

DRAFT

Assessing Birth Registration Completeness in Asia and the Pacificⁱ

Revised Version

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Why should we examine birth registration?

Registering a newborn's birth is fundamental for accessing a wide range of protections, benefits, and rights. Birth registration provides an individual with a legal identity and a proof of age, supporting prevention of statelessness, child marriage, child labour or forced early entry into the armed forces.^{1,2,3} In early childhood, birth registration may be necessary to receive public healthcare or enrol in school. And as the child grows not having a valid birth certificate may impede them from registering to vote, applying for formal work, inheriting property, receiving a passport, benefitting from social protection provisions or opening a bank account.^{4,5} Given birth registration's vital importance, it is no surprise that inequalities between population groups in registering births early in life can compound socioeconomic inequality later.⁶

For these reasons, the importance of birth registration has been highlighted several times by the international community. The Universal Declaration of Human Rights mandates that "Everyone has the right to recognition everywhere as a person before the law", while Article 7 (1) of the Convention of the Rights of the Child stipulates that "The child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality and, as far as possible, the right to know and be cared for by his or her parents."

Expanding birth registration also plays a critical role in facilitating the Sustainable Development Goals (SDGs), especially those related to health, education, governance and economic growth.⁷ Birth registration is explicitly mentioned by Target 16.9, which calls for the provision of a legal identity for all, including birth registration, by 2030. Target 17.18, which calls for support to increase the availability of high-quality, timely and reliable statistics, of which civil registration data is an essential component, also uses birth and death registration completeness as indicators. As part of a well-functioning CRVS system, birth and death registration can also provide continuous and up-to-date population estimates. These act as the denominator for a large number of other SDG indicators. Accurate population estimates and other vital statistics are also important for planning purposes, such as distributing enough vaccines and ensuring that there are sufficient school supplies. This in turn helps countries make even further progress towards achieving other SDG goals and targets.

As such, it is important to examine the progress and challenges which countries face in improving birth registration outcomes. By knowing where the region stands we can identify priority areas and outstanding issues most in need of support and help make the final push towards universal registration. This paper starts by reviewing the concept of registration completeness and different ways in which it can be measured. Previous attempts at assessing birth registration in the Asia-Pacific region are then examined. The analytical section of the paper will next describe the current situation in the region, using the most recent available data from UNSD's Demographic Yearbook, academic sources, direct contact with country representatives, and information collected as part of the reporting mechanism of the Asian and Pacific CRVS Decade (2015-2024). Finally, we will review challenges countries face in improving birth registration completeness.

In order to improve future outcomes we first must know the current situation. Through this comprehensive analysis of birth registration in the ESCAP region we can better understand who are the remaining uncaptured and how we can reach them.

What is birth registration completeness?

Birth registration completeness is estimated by taking the number of registered births occurring in a given period of time and dividing this by the estimated number of *total* births (both registered and unregistered) occurring in the same period of time. In other words, birth registration completeness is the percentage of children born in a given period of time that have had their birth registered.

$$\frac{\text{Number of registered births}}{\text{Estimated total births}} \times 100 = \text{Birth registration completeness (\%)}$$

Birth registration completeness is often confused with birth registration coverage. While completeness refers to the estimated percentage of children registered, coverage refers to the estimated percentage of the country covered by the civil registration system. There is no guarantee that registration points will be available nationwide, and remote or mountainous areas are particularly unlikely to have registration points.ⁱⁱ

Birth registration may also be mistaken for birth notification. The birth registration process often involves three separate events: the notification of the occurrence of birth (generally given by health workers, birth attendants, or a village chief), the registration of the birth by the civil registry, and the issuance of the birth certificate.⁸ Parents may confuse the birth notification form with the registration form, although the former confers no legal identity. This can lead to parents mistakenly declaring to a surveyor that a child has a birth certificate when in reality they do not, artificially inflating completeness estimates in survey-based assessments.⁹

Finally, a few words should be made on why this paper will focus on birth registration completeness instead of other metrics that can be used to assess CRVS systems, such as data quality, percentage of children receiving birth certificates, or ability to publish timely birth statistics. First, completeness estimates give us fundamental information on how many children remain uncaptured and where the biggest challenges remain. Since it is a single number, registration completeness can also easily be compared across countries, allowing for regional comparisons to be made. Finally, birth registration completeness represents the most basic function of a CRVS system – its ability to provide a legal identity to its people. Without completing this step, more advanced aspects of CRVS such as producing vital statistics simply would not be possible.

Different ways of measuring birth registration

ⁱⁱ Please refer to the section on “How can we close the remaining gap?” for more details on these special challenges.

The third revision of *Principles and Recommendations for a Vital Statistics System* recommends data from the civil registration system as the preferred and best source for compiling information on births and other vital statistics.¹⁰ Well-functioning civil registration systems provide data that is continuous, timely, frequently updated, relatively inexpensive, and which can be disaggregated to provide information on specific population groups or small geographic areas.¹¹ Because most countries require births to be registered relatively soon after the event, data obtained from civil registration systems is also less vulnerable to errors caused by lapses in memory.¹² And perhaps most importantly, unlike other methods of data collection, birth registration is able to provide individuals with all the associated rights and benefits of having a legal identity.

In order to access birth registration completeness, in addition to data from the civil registration system, censuses and surveys may also be used to provide information. Rough completeness estimates can be formed using the census by adding in questions on birth registration, such as how many children have received birth certificates in the past five years. However, this option is expensive and may provide dubious results due in part to the confusion between birth registration and birth notification. Censuses are also usually only conducted once every ten years and therefore are unable to provide real-time information that can be used to guide policy decisions.

Sample surveys are much cheaper and can be conducted in more frequent intervals than the census. In discussing sample surveys, a distinction should be made between surveys which focus on civil registration (these are rare) and those which cover a broader array of topics. With regards to the latter, the two most popular surveys which include questions on birth registration are UNICEF's Multiple Indicator Cluster Survey (MICS) and the Demographic and Health Surveys (DHS) generally funded by USAID. MICS surveys collect data on the situation of women and children, while DHS surveys focus on population, health, and nutrition. Both surveys gather information on the number of registered children between 0-59 months old and are therefore important sources of information on birth registration completeness for children less than 5. Some countries have also added birth registration questions to national surveys. For example, Indonesia added questions on birth certificate ownership and reasons for not registering to its socio-economic survey SUSENAS. This has allowed it to identify the most common impediments to registration as well as identify regional disparities.¹³

Specialized surveys on the other hand are able to capture more detailed information on the status of CRVS in a country. In addition to providing completeness information, these focussed surveys usually also identify which populations are particularly unlikely to be registered as well as key barriers to registration. For example, Cambodia conducted a nationally representative baseline sample survey on CRVS in 2016.¹⁴ This survey not only provided the country with birth and death registration completeness estimates, but also carried out a detailed assessment of the factors which may explain the country's lower registration rates. Such surveys can help governments understand the current status of their systems as well as identify key priorities in need of further improvement. Unfortunately conducting sample surveys is still costlier than just taking information directly from the civil registration system and should only be used in situations where the CRVS system is incomplete. Both censuses and surveys also rely on asking respondents about events which

occurred in the past, meaning that the accuracy of the information obtained (especially with regards to the time period in which the birth occurred) is subject to memory recall bias.¹⁵

Using data on birth registration obtained from one or more of these sources, an estimate of total births can then be obtained using one of several indirect estimation methods.^{iii,16} However, indirect estimation techniques require that several different assumptions be satisfied, which may or may not be reasonable for the population under consideration. Indirect techniques may also not be able to provide information for smaller geographic areas or subpopulations.¹⁷

Data from surveys and censuses may also be used to enhance and evaluate existing civil registration data through direct linking techniques or using probabilistic linking. Linking records requires that a set of matching criteria first be fulfilled, which may include the place of birth, name of mother, date of occurrence, etc.¹⁸ Matches are then analysed in order to assess the performance of the civil registration system and identify possible omissions. There are several alternative data sets that may contain useful information on births, including health records, records of community workers, police records, baptismal records, and school enrolment files.^{19,20} Even well-functioning civil registration systems may benefit from the additional information that linking with these alternative data sources can provide. For example, in Australia hospitals and clinics notify registration offices of new births, the registration office checks these against existing registrations made within the prescribed time period, and the parents of any newborns who are found to have not yet registered are sent a reminder letter or phone call.

Two common indicators used to measure birth registration completeness are the registration of children less than 1 (i.e. registration within one year of birth) and the registration of children less than 5. These represent Targets 1.A and 1.B of the Regional Action Framework for CRVS in Asia and the Pacific respectively. As both definitions are accompanied by their own advantages and disadvantages, the analytical section of this paper will assess completeness information for both groups.

Birth Registration of Children <1^{21,22,23}

Birth Registration of Children <5

ⁱⁱⁱ *Tools for Demographic Estimation* by Moultrie et al. (2013) provides good descriptions of the various indirect techniques available, including data requirements and applicable restrictions.

- Counts the number of children who are legally protected from shortly after birth
- Encourages governments to register children earlier, ensuring that they can access health, nutrition, and welfare programmes that start at birth
- Early birth registration helps provide information on infant mortality
- Shorter period of time between occurrence of birth and the reporting of the event limits misreporting and underreporting
- Indicator 16.9.1. calls for birth registration to be disaggregated by age, meaning that birth registration of children <1 is also an SDG indicator

- Indicator 16.9.1 of the Sustainable Development Goals, making it an important metric for assessing global development and progress
- May capture the registration of children who are registered to facilitate school enrollment
- The larger population under consideration means there are more events that can be collected, making this method more suitable for use in sample-based methods such as surveys
- Includes both timely and delayed registrations

Previous attempts to assess birth registration in Asia and the Pacific

Several attempts have been made to assess the status of birth registration in the region. In this section we will review some of the key findings from these studies.

In addition to setting guidelines for well-functioning CRVS systems through its *Principles and Recommendations for a Vital Statistics System*, the UN Department of Economic and Social Affairs including the Statistics Division (UNSD) and the Population Division (UNPD) is also the main international body responsible for collecting and compiling comparable data on fertility and mortality. As part of this responsibility, UNSD maintains records on the completeness of birth and death registration for more than 230 countries and areas. This data is publicly available on its website and is mostly sourced from information reported by countries in the Vital Statistics Questionnaire of the UN Demographic Yearbook.^{iv}

According to UNSD, 62% of countries, territories, and areas have birth registration data that can be considered complete (i.e. having 90% completeness or more). Unfortunately, data for several countries in Asia and the Pacific is only reported in ranges (such as 75%-89%) or has not been updated since the early 1990s. Nevertheless, the UNSD database still provides a considerable amount of useful information, particularly with regards to which countries have complete birth and death registration systems and which countries do not.

In the academic literature, Mikkelsen et al. (2013) assemble a Vital Statistics Performance Index (VSPI) to assess CRVS systems.²⁴ Although their index relies mostly on indicators associated with

^{iv} UNSD's CRVS data can be accessed through its website at <https://unstats.un.org/unsd/demographic-social/crvs>.

death and cause of death registration, the information in this paper can still shed an interesting light on regional developments in CRVS. For example, the authors find that regional progress is far from homogeneous: some countries such as China, Fiji, and Turkey have shown significant improvements in as short as 5 years, while other countries have struggled to improve since the 1990s or even exhibited some decline. The authors also note that most of the countries with the lowest VSPI scores can be found in Africa and Asia. Countries in the Pacific show wide variability, with some receiving scores placing them in the “Very high” group while others were scored in the “Very low” group.

Perhaps the most well-cited examination of birth registration rates around the world is UNICEF’s *Every Child’s Birth Right: Inequities and Trends in Birth Registration*, which is based largely on MICS and DHS data.^{25,v} Using the results of these surveys gathered between 2005 and 2012, as well as information from other national surveys, censuses, and vital registration systems gathered in the same time period, UNICEF estimated that nearly 230 million children under 5 were not registered in 2013.²⁶ 59% of these unregistered children could be found in Asia and the Pacific, translating to 135 million unregistered children in the region.²⁷ Of this total, 700 000 unregistered children under 5 could be found in the CEE/CIS region, 32 million in East Asia and the Pacific, and 103 million in South Asia.^{vi} In fact, three of the five countries with the most unregistered children under 5 in the world could be found in the UNICEF region of South Asia. Notably, this analysis does not include any data on China.

^v More information on the MICS programme can be found at <http://mics.unicef.org/>. Information on the DHS programme can be found at <https://www.dhsprogram.com/>. Additional Demographic and Health Surveys which focus on Pacific countries are available at <http://prism.spc.int/reports/surveys>.

^{vi} Please note that ESCAP and UNICEF use different sub-regional breakdowns. The figures above reported by UNICEF refer to their sub-regional divisions, which are composed as follows:

- *South Asia*: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
- *East Asia and the Pacific*: Australia, Brunei Darussalam, Cambodia, China, Cook Islands, Democratic People’s Republic of Korea, Fiji, Indonesia, Japan, Kiribati, Lao People’s Democratic Republic, Malaysia, Marshall Islands, Micronesia (Federated States of), Mongolia, Myanmar, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Tokelau, Tonga, Tuvalu, Vanuatu, Viet Nam
- *CEE/CIS (referred to as “Eastern Europe and Central Asia” in The State of the World’s Children 2017)*:
 - *ESCAP Members*: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkey, Turkmenistan, Uzbekistan,
 - *Non-ESCAP Members*: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Republic of Moldova, Romania, Serbia, The former Yugoslav Republic of Macedonia, Ukraine
- *Note*: Iran (Islamic Republic of) is included in UNICEF’s *Middle East and North Africa* region

Figure 1: Percentage of children under age 5 whose births are registered and number of children under age 5 whose births are not registered as reported by UNICEF (data from 2005-2012)

	Percentage of children whose births are registered	Number of children whose births are not registered
South Asia	39%	103 million
East Asia and the Pacific	-	32 million
CEE/CIS	98%	700 000
Sub-Saharan Africa	44%	85 million
Middle East and North Africa	87%	6 million
Latin America and the Caribbean	92%	4 million
Least Developed Countries	38%	81 million
World	65%	229 million

Source: United Nations Children’s Fund, *Every Child’s Birth Right: Inequities and trends in birth registration* (New York, UNICEF, 2013). Available from <http://getinthepicture.org/resource/unicef-every-child%E2%80%99s-birth-right-inequities-and-trends-birth-registration-report>.

Note: Regional estimates are extrapolated based on data from countries making up at least half of the region’s total population. Data on East Asia and the Pacific is not available due to the lack of comparable birth registration data for China.

However, this report is based on information that is at least 5 years old and UNICEF has since revised its estimates in light of newly available data. In its most recent *State of the World’s Children* publication (based on data collected between 2010 and 2016), UNICEF now estimates that birth registration completeness of children under 5 in South Asia has increased to 60%, a significant improvement from before.²⁸ The same report also estimates that birth registration completeness in East Asia and the Pacific (excluding China) currently sits at 84%, while globally birth registration completeness of children under 5 has now reached 71%. While this certainly represents an improvement in the situation in the region and around the world, much progress still needs to be made. This is especially true in South Asia, where according to UNICEF two in five children under 5 remain unregistered.

ESCAP has also previously produced reports assessing the state of CRVS in the region. This includes the document “State of civil registration and vital statistics in Asia and the Pacific and overview of supporting initiatives” prepared by the secretariat for the 2014 Ministerial Conference on CRVS in Asia and the Pacific.²⁹ This report focuses on the results of rapid self-assessments developed by the WHO and the University of Queensland which were completed by 47 member and associate member states. The results show that only 23% of CRVS systems can be considered “satisfactory”, with 30% “functional but inadequate”, 30% “weak”, and 17% “dysfunctional”.

A previous ESCAP report compiled in 2012 also reviewed birth registration completeness of children less than 5 in the region using MICS, DHS, and UNSD data.³⁰ The results showed a large disparity in registration completeness, from 6% in Afghanistan to over 90% in 16 different countries. East and North-East Asia had the highest birth registration completeness rate with a non-population weighted mean of 97.7%, while South and South-West Asia had the lowest at 60.9%. The report also identified lower registration rates in rural areas, poorer households, and in countries with lower HDI scores.

Finally, ESCAP analysed the results of countries baseline reports as part of the reporting requirements under the Regional Action Framework for CRVS in Asia and the Pacific as part of the “Report of the Regional Steering Group for Civil Registration and Vital Statistics in Asia and the Pacific”.³¹ In particular, according to the Baseline Reports, 12 countries have more than 98% birth registration completeness among their population. Countries in the region have also set ambitious targets for the future: 19 countries aim to achieve at or close to 100% birth registration within a year of birth. However, the analysis also notes that “Many countries had difficulty identifying baseline data for this target because data on birth registration coverage among the total population was often not available...”, providing further justification for our new attempt to assess completeness in the region drawing upon as many fresh sources as possible.

A companion paper to the current one assessing the most recent status of death registration and cause of death statistics in the region is also forthcoming.

The current status of birth registration in Asia and the Pacific

While these previous studies have all contributed to our understanding of the status of birth registration in the region, there is still much that can be done.

To our knowledge, there has been no comprehensive analysis of birth registration completeness of children under 1 undertaken which focuses on the Asia-Pacific region. This is a significant omission in the literature given the important information captured by this indicator (please refer to the explanatory box in “Different ways of measuring birth registration” for a review).

Baseline Reporting by countries as part of commitments under the Regional Action Framework for CRVS in Asia and the Pacific also provides a new data source for compiling information on birth registration. The Baseline Reports record information reported by countries on completeness of registration for both children under 1 (Target 1.A) and children under 5 (Target 1.B). This, combined with information reported by country representatives and updated information provided by the UN Demographic Yearbook,³² makes it possible to perform a comprehensive analysis of the completeness of birth registration and the number of unregistered children less than 1 year old.

Furthermore, the completion of new surveys in several countries, including regional members where data was not previously available, also makes it worthwhile to revisit the registration completeness of children under 5. Combining new MICS and DHS data with Baseline Report

information allows us to examine how the region has progressed since UNICEF’s study in 2013, and which hurdles still remain in the pursuit of universal registration.

The next section of this paper will start by analysing birth registration of children under 1, before moving on to children under 5 in the following section.

How many children in Asia and the Pacific are not registered before their first birthday?

Estimates of birth registration completeness for children under 1 can be obtained from three main sources. The first is information reported under Target 1.A of the Baseline Reports submitted to ESCAP as part of the commitments under the Regional Action Framework for CRVS in Asia and the Pacific. The second is information directly communicated by country representatives to ESCAP. And the third is UNSD’s Demographic Yearbook (with 2016 being the most recent version available).³³

In compiling the completeness estimates below, the following procedure was used. Values given in Baseline Reports were given precedence, unless an updated estimate was reported directly to ESCAP by a country representative or in a more recent publication. In the event that no value was given in the Baseline Report, UNSD’s Demographic Yearbook was consulted to see if the country in question had a birth registration system that can be considered “virtually complete” (i.e. capturing at least 90% of live births occurring in a given year). If the Demographic Yearbook does not consider the civil registration system to be complete, then alternative sources were consulted, all of which are listed in the footnotes.

In total, data is available for 55 of the 58 regional member and associate members of ESCAP. The three exceptions are: DPR Korea, Timor-Leste, and Papua New Guinea. Discussions with national CRVS focal points from Timor-Leste and Papua New Guinea indicates that no measurements are currently available, but completeness is assumed to be very low. Furthermore, for all but 4 countries, data is available from within the last 5 years. This allows us to form a relatively recent and complete picture of the status of birth registration completeness in the region.

Figure 2: Registration Completeness of Children <1

Country	Birth Registration Completeness	Year	Source
Afghanistan	37%	2015	Baseline Report
American Samoa	100%	2017	Reported by Country
Armenia	99%	2014	Baseline Report
Australia	95%	2014	Baseline Report

Azerbaijan	99.5%	2013	Baseline Report
Bangladesh	12.8%	2014	Baseline Report
Bhutan	82%	2014	Baseline Report
Brunei Darussalam	>90%	2016	2016 Demographic Yearbook (UNSD)
Cambodia	74.4%	2016	Other ^a
China	88%	2000-2010	Other ^b
Cook Islands	100%	2017	Reported by Country
DPR Korea			
Fiji	62%	2017	Reported by Country
French Polynesia	>90%	2016	2016 Demographic Yearbook (UNSD)
Georgia	>90%	2016	2016 Demographic Yearbook (UNSD)
Guam	>90%	2016	2016 Demographic Yearbook (UNSD)
Hong Kong, China	100%	2014	Baseline Report
India	85.6%	2013	Baseline Report
Indonesia	52.1%	2014	Baseline Report
Iran (Islamic Rep. of)	95%	2014-2015	Baseline Report
Japan	100%	2014	Baseline Report
Kazakhstan	100%	2014	Baseline Report
Kiribati	91%	2016	Reported by Country
Republic of Korea	100%	2014	Baseline Report
Kyrgyzstan	>90%	2016	2016 Demographic Yearbook (UNSD)
Lao PDR	44%	2014	Baseline Report
Macao, China	100%	2014	Baseline Report
Malaysia	98%	2015	Baseline Report
Maldives	100%	2014	Baseline Report
Marshall Islands	>90%	2001	UNSD VSQ 2001
Micronesia (F.S.)	90%	2014	Baseline Report ^c
Mongolia	100%	2015	Baseline Report
Myanmar	74%	2013	Baseline Report
Nauru	90%	2017	Reported by Country
Nepal	76%	2014-2015	Baseline Report ^d
New Caledonia	>90%	2016	2016 Demographic Yearbook (UNSD)
New Zealand	97.7%	2017	Reported by Country
Niue	100%	2017	Reported by Country
Northern Mariana Islands	98%	2017	Reported by Country
Pakistan	33%	2013	Other ^e

Palau	>90%	2016	2016 Demographic Yearbook (UNSD)
Papua New Guinea			
Philippines	91%	2010	Baseline Report
Russian Federation	>90%	2016	2016 Demographic Yearbook (UNSD)
Samoa	65%	2017	Reported by Country
Singapore	>90%	2016	2016 Demographic Yearbook (UNSD)
Solomon Islands	42%	2017	Reported by Country
Sri Lanka	>90%	2016	2016 Demographic Yearbook (UNSD)
Tajikistan	87%	2014	Baseline Report
Thailand	98%	2014	Baseline Report
Timor-Leste			
Tonga	96%	2017	Reported by Country
Turkey	98%	2014	Baseline Report
Turkmenistan	>90%	1998	UNSD's VSQ 1998
Tuvalu	100%	2017	Reported by Country
Uzbekistan	>90%	2016	2016 Demographic Yearbook (UNSD)
Vanuatu	57%	2014	Other ^f
Viet Nam	>90%	2014	Baseline Report

Notes: Non-regional ESCAP members (France, Netherlands, UK, and USA) have been omitted. "Baseline Report" refers to information reported under Target 1.A of Baseline Reports submitted to ESCAP. "Reported by Country" refers to information given at the 2017 meeting of the Pacific Civil Registrars Network in Suva, Fiji. "2016 Demographic Yearbook (UNSD)" refers to countries listed in the 2016 Demographic Yearbook with civil registration systems which UNSD estimates to be "virtually complete", i.e. civil registration systems which capture at least 90% of live births occurring in each year. "UNSD VSQ" refers to UNSD's Vital Statistics Questionnaire.

^a As reported in the *National Baseline on Civil Registration and Vital Statistics in Cambodia*³⁴

^b As estimated by Prof. Wei Chen in the presentation "Evaluation of the Completeness of Birth Registration in China Using Analytical Methods and Multiple Sources of Data", presented at the United Nations Expert Group Meeting on the Methodology and Lessons learned to evaluate the completeness and quality of vital statistics data from civil registration, held in New York from 3-4 November 2016.³⁵ In the presentation, Prof. Chen estimates the average annual number of births over 2000-2010 using a variety of different data sources and methods, including an integrated approach developed by Preston. The author finds that the different birth estimation approaches yield largely consistent results. Using these estimates for total births, as well as the average annual number of birth registrations collected by the Hukou registration system over the same period, Prof. Chen estimates that the Hukou registration data was approximately 88% complete.

^c Value derived based on information given under Target 2.A of Micronesia's (F.S.) Baseline Report. Here it is stated that: "We estimate about 2000 births per year. With this as the denominator divided by the 1800 registered births", leading to a completeness estimate of 90%.

^d Based on a provisional mini-survey conducted by the Department of Civil Registration

^e Information provided by the National Database and Registration Authority (NADRA) and reported in "Strengthening civil registration and vital statistics in the Asia-Pacific region: learning from country experiences" by Abouzahr et al. (2014)³⁶

^f As reported in the Information Note "Making registration more accessible through schools and hospitals" prepared by the Brisbane Accord Group (BAG)³⁷

As we can see from the chart, there is a significant amount of variability in birth registration completeness. Completeness rates range from a low of 12% all the way up to 100%. 39 countries in the region, or two-thirds of all member states, have complete or nearly complete birth registration systems (with >90% completeness). Of these 39 countries, **only 11 countries report having universal birth registration (100% completeness)**. 5 of these countries are from East and North-East Asia while 4 of them are from the Pacific. Of the remaining countries, 5 have completeness rates between 75% and 90%, 6 have completeness rates between 50% and 75%, and 5 have completeness rates below 50%.

In order to get a better gauge of how different sub-regions are progressing, birth registration completeness rates are calculated for each ESCAP sub-region in Figure 3.^{vii} For data analysis purposes, states with “complete” registration systems (>90% completeness) are assumed to have registration rates of 99% unless otherwise indicated in Baseline Reports or in reporting to ESCAP.

Figure 3: Weighted Birth Registration Completeness Rate of Children <1 by Sub-Region

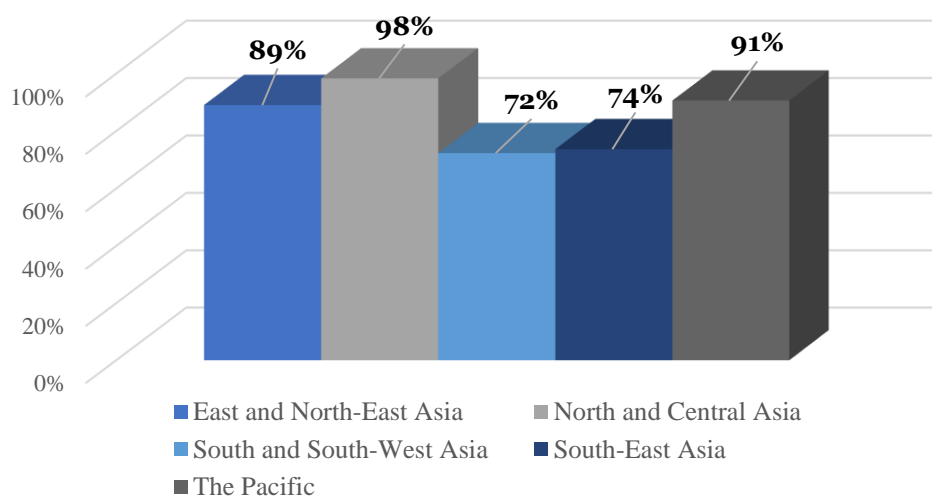


Figure 3 shows that birth registration rates are the lowest in South and South-West Asia, consistent with UNICEF’s findings for children under 5, while registration rates are the highest in North Asia. In North and Central Asia birth registration is virtually complete. The Pacific also has a relatively high percentage of births registered, although a significant proportion of this is driven by Australia, where more than half of the region’s births take place. Indeed, several Pacific countries continue

^{vii} Registration completeness rates are weighted by the percentage of total sub-regional births occurring in each country and are calculated as follows. First, the percentage of total sub-regional births occurring in each country was calculated using birth estimates given by countries in Baseline Reports, estimated by the UN Population Division (UNPD) in its 2017 *World Population Prospects*, and projected for Pacific island nations by the Pacific Community (SPC). This percentage was then multiplied by the birth registration completeness rate for each country given in Figure 2. This process yields the percentage of all births in the sub-region that are registered by that particular country. Finally, the sum of these percentages over each country in the sub-region was taken in order to arrive at the total percentage of all births in the sub-region that are registered. For example, if there are N countries in sub-region A, then A’s weighted completeness rate would be:

to have very low national registration rates: more than 1 in 3 children under the age of 1 in Vanuatu, Fiji, and Samoa are unregistered, while in the Solomon Islands more than half of all children remain uncounted before their first birthday. Furthermore, data on one of the largest countries in the sub-region (Papua New Guinea) is unfortunately unavailable, and birth registration completeness there is assumed to be quite low.

Using birth estimates given by countries in Baseline Reports, estimated by the UN Population Division (UNPD) in its 2017 *World Population Prospects*, and projected for Pacific island countries by the Pacific Community (SPC), we can also calculate the number of new births each year which go unregistered.^{38,39} As with the completeness estimates, total birth estimates listed by countries in their Baseline Reports was the first source consulted. UNPD data was used if such estimates were not available, and SPC data was used for Pacific island countries (several of which are too small to be covered by UNPD estimates). The number of unregistered children less than 1 was then computed by multiplying the completeness rate in a given country by the estimated total number of births occurring in the same year.

Figure 4: Weighted Birth Registration Completeness Rate of Children <1 and Number of Unregistered Children by Sub-Region^{viii}

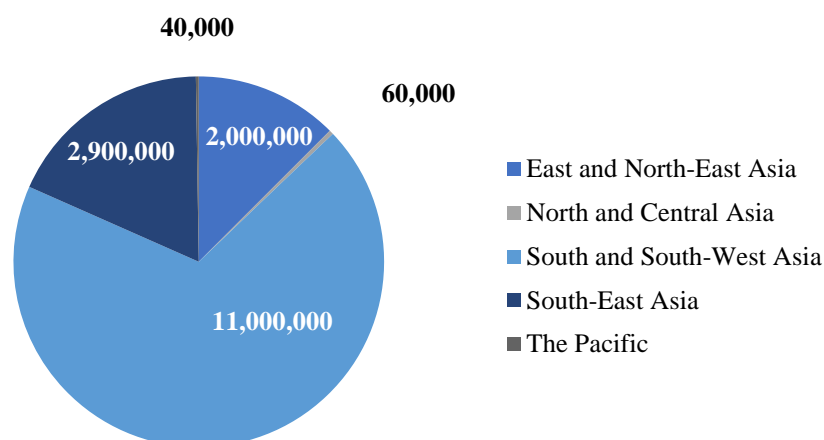
SUB-REGION	WEIGHTED REGISTRATION COMPLETENESS RATE	BIRTH NUMBER OF UNREGISTERED CHILDREN <1
East and North-East Asia	89%	2.0 million
North and Central Asia	98%	60 000
South and South-West Asia	72%	11.0 million
South-East Asia	74%	2.9 million
The Pacific	91%	40 000
Asia-Pacific	78.1%	16.0 million

In total, there are roughly **16 million children** in the ESCAP region each year who are not registered within one year of their birth. This represents **approximately 22% of all new births** in Asia and the Pacific in a given year. Almost all of these unregistered births come from East and North-East Asia, South and South-West Asia, and South-East Asia. High completeness rates in

^{viii} Figures have been rounded to the nearest 100,000 for East and North-East Asia, South and South-West Asia, and South-East Asia. Figures have been rounded to the nearest 10,000 for North and Central Asia, and The Pacific.

North & Central Asia, as well as the relatively low total number of births in the Pacific, mean that these regions account for less than 1% of all unregistered births.^{ix}

Figure 5: Distribution of Unregistered Children by Sub-Region



Over two-thirds of the unregistered children in Asia and the Pacific are located in South and South-West Asia. In fact, this region contains all three of the countries with the lowest completeness rates in the ESCAP region. Another 13% of unregistered children can be found in East and North-East Asia, most of whom live in China. The remaining 18% of unregistered newborns are located in South-East Asia. This sub-region also experiences some of the largest variability in Asia-Pacific, with 6 countries having registration completeness >90% and 4 countries having completeness <75%. However, with both the lowest average completeness rate and the most unregistered children under 1, the sub-region with the largest room for improvement is clearly South and South-West Asia.

How many children in Asia and the Pacific are not registered before turning 5?

As in the previous section, Baseline Reports, information communicated directly by country representatives, and UNSD's Demographic Yearbook are also three key sources of information on birth registration completeness of children under 5. In addition, the MICS and DHS sample surveys, which have been elaborated on above, also provide valuable data on birth registration of children between 0 and 59 months old. When sorting through these different sources to arrive at a single estimate for each country, the following procedure was used. First, information given in Target 1.B of Baseline Reports, MICS surveys, DHS surveys, and information provided directly by country representatives was analysed, with the most recent available figure generally given precedence. In the event that no value was available from any of these sources, UNSD's

^{ix} Bearing in mind that information on Papua New Guinea is not available.

Demographic Yearbook was then consulted to see if the country in question had a birth registration system that could be considered “virtually complete” (i.e. capturing at least 90% of live births occurring in a given year). If the Demographic Yearbook does not consider the civil registration system to be complete, then alternative sources were consulted, all of which are listed in the footnotes of Figure 6.

In total, data is available for all but two of the 58 regional members and associate members of ESCAP. The data is also relatively recent, with information for 45 countries available from the year 2013 or later. Data for 7 countries come from the years 2009-2013, while data for the remaining 4 countries is from 2006-2007. Using this updated information we can now examine how the region has progressed since UNICEF’s *Every Child’s Birth Right: Inequities and Trends in Birth Registration* (based on data from 2005-2012) and *The State of the World 2017* (based on data from 2010-2016). Unfortunately completeness estimates for China and Papua New Guinea are unavailable meaning that both countries have been excluded from the analysis below.

Figure 6: Registration Completeness of Children <5

Country	Birth Registration Completeness	Year	Source
Afghanistan	42.3%	2015-16	DHS 2015-16
American Samoa	100%	2017	Other ^a
Armenia	98.7%	2015-16	DHS 2015-16
Australia	98.3%	2014	Baseline Report
Azerbaijan	99.5%	2013	Baseline Report
Bangladesh	24.6%	2014	Baseline Report
Bhutan	82.7%	2014	Baseline Report
Brunei Darussalam	>90%	2016	2016 Demographic Yearbook (UNSD)
Cambodia	78%	2016	Other ^b
China			
Cook Islands	100%	2014	Baseline Report
DPR Korea	100%	2009	MICS 2009
Fiji	73%	2015	Baseline Report
French Polynesia	>90%	2016	2016 Demographic Yearbook (UNSD)
Georgia	99.6%	2015	Other ^c
Guam	>90%	2016	2016 Demographic Yearbook (UNSD)
Hong Kong, China	>99%	2014	Baseline Report
India	79.7%	2015-16	Other ^d

Indonesia	71.3%	2014	Baseline Report
Iran (Islamic Rep. of)	99.7%	2014-15	Baseline Report
Japan	>90%	2016	2016 Demographic Yearbook (UNSD)
Kazakhstan	99.7%	2015	MICS 2015
Kiribati	93.5%	2009	DHS 2009
Republic of Korea	99.8%	2014	Baseline Report
Kyrgyzstan	97.7%	2014	MICS 2014
Lao PDR	74.8%	2011-12	MICS 2011-12
Macao, China	100%	2014	Baseline Report
Malaysia	>90%	2016	2016 Demographic Yearbook (UNSD)
Maldives	99%	2014	Baseline Report
Marshall Islands	95.9%	2007	DHS 2007
Micronesia (F.S.)	80%	2011-15	Baseline Report
Mongolia	100%	2015	Baseline Report
Myanmar	81.3%	2015-16	DHS 2015-16
Nauru	82.6%	2007	DHS 2007
Nepal	56.2%	2016-17	DHS 2016-17
New Caledonia	>90%	2016	2016 Demographic Yearbook (UNSD)
New Zealand	>90%	2016	2016 Demographic Yearbook (UNSD)
Niue	100%	2017	Other ^a
Northern Mariana Islands	98%	2017	Other ^a
Pakistan	33.6%	2012-13	DHS 2012-13
Palau	>90%	2016	2016 Demographic Yearbook (UNSD)
Papua New Guinea			
Philippines	90.2%	2010	Baseline Report
Russian Federation	>90%	2016	2016 Demographic Yearbook (UNSD)
Samoa	75%	2017	Other ^c
Singapore	>90%	2016	2016 Demographic Yearbook (UNSD)
Solomon Islands	88.0%	2015	DHS 2015
Sri Lanka	97.2%	2006-07	DHS 2006-07
Tajikistan	93%	2014	Baseline Report
Thailand	100%	2015-16	MICS 2015-16
Timor-Leste	55.2%	2009-10	DHS 2009-10
Tonga	93.4%	2012	DHS 2012
Turkey	99%	2013	Baseline Report
Turkmenistan	99.6%	2015-16	MICS 2015-16

Tuvalu	100%	2017	Other ^a
Uzbekistan	99.9%	2006	MICS 2006
Vanuatu	75.5%	2013	DHS 2013
Viet Nam	96.1%	2013-14	MICS 2013-14

Notes: Non-regional ESCAP members (France, Netherlands, UK, and USA) have been omitted. “Baseline Report” refers to information reported under Target 1.B of Baseline Reports submitted to ESCAP. “2016 Demographic Yearbook (UNSD)” refers to countries listed in the 2016 Demographic Yearbook with civil registration systems which UNSD estimates to be “virtually complete”, i.e. civil registration systems which capture at least 90% of live births occurring in each year.

^a Refers to information reported by a country representative at the 2017 meeting of the Pacific Civil Registrars Network in Suva, Fiji. However, this number refers to the *completeness rate of children under 1*. As such, the reported figures should be interpreted only as rough estimates of completeness rates for children under 5. However, because for all 4 of the countries in question the completeness rate is between 98%-100% for children under 1, it is reasonable to assume that the completeness rate will also be close to 100% for children under 5. Therefore, these values are included in the analysis below.

^b As reported in the *National Baseline on Civil Registration and Vital Statistics in Cambodia*⁴⁰

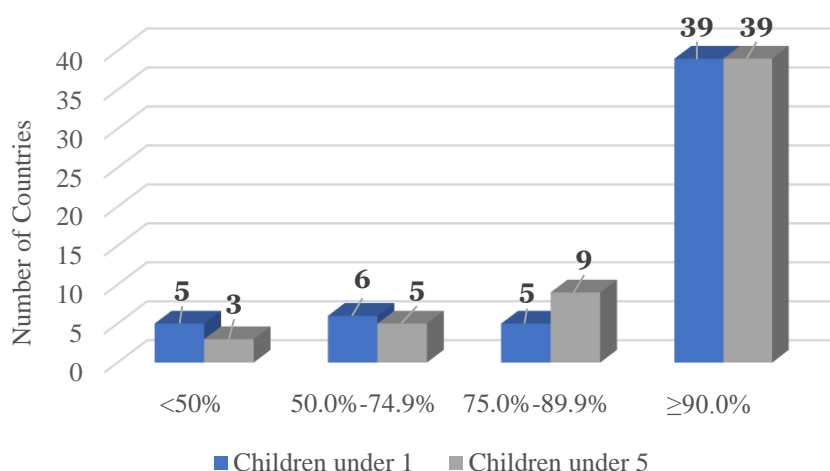
^c As reported in UNICEF’s birth registration dataset based on information in the *Georgia Welfare Monitoring Survey (WMS) 2015*⁴¹

^d As reported in the *National Family Health Survey 2015-16*⁴²

^e Refers to information reported by a country representative at the 2017 meeting of the Pacific Civil Registrars Network in Suva, Fiji. The number refers to the *completeness rate of children under 5*.

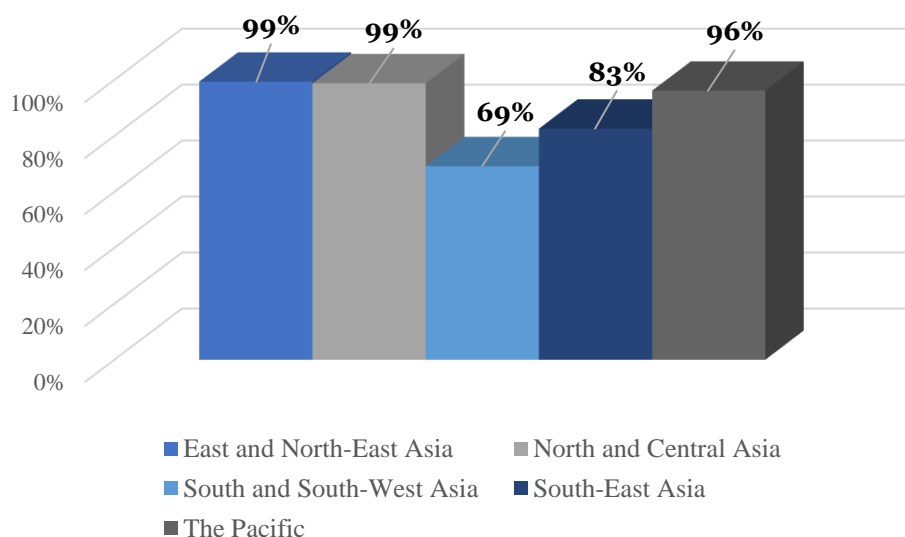
Interestingly, as in the previous section, **exactly 39 countries in the region, or two-thirds of all member states, have complete or nearly complete birth registration systems for children under 5 (with >90% completeness)**. This indicates that countries which achieve high completeness rates for children under 5 also tend to prioritize registering children within 1 year. Of these 39 countries, 28 have essentially universal birth registration of children less than 5, with completeness rates of 99.0% or higher. Turning now to countries with birth registration systems still in development, 9 countries have completeness rates between 75% and 90%, 5 have completeness rates between 50% and 75%, and only 3 have completeness rates below 50%. Examining Figure 7, we can see a minor improvement in registration rates as children get older, with a larger percentage of countries having completeness rates >75% for children under 5 than for children under 1. This seems to support the argument that in some countries with developing birth registration systems parents may choose to delay registration until a pressing need (such as school enrollment) presents itself.

Figure 7: Number of countries divided in categories of registration completeness for Children under 1 vs. Children under 5



In order to get a better gauge of how different areas are progressing, birth registration completeness rates for children under 5 are divided into different sub-regions in Figure 8. As before, states with “complete” registration systems (>90% completeness) are assumed to have registration rates of 99% unless otherwise indicated in Baseline Reports, MICS or DHS surveys, or in reporting to ESCAP.

Figure 8: Weighted Birth Registration Completeness Rate of Children <5 by Sub-Region



Once again, the lowest registration rate in the region can be found in South and South-West Asia. However, strong improvements have been made in this area. UNICEF’s most recent estimate of

birth registration completeness in its sub-region of “South Asia”, based on data from 2010-2016, was 60%.⁴³ Yet using our updated data and the same sub-regional definition of “South Asia” as UNICEF (which involves removing Turkey and the Islamic Republic of Iran), we now get a completeness rate of 67%. This may indicate a notable increase in birth registration in the sub-region in just a short period of time, a likely development considering the considerable focus on improving CRVS that has been made in several countries in South Asia such as Bangladesh and Pakistan.

Interestingly however, the completeness rate of children under 5 for South and South-West Asia is actually lower than that of children under 1. This seemingly contradictory result can be explained by the behavior of India and Nepal, both of whom have lower completeness rates for children under 5 than for children under 1 (79.7% vs. 85.6% for India and 56.2% vs. 76% for Nepal). One potential reason for this could be the aforementioned recent large increases in birth registration which have taken place in South and South-West Asia. For example, in India birth registration of children under 5 has nearly doubled from 41.2% in 2005-06 to 79.7% in 2015-16.⁴⁴ If we assume that these new registration campaigns are primarily aimed at parents of newborns, it is not unreasonable for children under 1 to be slightly more likely to be registered than children who are 3 or 4. If this is the case, we should see the completeness rate for children under 5 start to converge towards the completeness rate for children under 1 in the next few years as these newly registered newborns grow older, assuming the efforts to register newborns are sustained.

A second issue could have to do with standard errors caused by smaller samples. As described in its Baseline Report, Nepal based its completeness estimate for children under 1 off of the results of a “Provisional Mini Survey” conducted by the Department of Civil Registration. The government is currently awaiting the results of a more comprehensive National Representative Sample Survey on Vital Registration, which should allow it to “...more precisely be able to set the target...”. Once these new results based on a larger population sample are released, it is possible that we will see convergence in the completeness rate of children under 1 towards the completeness rate of children under 5 (which is instead based on a 2016-17 DHS survey).

In the other four sub-regions we see a clear increase in the registration rate of children under 5 compared to children under 1. These increases vary from a modest improvement of 1 percentage point for North & Central Asia, to a 5 percentage point increase in the Pacific, to more significant increases of 9 and 10 percentage points for South-East Asia and East & North-East Asia respectively. While the result for the latter sub-region is mostly caused by excluding China, the increase in South-East Asia is especially significant and highlights the prevalence of delayed registrations in this area.

In addition, we can calculate the registration completeness rate in UNICEF’s region of East Asia and the Pacific in order to see if, as in South Asia, recent progress has been made in this area as well.^x However, the data for this region appears to be relatively unchanged from before, with only

^x UNICEF’s East Asia and the Pacific region corresponds roughly to the combination of ESCAP’s East and North-East Asia, South-East Asia, and Pacific sub-regions, but with Tokelau added in and American Samoa; French Polynesia; Guam; Hong Kong, China; Macao, China; New Caledonia; and Northern Mariana Islands excluded. Data on China, Papua New Guinea, and Tokelau are unavailable.

a modest increase from 84% as reported in *State of the World 2017* to 85% when using the latest data.

As in the previous section, we can next calculate the number of unregistered children under 5 using population estimates disaggregated by age as reported in Baseline Reports, estimated by the UN Population Division (UNPD) in its 2017 *World Population Prospects*, and gathered from national censuses for smaller Pacific island countries.⁴⁵

Figure 9: Weighted Birth Registration Completeness Rate of Children <5 and Number of Unregistered Children by Sub-Region^{xi}

SUB-REGION	WEIGHTED REGISTRATION COMPLETENESS RATE	BIRTH NUMBER OF UNREGISTERED CHILDREN <5
East and North-East Asia	99%	60 000
North and Central Asia	99%	200 000
South and South-West Asia	69%	57.0 million
South-East Asia	83%	9.7 million
The Pacific	96%	80 000
Asia-Pacific	75.2%	67.0 million

In total, there are an estimated **67 million children** under the age of 5 in the ESCAP region who are not registered. This represents **approximately 25% of all children under 5** in Asia and the Pacific. Interestingly, this percentage is slightly lower than the one for children under 1. This is mostly due to the lack of data on China (which has a completeness rate for children under 1 higher than that of the region as a whole) as well as the aforementioned result for India (which has a lower rate of registration for children under 5 than for children under 1).

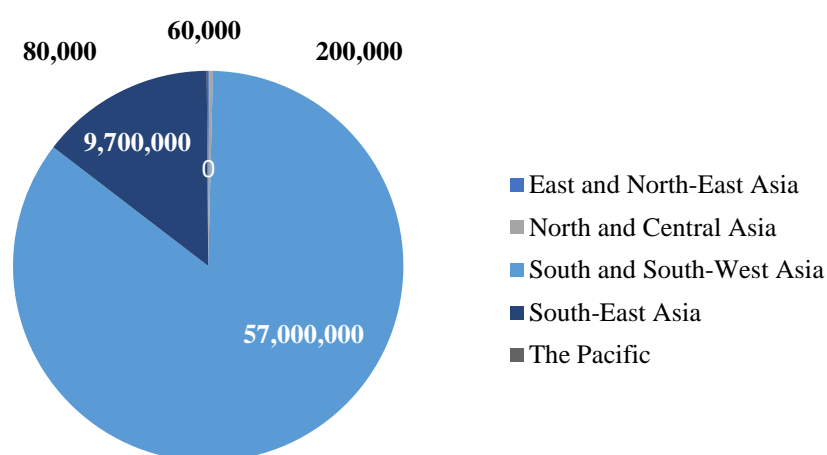
The vast majority of unregistered children under 5 live in South and South-West Asia. This sub-region is home to 85% of all of Asia-Pacific's unregistered children, as well as 4 of the 5 countries with the lowest birth registration completeness rates in the region. South-East Asia is home to another 14% of ESCAP's unregistered children, while for similar reasons as for children under 1 (as well as the lack of data on China), East & North-East Asia, North & Central Asia, and the Pacific make up less than 1%. This is not to say that there is no progress left to be made in these

^{xi} Figures have been rounded to the nearest 100,000 for North and Central Asia, South and South-West Asia, and South-East Asia. Figures have been rounded to the nearest 10,000 for East and North-East Asia, and The Pacific.

sub-regions. In fact, 3 of the 10 countries with the lowest registration rates in the region are Pacific island nations.

However, comparing these numbers to those published by UNICEF in Figure 1 (which is based on data from 2005-2012) shows that despite the uncertainty of the data, there are strong evidence that major progress has indeed been made. In Figure 1, UNICEF estimated that 103 million children under 5 were unregistered in South Asia and 32 million children under 5 were unregistered in East Asia and the Pacific. Comparing these values with those in Figure 9 shows that there has been a significant drop-off. And changing the regional definitions to match those of UNICEF makes little difference: **based on our updated data, the number of unregistered children under 5 in South Asia has been almost halved to 56.9 million, while the number of unregistered children in East Asia and the Pacific has been reduced to 9.9 million.** This progress is commendable, and if such momentum can be maintained we have a real chance of achieving the ambitious goals of the Asian and Pacific CRVS Decade.

Figure 10: Distribution of Unregistered Children under 5 by Sub-Region



How can we close the remaining gap?

In addition to providing information about birth registration completeness, Baseline Reports also asked countries to list any challenges they had in improving and collecting information on birth registration. Here countries listed a wide range of challenges, from budget shortages to a lack of incentives for registration. Broadly speaking, responses from countries can be grouped into seven major themes. These themes and corresponding challenges are explored in Figure 11, with the most commonly reported issues listed first. The number given in parentheses refers to the number of different countries who reported experiencing that particular difficulty.

Figure 11: Challenges in Improving and Measuring Birth Registration Completeness as Identified in Baseline Reports

Demand for birth registration	<ul style="list-style-type: none"> ➤ Lack of awareness/information (7) ➤ Natural hazards/difficult geography/transportation issues (5) ➤ No incentive until time of school registration (2) ➤ Relative does not/is unable to go in person to register (2) ➤ Costs of registration (2)
Special population groups	<ul style="list-style-type: none"> ➤ Remote islands/regions (7) ➤ Births outside health facilities (4) ➤ Areas in conflict/security challenges (2) ➤ Indigenous groups (2) ➤ Populations living along international borders (2)
Resource constraints	<ul style="list-style-type: none"> ➤ Budget shortages (5) ➤ Human resource shortages (4) ➤ Insufficient civil registration staff capacity (4) ➤ Infrastructure problems/equipment shortages (3)
Coordination between agencies and administrative levels	<ul style="list-style-type: none"> ➤ Coordination between civil registration and health systems (5) ➤ Delays in reporting between administrative levels (4) ➤ Incomplete/inconsistent data received at the national level (4)
Overall system architecture	<ul style="list-style-type: none"> ➤ Time lag between occurrence of birth, registration, and processing (6) ➤ Poor legal framework/legal barriers to registration (4)
Digitization	<ul style="list-style-type: none"> ➤ Lack of online CRVS software makes the management and analysis of birth registration data difficult (4) ➤ Digitization of data/conversion of paper-based records still in progress (3) ➤ Paper-based system makes calculations difficult (2)
Data quality & duplication	<ul style="list-style-type: none"> ➤ Incomplete/unclear details recorded on birth registration form (2) ➤ Duplicate/delayed birth notifications (2) ➤ Duplicate registrations (2) ➤ Completeness measurements are calculated using sample-based methods, meaning that standard errors will affect the final estimate (2)

As we can see, the most pressing challenge countries reported was a lack of demand for birth registration. This lack of demand stems from a number of factors, including a lack of incentive, a lack of access to registration centres, a lack of awareness, and cost. For example, a study by Bennouna et al. (2016) in Indonesia found that study participants highlighted financial costs, such as organizing transportation to registration offices and fees associated with duty stamps for official documents, more than any other barrier.⁴⁶ The same study also identified a lack of immediate incentives for registration as another major issue. This problem is echoed in Nepal, where children aged 2-4 are twice as likely to be registered as children aged 2. This is because parents may not perceive any incentive to register until their children reach school enrollment age and require a birth certificate in order to enroll.⁴⁷ Indian states with the highest registration levels have tried to boost incentives for parents, for example by making registration mandatory for school enrollment and improving linkages with social protection schemes.⁴⁸ Bangladesh has also enacted legislation making birth certificates compulsory for opening a bank account, registering a car, and receiving an ID card.⁴⁹ Although linking birth registration with other programmes may increase registration rates, countries should also be careful not to make birth certificates compulsory to access essential government services as this may even further disadvantage those groups who are unable to register. There is no doubt, however, that links between birth registration, ID and social protection is becoming increasingly important as a driver for registration and protection of individuals.

Most importantly, many parents are simply unaware of the importance of birth registration for accessing rights and benefits. UNICEF reports that in almost 50% of countries for which they have data, the majority of mothers are unfamiliar with how to register their child's birth.⁵⁰ Pakistan has launched media campaigns to try to increase awareness while the Philippines has launched a particularly innovative series of measures. These include creating a call centre to answer public questions as well as the launch of a weekly radio show.⁵¹

The second biggest problem area facing countries is how to increase registration among special population groups. Reaching people in far away and remote regions is a common issue across member states. Brunei Darussalam has attempted to solve this problem using "Flying Doctor Teams". These teams fly in to remote communities via helicopter and ensure that children are registered while also performing medical check-ups.⁵² In Pakistan, a project provides health workers and Nikkah Registrars with mobile devices to communicate newborn information in the field to Union Councils.⁵³ Ensuring that indigenous and minority ethnic groups have an equal ability to register can also be difficult. Muslims living in the Autonomous Region of Muslim Mindanao are less likely to be registered in the Philippines, while in Viet Nam children from ethnic minority backgrounds are less likely to be registered than children from Kinh or Hoa ethnic groups.^{54,55}

Children on the move are particularly hard to capture. In China, registration restrictions require that children be registered in the region where their parents are registered, meaning that the children of migrant workers may go uncounted.⁵⁶ Children left behind while their parents move for work are likewise less likely to be registered.⁵⁷ Forcibly displaced children pose a major difficulty. A study by Plan International in Sri Lanka found that only 82% of internally displaced children were registered compared to a national registration rate of 96%.⁵⁸ And in some countries

only citizens are registered due to registration legislation, documentation requirements needed for registration or lack of knowledge of the right to register for all amongst local civil registrars, with the children of refugees, stateless children, and migrants remaining uncoun­ted.

On the supply side of the registration system, many countries are hampered by resource constraints. These can come in the form of insufficient budgets, insufficient personnel, or insufficient equipment. A study in Indonesia found that registration centres were frequently understaffed or did not have sufficient blank certificates for parents to fill out.⁵⁹ Even in countries where there are enough staff present other tasks may get in the way. For example, in many countries such as India, officials must perform several other duties in addition to civil registration, meaning that registration duties may be neglected.^{60,61} Ensuring that registration offices have the necessary financial and human resources to carry-out their tasks must be a priority for national planning committees.

The process of registering a birth almost always involves multiple agencies performing different tasks, including the Ministry of Interior or Justice, the National Statistics Office, and the Ministry of Health. Ensuring that these agencies coordinate and cooperate is crucial for improving birth registration outcomes. In India different government departments take the lead in registration depending on the province.⁶² This creates several coordination challenges between agencies, especially at lower levels. Improving local coordination and involving village leaders, health workers, and religious figures in registration programmes can significantly improve registration rates. Afghanistan for example is working with mullahs as part of a scheme to increase the reporting of new births and deaths.⁶³

The Ministry of Health has an especially important role to play in the notification and registration of births. Registration information can be given to pregnant women during antenatal care, notifications can be provided by health officials directly to the civil registry at birth to start the registration process, and registration checks can be performed during routine vaccinations.⁶⁴ In many countries children receive at least five vaccination rounds within one year of birth, providing many opportunities to check-up on registration status.⁶⁵ The Ministry of Health can also be a key provider of information to the civil registry. Kazakhstan's Unified Health Information Management System receives reports of new births and deaths from health centres daily, allowing for continuous tracking of events.⁶⁶ Such information can be very useful for keeping track of vital information.

In terms of the overall architecture of their registration systems, countries pointed to both legislative challenges and general delays slowing down the process. In Pakistan for example, three unique visits to the registration office are required in order to receive a birth certificate.⁶⁷ This is compounded by the lack of a standardized birth registration procedure nationwide.⁶⁸ Many countries also have in place outdated or cumbersome legislative requirements. In China a medical birth certificate, a birth permission certificate, and the registration booklets of the parents are all required to register a newborn.⁶⁹ These three documents are also all issued by three separate government departments, making registration a time-consuming task. In Nepal, mothers must furnish the names of both the father and grandfather of the child in order to register, a requirement which can be difficult for single mothers.⁷⁰ Indonesia's birth registration laws require that parents

show proof that they are married in order to register. To ease this burden, the country's Religious Courts, Office of Religious Affairs, and the Civil Registry Office have joined forces as part of a mobile campaign which seeks to simultaneously provide marriage certificates to parents and birth certificates to children.⁷¹ Several other countries have also amended old legislation in order to improve procedures, including Cambodia and Afghanistan.^{72,73}

Digitization can dramatically improve the organization and efficiency of CRVS systems. Nationwide software makes it easy to send and retrieve information across the country and can save a considerable amount of time that would otherwise be spent transferring data by hand. Cloud technologies also allow information to be stored cheaply and protect data in the event of a disaster. In 2009 Mongolia launched an online network connecting provinces and districts with the capital city, speeding up the time it takes to transfer data.⁷⁴ The Philippines has likewise digitized its civil registration information. Their online system makes it faster to apply for birth certificates and creates a nationwide database of civil registration information, helping to prevent duplicate and false information.⁷⁵

While the seven themes listed in Figure 6 were the issues most highlighted by countries in their Baseline Reports, this is by no means an exhaustive list of national challenges. Several other issues may also affect the well-functioning of CRVS systems. For example, parents may not register due to a wariness of interacting with state institutions.⁷⁶ Linguistic barriers may also pose a challenge, especially in countries with multiple minority languages. To counteract this, the Indian Office of the Registrar General publishes training manuals in 13 languages in order to try to make the system as accessible as possible.⁷⁷ Finally, a desire to rollout National ID cards has been shown by several member states in the ESCAP region.⁷⁸ Information from the CRVS system must be heavily integrated into any ID programme, with birth and death registrations acting as its foundation. In this way, National ID databases/population registers can be kept as up-to-date as possible at minimal cost. The separation of CRVS and National ID systems on the other hand may put a strain on human and financial resources and the completeness of both systems may suffer as a result.

Counting the uncounted

This paper has attempted to assess the status of birth registration completeness in Asia and the Pacific, including a comprehensive examination of the completeness rate of children under 1 for the first time. As we have shown, while progress has been achieved, significant challenges still remain. Notably there are 16 million unregistered children under 1 and 67 million unregistered children under 5 in the region. This represents 22% and 25% of all children under 1 and under 5 respectively. Without birth registration documents, these children live without a legal identity and the ensuing rights, benefits, and protections that this entails. In South and South-West Asia in particular, large challenges remain in counting the uncounted. 85% of Asia-Pacific's unregistered children under 5 can be found here, although significant progress has been made to reduce this number in the past decade.

Through an exploration of the key challenges facing countries in scaling-up birth registration systems, we have hoped to shed light on ways in which this gap can be closed. By working to increase demand, target special population groups, and ease resource constraints, member states and development partners can continue to close in on the goal of universal birth registration. Now that we know where the region stands today we can better tailor strategies for the future in order to meet the ambitious targets of the Asian and Pacific CRVS Decade.

Appendix I: Sub-Regional Divisions

Sub-regions are divided as follows:

- *East and North-East Asia:* China; Hong Kong, China; Macao, China; DPR Korea; Japan; Mongolia; Republic of Korea
- *North and Central Asia:* Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan
- *South and South-West Asia:* Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Rep. of), Maldives, Nepal, Pakistan, Sri Lanka, Turkey
- *South-East Asia:* Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam
- *The Pacific:* American Samoa, Australia, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (F.S.), Nauru, New Caledonia, New Zealand, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu

Endnotes

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