

THE 'RIGHTS' START TO LIFE

2005

A STATISTICAL ANALYSIS OF BIRTH REGISTRATION

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THE ‘RIGHTS’ START TO LIFE

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I. INTRODUCTION

Birth registration, the official recording of the birth of a child by the government, is a fundamental human right and an essential means of protecting a child's right to an identity.

Drawing from the right to a name and nationality contained in article 7 of the Convention on the Rights of the Child, the 2002 General Assembly Resolution 'A World Fit for Children' reaffirms governments' commitment to ensure the birth registration of all children and to invest in, care for, educate and protect children from harm and exploitation. In order to achieve these goals, it is necessary for governments to have accurate population data in order to plan service provision for children and their caregivers. Birth registration, therefore, is not only a fundamental right in itself but also key to ensuring the fulfilment of additional rights.

Birth registration serves two major purposes: legal and statistical.¹ Ideally, birth registration is part of an effective civil registration system that legally acknowledges the existence of the person, enables the child to obtain a birth certificate, establishes the child's family ties, and tracks major life events from live birth to marriage and death. The demographic data provided by civil registration allow a country to keep track of its own population statistics, trends and differentials. When disaggregated, the data can be used to identify the geographic, social, economic and gender disparities within national boundaries. The use of this data can lead to more accurate planning and implementation of development policies and programmes, particularly in health, education, housing, water and sanitation, employment, agriculture and industrial production.

Most countries have mechanisms for registering births. However, coverage, type of information, and use of the data differ in each country based on infrastructure, administrative capacity to register births, available funds for registration, access to the population, and technology for data management. Levels of registration vary substantially between countries due to additional influencing factors.

Registration may not be seen as important by society at large, by a government facing severe economic difficulties, by a country at war, or by families struggling with day-to-day survival.² It is often considered to be no more than a legal formality, unrelated to child development, health, education or protection. Major factors that influence the birth registration levels in a country include: the magnitude of national commitment to birth registration as a priority; the value that individuals and families place on birth registration; the existence of an adequate legislative framework; the existence of sufficient infrastructure to support the logistical aspects of registration; and the number of barriers that families encounter during registration.

A boy or a girl whose birth is not fully registered and who is not provided with a birth certificate is denied the right to a name and nationality, a situation that may also lead to barriers in accessing other rights including health care, education, or social assistance. Later in life, identity documents help protect children against early marriage, child labour, premature enlistment in the armed forces or, if accused of a crime, prosecution as an adult. Registration also enables the individual to access further identity documents, including a passport.³ The value of birth registration as a fundamental human right is often overlooked due to the continuing lack of awareness that registration is a critical measure to secure the recognition of every person before the law, to safeguard his or her rights and to ensure that any violation of these rights does not go unnoticed.⁴

UNICEF recognizes the important role of birth registration in its medium term strategic plan which states:

"In all countries where birth registration is not almost universal, promote more effective birth registration systems, ensuring equitable registration rates for girls and boys, with particular focus on the registration of children in highly disadvantaged groups..."

In 'Birth Registration: Right from the Start', the UNICEF Innocenti Research Centre examines the

situation of children who are denied the fundamental human right of birth registration, exploring the connections between birth registration and the rights of the child; the type of information that should be recorded; the scale of non-registration; the profiles of unregistered children; the barriers to registration, including political, administrative, legislative, economic, cultural, gender, geographic and conflict-related obstacles; and the initiatives that have been taken to improve birth registration since the adoption of the Convention on the Rights of the Child in 1989. The *Innocenti Digest* highlights the importance of birth registration within the overall framework of a civil registration system and identifies strategies and interventions to achieve the universal registration of children.

The number of children who have acquired their right to a legal identity is based on official registration figures, surveys, country estimates and vital statistics. Civil registration data, survey findings and country estimates (based on previous survey data and vital statistics) are utilized to estimate the global situation of birth registration. The actual overall level of non-registration may be far greater than current estimates suggest due to the great number of births that occur each day in countries without effective vital registration systems.

Efforts by UNICEF and partnering non-governmental organizations to improve rates of birth registration aim to ensure governments' commitment, within a legal framework, to register the births of children in a timely fashion. For example, in Bolivia, the National Electoral Court in charge of the civil registry and UNICEF launched a free national birth registration campaign for children under seven years of age. However, partners working in the area of birth registration note that achieving complete birth registration levels depends on more than just the commitment of governmental agencies and national policies. Whether a mother or father registers the birth of their child depends on their awareness of the process and its importance, their ability to access civil registrar services, and their willingness to interface with state authorities. Thus, birth registration is a two-sided coin requiring both

commitment from the government and knowledge and capacity from the caretakers of a newly born child.

Timely registration is the first step toward guaranteeing a child's rights. According to article 7 of the Convention on the Rights of the Child, a baby should be registered "immediately after birth," implying urgency and the need to act within a reasonably short period of time.⁵ Timely registration also helps to ensure up-to-date and accurate national statistics. Typically, the issuance of a birth certificate automatically follows birth registration, though in some cases a separate application must be made.

Some countries impose late fees, fines, or judicial procedures for late registration.⁶ While such actions may encourage most parents to register their children in a timely manner, they also pose a barrier to those who find it difficult to register on time, such as families who live in remote areas poorly served by registration services or who cannot afford the cost of registration. These penalties result in double discrimination against the family. In addition, families may not register their children until it is convenient to access a registration office, or they may wait until it is necessary for their children to have formal identification, for example, prior to attending school or receiving social services.

Civil registration systems that are functioning effectively compile vital statistics which can be used to compare the estimated total number of births in a country with the absolute number of registered births during a given period. Population-based surveys can provide estimates for the levels of birth registration coverage in a country. Both sources of data are utilized to formulate the global estimates for birth registration.

The objective of this study is to present available empirical evidence obtained through household surveys in order to estimate levels of registration and to understand which factors are associated with children who obtain a birth certificate, and thus realize their right to a name and legal identity. The paper presents a global assessment of birth registration levels, differentials in birth registration

rates according to socio-economic and demographic variables, proximate variables and caretaker knowledge, as well as a multivariate analysis. Statistical associations between indicators regarding health, education and poverty can reveal potential linkages in programming to promote the registration of children. By analysing levels of birth registration in the context of other health, education and poverty indicators, the study points to opportunities to integrate advocacy and behaviour change campaigns for birth registration with early childhood care and immunization. By linking birth registration to early childhood programmes, a legal hurdle can become a helpful referral to promote improved health, education and protection for disadvantaged children and their caretakers.

The following analysis utilizes household survey data — namely Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS) — to assess birth registration levels by country and provide further analysis of how birth registration intersects with additional indicators. Reasons why parents do not register their children are also explored to determine opportunities for intervention. The analysis focuses on children under five years of age.

MICS are nationally representative household surveys designed to collect data on children and women — specifically for nutrition, health and education, but also on birth registration, family environment, child work, and knowledge of HIV/AIDS. The survey methodology was designed to collect data needed for monitoring progress toward the ‘World Fit for Children’ goals. The end-decade MICS were conducted in 66 developing countries, primarily by national government ministries with technical and financial support from UNICEF and other United Nations agencies. To assess birth registration, all mothers and caretakers of children under five were asked to respond to questions regarding possession of a birth certificate, registration, reasons for non-registration, and knowledge of how to register a child’s birth. Fifty-one of the MICS countries for which data were available at the time of publication included the birth registration module in the questionnaire.

DHS are nationally representative household surveys designed to measure the health and nutrition status of women and children in developing countries. DHS provide data and analyses for a wide range of demographic and health indicators that are included in the standard questionnaire. In addition, DHS allow for the inclusion of special questions on topics such as birth registration and child labour. A selection of countries have chosen to include questions on birth registration. Fourteen DHS countries include data on birth registration.

II. GLOBAL ASSESSMENT

Over 48 million children under five years of age are not registered at birth.⁷ The situation varies by region: In South Asia, 63 per cent of children (over 23 million) are not registered by their fifth birthday; in sub-Saharan Africa this rate reaches 55 per cent of children (nearly 15 million), while in industrialized countries it stands at 2 per cent. Factors that

Table A: Extent of the Problem: Proportion of annual unregistered births, by region

Regional summaries	Births 2003	% of unregistered children	Number of unregistered children (in thousands)
Sub-Saharan Africa	26,879	55	14,751
Middle East and North Africa	9,790	16	1,543
South Asia	37,099	63	23,395
East Asia and Pacific	31,616	19	5,901
Latin America and Caribbean	11,567	15	1,787
CEE/CIS and Baltic States	5,250	23	1,218
Industrialized countries	10,827	2	218
Developing countries	119,973	40	48,147
Least developed countries	27,819	71	19,682
World	133,028	36	48,276

influence birth registration levels between countries include the magnitude of national commitment to birth registration as a priority; the value that individuals and families place on birth registration; the existence of an adequate legislative framework; the existence of sufficient infrastructure to support the logistical aspects of registration; and the number of barriers that families encounter during registration.⁸ Table A (page 3) presents the proportion of children under five who are not registered, by region.

South Asia — the region with the largest overall number of births — has the highest percentage of unregistered births (63 per cent of births). Over 23 million of the 46.6 million children worldwide who are denied their right to identity live in this region. Figure 1 (below) provides a global picture of the birth registration rates for each country from household surveys and vital registration data.

The household surveys allow for the estimation of national levels of birth registration, demonstrating the differences in registration levels between countries (see Figure 2, page 5). Albania, the Democratic People’s Republic of Korea, the Occupied Palestinian Territory and Uzbekistan have birth registration rates of 99 per cent, while in the United Republic of Tanzania and Zambia these rates fall below 10 per

cent. Some 71 per cent of the countries analysed for this study have national birth registration rates above 50 per cent.

III. REASONS FOR NON-REGISTRATION

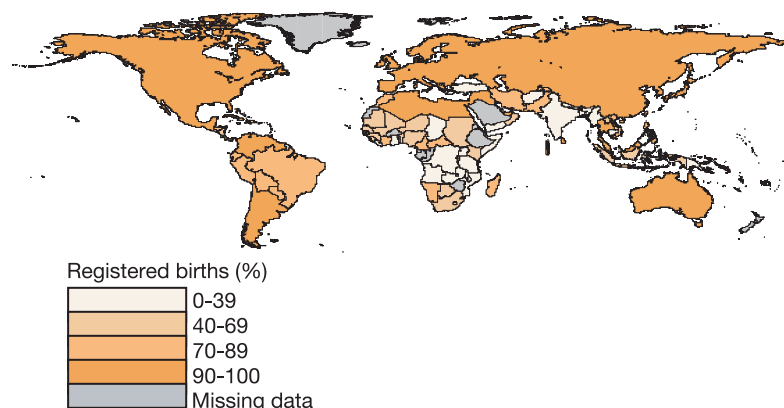
There are many reasons for the lack of birth registration in all countries around the world. Caretakers of children that have not been registered were asked: “Why is (name’s) birth not registered?” The reasons coded for analysis were:

- Costs too much
- Must travel too far
- Did not know child should be registered
- Late and did not want to pay fine
- Does not know where to register
- Does not know why the child was not registered
- Other reason.

Data related to the reasons why a child was not registered were available for 48 countries. Unfortunately, across several countries a large percentage of responses were coded as “other reason” or “don’t know,” potentially hiding commonly encountered reasons for not registering a child.⁹ Based on the remaining number of responses that fall within the pre-coded reasons for non-registration, it is possible to ascertain some of the major reasons for non-registration by ranking the responses.

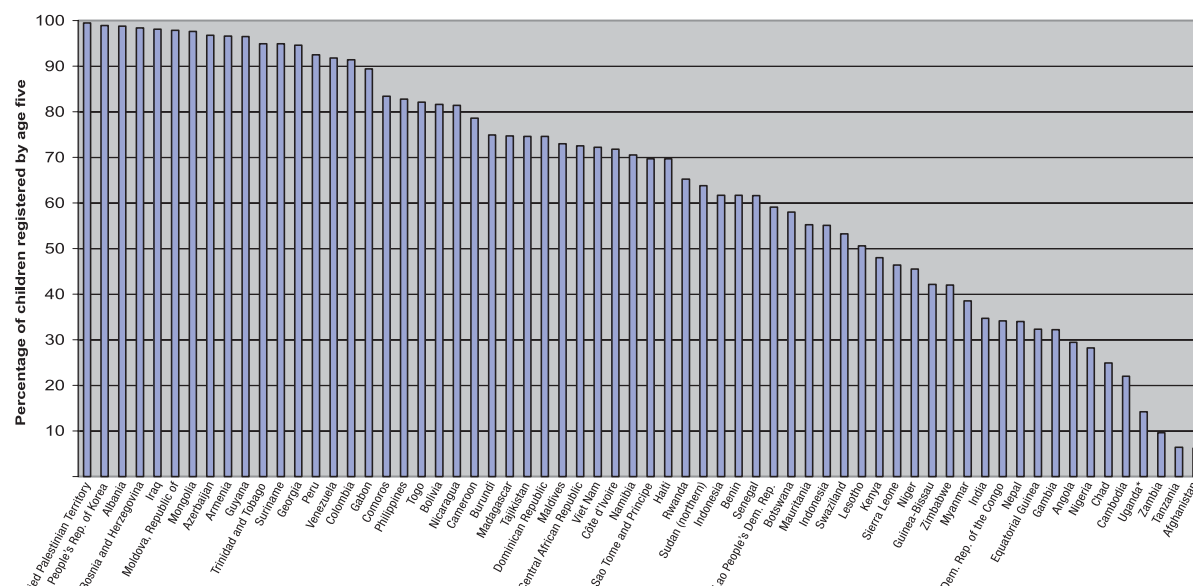
The most common reason cited in the greatest number of countries (20) was that birth registration cost too much.¹⁰ Households in 14 countries were most likely to find the distance to the registration centre to be the primary barrier to the registration of their children.¹¹ In eight countries, not knowing that the birth should be registered was the most

FIGURE 1: Levels of birth registration: 2004 estimates



This map does not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

FIGURE 2: National levels of birth registration from household surveys



* Data for Uganda is based only on children who were weighed at birth.

common reason given by caretakers for not registering their child.¹² While incurring a late fee was the most common reason for non-registration in only two countries, it was the second most common reason in five additional countries.¹³ Lack of knowledge of where to register was the most common barrier in Sierra Leone and Venezuela, and the second major reason in five additional countries.¹⁴

IV. DIFFERENTIALS OF BIRTH REGISTRATION

Whether a child's birth is registered is thought to depend on a number of characteristics about the child and its family. To explore the relationships between birth registration, discrimination and the ability to access other services and rights, country-specific birth registration data were cross-tabulated with different background and proximate variables available in the MICS and DHS surveys, allowing for the identification of disparities (see *Tables, pages 27–32*). The following section explores the relationships between birth registration rates and the socio-economic and demographic

characteristics of the child and his/her family, access to other early childhood development opportunities, and the level of knowledge possessed by the child's caretaker.

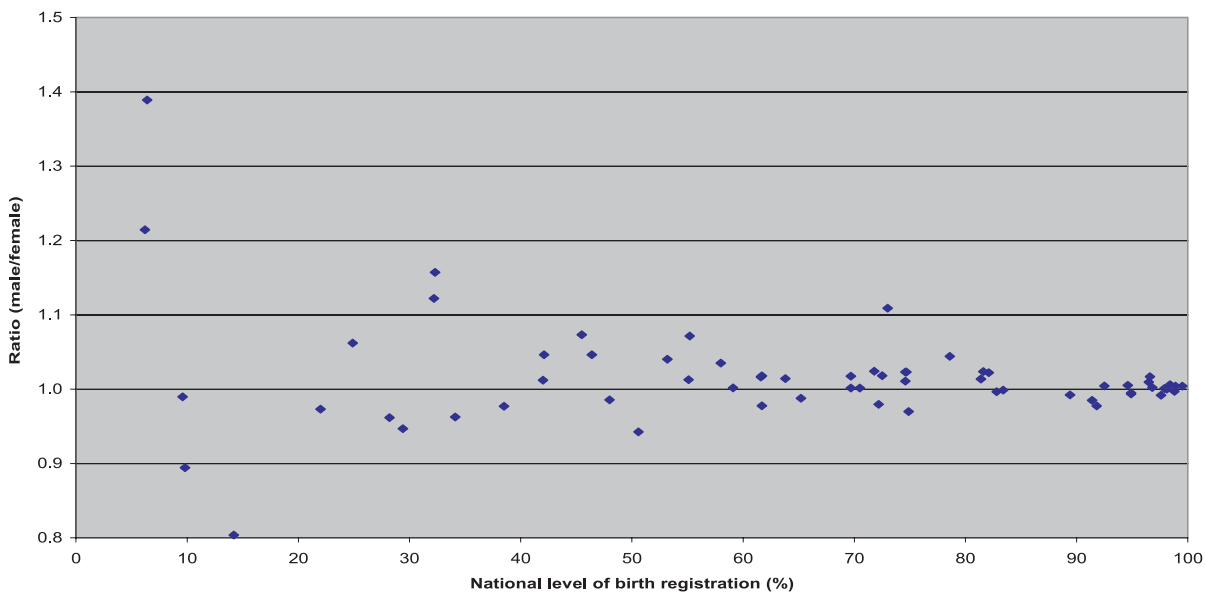
A. Socio-economic and demographic variables

Birth registration levels are often reported in aggregate form, potentially hiding disparities in gender, residence, or socio-economic status. The first set of differentials examined are the levels of birth registration for children under five based on the sex, age and place of residence of the child, as well as household wealth, mother's education, living arrangements and religion or ethnicity.

Gender

Overall, the country level data indicate that male and female birth registration rates are very similar (see *Table 2, page 28*). Gender parity in birth registration has been achieved in 65 per cent of the countries analysed (gender gap ratio of less than 0.02). Gender disparities acting to favour either boys or girls are seen across many countries. For

FIGURE 3: Birth registration levels, by gender



example, approximately 80 per cent of boys in Cameroon are registered compared with 77 per cent of girls. In Gambia, 34 per cent of boys and 30 per cent of girls are registered. In Venezuela, daughters are more likely to be registered than sons, with 91 per cent of boys and 93 per cent of girls being registered.

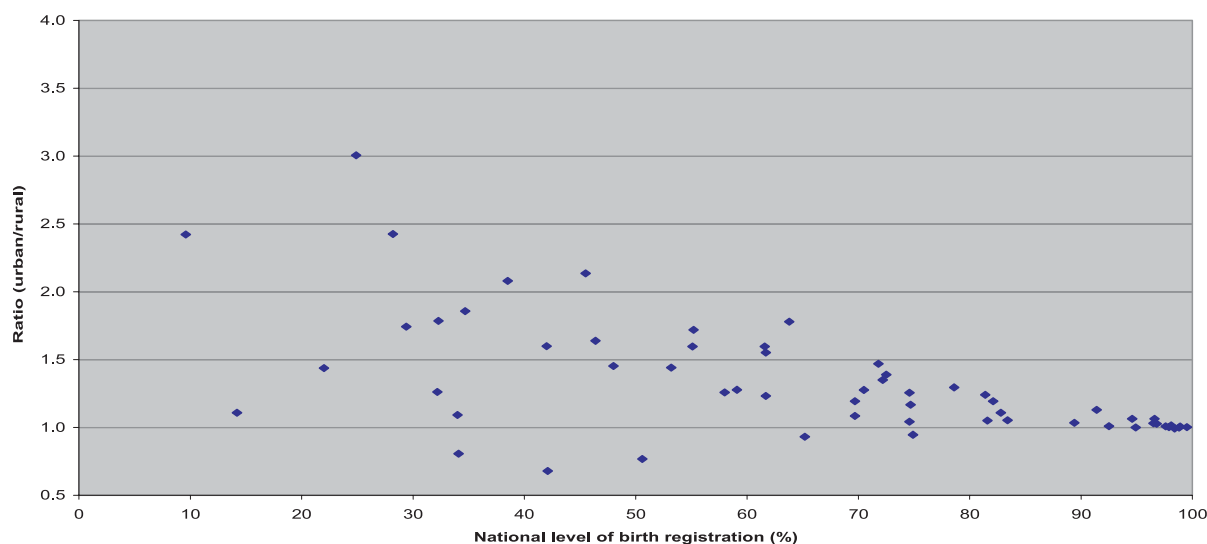
As illustrated in Figure 3 (above), as the overall level of birth registration in a country increases, the ratio of male/female birth registration levels converges to 1:1. Once a country has reached total levels of birth registration beyond 50 per cent, gender disparities are significantly minimized. Exceptions to this trend include Lesotho, where total registration levels equal 51 per cent, but disadvantage girls, and the Maldives, where total registration levels are 73 per cent, but where boys are less likely to be registered. In Uganda, boys are only 80 per cent as likely as girls to be registered. In the United Republic of Tanzania, on the other hand, boys are more likely to be registered than girls: 7.5 per cent of boys are registered but only 5.4 per cent of girls are. Equatorial Guinea, with a national birth registration rate of 32 per cent, is an additional country with a

high male/female ratio: 35 per cent of boys are registered, as compared to 30 per cent of girls.

Place of residence

A significant barrier to birth registration is the geographic distance to the nearest registration facility. Accessibility is influenced by location and terrain, infrastructure and the availability of transportation. The greater the distance to the registration centre, the higher the financial and opportunity costs for the family. Urban populations are less subject to such constraints, as indicated by the differentials in urban and rural registration rates for many countries. A few countries such as the Democratic Republic of the Congo, Guinea-Bissau, Lesotho and Rwanda have higher birth registration rates in rural areas than in urban areas as a result of birth registration campaigns and programmes targeting rural areas (see Figure 4, page 7). These countries are not among those with the lowest birth registration rates — Rwanda's national rate of registration is 65 per cent. In the Dominican Republic, where national birth registration rates are 75 per cent, 82 per cent of urban children are

FIGURE 4: Birth registration levels, by place of residence



registered compared to 66 per cent of rural children. In Myanmar, twice the proportion of urban children (65 per cent) are registered as compared to 31 per cent of their rural peers. As indicated for the gender disparities described above, disparities in birth registration due to place of residence decrease as overall levels of birth registration increase. Countries and territories with high registration levels such as Albania, Mongolia and the Occupied Palestinian Territory have no disparities in registration levels based on place of residence.

Figure 5 (page 8) illustrates how the ratio of urban to rural levels of birth registration in Africa varies between countries.¹⁵ The Comoros and Gabon are the closest to achieving parity in registration rates between urban and rural children, while Guinea-Bissau and Lesotho favour rural children, and urban children in the United Republic of Tanzania and Uganda are significantly more likely to be registered than their rural counterparts.

Mapping birth registration levels by province or district can illustrate where birth registration disparities exist (see Figure 6, page 8 and Figure 7, page 9).

Some country maps illustrate countries with higher levels of birth registration around the capital and cities, with a clear decrease in registration further away from the major population zones. Others display very high levels of registration in areas that are far away from the capital.¹⁶ For example, in Guinea-Bissau, 47 per cent of rural children are registered compared to 32 per cent of urban children due to significant registration campaigns carried out in rural areas. In Niger, the highest levels of birth registration are concentrated in Ntamey, an area within a province with low registration levels.

Household wealth

High cost was the primary reason given for the lack of birth registration in 20 countries. The wealth index breaks down the population into quintiles from the poorest to the richest. This measure can be used to analyse the disparity in birth registration rates between the poorest and wealthiest segments of society. Cross-country comparisons of disparities are possible by examining the ratio of birth registration levels in the richest and poorest household quintiles.¹⁷

FIGURE 5: Disparities in birth registration between urban and rural populations, Africa

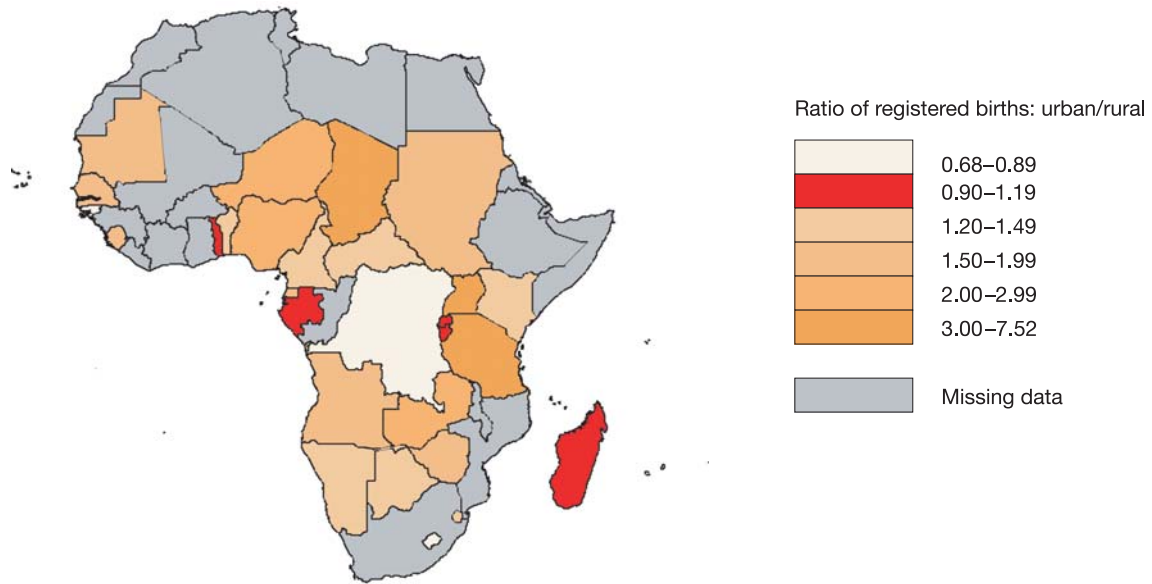


FIGURE 6: Birth registration in Niger, 2000

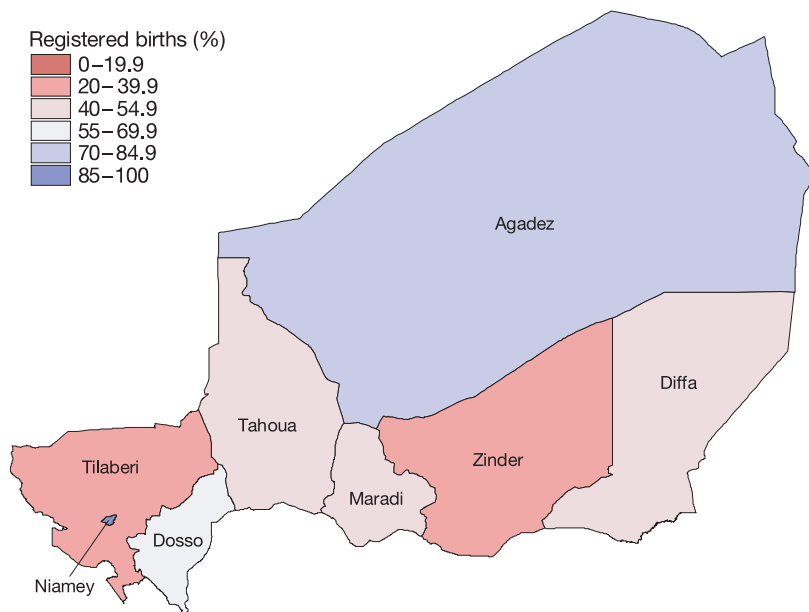
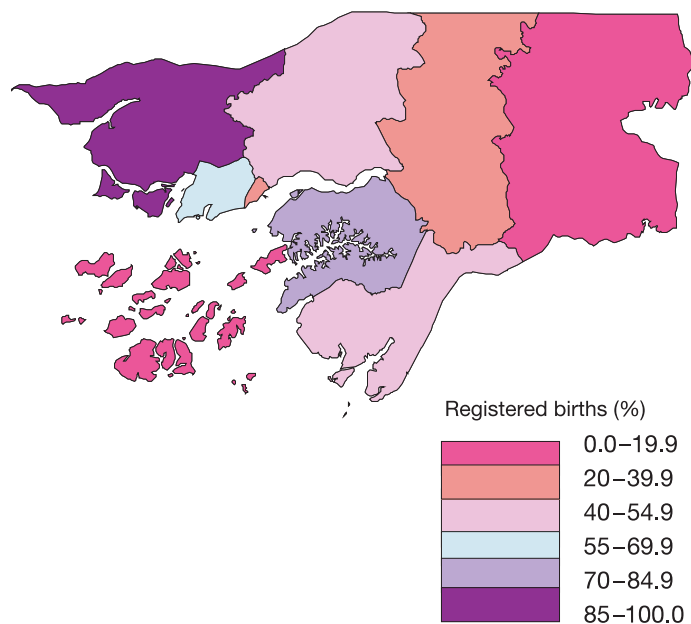
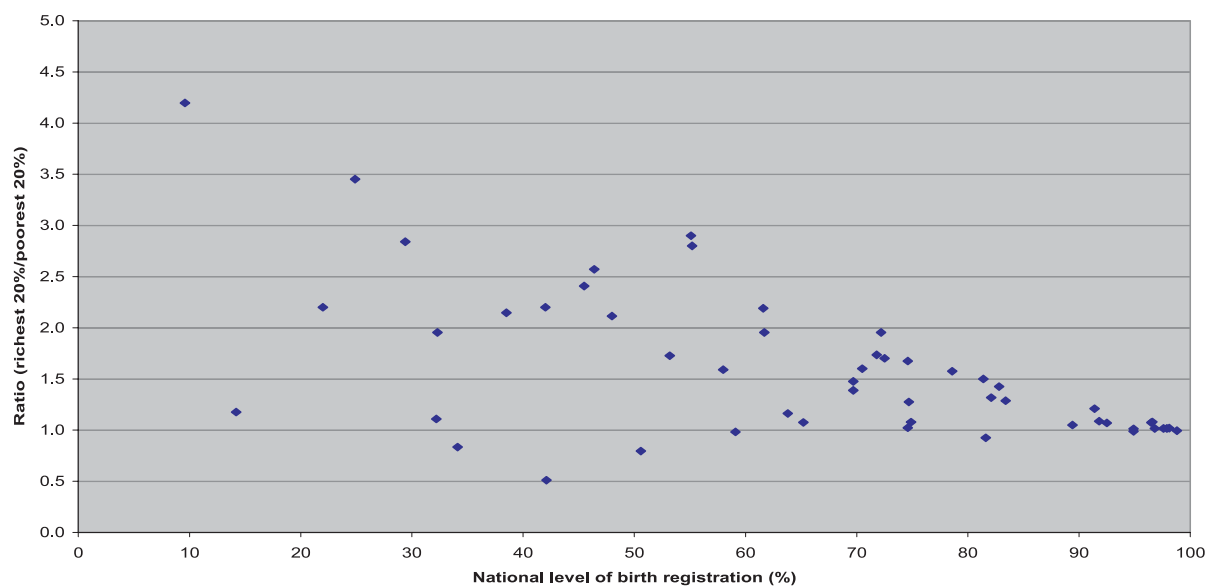


FIGURE 7: Birth registration in Guinea-Bissau, 2000



In most countries, birth registration is highest among the richest 20 per cent of the population. For example, data for Chad show that 46 per cent of children in the richest 20 per cent of the population are registered, while only 13 per cent of children in the poorest 20 per cent are. In Kenya, 66 per cent of children in the wealthiest 20 per cent are registered compared to 31 per cent of the poorest 20 per cent. For Zimbabwe, 69 per cent of children in the richest 20 per cent are registered, but only 28 per cent of the poorest are. The United Republic of Tanzania is the country with the greatest disparity between rich and poor: Only 2 per cent of the poorest 20 per cent of children are registered compared to 25 per cent of the richest 20 per cent. Latin America and Caribbean countries have relatively high levels of registration across household wealth, yet disparities still exist between the richest and the poorest populations. Only 56 per cent of the poorest 20 per cent of children in the Dominican

FIGURE 8: Birth registration levels, by household wealth



Republic are registered, compared to 93 per cent of the wealthiest 20 per cent. Conversely, as indicated in Figure 8 (page 9), in Bolivia, the Democratic Republic of the Congo, Guinea-Bissau and Lesotho, poor children are more likely to be registered than their wealthy peers. Guinea-Bissau, where the poorest 20 per cent of children are twice as likely to be registered as the wealthiest 20 per cent, is the most dramatic example of this trend: Some 62 per cent of the poorest children are registered compared to 31 per cent of the wealthiest children. Disparities in registration rates according to economic status do not dissipate as quickly as other variables as background rates of birth registration rise: High levels of disparity are seen even as the proportion of children registered passes 70 per cent in countries including Cameroon, the Central African Republic, Côte d'Ivoire, the Dominican Republic, Namibia, Nicaragua and Viet Nam (Figure 8, page 9). As birth registration levels increase at the national level, disparities in registration according to the wealth index decrease.

Mothers' education

The education level achieved by a child's mother has consistently been shown to have significant influence on the health and well-being of the family.¹⁸ To determine if information about birth registration is reaching mothers with little or no schooling, children who have been registered can be tabulated according to the level of education that their mothers received. A positive association is observed between birth registration and mothers' education level. The proportion of children with birth registration is highest among those whose mothers received secondary education. Data for Colombia demonstrate that 76 per cent of children whose mothers received no education, 86 per cent of children whose mothers received primary education, and 96 per cent of children whose mothers received secondary education are registered. Likewise, for Cambodia, the birth registration levels increase with the mother's

FIGURE 9: Birth registration disparities associated with household wealth, Africa

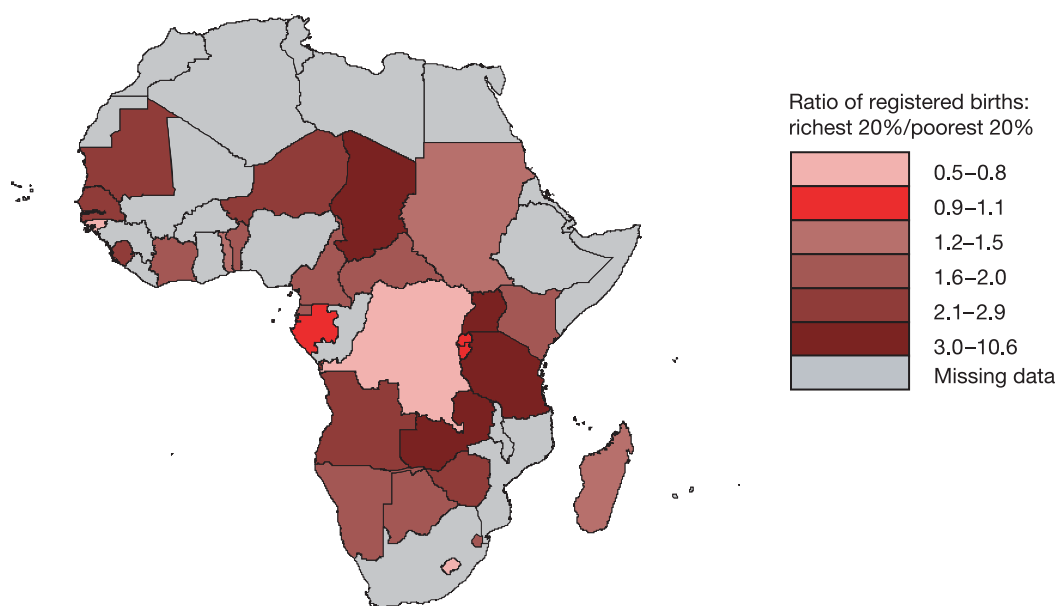
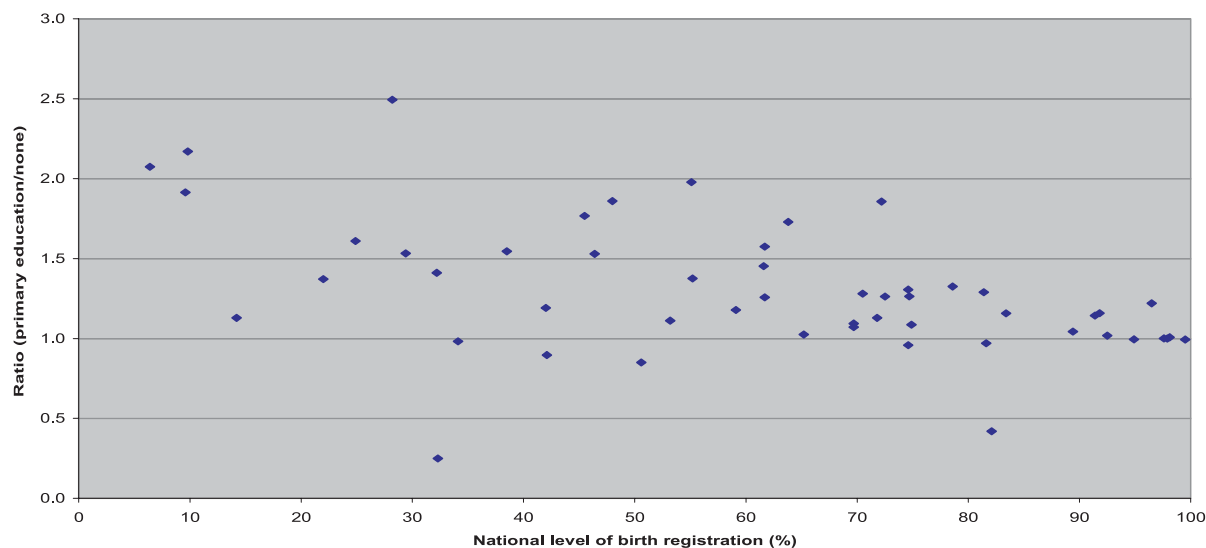


FIGURE 10: Birth registration levels, by mothers' education



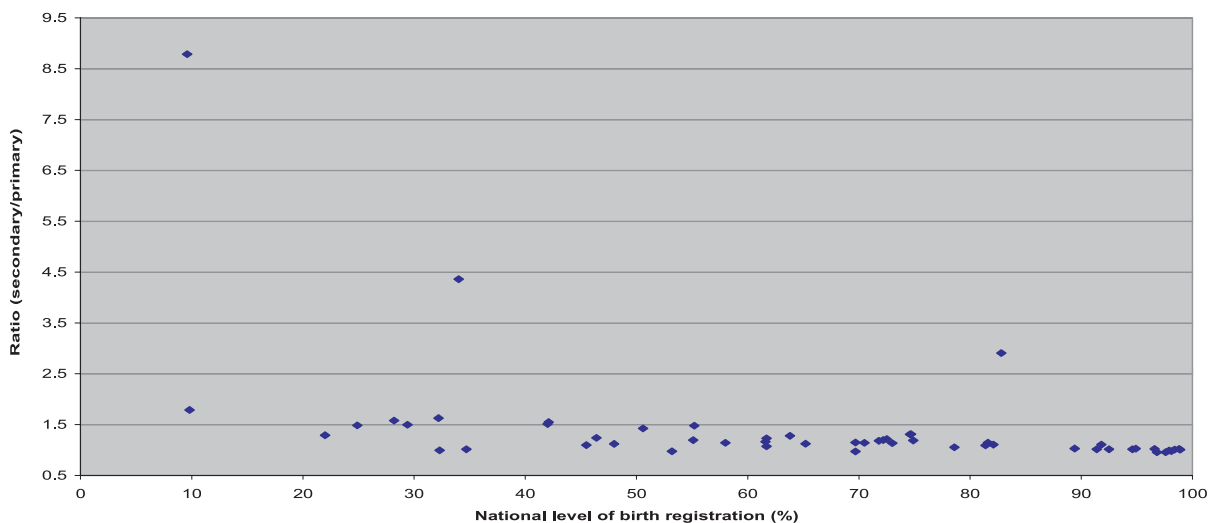
education and are 16 per cent, 23 per cent and 34 per cent, respectively. In Zambia, where the national birth registration level is only 10 per cent, birth registration levels increase substantially as the mother's education level rises from none (5 per cent of children registered) to primary (9 per cent) to secondary or higher (16 per cent of children registered).

Significant disparities in birth registration levels exist between children whose mothers received primary level education as compared to those whose mothers received no education (see *Figure 10, above*). The greatest disparities are witnessed in the United Republic of Tanzania and Zambia, the countries with the lowest overall registration levels. In the United Republic of Tanzania, 5.6 per cent of children whose mothers received primary education are registered, compared to 2.7 per cent of those whose mothers received no education. The disparities persist even as national levels of birth registration increase: The greatest level of disparity is seen in Nigeria where the national rate of registration is 28 per cent while 41 per cent of children whose mothers received primary education are registered as compared to 17 per cent of children whose mothers received no education. In Viet Nam, where

national rates of birth registration are 72 per cent, children whose mothers received primary education are 186 per cent more likely to be registered than those whose mothers were not educated. The reverse condition of discrimination is observed in a handful of countries – most notably in Equatorial Guinea and Togo. In Togo, where the national rate of birth registration is 82 per cent, 82 per cent of children whose mothers did not attend school are registered compared to 34 per cent of those whose mothers attended primary school.

Far less disparity is seen in registration rates between children whose mothers attended primary school and those whose mothers attended secondary school (see *Figure 11, page 12*). Exceptional cases of disparity where children whose mothers attended secondary school are notably more likely to be registered than those whose mothers attended only primary school include Equatorial Guinea, Togo and the United Republic of Tanzania. In Equatorial Guinea, 28 per cent of children whose mothers attended secondary school are registered compared to 6 per cent of those whose mothers were only educated at the primary level, while in Togo registration rates are 100 per cent and 34 per cent, respectively.

FIGURE 11: Birth registration levels, by mothers' education (secondary/primary)



Living arrangements

A child's family situation is believed to have an impact on birth registration rates. Children who live with both parents may have a higher level of birth registration than those living with neither parent, or those living with the mother or father only. In many countries, children living with only their fathers have the highest levels of birth registration, higher even than those children living with both parents. Angola, the Dominican Republic, Republic of Moldova and Myanmar are all examples of this phenomenon (see *Table B, page 13*). It should be noted that the number of cases available where children live with their fathers only is limited. Children living with neither parent suffer the greatest rates of non-registration based on living arrangements.

Religion and ethnicity

Religion and ethnicity are additional background variables that may be associated with differential levels of birth registration. Communities who speak a different language than the national majority, for example, might not be able to use existing psychosocial educational materials developed for

the majority population. Religious and cultural practices sometimes influence health practices such as the type of care sought (going to a traditional healer or wise woman when ill as opposed to a doctor or hospital). Ten of the DHS surveys analysed include data on religion and five include data on ethnicity which were cross-tabulated with birth registration rates.

While it might be thought that being of the majority religious or ethnic group would make a child more likely to be registered at birth, the association varies by country. In Benin, the majority Fon ethnic group has the highest level of birth registration (69.3 per cent) of the groups that were coded in the DHS, as compared to 61.7 per cent of Beninese children overall. Conversely, in Namibia, the majority Oshiwambo ethnic group has lower levels of birth registration (65.6 per cent) than four of the ethnic groups and the national level of 70.5 per cent. However, because they are of the minority religious or ethnic group, the sample sizes of children belonging to these groups are often too small to be considered significant and sampling error must be considered.

TABLE B: Birth registration levels, by family situation in select countries (%)

Country	Children living with both parents	Children living with neither parent	Children living with mother only	Children living with father only
Angola	29.8	25.1	28.2	45.4
Dominican Republic	77	64.5	70.5	82.6
Lao People's Democratic Republic	59	51.1	63.6	62.8
Moldova, Republic of	98	96.2	96.5	100
Myanmar	38.5	24.9	38	41

B. Proximate variables

The potential birth registration of a child may influence or be influenced by different events that occur from the child's birth until the age of five. Early childhood services may provide an access point for registration, and the likelihood that the child is registered might be related to whether the birth was assisted by a skilled attendant, whether the child received vitamin A supplements and vaccinations, and whether the child participates in early childhood education. Conversely, registration might be required to access some of these services, and therefore whether the child is registered or not is a determining factor for the fulfilment of additional rights.

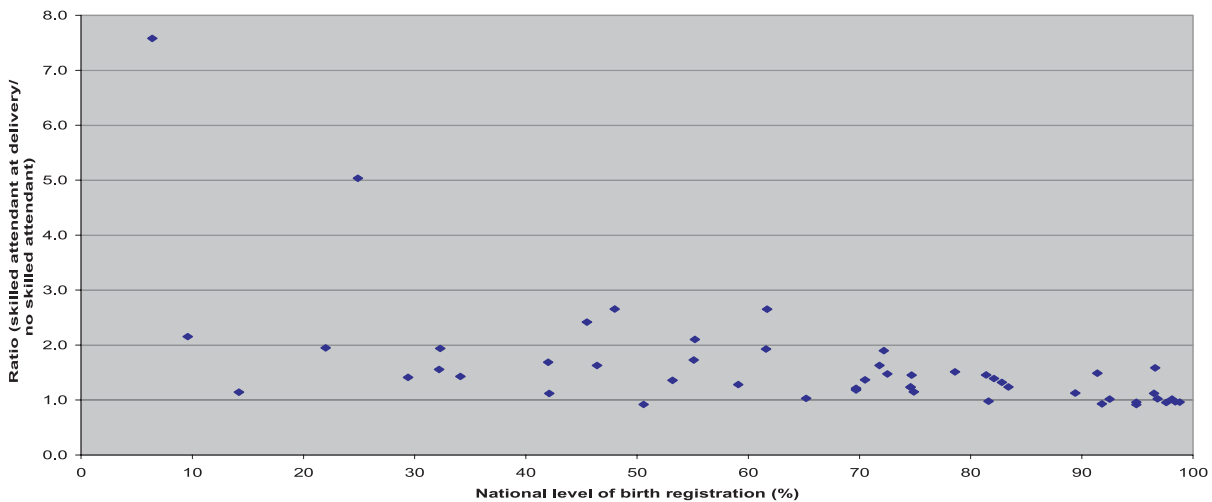
Birth attended by skilled health personnel

In many hospitals and health-care facilities, children are registered immediately after birth. However,

women who give birth at home or in alternative locations often do not have the benefit or ease of immediate registration for their newly born children.

Data from African countries clearly support the hypothesis that children delivered by a skilled attendant have a higher level of birth registration. For example, in Zimbabwe, 45 per cent of births assisted by skilled attendants are registered, compared to 26 per cent of those which are not. The levels are most dramatic in Benin where children whose births were not assisted by skilled health personnel have registration rates of 28 per cent compared to 74 per cent for those whose mothers were assisted with delivery. While less dramatic, the association can also be observed in other regions. In Guyana, birth registration levels are 95 per cent for births assisted by skilled attendants compared with 85 per cent for those which are not, while in the Philippines these levels are 86 per cent and 65 per cent, respectively.

FIGURE 12: Birth registration levels, by skilled attendant at delivery



Disparities in levels of birth registration decrease as the national level of birth registration increases, although significant disparities remain in countries with national registration levels above 90 per cent, such as Armenia, where children whose birth was attended by skilled health personnel are 1.6 times more likely to be registered than those whose birth was not, and Colombia where the ratio is 1.5. In the United Republic of Tanzania, the country with the lowest national levels of birth registration, opposite tendencies are seen: Some 14.4 per cent of children whose mothers received medical assistance at delivery are registered, compared to 1.9 per cent of all children.

Vaccination

Immunization efforts provide an opportunity for health-care workers to be alerted to the absence of a health card or birth certificate, leading vaccination to be viewed as a potential ‘point of entry’ to registration for a child, as well as the opportunity to issue a health card.

Birth registration levels tend to increase with the number of required vaccinations received. For

example, in Burundi, Myanmar, Niger and Trinidad and Tobago, birth registration levels are highest among children that have received all vaccinations, followed by children that have received some vaccinations. Children with no vaccinations have the lowest birth registration levels.

FIGURE 13: Sample birth registration levels, according to received vaccinations

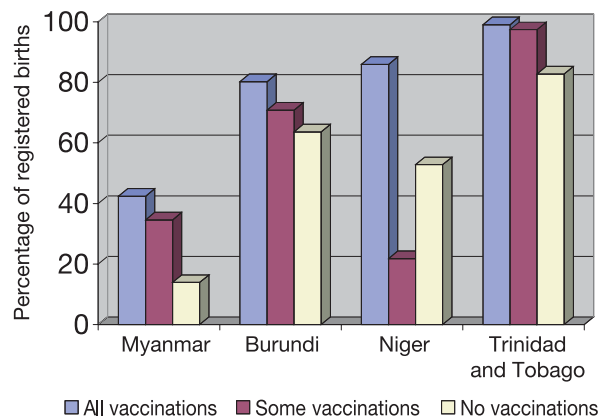
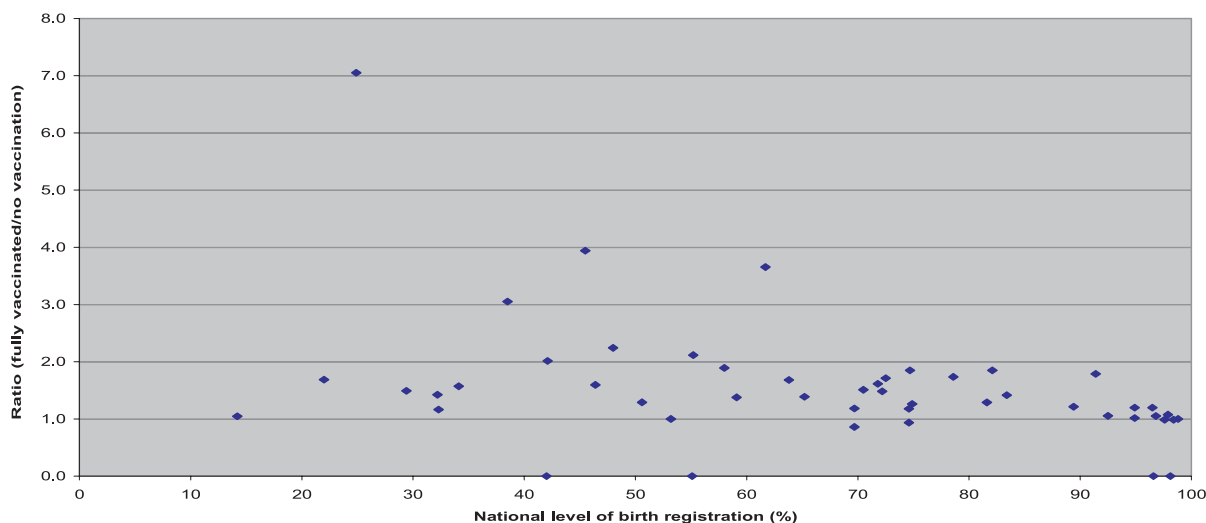


FIGURE 14: Birth registration levels, by vaccination status



Countries where child vaccination and birth registration are closely related include Benin (82 per cent of children who have received all vaccinations are registered compared to 22 per cent who have not received vaccinations), Chad (41 per cent vs. 6 per cent), Myanmar (42 per cent vs. 14 per cent), Niger (86 per cent vs. 22 per cent) and the United Republic of Tanzania (8 per cent vs. 0.4 per cent). Vaccination is not consistently related to disparities in birth registration (*Figure 14, above*): In Swaziland, where the national level of registration is 53 per cent, parity in birth registration rates between children who have been fully vaccinated and children who have not received any vaccination has been achieved, while conversely, in Colombia and Uzbekistan, where national levels are over 90 per cent, disparities in birth registration are associated with whether a child has been vaccinated at ratios of 1.8 and 1.3, respectively.

Vitamin A supplementation

Because lack of vitamin A can lead to irreversible blindness and greater risk of dying from common ailments such as measles, malaria or diarrhoea, children living in poverty are often given high-dose

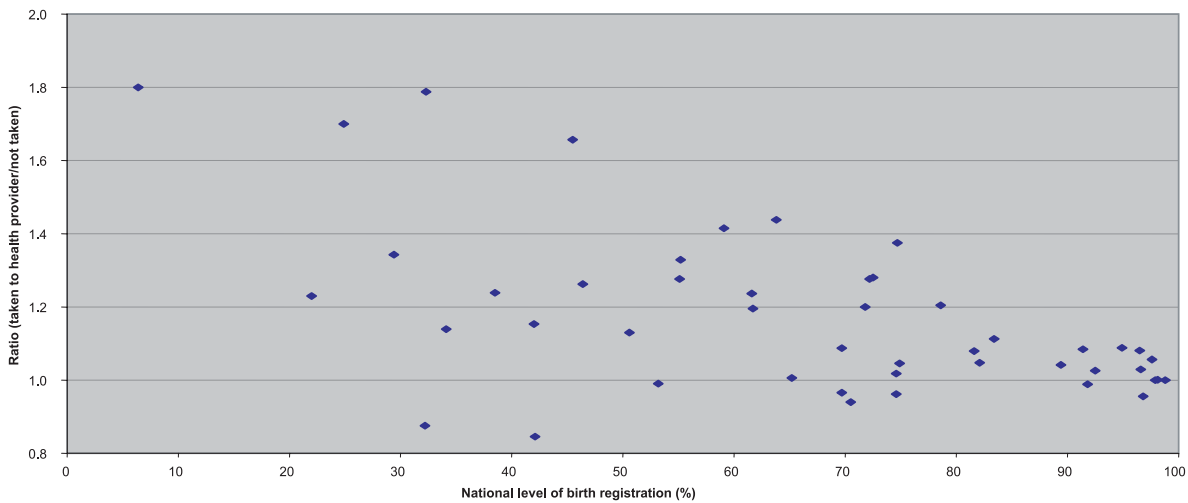
vitamin A capsules as a supplement during National Immunization Days.¹⁹

Higher birth registration levels are observed for children that receive vitamin A in the Dominican Republic (84 per cent vs. 75 per cent), Madagascar (85 per cent vs. 68 per cent), the Philippines (87 per cent vs. 78 per cent) and Senegal (69 per cent vs. 54 per cent). Chad has the highest disparity ratio for birth registration according to receipt of vitamin A supplementation: Some 38 per cent of children receiving the supplement are registered, while only 15 per cent of those not receiving it have their right to registration fulfilled. Disparities in the likelihood of birth registration for children who receive the vitamin A supplement decrease as the national level of birth registration increases.

Acute respiratory infection

Acute respiratory infection (ARI) is the leading cause of death in children under five in developing countries. When children develop signs of the infection – a cough accompanied by short, rapid breathing – caretakers should seek appropriate health care immediately. For unregistered children,

FIGURE 15: Birth registration levels, by whether children with ARI were taken to a health provider



medical care may be less easily available or more expensive than it would be for a child that is considered to be a citizen. Overall, children who are taken to an appropriate health-care provider when suffering from acute respiratory infection have higher levels of birth registration than those who are not.²⁰ For example, in northern Sudan, 72 per cent of children taken to an appropriate provider are registered, while only 50 per cent of other children are. In the Central African Republic, these rates are 84 per cent and 65 per cent, respectively. For some countries, most notably the Gambia and Guinea-Bissau, the opposite is true. Disparities in both directions decrease as the national level of registration increases, with countries whose rates are greater than 80 per cent at or very near parity of registration for this indicator. As national levels of birth registration increase, greater parity in the rate of registration is achieved (see *Figure 15, above*).

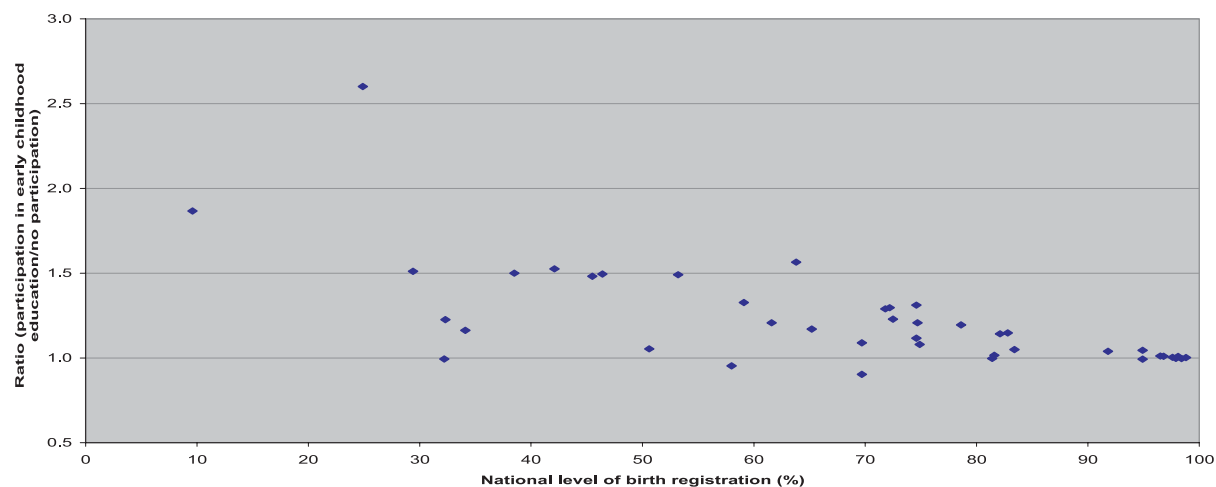
Early childhood education

In many countries, children must present their birth certificates in order to enrol in early childhood education. To determine whether birth registration levels are associated with early childhood education, registration data are cross-tabulated with the proportion of children ages three and four

who are attending some type of educational programme. Birth registration levels are higher among children who attend early childhood education than those who do not (see *Figure 16, page 17*). In Central Europe, Albania, the Republic of Moldova and Uzbekistan have achieved both high registration rates and parity in registration levels between those children who participate in early childhood education and those who do not, but in Tajikistan, 86 per cent of children who do not participate in early childhood education are registered, compared to 96 per cent who do attend. A substantial difference in birth registration levels between attendees and non-attendees of early childhood education is observed in Chad (63 per cent vs. 24 per cent), Swaziland (80 per cent vs. 54 per cent) and Viet Nam (93 per cent vs. 72 per cent). Conversely, in Haiti, children who attend early childhood education are less likely to be registered (76 per cent for those attending vs. 84 per cent for those who are not).

With only two exceptions (Botswana and Haiti), participation in early childhood education programmes increases the likelihood that a child's birth has been registered. In Haiti, children participating in early childhood education are 90 per cent as likely as those not attending to be registered (76 per cent registered for those

FIGURE 16: Birth registration levels, by participation in early childhood education



participating compared to 84 per cent for those not participating). As national levels of birth registration increase, the differences in rates of registration related to whether or not a child participates in early childhood education programming decrease.

C. Knowledge variables

In most countries, the registration of a child’s birth is the responsibility of the child’s parents or guardian. As discussed above, lack of knowledge of the importance of birth registration and the location of a registration centre are reasons why a child may not be registered. The third set of differentials examined is the caretaker’s knowledge of illness and HIV/AIDS. It is hypothesized that a caretaker’s broad awareness of prevention and protection measures will extend to other areas such as a child’s rights including birth registration.

Caretakers’ knowledge of childhood illnesses

Caretakers’ knowledge of illness is determined by the number of caretakers of children aged 0 to 59 months who know at least two of the following signs for seeking health care immediately:

- The child is not able to drink or breastfeed
- The child becomes more sick
- The child develops a fever
- The child has fast breathing
- The child has difficulty breathing
- The child has blood in stool
- The child is drinking poorly.

The data was cross-tabulated with the birth registration data in order to determine if there is an association. Data from sub-Saharan African countries indicate a positive association between the caretaker’s knowledge of illness and birth registration levels. For example, in Chad, 29 per cent of children are registered by caretakers who know two signs of illness, while 17 per cent of children are registered by caretakers who do not know two signs of illness. In Zambia, the rate of registered children is 16 per cent when caretakers have knowledge of illness signs and 9 per cent when they do not. Yet, in other countries, the data do not confirm this association, with comparable levels of birth registration for each category of knowledge. For instance, in Bolivia, there is relative parity in the registration levels, with 83 per cent of children registered by caretakers that know two

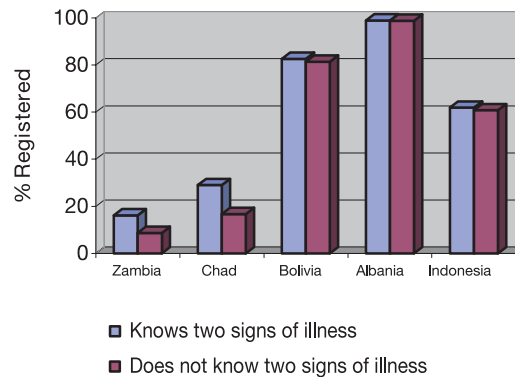
signs of illness, and 82 per cent of children registered by those who do not have this knowledge. Similar parity is seen in Albania (99 per cent) and Indonesia (61 per cent as compared to 62 per cent).

The impact of caretakers' knowledge of childhood illness on child registration appears to be strongly related to the national level of birth registration (see *Figure 18, below*). Disparities in birth registration rates favour those children whose caretakers have sufficient knowledge of childhood illness, particularly in the low-registration countries of Chad (29 per cent registration rates for children whose caretakers have sufficient knowledge compared to 17 per cent for those whose caretakers do not) and Zambia (16 per cent vs. 9 per cent). Significant exceptions to this trend are Guinea-Bissau (34 per cent vs. 57 per cent) and Sierra Leone (42 per cent vs. 63 per cent) where a negative association between knowledge of illness and birth registration is observed.

Caretakers' knowledge of HIV/AIDS

Knowledge of HIV/AIDS is another indicator that may influence protective behaviour. Women aged 15 to 49 were surveyed for their knowledge of

FIGURE 17: Birth registration levels, according to caretaker's knowledge of signs of illness



HIV/AIDS prevention and misconceptions. 'Comprehensive and correct knowledge of HIV' is defined as knowing three major ways to prevent transmission (namely, having one faithful uninfected partner; using a condom every time; and abstaining from sex) and knowing the facts behind three major misconceptions (that HIV/AIDS is not transmitted by supernatural means; that it is not transmitted by mosquito bites; and that a healthy-looking person can be infected). When cross-tabulated with the HIV/AIDS knowledge data, birth registration levels

FIGURE 18: Birth registration levels, by caretaker's knowledge of childhood illnesses

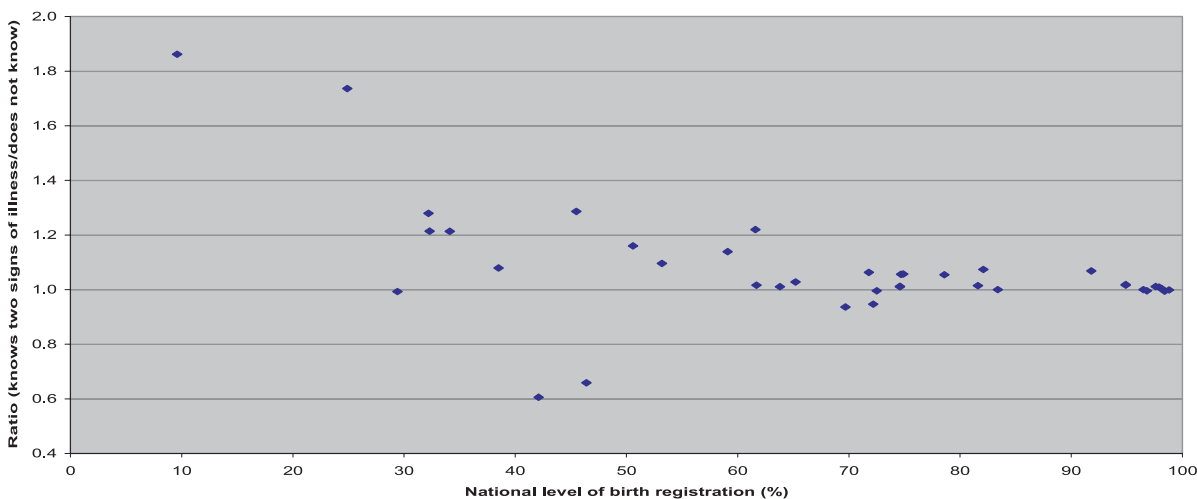
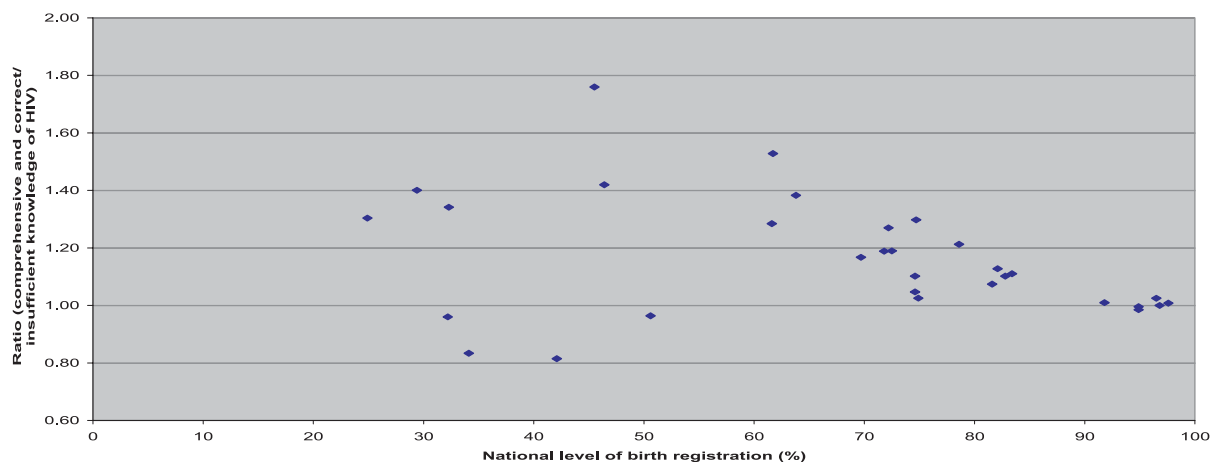


FIGURE 19: Birth registration levels, by mother's knowledge of HIV/AIDS



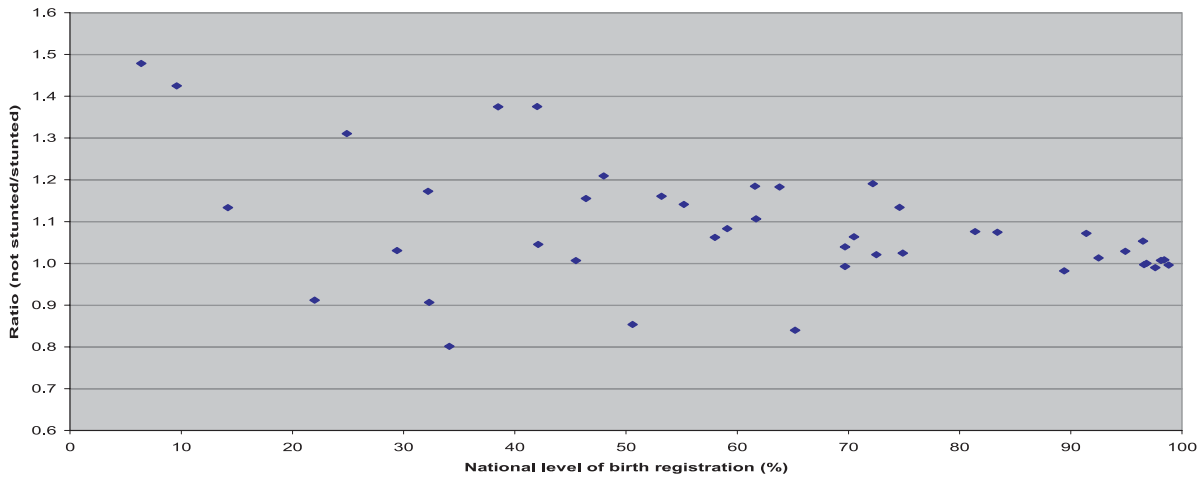
appear to be higher among women with comprehensive and correct knowledge of HIV. In Indonesia, registration levels are substantially higher for children whose caretakers have comprehensive and correct knowledge of HIV (92 per cent vs. 60 per cent). In Niger, children of caretakers with comprehensive and correct knowledge have birth registration levels of 78 per cent, compared with 45 per cent. In most countries, having a mother who is knowledgeable about HIV/AIDS makes a child more likely to be registered. For example in Niger, 78 per cent of children whose mothers have comprehensive and correct knowledge of HIV are registered as compared to only 45 per cent of children whose mothers do not have this knowledge: Children of knowledgeable mothers are 80 per cent more likely to be registered. The disparity acts to disfavour those children whose mothers have comprehensive and correct knowledge of HIV/AIDS in the Democratic Republic of the Congo, the Gambia, Guinea-Bissau and Lesotho. In the Democratic Republic of the Congo and Guinea-Bissau, children whose mothers have comprehensive and correct knowledge of HIV are, respectively, only 83 per cent and 82 per cent as likely to be registered as children whose mothers do not.

D. Malnutrition and mortality

Malnutrition

Cross-tabulating child malnutrition rates with birth registration levels indicates a negative association between malnutrition and registration. Overall, children receiving adequate nutrition are more likely to be registered. Again, the highest rates of disparity are observed in the countries with the lowest national levels of birth registration: the United Republic of Tanzania and Zambia. High rates of disparity are also seen in countries with higher national registration rates such as Myanmar, where 43 per cent of children who are not malnourished are registered, compared to 32 per cent of children who are malnourished, and Zimbabwe where 43 per cent of children who are not malnourished are registered compared to 32 per cent registration rates for children suffering the effects of malnutrition. Unexpectedly, children experiencing stunting are more likely to be registered in the Democratic Republic of the Congo and Rwanda than children who are not stunted.

FIGURE 20: Birth registration levels, according to malnutrition rates

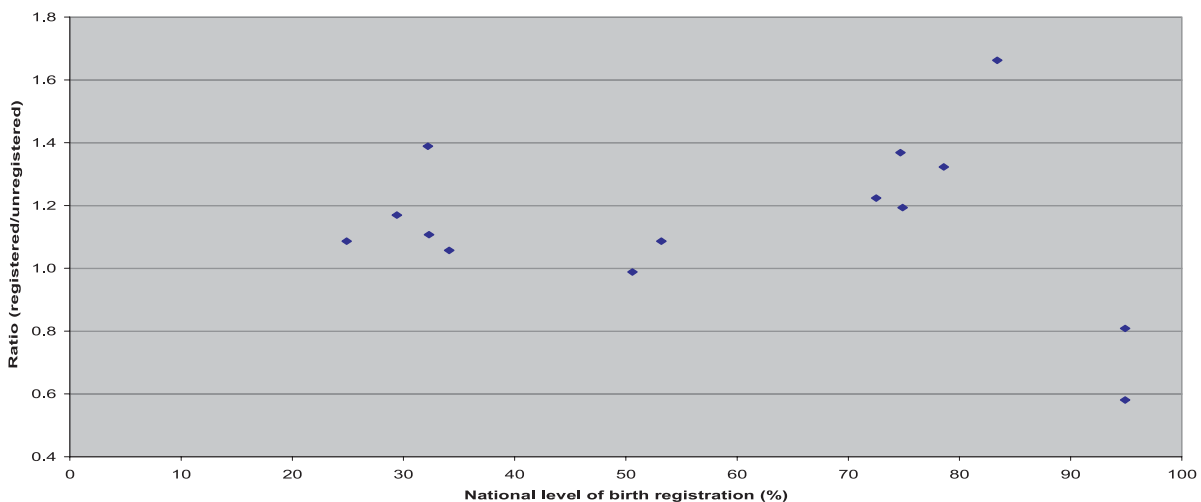


Mortality

Under-five mortality is measured through an indirect method of estimation which is the number of 'children ever born/children surviving.' The proportion of 'children dead' is reported for those that are registered at birth as well as for those that are not. This measure can be used to analyse the disparity in mortality levels between the registered and non-registered children. There is an assumption that unregistered children have higher levels of mortality. Cross-country comparisons are possible by examining the mortality ratio of non-registered to registered children.

The disparities in mortality levels between registered and non-registered children are relatively small. With the exceptions of Suriname and Trinidad and Tobago, two countries with high national registration rates of 95 per cent, children who die before the age of five are less likely to be registered than children who survive. However, the reverse is true in the Comoros, another country with a high national level of birth registration (83 per cent): The child mortality rate is 0.133 per 1,000 live births for children who are not registered, as compared to 0.08 per 1,000 live births for children who are.

FIGURE 21: Birth registration levels, according to child mortality



V. MULTIVARIATE ANALYSIS

While the descriptive analysis provides a picture of which children are being registered, it does not provide an analysis of which of the variables examined is significant to determining the registration status of the child. To assess the statistical significance across 63 select countries, a multivariate analysis, using a logistic regression model, was performed for each country.²¹ The resulting coefficients provide the direction and magnitude of the change in the likelihood that a child would be registered associated with a one-unit change in the variable in question (for example, from a child being less than one year of age to being between one and two years of age or comparing a child living in a rural area to a child living in an urban area). The significance of the changes in probability that a child's birth would be registered across the 63 countries are summarized in Tables C and D (*pages 22 and 23*).

Age is a highly significant variable for whether a child is registered or not. In 47 countries, children older than one year are significantly more likely to be registered than children who have not yet reached their first birthday. Mothers' education also plays a big role: Children whose mothers received some education tend to have greater levels of registration in 41 countries. Household wealth is a significant factor for birth registration in 35 countries, with children from the richest 20 per cent of those countries more likely to be registered than children from the poorest 20 per cent of the population.

The impact of living in an urban area on birth registration is inconsistent: In 11 countries, living in a rural area leads to a greater tendency towards birth registration, while in 18 other countries living in an urban area leads to higher registration rates. These findings differ from the descriptive analysis alone, where in only five countries are rural children more likely to be registered (Bosnia and Herzegovina, Democratic Republic of the Congo, Guinea-Bissau, Lesotho and Rwanda). The difference between the descriptive and multivariate analyses might be explained by the significance of additional factors,

such as poverty, or the targeting of programmes toward rural areas.

Gender is predominantly an insignificant variable in the analysis, significant in only seven countries. Confirming the findings of the descriptive analysis, boys are significantly more likely to be registered in Mauritania and Niger. The multivariate analysis found that girls are significantly more likely to be registered in Colombia, Equatorial Guinea, Haiti, Lesotho and Mongolia. However, of these countries, only Colombia and Lesotho registered this trend in the descriptive analysis, which looks at gender disparities separately from other variables, such as poverty. The increased tendency for girls to be registered observed in the multivariable analysis may be due to the interactions between gender and other factors such as whether the child lives with both parents or the education level of the mother. The descriptive analysis also observed that as national levels of birth registration increase, disparities related to gender decrease, indicating that other factors may be more responsible for continued non-registration rates. However, in Colombia and Mongolia, where registration rates are greater than 90 per cent, gender is a significant variable in determining which children are among the unreached when considering birth registration.

Religion and ethnicity are also significant in 11 of the 15 countries for which data were available. In eight of these countries, being a member of the majority ethnic or religious group makes a child more likely to be registered than being from a minority religious or ethnic background. However, in three countries some minority groups have a greater tendency to register their children. For example, in Indonesia, Buddhist children are more likely to be registered than Muslim ones, while Hindu and Confucian children are less so.

The descriptive analysis demonstrates that many countries have high levels of disparity in registration rates with respect to whether or not a child received vaccinations. In 43 countries, having a vaccination card makes children significantly more likely to be registered. Another proximate determinant variable that plays a striking role is the receipt of vitamin A,

which is significant and positive in 21 of the 39 MICS survey countries. For the DHS survey countries, having skilled assistance at delivery significantly increases whether a child is registered in 13 of the 15 countries analysed.²²

The logistic analysis of each country provides information that can be useful in determining the most effective and efficient interventions to increase the level of birth registration in a country. In the descriptive analysis, it was observed that 70 per cent of births are registered in Haiti, and that 60 per cent of the poorest 20 per cent are registered compared to 84 per cent of the wealthiest 20 per cent. The multivariate analysis shows that household wealth is a highly significant variable, confirming that the wealthiest 20 per cent of children are 260 per cent more likely to be registered than the poorest 20 per cent. While poverty alleviation is

a long and necessary process, the finding that having access to vaccination (doubling the likelihood) and assistance at birth (increasing the likelihood of registration by 50 per cent) are highly significant variables may be useful in determining effective programming interventions. In Chad, where only 25 per cent of births are registered, household wealth is again a significant determinant of birth registration of relatively high magnitude compared to the other socio-demographic variables. According to the descriptive analysis, only 13 per cent of the poorest 20 per cent of children are registered, compared to 46 per cent of the richest 20 per cent of the population. For the children of Chad, the knowledge of their caretaker is a significant factor in whether or not they are registered (having a mother who has received primary education and/or having a caretaker who knows at least two signs of illness lead to a 60 per

TABLE C: Summary of the multivariate analysis of the effects of background characteristics on birth registration in 15 DHS countries

Background characteristics	Number of countries where background characteristic is significant* and positive	Number of countries where background characteristic is significant* and negative	Number of countries where background characteristic is insignificant
Lives in urban area	3	4	8
Mother had no formal education	15	0	0
Ethnicity/religion	3	8	4
Gender (boys)	2	1	12
Less than one year old	14	0	1
Has vaccination card	14	0	1
Had diarrhoea during last week before interview	0	6	9
Had fever during last two weeks before interview	2	4	9
Suffers from stunting	2	1	12
Lives with both parents	0	2	13
Skilled attendance at delivery	13	0	2
From poorest 20 %	14	0	1

* 5 per cent level of significance

Table D: Summary of the multivariate analysis of the effects of background characteristics on birth registration in 39 MICS countries

Background characteristics	Number of countries where background characteristic is significant* and positive	Number of countries where background characteristic is significant* and negative	Number of countries where background characteristic is insignificant
Lives in urban area	8	14	15
Mother has no education	26	1	10
Gender (boys)	3	1	35
Less than one year old	33	0	6
No vaccination card	0	29	10
Had diarrhoea in the last two weeks before interview	3	7	29
Had acute respiratory infection in the last two weeks before interview	1	2	36
Received vitamin A	21	0	9
Caretaker knows two signs of illness	14	4	20
Suffers from stunting	8	4	17
Lives with both parents	2	13	24
From poorest 20 %	21	5	12

* 5 per cent level of significance

cent greater chance of being registered). Receiving vitamin A supplements is another highly significant variable, with those children who receive the supplement being 140 per cent more likely to be registered than those who do not, confirming the relevance of receiving vitamin A to the disparities in registration between the registration rates of 38 per cent for those who receive the supplement and 15 per cent for those who do not.

VI. CONCLUSIONS AND RECOMMENDATIONS

Statistical analysis of the MICS and DHS data creates a profile of children who are not likely to be registered at birth. In general, the data in this study show that children under five who have been denied the right

to identity tend to be poor, live in rural areas, have limited access to health care, are not attending early childhood education, have higher levels of malnutrition and have higher mortality rates. They are likely to have been born without the support of a health professional or midwife, and their mothers have low levels of formal education and are less likely to have adequate knowledge of signs of some child illnesses and of HIV/AIDS transmission. There is some likelihood that these children will be registered at some point during their lives when the lack of a birth certificate prevents them from accessing education or health services, or realizing their right to legal protection as children. However, even this is not certain, because a significant number of children grow up without ever being registered.

Rural poverty may negatively affect numbers of registered children

Birth registration advocacy and programming have been based on the assumption that household wealth, access to government services and education of children's caretakers would increase the likelihood of a child being registered at birth. The hypothesis is strengthened by the statistical data analysed above. For example, most countries show that birth registration is highest among the richest 20 per cent of the population, confirming that poverty is associated with low levels of birth registration. Families with scarce resources may be deterred by fees for birth certification due to its direct costs and opportunity costs — time, absence from work and household responsibilities.

In areas where there are significant disparities in birth registration rates, programmatic interventions should target rural children living in poverty and their families. Decentralized national systems of birth registration, removal of fees and penalties, and awareness-raising campaigns can help to reduce the numbers of children without birth registration. In countries where fees have been removed, the perceived barriers of expense can be mitigated by public awareness campaigns and innovative programmes such as mobile or house-to-house registration campaigns at the national level. In countries where fees for birth registration and late penalties still apply, interventions should be targeted at policy and legal reform, an approach that was successfully undertaken in Bolivia where advocacy efforts have led to the removal of registration fees for all children under seven.

Integrated programmes can benefit birth registration rates

The lack of birth registration is one of many factors that can cause children to be disadvantaged in life. It is likely that children who are not registered are the same children that are disadvantaged in terms of socio-economic status, education, health care and protection. For example, as the above analysis demonstrates, there is a confluence between children who are registered and those who are fully

vaccinated, receive vitamin A supplementation, and/or are taken to a health-care professional when ill. The analysis demonstrates the potential for integration between birth registration and programming for maternal and child health and early childhood development.

It is important to devise programmes in such a way that children and caregivers who seek health-care and education services are given information on how to obtain birth registration documents. Conversely, health and education information and materials might be provided to parents and caretakers when they go to register their children's births.

Improving mothers' knowledge and education might benefit birth registration rates

There is a positive correlation between the mother's education level and her child's likelihood to be registered. The data also suggest a statistical association between a mother's health-related knowledge and children's levels of birth registration. A mother's knowledge of acute respiratory infection, HIV/AIDS and signs of a child's illness increase the likelihood of a child being registered at birth. This creates an imperative for programming around the education of girls and interventions to provide information to and increase the knowledge of women and families.

Programming to increase birth registration rates

Mapping levels of birth registration is useful for determining where to launch new birth registration campaigns and for tracking future progress by comparing birth registration levels at different points in time.

Information regarding non-registration is useful for programmatic purposes. For countries where the initial cost or late fees are listed as major barriers to registration, the national government may decide to adjust or abolish fees in order to increase registration rates. In countries where the population perceives distance to be the main barrier, mobile units may be employed to reach rural populations.

Alternatively, the government body responsible for registering births may choose to collaborate with religious organizations, national and international non-governmental organizations, the civil service, or the armed forces to increase coverage beyond the municipalities (i.e. in churches, schools, health centres, or camps for internally displaced persons).²³ Finally, for countries where the major reasons for non-registration are the lack of knowledge about the importance of birth registration or the location of registration centres, it is necessary to conduct effective information campaigns that reach all sectors of society.

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- 1 UNICEF Innocenti Research Centre, 'Birth Registration: Right from the Start', *Innocenti Digest No. 9*, UNICEF Florence, March 2002.
- 2 Ibid.
- 3 ChildInfo website:
<http://www.childinfo.org/eddb/birthreg/index.htm>
- 4 UNICEF Innocenti Research Centre, 'Birth Registration: Right from the Start', op. cit.
- 5 Ibid.
- 6 Most states consider a delay of more than 30 days in registering a birth as late registration. Ibid.
- 7 Figures in this section consist of data from household surveys as well as from vital registration systems.
- 8 UNICEF Innocenti Research Centre, 'Birth Registration: Right from the Start', op. cit.
- 9 The category "other reason" accounts for a wide range of percentages across the 44 countries with available data — from 1 per cent in Venezuela to 89 per cent in Uzbekistan. It would be necessary to re-examine each of the individual response sheets to determine the other reasons for non-registration and to recode the questionnaire.
- 10 The 20 countries where the most common reason for not registering a child was "costs too much" are: Angola, Armenia, Azerbaijan, Bolivia, Cameroon, Colombia, Comoros, Côte d'Ivoire, Dominican Republic, Equatorial Guinea, Guinea-Bissau, Indonesia, Republic of Moldova, Nicaragua, Philippines, Rwanda, Swaziland, Tajikistan, Togo and Vietnam.
- 11 The 14 countries where the most common reason for not registering a child was "must travel too far" are: Albania, Bosnia and Herzegovina, Botswana, Central African Republic, Chad, Guyana, Lesotho, Madagascar, Mongolia, Myanmar, Niger, Senegal, Suriname and Uzbekistan.
- 12 The eight countries where the most common reason for not registering a child was "did not know child should be registered" are: Benin, Burundi, Democratic Republic of the Congo, Gambia, Kenya, Lao People's Democratic Republic, northern Sudan and Zambia.
- 13 "Late and did not want to pay fine" was the most common reason for non-registration noted in Sao Tome and Principe and the second most common reason in Albania, Colombia, Guyana, Lesotho and Myanmar.
- 14 "Does not know where to register" was the most common reason for non-registration in Sierra Leone and Venezuela, and the second most common reason in Benin, Bosnia and Herzegovina, Gambia, Lao People's Democratic Republic and Zambia.
- 15 As Africa is the region with the greatest proportion of countries available, the map is provided to illustrate differences in disparities between countries.
- 16 This may be explained by a birth registration campaign or mobile unit programme in the province.
- 17 Countries with a ratio near 1 have the greatest parity in birth registration between the richest and poorest quintiles of the population. Those with a ratio >1 have higher birth registration levels in the richest quintile. The higher the ratio, the greater the disparity. Conversely, countries with a ratio <1 have higher birth registration levels in the poorest quintile.
- 18 United Nations Children's Fund, *End-Decade Multiple Indicator Survey Manual: Monitoring Progress Toward the Goals of the 1990 World Summit for Children*, UNICEF, New York, 2000.
- 19 Annan, Kofi A. *We the Children: Meeting the Promises of the World Summit for Children. Abridged report of the United Nations Secretary-General*, UNICEF, New York, 2001.
- 20 The definition of 'appropriate health-care provider' is usually agreed upon at country level, and includes physicians and public-sector health-care workers trained in acute respiratory infection case management. UNICEF, *End-Decade Multiple Indicator Survey Manual: Monitoring Progress Toward the Goals of the 1990 World Summit for Children*, op. cit.
- 21 Countries and territories included in the multivariate analysis are: Afghanistan, Albania, Angola, Armenia, Azerbaijan, Benin, Guinea-Bissau, Bolivia, Bosnia and Herzegovina, Botswana, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Colombia, Côte d'Ivoire, Comoros, Democratic People's Republic of Korea, Democratic Republic of the Congo, Dominican Republic, Equatorial Guinea, Gabon, Gambia, Georgia, Guyana, Haiti, India, Indonesia, Iraq, Kenya, Lao People's Democratic Republic, Lesotho, Madagascar, Maldives, Mauritania, Republic of Moldova, Mongolia, Myanmar, Namibia, Nicaragua, Niger, Nigeria, Occupied Palestinian Territory, Peru, Philippines, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Sudan, Suriname, Swaziland, Tajikistan, United Republic of Tanzania, Togo, Trinidad and Tobago, Uganda, Uzbekistan, Venezuela, Viet Nam, Zambia and Zimbabwe.
- 22 The presence of a skilled birth attendant during delivery was not included in the analysis of the MICS countries because of high frequencies of missing data for this variable.
- 23 This has been done successfully in Angola as part of a two-year national birth registration campaign.

TABLE 1: Percentages of children under five who are registered

Countries and territories	Year and source	Total
Afghanistan	2003 MICS	6.2
Albania	2000 MICS	98.8
Angola	2000 MICS	29.4
Armenia	2000 DHS	96.6
Azerbaijan	2000 MICS	96.8
Benin	2001 DHS	61.7
Bolivia	2000 MICS	81.6
Bosnia and Herzegovina	2000 MICS	98.4
Botswana	2000 MICS	58.0
Burundi	2000 MICS	74.9
Cambodia	2000 DHS	22.0
Cameroon	2000 MICS	78.6
Central African Republic	2000 MICS	72.5
Chad	2000 MICS	24.9
Colombia	2001 DHS	91.4
Comoros	2000 MICS	83.4
Congo, Democratic Republic of the	2000 MICS	34.1
Côte d'Ivoire	2000 MICS	71.8
Dominican Republic	2000 MICS	74.6
Equatorial Guinea	2000 MICS	32.3
Gabon	2000 DHS	89.4
Gambia	2000 MICS	32.2
Georgia	1999 MICS	94.6
Guinea-Bissau	2000 MICS	42.1
Guyana	2000 MICS	96.5
Haiti	2000 DHS	69.7
India	2000 MICS	34.7
Indonesia	2002 DHS	55.1
Iraq	2000 MICS	98.1
Kenya	2003 DHS	48.0
Korea, Democratic People's Republic of	2000 MICS	98.9
Lao People's Democratic Republic	2000 MICS	59.1
Lesotho	2000 MICS	50.6
Madagascar	2000 MICS	74.7
Maldives	2000 MICS	73.0
Mauritania	2000 DHS	55.2
Moldova, Republic of	2000 MICS	97.9
Mongolia	2000 MICS	97.6
Myanmar	2000 MICS	38.5
Namibia	2000 DHS	70.5
Nepal	2000 MICS	34.0
Nicaragua	2001 DHS	81.4
Niger	2000 MICS	45.5
Nigeria	1999 MICS	28.2
Occupied Palestinian Territory	2000 MICS	99.5
Peru	2000 DHS	92.5
Philippines	2000 MICS	82.8
Rwanda	2000 MICS	65.2
Sao Tome and Principe	2000 MICS	69.7
Senegal	2000 MICS	61.6
Sierra Leone	2000 MICS	46.4
Sudan (northern)	2000 MICS	63.8
Suriname	2000 MICS	94.9
Swaziland	2000 MICS	53.2
Tajikistan	2000 MICS	74.6
Tanzania	1999 DHS	6.4
Togo	2000 MICS	82.1
Trinidad and Tobago	2000 MICS	94.9
Uganda*	2000 DHS	14.2
Uzbekistan	2000 MICS	99.5
Venezuela	2000 MICS	91.8
Viet Nam	2000 MICS	72.2
Zambia	2000 MICS	9.6
Zimbabwe	1999 DHS	42.0

* Data for Uganda is based only on children who were weighed at birth.

Table 2: Percentages of children under five who are registered, according to socio-demographic variables

Countries and territories	Total	Gender			Residence			Mother's education							
		Male	Female	Male/female	Urban	Rural	Urban/rural	None	Primary	Primary/none	Secondary	Secondary/primary	Tertiary	Non Standard	
Afghanistan	6.2	6.8	5.6	1.21	16.7	4.1	4.07	—	—	—	—	—	—	—	
Albania	98.8	98.7	99.0	1.00	98.7	98.9	1.00	—	98.6	—	—	99.1	1.01	99.4	—
Angola	29.4	28.6	30.2	0.95	33.8	19.4	1.74	20.3	31.1	1.53	50.6	1.63	—	—	
Armenia	96.6	97.3	95.7	1.02	99.5	93.6	1.06	—	100.0	—	95.9	0.96	100.0	—	
Azerbaijan	96.8	96.9	96.7	1.00	98.1	95.5	1.03	—	97.7	—	93.7	0.96	96.6	—	
Benin	61.7	62.3	61.2	1.02	71.0	57.6	1.23	56.7	71.3	1.26	87.8	1.23	94.9	—	
Bolivia	81.6	82.5	80.6	1.02	83.2	79.2	1.05	80.4	78.0	0.97	86.4	1.11	—	87.4	
Bosnia and Herzegovina	98.4	98.7	98.1	1.01	97.9	98.6	0.99	—	97.2	—	99.2	1.02	—	—	
Botswana	58.0	59.0	57.0	1.04	65.6	52.1	1.26	—	—	—	—	—	—	—	
Burundi	74.9	73.7	76.0	0.97	71.2	75.2	0.95	70.7	76.8	1.09	81.1	1.06	—	76.6	
Cambodia	22.0	21.7	22.3	0.97	29.9	20.8	1.44	16.4	22.5	1.37	33.4	1.48	60.4	—	
Cameroon	78.6	80.3	76.9	1.04	93.7	72.3	1.30	63.6	84.3	1.33	92.0	1.09	—	80.5	
Central African Republic	72.5	73.2	71.9	1.02	87.5	63.0	1.39	63.9	80.7	1.26	91.7	1.14	—	—	
Chad	24.9	25.7	24.2	1.06	52.6	17.5	3.01	19.5	31.4	1.61	49.6	1.58	—	15.1	
Colombia	91.4	90.7	92.1	0.98	94.8	83.9	1.13	75.5	86.3	1.14	95.5	1.11	99.1	—	
Comoros	83.4	83.4	83.5	1.00	86.9	82.5	1.05	79.3	91.8	1.16	94.6	1.03	—	75.5	
Congo, Democratic Republic of the	34.1	33.4	34.7	0.96	29.5	36.6	0.81	34.5	33.9	0.98	34.4	1.01	—	25.9	
Côte d'Ivoire	71.8	72.7	71.0	1.02	88.0	59.9	1.47	67.5	76.2	1.13	91.2	1.20	98.2	82.4	
Dominican Republic	74.6	75.0	74.2	1.01	82.3	65.5	1.26	51.6	67.4	1.31	88.2	1.31	—	—	
Equatorial Guinea	32.3	34.6	29.9	1.16	43.4	24.3	1.79	25.6	6.4	0.25	27.9	4.36	41.0	—	
Gabon	89.4	89.1	89.8	0.99	90.2	87.2	1.03	85.1	88.8	1.04	90.1	1.01	100.0	—	
Gambia	32.2	34.0	30.3	1.12	37.0	29.3	1.26	29.9	42.2	1.41	41.9	0.99	—	—	
Georgia	94.6	94.9	94.4	1.01	97.4	91.6	1.06	—	—	—	—	—	—	—	
Guinea-Bissau	42.1	43.1	41.2	1.05	31.7	46.7	0.68	42.7	38.3	0.90	42.0	1.10	57.8	29.8	
Guyana	96.5	96.9	96.0	1.01	98.6	95.7	1.03	78.1	95.3	1.22	97.4	1.02	—	100.0	
Haiti	69.7	70.3	69.1	1.02	78.3	65.6	1.19	64.4	70.4	1.09	80.8	1.15	95.7	—	
India	34.7	—	—	—	53.7	28.9	1.86	—	—	—	—	—	—	—	
Indonesia	55.1	55.4	54.7	1.01	68.7	43.0	1.60	22.4	44.3	1.98	65.5	1.48	93.7	—	
Iraq	98.1	98.1	98.1	1.00	98.7	97.2	1.02	97.3	98.1	1.01	99.1	1.01	—	99.7	
Kenya	48.0	47.6	48.3	0.99	64.2	44.2	1.45	25.0	46.5	1.86	66.2	1.42	86.8	—	
Korea, Democratic People's Republic of	98.9	99.1	98.7	1.00	99.2	98.5	1.01	—	—	—	98.9	—	—	—	
Lao People's Democratic Republic	59.1	59.1	59.0	1.00	70.9	55.5	1.28	52.1	61.4	1.18	71.5	1.16	—	70.2	
Lesotho	50.6	49.1	52.1	0.94	40.7	53.0	0.77	59.3	50.4	0.85	49.2	0.98	—	50.0	
Madagascar	74.7	75.5	73.8	1.02	84.4	72.3	1.17	61.1	77.2	1.26	91.8	1.19	—	100.0	
Maldives	73.0	76.3	68.8	1.11	—	—	—	—	—	—	—	—	—	—	
Mauritania	55.2	57.0	53.2	1.07	72.4	42.1	1.72	49.2	67.7	1.38	77.3	1.14	79.8	45.0	
Moldova, Republic of	97.9	97.9	97.8	1.00	98.0	97.8	1.00	100.0	100.0	1.00	97.8	0.98	—	—	
Mongolia	97.6	97.2	98.0	0.99	98.0	97.3	1.01	97.8	97.9	1.00	96.9	0.99	—	97.8	
Myanmar	38.5	38.0	38.9	0.98	64.9	31.2	2.08	22.9	35.4	1.55	53.5	1.51	—	36.8	
Namibia	70.5	70.5	70.4	1.00	82.1	64.3	1.28	51.6	66.1	1.28	78.2	1.18	95.5	—	
Nepal	34.0	—	—	—	36.8	33.7	1.09	—	—	—	—	—	—	—	
Nicaragua	81.4	81.9	80.8	1.01	90.1	72.6	1.24	62.9	81.1	1.29	93.0	1.15	94.5	—	
Niger	45.5	47.0	43.8	1.07	84.6	39.6	2.14	40.4	71.4	1.77	88.5	1.24	—	54.5	
Nigeria	28.2	27.7	28.8	0.96	49.0	20.2	2.43	16.6	41.4	2.49	62.0	1.50	—	—	
Occupied Palestinian Territory	99.5	99.7	99.3	1.00	99.6	99.4	1.00	99.8	99.2	0.99	99.4	1.00	—	—	
Peru	92.5	92.7	92.3	1.00	92.9	92.1	1.01	89.7	91.3	1.02	92.6	1.01	96.6	—	
Philippines	82.8	82.7	83.0	1.00	86.6	78.1	1.11	—	—	—	—	—	—	—	
Rwanda	65.2	64.8	65.6	0.99	61.4	65.9	0.93	64.3	65.9	1.02	64.2	0.97	—	100.0	
Sao Tome and Principe	69.7	69.8	69.7	1.00	72.8	67.1	1.08	62.9	67.4	1.07	77.0	1.14	—	—	
Senegal	61.6	62.1	61.1	1.02	81.8	51.2	1.60	55.9	81.2	1.45	87.1	1.07	—	58.8	
Sierra Leone	46.4	47.5	45.4	1.05	65.7	40.1	1.64	42.1	64.4	1.53	72.2	1.12	—	—	
Sudan (northern)	63.8	64.3	63.4	1.01	82.2	46.2	1.78	48.0	83.0	1.73	93.4	1.13	—	67.9	
Suriname	94.9	94.9	95.4	0.99	93.9	94.0	1.00	93.9	93.4	0.99	95.9	1.03	—	—	
Swaziland	53.2	54.2	52.1	1.04	71.6	49.7	1.44	45.5	50.6	1.11	60.4	1.19	—	32.3	
Tajikistan	74.6	75.4	73.7	1.02	77.0	73.9	1.04	59.6	57.1	0.96	74.9	1.31	—	100.0	
Tanzania, United Republic of	6.4	7.5	5.4	1.39	21.8	2.9	7.52	2.7	5.6	2.07	49.2	8.79	—	—	
Togo	82.1	83.0	81.2	1.02	93.1	78.0	1.19	82.1	34.4	0.42	100.0	2.91	—	—	
Trinidad and Tobago	94.9	94.6	95.2	0.99	—	—	—	—	—	—	—	—	—	—	
Uganda*	14.2	12.7	15.8	0.80	15.3	13.8	1.11	11.6	13.1	1.13	16.9	1.29	24.8	—	
Uzbekistan	99.5	99.5	99.6	1.00	99.5	99.5	1.00	—	100.0	—	99.5	1.00	—	—	
Venezuela	91.8	90.8	92.9	0.98	—	—	—	79.0	91.5	1.16	92.9	1.02	—	—	
Viet Nam	72.2	71.5	73.0	0.98	91.5	67.8	1.35	35.0	65.0	1.86	79.1	1.22	99.0	58.8	
Zambia	9.6	9.5	9.6	0.99	15.5	6.4	2.42	4.7	9.0	1.91	16.1	1.79	—	—	
Zimbabwe	42.0	42.2	41.7	1.01	56.0	35.0	1.60	27.6	32.9	1.19	51.0	1.55	79.9	—	

* Data for Uganda is based only on children who were weighed at birth.
 — Data not available.

Table 2: continued

Countries and territories	Wealth index			Living arrangements			
	Poorest 20%	Richest 20%	Richest/poorest	Living with both parents	Living with neither parent	Living with mother only	Living with father only
Afghanistan	—	—	—	—	—	—	—
Albania	98.5	97.9	1.0	98.9	100.0	97.8	100.0
Angola	16.9	48.0	2.8	29.8	25.1	28.2	45.4
Armenia	92.7	100.0	1.1	96.6	—	100.0	—
Azerbaijan	96.9	98.4	1.0	96.9	100.0	93.0	100.0
Benin	43.4	84.8	2.0	69.9	—	59.9	—
Bolivia	82.9	76.7	0.9	82.3	77.4	76.6	89.0
Bosnia and Herzegovina	—	—	—	98.1	—	96.6	100.0
Botswana	47.3	75.2	1.6	60.8	55.6	58.9	43.8
Burundi	70.6	76.1	1.1	75.5	75.4	70.6	74.5
Cambodia	15.9	35.7	2.2	23.4	—	17.5	—
Cameroon	61.5	96.9	1.6	76.8	81.6	84.3	88.2
Central African Republic	53.7	91.4	1.7	71.3	80.1	75.8	79.2
Chad	13.3	45.9	3.5	24.2	28.9	29.3	30.8
Colombia	80.9	97.8	1.2	—	—	—	—
Comoros	72.0	92.7	1.3	83.9	75.1	84.1	89.2
Congo, Democratic Republic of the	38.1	31.8	0.8	36.4	29.7	25.6	34.0
Côte d'Ivoire	54.5	94.6	1.7	72.5	71.1	70.1	78.8
Dominican Republic	55.5	92.9	1.7	77.0	64.5	70.5	82.6
Equatorial Guinea	24.4	47.7	2.0	34.8	33.2	29.0	11.5
Gabon	87.6	91.9	1.1	—	—	—	—
Gambia	33.9	37.6	1.1	33.2	24.3	28.9	36.8
Georgia	—	—	—	—	—	—	—
Guinea-Bissau	61.6	31.4	0.5	41.9	44.9	42.2	42.2
Guyana	92.7	99.5	1.1	95.8	99.3	98.2	100.0
Haiti	60.2	83.6	1.4	73.1	—	79.0	—
India	—	—	—	—	—	—	—
Indonesia	29.4	85.5	2.9	—	—	—	—
Iraq	96.8	98.4	1.0	98.2	88.2	92.3	100.0
Kenya	31.3	66.2	2.1	48.9	—	50.2	—
Korea, Democratic People's Republic of	—	—	—	—	—	—	—
Lao People's Democratic Republic	56.4	55.4	1.0	59.0	51.1	63.6	62.8
Lesotho	58.0	46.1	0.8	50.2	48.5	52.7	46.0
Madagascar	73.3	93.5	1.3	76.4	69.1	69.8	68.7
Maldives	—	—	—	—	—	—	—
Mauritania	28.6	80.5	2.8	54.2	—	77.6	100.0
Moldova, Republic of	96.7	98.3	1.0	98.0	96.2	96.5	100.0
Mongolia	97.1	98.6	1.0	97.6	98.8	97.9	96.4
Myanmar	27.2	58.4	2.1	38.5	24.9	38.0	41.0
Namibia	58.4	91.1	1.6	—	—	—	—
Nepal	—	—	—	—	—	—	—
Nicaragua	63.1	92.8	1.5	—	—	—	—
Niger	32.6	78.5	2.4	45.3	37.3	55.8	49.2
Nigeria	—	—	—	—	—	—	—
Occupied Palestinian Territory	—	—	—	—	—	—	—
Peru	89.7	95.9	1.1	—	—	—	—
Philippines	67.3	95.9	1.4	82.9	82.6	83.8	79.5
Rwanda	59.9	64.4	1.1	64.7	56.7	70.4	62.9
Sao Tome and Principe	60.7	89.6	1.5	67.5	87.1	71.3	72.9
Senegal	40.0	87.6	2.2	59.3	64.1	68.5	62.5
Sierra Leone	30.7	78.9	2.6	43.3	50.4	55.8	49.5
Sudan (northern)	60.1	69.9	1.2	64.3	59.4	60.8	43.4
Suriname	95.8	97.0	1.0	96.2	89.4	93.7	96.3
Swaziland	43.3	74.8	1.7	55.2	46.2	53.2	46.9
Tajikistan	72.7	74.4	1.0	74.9	73.3	67.7	75.0
Tanzania, United Republic of	2.4	25.4	10.6	—	—	—	—
Togo	72.9	96.0	1.3	82.3	75.7	81.8	92.6
Trinidad and Tobago	97.0	95.7	1.0	95.3	93.8	93.3	100.0
Uganda*	14.2	16.7	1.2	—	—	—	—
Uzbekistan	—	—	—	99.5	100.0	99.2	100.0
Venezuela	87.1	94.6	1.1	92.4	88.2	90.5	92.5
Viet Nam	49.4	96.5	2.0	—	75.9	81.3	69.5
Zambia	4.6	19.3	4.2	9.9	5.8	7.9	17.3
Zimbabwe	28.9	63.6	2.2	—	—	—	—

* Data for Uganda is based only on children who were weighed at birth.
 — Data not available.

TABLE 3: Percentage of children under five who are registered, according to proximate determinants

Countries and territories	Total	Skilled attendant at delivery			Child with ARI taken to health provider			Child participates in early childhood education			Received oral rehydration therapy		
		No	Yes	Yes/No	No	Yes	Yes/No	Yes	No	Yes/No	No	Yes	Yes/No
Afghanistan	6.2	—	—	—	—	—	—	—	—	—	—	—	—
Albania	98.8	100.0	96.1	0.96	100.0	100.0	1.00	100.0	99.8	1.00	100.0	98.7	0.99
Angola	29.4	18.7	26.4	1.41	20.7	27.8	1.34	61.8	40.9	1.51	38.4	25.5	0.66
Armenia	96.6	61.6	97.6	1.58	96.3	99.1	1.03	—	—	—	98.9	100.0	1.01
Azerbaijan	96.8	91.4	93.3	1.02	94.7	90.5	0.96	100.0	99.0	1.01	96.7	96.6	1.00
Benin	61.7	28.0	74.3	2.65	64.0	76.5	1.20	—	—	—	60.3	66.7	1.11
Bolivia	81.6	71.1	69.5	0.98	76.8	82.9	1.08	96.3	94.8	1.02	75.7	75.0	0.99
Bosnia and Herzegovina	98.4	100.0	96.9	0.97	—	—	—	99.0	99.4	1.00	100.0	96.9	0.97
Botswana	58.0	—	—	—	—	—	—	56.8	59.6	0.95	50.3	55.5	1.10
Burundi	74.9	66.9	76.8	1.15	72.3	75.6	1.05	87.7	81.2	1.08	71.8	68.7	0.96
Cambodia	22.0	21.5	41.9	1.95	23.5	28.9	1.23	—	—	—	20.1	26.7	1.33
Cameroon	78.6	52.9	80.0	1.51	74.4	89.6	1.20	95.7	80.1	1.19	80.5	73.1	0.91
Central African Republic	72.5	57.1	84.2	1.47	65.3	83.6	1.28	94.1	76.6	1.23	64.8	71.8	1.11
Chad	24.9	17.3	87.1	5.03	21.0	35.7	1.70	63.2	24.3	2.60	25.3	27.1	1.07
Colombia	91.4	64.4	95.8	1.49	90.1	97.7	1.08	—	—	—	90.5	97.4	1.08
Comoros	83.4	72.8	90.1	1.24	77.3	86.0	1.11	86.3	82.2	1.05	82.2	82.9	1.01
Congo, Democratic Republic of the	34.1	23.1	33.0	1.43	28.7	32.7	1.14	47.9	41.2	1.16	33.4	29.1	0.87
Côte d'Ivoire	71.8	50.5	82.2	1.63	63.5	76.2	1.20	96.2	74.6	1.29	64.7	67.3	1.04
Dominican Republic	74.6	53.3	65.9	1.24	67.6	68.8	1.02	92.2	70.3	1.31	56.7	65.2	1.15
Equatorial Guinea	32.3	17.6	34.1	1.94	19.8	35.4	1.79	40.6	33.1	1.23	23.0	31.5	1.37
Gabon	89.4	81.0	91.2	1.13	90.9	94.7	1.04	—	—	—	91.4	94.6	1.04
Gambia	32.2	23.6	36.7	1.56	28.1	24.6	0.88	30.3	30.5	0.99	32.0	31.4	0.98
Georgia	94.6	—	—	—	—	—	—	—	—	—	—	—	—
Guinea-Bissau	42.1	40.6	45.4	1.12	47.3	40.0	0.85	60.1	39.4	1.53	34.8	41.9	1.20
Guyana	96.5	85.0	95.3	1.12	87.7	94.8	1.08	98.2	97.1	1.01	81.9	95.2	1.16
Haiti	69.7	66.8	79.0	1.18	69.7	75.8	1.09	75.5	83.6	0.90	65.4	72.8	1.11
India	34.7	—	—	—	—	—	—	—	—	—	—	—	—
Indonesia	55.1	42.2	72.9	1.73	46.3	59.1	1.28	—	—	—	38.3	56.1	1.46
Iraq	98.1	96.1	97.6	1.02	98.8	98.9	1.00	100.0	99.1	1.01	96.7	98.5	1.02
Kenya	48.0	28.4	75.4	2.65	—	—	—	—	—	—	—	—	—
Korea, Democratic People's Republic of	98.9	—	—	—	—	—	—	—	—	—	—	—	—
Lao People's Democratic Republic	59.1	54.3	69.5	1.28	37.6	53.2	1.41	78.3	59.0	1.33	61.4	51.6	0.84
Lesotho	50.6	46.4	42.7	0.92	53.8	60.8	1.13	54.7	51.9	1.05	41.2	59.4	1.44
Madagascar	74.7	56.4	82.0	1.45	53.6	73.7	1.38	92.4	76.5	1.21	62.9	67.6	1.07
Maldives	73.0	—	—	—	—	—	—	—	—	—	—	—	—
Mauritania	55.2	34.7	73.0	2.10	50.2	66.7	1.33	—	—	—	—	—	—
Moldova, Republic of	97.9	—	—	—	100.0	100.0	1.00	98.4	98.6	1.00	100.0	100.0	1.00
Mongolia	97.6	98.5	94.1	0.96	93.8	99.1	1.06	100.0	99.6	1.00	100.0	96.9	0.97
Myanmar	38.5	—	—	—	31.0	38.4	1.24	54.9	36.6	1.50	66.1	34.9	0.53
Namibia	70.5	55.1	75.3	1.37	71.3	67.0	0.94	—	—	—	59.0	67.1	1.14
Nepal	34.0	—	—	—	—	—	—	—	—	—	—	—	—
Nicaragua	81.4	57.7	84.0	1.46	—	—	—	92.5	92.8	1.00	70.1	78.8	1.12
Niger	45.5	34.7	83.9	2.42	40.2	66.6	1.66	69.2	46.7	1.48	24.4	44.6	1.83
Nigeria	28.2	—	—	—	—	—	—	—	—	—	—	—	—
Occupied Palestinian Territory	99.5	—	—	—	—	—	—	—	—	—	—	—	—
Peru	92.5	91.7	93.3	1.02	91.9	94.3	1.03	—	—	—	89.7	92.0	1.03
Philippines	82.8	65.3	86.3	1.32	—	—	—	95.8	83.5	1.15	—	—	—
Rwanda	65.2	54.2	55.8	1.03	67.1	67.5	1.01	95.4	81.5	1.17	65.1	61.7	0.95
Sao Tome and Principe	69.7	57.2	69.4	1.21	79.1	76.4	0.97	92.4	84.8	1.09	66.2	63.5	0.96
Senegal	61.6	39.5	76.1	1.93	54.9	67.9	1.24	80.3	66.5	1.21	59.7	62.6	1.05
Sierra Leone	46.4	34.5	56.2	1.63	35.8	45.2	1.26	65.8	44.0	1.50	39.5	43.1	1.09
Sudan (northern)	63.8	—	—	—	50.0	71.9	1.44	89.4	57.1	1.57	53.9	64.2	1.19
Suriname	94.9	98.2	94.1	0.96	91.9	100.0	1.09	97.5	98.2	0.99	93.9	95.6	1.02
Swaziland	53.2	40.5	55.0	1.36	52.5	52.0	0.99	79.9	53.6	1.49	60.0	46.0	0.77
Tajikistan	74.6	56.0	69.0	1.23	76.0	73.1	0.96	96.1	86.1	1.12	80.6	66.3	0.82
Tanzania, United Republic of	6.4	1.9	14.4	7.58	4.0	7.2	1.80	—	—	—	2.9	4.6	1.59
Togo	82.1	60.2	83.7	1.39	78.0	81.7	1.05	95.6	83.7	1.14	80.5	80.1	1.00
Trinidad and Tobago	94.9	100.0	91.6	0.92	—	—	—	98.8	94.5	1.05	100.0	92.6	0.93
Uganda*	14.2	13.3	15.2	1.14	—	—	—	—	—	—	—	—	—
Uzbekistan	99.5	91.7	99.4	1.08	100.0	100.0	1.00	100.0	99.8	1.00	100.0	100.0	1.00
Venezuela	91.8	90.3	84.0	0.93	90.1	89.1	0.99	99.7	95.9	1.04	87.7	89.0	1.01
Viet Nam	72.2	39.8	75.5	1.90	57.2	73.0	1.28	93.2	71.9	1.30	58.9	60.0	1.02
Zambia	9.6	3.9	8.4	2.15	11.3	0.0	0.00	26.7	14.3	1.87	17.0	10.9	0.64
Zimbabwe	42.0	27.9	47.1	1.69	37.2	42.9	1.15	—	—	—	37.5	41.9	1.12

* Data for Uganda is based only on children who were weighed at birth.
 — Data not available.

TABLE 3: continued

Countries and territories	Vaccinations				Vitamin A			Malnutrition		
	All	None	Some	All/none	Received	Not received/ not sure	received/ Not	Not Stunted	Stunted	Not stunted/ stunted
Afghanistan	—	—	—	—	—	—	—	—	—	—
Albania	100.0	100.0	99.0	1.00	99.7	99.3	1.00	98.9	99.3	1.00
Angola	27.0	18.1	23.6	1.49	34.9	29.2	1.20	30.3	29.4	1.03
Armenia	—	—	97.5	—	—	—	—	97.1	97.4	1.00
Azerbaijan	100.0	95.1	96.2	1.05	—	—	—	97.0	97.0	1.00
Benin	81.9	22.4	58.1	3.66	80.7	67.8	1.19	75.9	68.6	1.11
Bolivia	85.6	66.4	79.7	1.29	89.2	83.4	1.07	—	—	—
Bosnia and Herzegovina	98.6	100.0	97.7	0.99	—	—	—	98.4	97.6	1.01
Botswana	63.0	33.3	60.4	1.89	—	—	—	56.4	53.1	1.06
Burundi	80.2	63.6	70.8	1.26	78.8	76.6	1.03	79.0	77.1	1.02
Cambodia	37.3	22.1	17.1	1.69	29.0	25.0	1.16	23.8	26.1	0.91
Cameroon	90.1	51.9	75.2	1.74	85.0	79.1	1.07	—	—	—
Central African Republic	87.3	51.0	77.1	1.71	80.8	71.0	1.14	73.5	72.0	1.02
Chad	40.9	5.8	24.4	7.05	38.4	14.8	2.59	27.0	20.6	1.31
Colombia	97.0	54.3	92.4	1.79	—	—	—	94.2	87.9	1.07
Comoros	92.8	65.6	86.3	1.41	91.3	82.5	1.11	86.8	80.8	1.07
Congo, Democratic Republic of the	35.5 79.3	22.6 49.1	33.6 65.7	1.57 1.62	39.7 76.3	31.3 71.7	1.27 1.06	31.5 —	39.3 —	0.80 —
Côte d'Ivoire	—	—	—	—	—	—	—	—	—	—
Dominican Republic	80.9	86.6	72.0	0.93	84.0	75.2	1.12	75.3	66.4	1.13
Equatorial Guinea	36.7	31.5	27.1	1.17	36.5	32.7	1.12	31.1	34.3	0.91
Gabon	91.4	75.3	95.4	1.21	—	—	—	92.6	94.3	0.98
Gambia	29.2	20.5	41.0	1.42	42.3	31.9	1.33	34.7	29.6	1.17
Georgia	—	—	—	—	—	—	—	—	—	—
Guinea-Bissau	56.2	27.9	41.0	2.01	46.2	39.0	1.18	43.8	41.9	1.05
Guyana	97.3	81.3	97.0	1.20	—	—	—	97.2	92.3	1.05
Haiti	82.5	69.8	74.8	1.18	81.3	78.9	1.03	73.8	71.0	1.04
India	—	—	—	—	—	—	—	—	—	—
Indonesia	—	—	—	—	—	—	—	—	—	—
Iraq	99.6	—	—	—	99.0	98.4	1.01	98.7	98.0	1.01
Kenya	57.6	25.7	47.7	2.24	56.8	47.0	1.21	50.9	42.1	1.21
Korea, Democratic People's Republic of	—	—	—	—	—	—	—	—	—	—
Lao People's Democratic Republic	76.1	55.3	62.7	1.38	62.0	58.0	1.07	61.2	56.5	1.08
Lesotho	51.3	39.7	56.8	1.29	56.1	50.8	1.10	47.3	55.4	0.85
Madagascar	85.6	46.3	71.3	1.85	84.7	67.9	1.25	—	—	—
Maldives	—	—	—	—	—	—	—	—	—	—
Mauritania	66.2	31.3	55.1	2.12	—	—	—	60.7	53.2	—
Moldova, Republic of	98.9	92.0	100.0	1.08	—	—	—	—	—	—
Mongolia	98.7	100.0	99.4	0.99	99.4	99.0	1.00	97.5	98.5	0.99
Myanmar	42.4	13.9	34.6	3.05	41.9	29.2	1.43	43.3	31.5	1.37
Namibia	68.4	45.3	58.8	1.51	74.9	76.1	0.98	70.1	65.9	1.06
Nepal	—	—	—	—	—	—	—	—	—	—
Nicaragua	—	—	81.4	—	88.3	74.5	1.19	82.2	76.4	1.08
Niger	85.9	21.8	52.8	3.94	52.6	33.9	1.55	46.3	46.0	1.01
Nigeria	—	—	—	—	—	—	—	—	—	—
Occupied Palestinian Territory	—	—	—	—	—	—	—	—	—	—
Peru	93.9	89.0	92.8	1.06	—	—	—	92.9	91.7	1.01
Philippines	—	—	—	—	87.3	77.8	1.12	—	—	—
Rwanda	74.3	53.5	55.8	1.39	71.3	61.1	1.17	60.3	71.8	0.84
Sao Tome and Principe	62.2	72.4	57.5	0.86	86.5	73.5	1.18	67.6	68.1	0.99
Senegal	—	—	—	—	69.2	54.2	1.28	68.7	58.0	1.18
Sierra Leone	56.3	35.3	37.1	1.59	46.5	47.6	0.98	49.9	43.2	1.16
Sudan (northern)	80.6	47.9	66.5	1.68	73.0	52.3	1.40	69.8	59.0	1.18
Suriname	97.4	95.8	94.9	1.02	—	—	—	96.6	93.9	1.03
Swaziland	52.2	52.2	41.4	1.00	61.9	52.8	1.17	55.6	47.9	1.16
Tajikistan	85.2	72.3	77.5	1.18	—	—	—	—	—	—
Tanzania, United Republic of	8.0 91.9	0.4 49.7	2.9 80.8	20.00 1.85	9.7 86.9	5.5 82.4	1.76 1.05	6.8 —	4.6 —	1.48 —
Togo	—	—	—	—	—	—	—	—	—	—
Trinidad and Tobago	99.0	82.8	97.4	1.20	—	—	—	—	—	—
Uganda*	13.8	13.2	12.1	1.05	13.9	14.4	0.97	13.6	12.0	1.13
Uzbekistan	99.8	75.0	100.0	1.33	—	—	—	—	—	—
Venezuela	—	—	—	—	—	—	—	—	—	—
Viet Nam	78.7	53.1	59.8	1.48	77.2	56.6	1.36	77.5	65.1	1.19
Zambia	13.5	0.0	6.5	—	12.0	7.8	1.54	16.1	11.3	1.42
Zimbabwe	—	—	36.3	—	—	—	—	43.6	31.7	1.38

* Data for Uganda is based only on children who were weighed at birth.
— Data not available.

TABLE 4: Percentages of children under five who are registered, according to caretaker knowledge variables

Countries and territories	Total	Caretaker has comprehensive knowledge of HIV			Caretaker knows at least two signs of child illness			Main reasons for non-registration, by rank					% Other	
		No	Yes	Yes/no	No	Yes	Yes/no	Cost	Distance	Didn't know had to register	Late fee	Don't know where to register		
Afghanistan	6.2	—	—	—	—	—	—	—	—	—	—	—	—	—
Albania	98.8	—	—	—	98.9	98.8	1.00	—	1	—	2	—	—	55
Angola	29.4	28.7	40.2	1.40	29.5	29.3	0.99	—	1	2	—	—	—	29
Armenia	96.6	—	—	—	—	—	—	—	1	2	—	—	—	44
Azerbaijan	96.8	96.6	96.6	1.00	96.9	96.5	1.00	—	1	—	—	—	—	45
Benin	61.7	—	—	—	—	—	—	—	—	—	1	—	2	47
Bolivia	81.6	80.8	86.8	1.07	81.4	82.6	1.01	—	1	2	—	—	..	74
Bosnia and Herzegovina	98.4	—	—	—	97.3	96.8	0.99	—	—	1	—	—	2	40
Botswana	58.0	—	—	—	—	—	—	—	—	1	2	—	—	10
Burundi	74.9	74.4	76.3	1.03	71.5	75.6	1.06	—	2	—	1	—	—	0
Cambodia	22.0	—	—	—	—	—	—	—	—	—	—	—	—	—
Cameroon	78.6	77.5	94.0	1.21	77.3	81.5	1.05	—	1	2	—	—	—	43
Central African Republic	72.5	71.8	85.4	1.19	72.7	72.4	1.00	—	2	1	—	—	—	6
Chad	24.9	24.7	32.2	1.30	16.7	29.0	1.74	—	—	1	2	—	—	14
Colombia	91.4	—	—	—	—	—	—	—	1	—	—	2	—	2
Comoros	83.4	83.2	92.4	1.11	83.4	83.4	1.00	—	1	2	—	—	—	14
Congo, Democratic Republic of the	34.1	34.3	28.6	0.83	31.4	38.1	1.21	—	2	—	1	—	—	16
Côte d'Ivoire	71.8	71.0	84.4	1.19	69.5	73.9	1.06	—	1	2	—	—	—	24
Dominican Republic	74.6	74.0	77.5	1.05	74.4	75.3	1.01	—	1	2	—	—	—	77
Equatorial Guinea	32.3	31.9	42.8	1.34	28.0	34.0	1.21	—	1	—	2	—	—	11
Gabon	89.4	—	—	—	—	—	—	—	—	—	—	—	—	—
Gambia	32.2	32.8	31.5	0.96	29.0	37.1	1.28	—	—	—	1	—	2	47
Georgia	94.6	—	—	—	—	—	—	—	—	—	—	—	—	—
Guinea-Bissau	42.1	42.2	34.4	0.82	56.6	34.3	0.61	—	1	2	—	—	—	28
Guyana	96.5	96.0	98.4	1.03	96.5	96.5	1.00	—	—	1	—	2	—	10
Haiti	69.7	—	—	—	—	—	—	—	—	—	—	—	—	—
India	34.7	—	—	—	—	—	—	—	—	—	—	—	—	—
Indonesia	55.1	—	—	—	—	—	—	—	—	—	—	—	—	37
Iraq	98.1	—	—	—	97.9	98.3	1.00	—	2	1	—	—	—	56
Kenya	48.0	—	—	—	—	—	—	—	—	—	—	—	—	—
Korea, Democratic People's Republic of	98.9	—	—	—	—	—	—	—	—	—	—	—	—	—
Lao People's Democratic Republic	59.1	—	—	—	55.4	63.1	1.14	—	—	—	1	—	2	7
Lesotho	50.6	50.5	48.7	0.96	46.2	53.6	1.16	—	—	1	—	2	—	—
Madagascar	74.7	74.3	96.4	1.30	73.4	77.5	1.06	—	2	1	—	—	—	40
Maldives	73.0	—	—	—	—	—	—	—	—	—	—	—	—	—
Mauritania	55.2	—	—	—	—	—	—	—	—	—	—	—	—	—
Moldova, Republic of	97.9	—	—	—	97.3	98.2	1.01	—	1	—	2	—	—	55
Mongolia	97.6	97.5	98.3	1.01	97.2	98.3	1.01	—	2	1	—	—	—	76
Myanmar	38.5	—	—	—	40.3	43.5	1.08	—	—	1	—	2	—	5
Namibia	70.5	—	—	—	—	—	—	—	—	1	2.0	—	—	20.2
Nepal	34.0	—	—	—	—	—	—	—	—	—	—	—	—	—
Nicaragua	81.4	—	—	—	—	—	—	—	1	—	—	—	2	78.6a
Niger	45.5	44.5	78.3	1.76	41.2	53.0	1.29	—	—	1	2	—	—	38
Nigeria	28.2	—	—	—	—	—	—	—	—	—	—	—	—	—
Occupied Palestinian Territory	99.5	—	—	—	—	—	—	—	—	—	—	—	—	—
Peru	92.5	—	—	—	—	—	—	—	—	—	—	—	—	—
Philippines	82.8	82.6	91.0	1.10	—	—	—	—	1	2	—	—	—	45
Rwanda	65.2	—	—	—	63.7	65.5	1.03	—	1	—	2	—	—	70
Sao Tome and Principe	69.7	69.3	80.9	1.17	70.7	66.2	0.94	—	—	—	—	1	—	—
Senegal	61.6	60.5	77.7	1.28	57.8	70.5	1.22	—	2	1	—	—	—	57
Sierra Leone	46.4	44.8	63.6	1.42	63.0	41.5	0.66	—	—	—	2	—	1	31
Sudan (northern)	63.8	63.7	88.1	1.38	63.5	64.2	1.01	—	2	—	1	—	—	10
Suriname	94.9	95.6	94.2	0.99	94.6	96.2	1.02	—	—	1	2	—	—	33
Swaziland	53.2	—	—	—	51.1	56.0	1.10	—	1	2	—	—	—	35
Tajikistan	74.6	74.5	82.1	1.10	73.8	74.6	1.01	—	1	2	—	—	—	16
Tanzania, United Republic of	6.4	—	—	—	—	—	—	—	—	—	2	—	1	17
Togo	82.1	81.4	91.8	1.13	78.7	84.5	1.07	—	1	2	—	—	—	33
Trinidad and Tobago	94.9	95.4	95.0	1.00	93.7	95.4	1.02	—	—	—	—	1	—	—
Uganda*	14.2	—	—	—	—	—	—	—	—	—	—	—	—	—
Uzbekistan	99.5	99.5	100.0	1.01	99.4	99.6	1.00	—	—	1	—	—	—	89
Venezuela	91.8	91.8	92.7	1.01	88.8	94.9	1.07	—	—	2	—	—	1	1
Viet Nam	72.2	70.4	89.4	1.27	75.1	71.1	0.95	—	1	2	—	—	—	—
Zambia	9.6	—	—	—	8.7	16.2	1.86	—	—	—	1	—	2	6
Zimbabwe	42.0	—	—	—	—	—	—	—	—	—	—	—	—	—

* Data for Uganda is based only on children who were weighed at birth.

— Data not available.

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