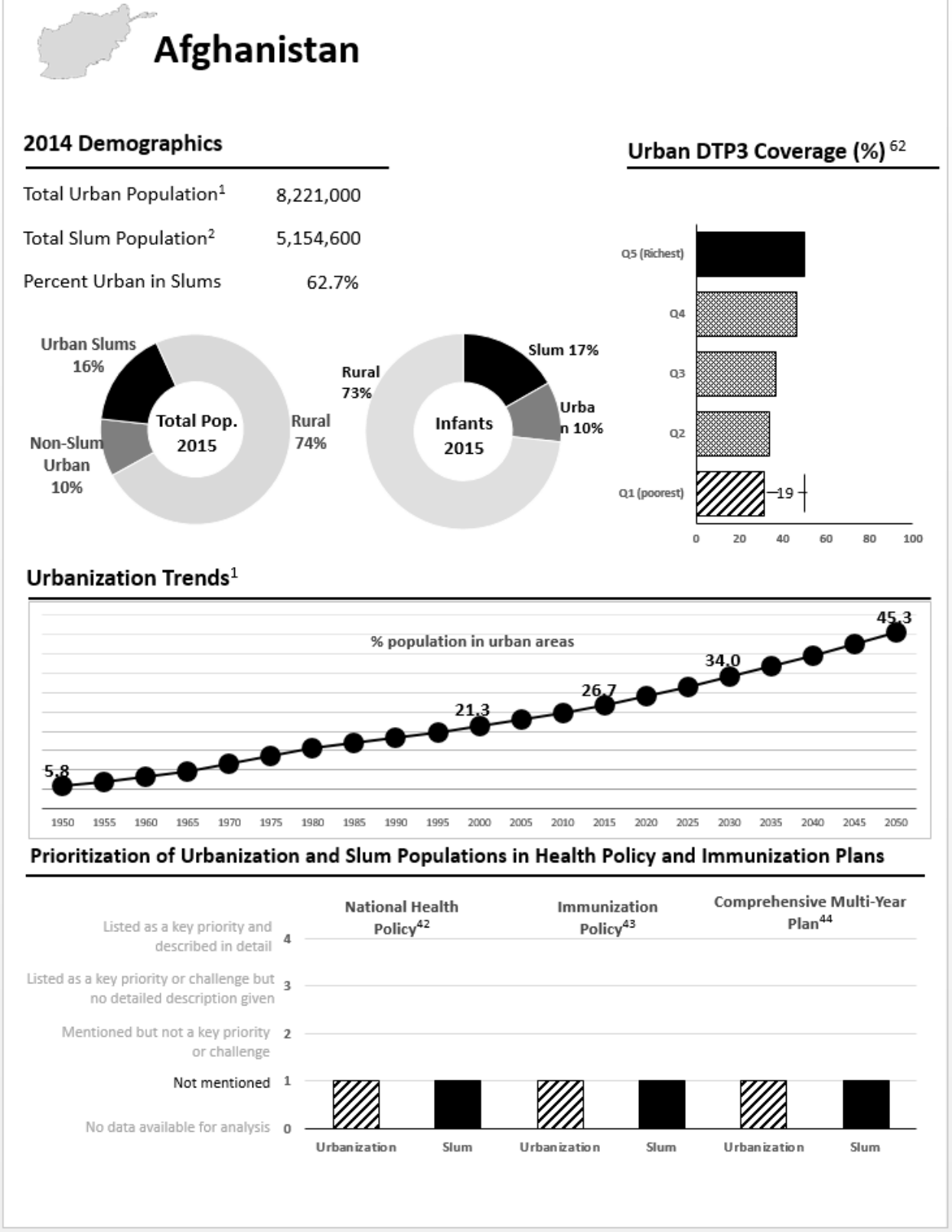

Afghanistan
2014 Demographics
Total Urban Population[1] 8,221,000
Total Slum Population[2] 5,154,600
Percent Urban in Slums 62.7%
Urban Slums 16%
Non-Slum Urban 10%
Rural 74%
Total Pop. 2015
Rural 73%
Slum 17%
Urba n 10%
Infants 2015
Urban DTP3 Coverage (%)[62]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
19
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
5.8
21.3
26.7
34.0
45.3
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans
National Health Policy[42]
Immunization Policy[43]
Comprehensive Multi-Year Plan[44]
Listed as a key priority and described in detail 4
Listed as a key priority or challenge but no detailed description given 3
Mentioned but not a key priority or challenge 2
Not mentioned 1
No data available for analysis 0
Urbanization
Slum
Urbanization
Slum
Urbanization
Slum

Figure 7

Indonesia

Urbanization Context

In the Asian region, Indonesia's urban population is growing the fastest, at an annual rate of 4.1%.[45] Indonesia is home to 252.8 million people, of which 53%, or about 134 million, live in urban areas.[1] Of these urbanites, nearly 30 million live in slums.[2] Urbanization in Indonesia has largely been driven by a restructuring of the economy from agrarian-based in rural areas to service-based in urban areas,[46,47] and it is projected that 71% of Indonesians will be residing in urban areas by 2050.[1] Over half (56%) of the 2015 birth cohort resided in urban areas.

Indonesia's fast-paced urbanization has so far been met by modest economic growth and reductions in poverty. The World Bank estimates that poverty was halved from 24% in 1999 to 12% in 2012 as a result of the 21 million jobs created between 2001 and 2011, 18 million of which were in urban areas.[45] The rate of urbanization in Indonesia has, however, not been linked with the same type of economic growth enjoyed by other Asian countries. While China and Thailand have respectively seen 6% and 10% increases in their GDP for every 1% of urbanization, the GDP of Indonesia has only risen 2% per for 1% increase in urbanization. Experts hypothesize that this is due to a lack of government initiated urban infrastructure.[47]

National Health Policy

No health policy was available at the time of analysis.

Immunization Policy

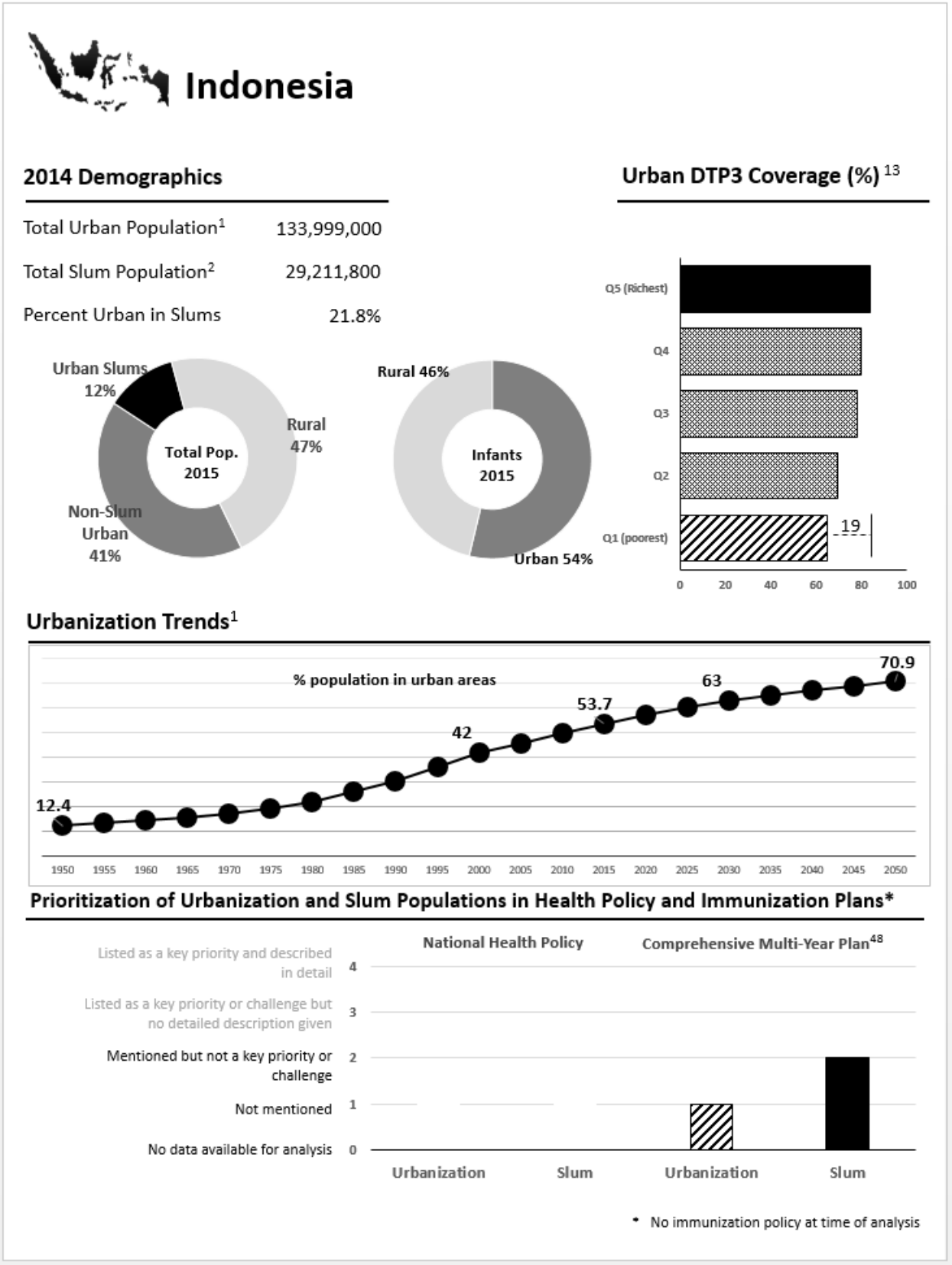
No immunization policy was available at time of this analysis.

Immunization Comprehensive Multi-Year Plan (cMYP) 2015-2019

Indonesia's cMYP for 2015-2019[48] outlines six overarching goals, which include specific objectives and strategies to address immunization challenges in urban areas, for example: development of slums strategy, identifying and mapping hard-to-reach communities in urban areas, and more frequent immunization outreaches in urban slums. Although urban areas and slums are not mentioned in the cMYP goals, they are acknowledged and detailed in the strategies and milestones.

In the cMYP, increasing uptake and use of vaccinations has been highlighted as a necessity in urban areas, especially in the context of urban-rural disparities and the need to increase demand for

vaccinations in urban areas. Increasing access to vaccinations is therefore seen as an opportunity to reach children who are consistently missed by vaccines and increase immunization coverage.


Indonesia
2014 Demographics
Total Urban Population[1] 133,999,000
Total Slum Population[2] 29,211,800
Percent Urban in Slums 21.8%
Urban Slums 12%
Rural 47%
Non-Slum Urban 41%
Total Pop. 2015
Rural 46%
Urban 54%
Infants 2015
Urban DTP3 Coverage (%) [13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
19
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
12.4
42
53.7
63
70.9
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy
Comprehensive Multi-Year Plan[48]
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
No data available for analysis
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Urbanization
Slum
Urbanization
Slum
* No immunization policy at time of analysis

Figure 8

India

Urbanization Context

Of India's 1.27 billion people in 2014,[1] more than 32.4% (or 410 million) live in urban areas. Of this urban population, 24% (or 98.4 million) live in slums.[2] Urbanites may actually, however, account for up to 55.3% of India's population per the Agglomeration index, which is determined by three factors: population density, the population of the "large" urban centre, and travel time to that urban centre.[49] Urban areas are economically attractive to incoming populations and generate more than two thirds of the country's economic growth.[50]

In supporting documents for India's 12th five year plan (2012-2017), the Indian government emphasizes that urban infrastructure will become entirely inadequate at the current rate of urbanization, with increasing demand for services such as transportation, water, and low-income housing.[51] To ensure that India's growing cities can support its burgeoning urban population, which has been growing especially quickly in areas outside official administrative bounds, it is estimated that an increase from $17 to $100 per person needs to be invested in urban infrastructure.

National Health Policy (2015)

India's National Health Policy[52] acknowledges and details rapid urbanization as a key issue and calls out inequitable health outcomes among the urban poor as compared to their wealthier urban counterparts. The urban health portion of India's situation analysis in the NHP states that rapid, unplanned urbanization has led to massive growth in the number of the urban poor, especially those living in slums. The urban poor have poorer health outcomes due to adverse social and environmental determinants and poor access to health care facilities, despite living in close proximity to many hospitals, both public and private. There are few primary care arrangements in India's cities and towns. The NHP further calls for seven key policy shifts to the organization of primary health care delivery, of which, one emphasizes the need to scale-up interventions that reach the urban poor and establish linkages with national programmes. The urban health care policy plan enumerates the target populations for which special focus is required: poor populations living in listed and unlisted slums, other vulnerable populations such as the homeless, rag-pickers, street children, rickshaw pullers, construction workers, sex workers, and temporary migrants.

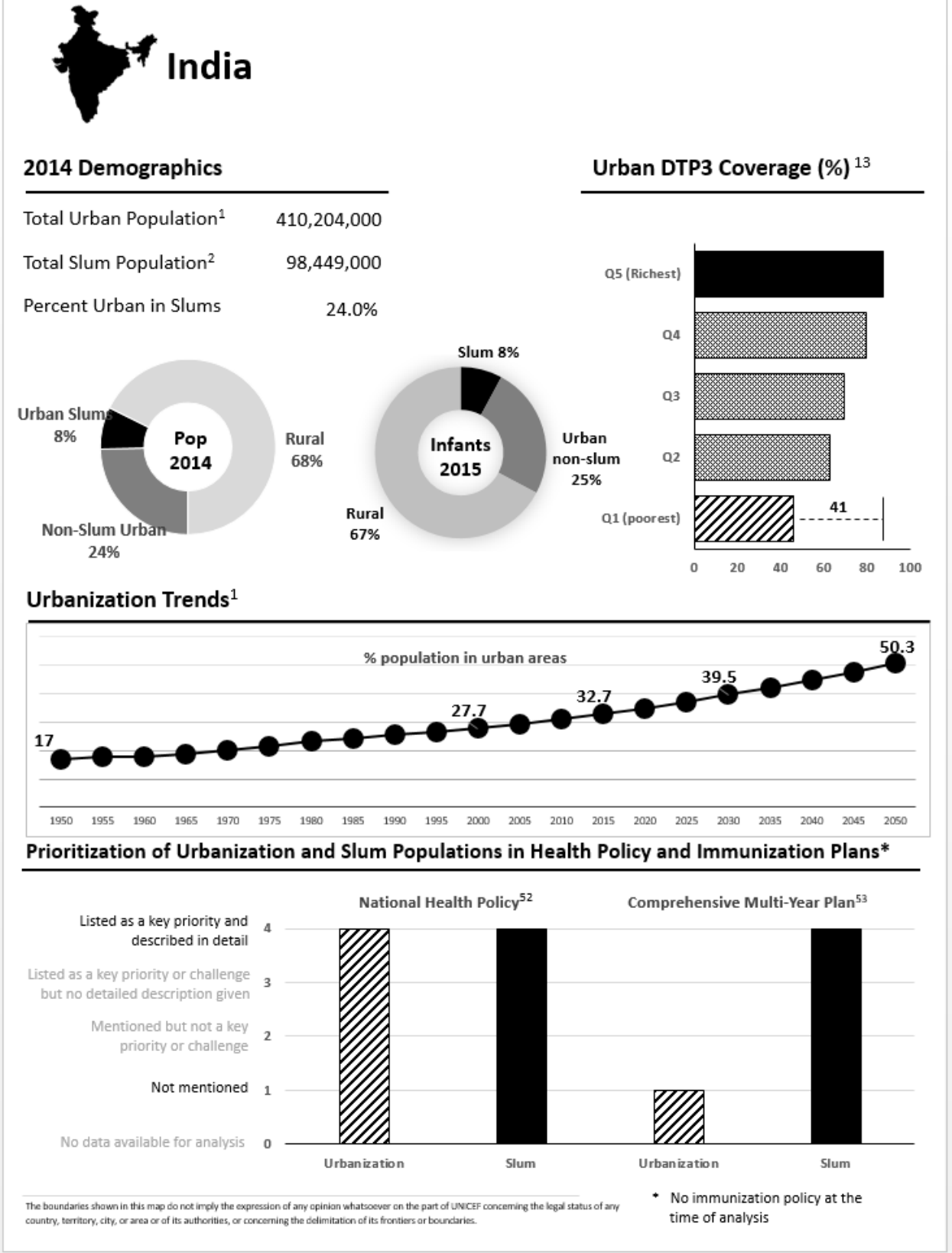
Immunization Policy

No immunization policy was available at time of this analysis.

Immunization Comprehensive Multi-Year Plan (cMYP) 2015-2019

India's immunization cMYP[53] does not mention urbanization explicitly as a specific challenge but highlights inequities among the urban population caused by urbanization, "Urban areas have higher vaccination coverage as compared to rural areas and this gap exists for all vaccines; within urban areas, slum populations have lower coverage. Newly arriving migrants in urban areas have lower coverage of social services compared with the resident populations. Urban poor and rural poor populations have a lower coverage as compared to the wealthier urban dwellers."

To address this disparity in access between deprived populations and urban richest populations, the cMYP lists target populations under its strategic plan section and states that "special efforts will be made to ensure that immunization services reach out to targeted beneficiaries in the lower socio-economic strata, including populations living in urban slums, rural areas, tribal, and other hard-to-reach areas." The cMYP then provides several key performance indicators (KPIs) to be disaggregated by gender, geography (urban slum, urban, rural) and socio-economic parameters." These KPIs range from the number of states having less than 10% DTP1-DTP3 dropout rates to those addressing social mobilization, surveillance systems, coverage, and introduction of new vaccines.


India
2014 Demographics
Total Urban Population[1] 410,204,000
Total Slum Population[2] 98,449,000
Percent Urban in Slums 24.0%
Urban Slums 8%
Pop 2014
Rural 68%
Non-Slum Urban 24%
Slum 8%
Infants 2015
Urban non-slum 25%
Rural 67%
Urban DTP3 Coverage (%) [13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
41
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
17
27.7
32.7
39.5
50.3
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy[52]
Comprehensive Multi-Year Plan[53]
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
No data available for analysis
4
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Urbanization
Slum
Urbanization
Slum
The boundaries shown in this map do not imply the expression of any opinion whatsoever on the part of UNICEF concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.
* No immunization policy at the time of analysis

Figure 9

Chad

Urbanization Context

Of Chad's 13.2 million people in 2014,[1] an estimated 22.3% (or 2.95 million) live in urban areas. Of this urban population, 78.2% (or 2.6 million) live in slums, ranking Chad as the fourth country with the highest proportion of urban dwellers who live in slums.[2] Literature on the urbanization of Chad is sparse, but the country's Poverty Reduction Strategy Paper suggests that although urbanization rates are accelerating, urban development has been essentially anarchical.[54]

Urban development efforts by the government of Chad have been fitful yet promising. In 2007, the World Bank provided grants and credit totalling $42.4 million USD to implement the Urban Development Project.[55] The urban development project objective was to increase sustainable access to municipal services and to enhance government's capacity to deliver and maintain those services. Although the project was ultimately rated as "moderately unsatisfactory," it improved access to municipal services for 363,000 beneficiaries, reduced flooding for more than a quarter million urban dwellers, and constructed much needed roads.

National Health Policy (2015-2019)

The National Health Policy of Chad[56] includes analyses (in both the background and situation analysis sections) of disparities in social services (water and sanitation services, contraceptive use, and prevalence of HIV/AIDS) in urban areas. The policy document indicates 20% of the national population live in urban areas. It also highlights that the lack of basic hygiene and sanitation measures is a major determinant of health in poor urban centres. The health policy does not have any instance of the word "slum" or other references to informal settlements.

Immunization Policy

No immunization policy was available at time of this analysis.

Immunization Comprehensive Multi-Year Plan (cMYP) 2008-2012

The immunization cMYP of Chad[57] only makes two references to the term "urban." In the first, it states the disaggregation of the country's population by urban and rural areas. In the second, the cMYP references the disaggregated prevalence of HIV. For this analysis, neither instance is counted as a reference to urbanization. The plan does not have any instance of the word "slum" or other reference to informal settlements.

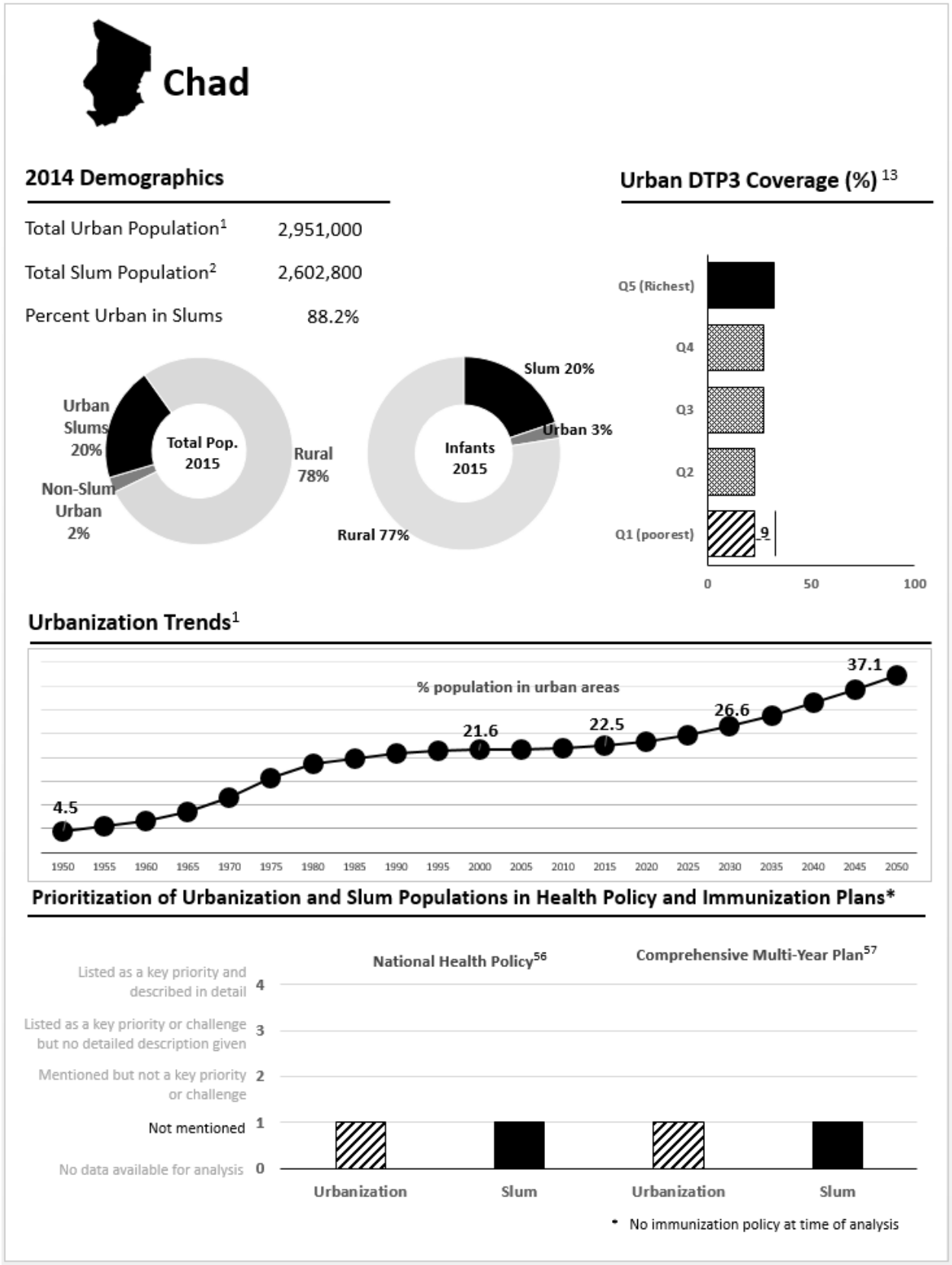

Chad
2014 Demographics
Total Urban Population[1] 2,951,000
Total Slum Population[2] 2,602,800
Percent Urban in Slums 88.2%
Urban Slums 20%
Non-Slum Urban 2%
Total Pop. 2015
Rural 78%
Slum 20%
Urban 3%
Infants 2015
Rural 77%
Urban DTP3 Coverage (%) [13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
9
0
50
100
Urbanization Trends[1]
% population in urban areas
4.5
21.6
22.5
26.6
37.1
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy[56]
Comprehensive Multi-Year Plan[57]
Listed as a key priority and described in detail 4
Listed as a key priority or challenge but no detailed description given 3
Mentioned but not a key priority or challenge 2
Not mentioned 1
No data available for analysis 0
Urbanization
Slum
Urbanization
Slum
* No immunization policy at time of analysis

Figure 10

Ethiopia

Urbanization Context

Of Ethiopia's 96.5 million people in 2014,[1] an estimated 19.0% (or 18.4 million) live in urban areas; of this urban population, 73.9% (or 13.6 million) live in slums.[2] While the urban proportion of Ethiopia's population is low, it is growing rapidly.[58] Some estimates predict that the number of people living in urban areas will triple by 2035. The increases in urban populations is largely due to natural growth from high birth rates and decreasing mortality, reclassification of dense rural areas as "urban," and rural-urban migration from economic pull factors. Although many urban areas in Ethiopia are short of housing and services, they are economically productive—employing about 15% of the national workforce while contributing 38% of the gross domestic product (GDP).

National Health Policy (2003)

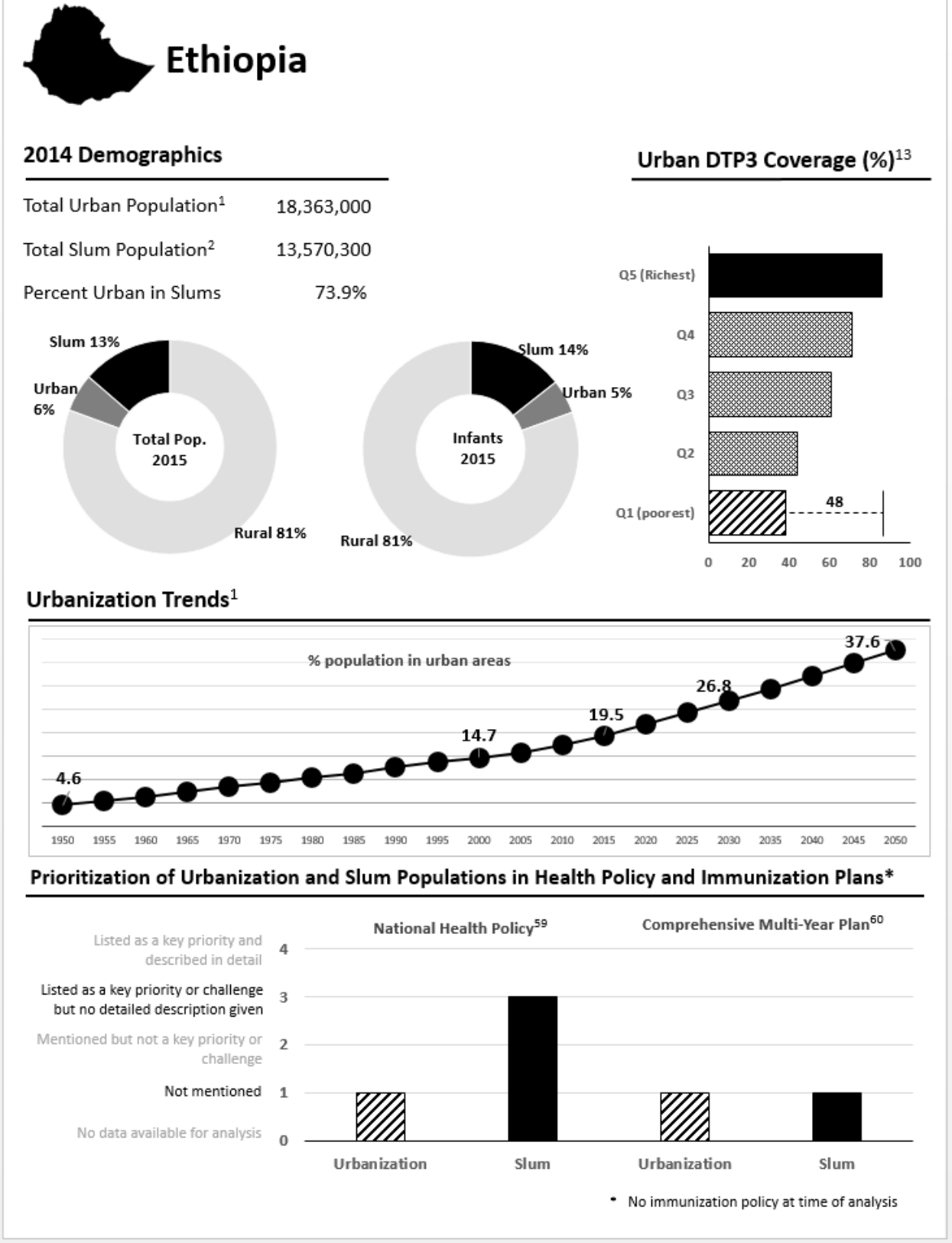
Ethiopia's National Health Policy (NHP)[59] lists 8 priorities, and the eighth is that special attention shall be given to the health needs of the most neglected segments of the population, which includes the urban poor. For the purposes of this analysis, we consider this as the prioritization of urban poor in slum environments. The policy does not make any mention of urbanization as a challenge. However, the NHP states the need for intersectoral collaboration to accelerate the provision of safe water and sanitation services to urban and rural populations.

Immunization Policy

No immunization policy was available at time of this analysis.

Immunization Comprehensive Multi-Year Plan (cMYP) 2016-2020

Ethiopia's cMYP[60] states that the country is one of the least urbanized countries in the world, ostensibly to imply that the process of urbanization is not occurring there. There are several instances of the term "urban," but none refer to the process and comparison in social services coverage between urban and rural areas, the urban poor, slums, or informal settlements.


Ethiopia
2014 Demographics
Total Urban Population[1] 18,363,000
Total Slum Population[2] 13,570,300
Percent Urban in Slums 73.9%
Slum 13%
Urban 6%
Total Pop. 2015
Rural 81%
Slum 14%
Urban 5%
Infants 2015
Rural 81%
Urban DTP3 Coverage (%)[13]
Q5 (Richest)
Q4
Q3
Q2
Q1 (poorest)
48
0 20 40 60 80 100
Urbanization Trends[1]
% population in urban areas
4.6
14.7
19.5
26.8
37.6
1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050
Prioritization of Urbanization and Slum Populations in Health Policy and Immunization Plans*
National Health Policy[59]
Comprehensive Multi-Year Plan[60]
Listed as a key priority and described in detail
Listed as a key priority or challenge but no detailed description given
Mentioned but not a key priority or challenge
Not mentioned
No data available for analysis
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Urbanization
Slum
Urbanization
Slum
* No immunization policy at time of analysis

Figure 11

DISCUSSION

Health policies and plans reflect the priorities and aspirations of national governments and stakeholders. This report demonstrates that while few of the selected countries highlight the challenges of accelerating urbanization and the difficulties in meeting the health needs of growing urban poor populations, the majority do not address the needs of the >250 million slum-dwelling individuals from the ten priority countries with high number of unvaccinated children. The urban poor in slums face a wide range of deprivations: exclusion from vaccinations and other basic social services, and their population is growing as a consequence of poorly controlled urbanization.

Of the six countries from the African region included in this analysis, national planning documents for four, including Nigeria and DRC, did not acknowledge the challenge of rapid urbanization or growing population of urban poor in slum environments. Yet, Nigeria and DRC are among Africa's most populated countries, and house the largest number of slum-dwellers of countries in this analysis from the African region. Of the countries that mentioned rapid urbanization and deprivations afflicting urban poor populations in slum environments, Kenya recognizes that it must improve slum housing conditions for its growing population of youth who are drawn to cities, while Ethiopia simply lists the urban poor as one among eight health policy priority communities. None of the cMYPs from the six countries in the African region acknowledge the challenge of rapid urbanization or the deprivations facing urban poor populations in slum environments.

In comparison, of the four countries (Afghanistan, Indonesia, Pakistan, and India) from the Asian region included in this analysis, three countries (Indonesia, Pakistan, and India) described steps aimed at reducing inequities affecting urban poor communities. Policy and plan documents from India specifically provide detailed recommendations such as collecting disaggregated data for enhanced monitoring of slum-dwelling conditions and scaling up urban interventions to reach disadvantaged or underserved communities in slum environments. India's national health policy is unique because it also provides guidance on specific methods of delivering vaccination services in slum environments: working with private sector partners, establishing connections between local health workers and national immunization programmes, and raising awareness about vulnerabilities of slum-dwellers. These specific approaches for slum locales are aimed at increasing uptake and use of vaccines, with the aim of leaving no community or child behind.

Overall, it appears that the large absolute number of slum-dwellers in Asia, in particular India, have motivated governments to include urbanization and slum-dwellers in key national priority setting processes. This trend does not appear to carry over to Africa, where demographic data show that urbanization trends are in the acceleration phase, with small- and medium-sized urban areas showing the fastest rates of growth.

Despite prevailing commitments to address the challenges of rapid urbanization and increasing population of slum dwellers in Ethiopia, India, Pakistan, and Indonesia, there are wide differences in vaccination coverage between the richest and poorest urban populations. As shown in **Figure 1** above, inequities in the third dose of diphtheria-tetanus-pertussis (DTP) containing vaccine coverage across the urban wealth quintiles exist. Overall, DTP3 coverage is low among the urban poor, even in countries—Ethiopia, Indonesia, Pakistan and India—where the national policies and plans list the urban poor as priority populations. These disparities might reflect disconnects between policy priorities and strategy goals or objectives, or difficulties in effectively operationalizing health plans.

To increase vaccination coverage and reduce prevailing inequities in urban areas, effective and multi-component interventions are needed. The recognition of slum-dwellers' rights to health, as demonstrated in the key documents from Pakistan, are certainly a step in the right direction. However, it should be recognized that legality and the provision of health services exist on a spectrum rather than a dichotomy. Legalization does not necessarily lead to service improvements or increases in access and use of vaccines. The need for legalization of slums and provision of non-health services in slums further emphasizes the need for cross-sectoral engagement, for instance with Ministries of Health, Local Government, Finance, Housing, and Urban Development or municipal authorities.

The same techniques used to deliver immunization and other health services in rural areas continue to be the main approach of delivering vaccinations in urban poor communities or populations in slum environments. There is little evidence that these rural-centred techniques, when applied to urban poor populations especially those in slum environments, can effectively achieve high and protective levels of vaccination coverage. Designing interventions to increase vaccination coverage in urban poor communities, particularly targeting needs of populations in slum environments, will require a clear understanding of the social and environmental determinants of health and immunization in slum environments. There is a growing body of evidence that demonstrates both supply (e.g. expanded health worker outreach and making health commodities, including vaccines, available) and demand-side (e.g. educating caregivers about the importance of vaccines) factors are important health determinants

in urban slum communities.[8] In addition, outreach activities will need to be tailored and targeted to meet the specific needs of urban poor slum populations: flexible outreach schedule including scheduling during weekends and during non-traditional working hours.[9,61,62] A few of the national planning and strategy documents from this analysis, including from India, alluded to the fact that tailored strategies for urban slums might be needed, however, these documents simply recommended focusing on improving the health of slum-dwellers based on strategies typically developed for dispersed, less mobile, rural populations.

To generate more evidence about what interventions might improve vaccination coverage, data from urban areas need to be disaggregated by 'slum' or 'non-slum.' In addition, further research—implementation research—into interventions or approaches that promote equitable delivery of immunization services in urban areas will be needed. India is leading this charge by mandating a disaggregation of data in urban areas, those living in slums and those not. This disaggregation of data will enable measuring of inequities and track progress. Additionally, disaggregation of data will inform the understanding of how disease outbreaks are accelerated by large groups of susceptible urban poor populations in slum environments and whether access is truly a bottleneck to achieving universal immunization coverage.

CONCLUSIONS

With more than half of the world's population living in urban areas and rapid growth of urban populations in Africa and Asia, the concomitant growth of urban poor populations means that children who miss vaccines will increasingly be found in urban areas, especially in slum-dwelling populations. Slums present a wide range of risks—overcrowding, poor sanitation, low immunization rates, and malnutrition—to their inhabitants, particularly to children. These risks make slums conducive environments that can start or fuel disease outbreaks.

Governments and partners should ensure that every child everywhere enjoys the benefits of vaccines. Slums are socially hidden and hard-to-reach; they require commitment and specific strategies and interventions to attain good health. Urban poor communities in slum environments should be prioritized during national and subnational planning, implementation, and monitoring of immunization services. This prioritization process is a critical step towards improving and sustaining vaccination coverage in urban poor communities so that the risk of vaccine-preventable disease outbreaks in urban areas can be mitigated.

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