

KNOWLEDGE SERIES 1

POPULATION REGISTERS:

DEFINITIONS AND CONCEPTUAL FRAMEWORK

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**DATA FOR
HEALTH INITIATIVE**

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Definitions of a population register

The United Nations¹ defines a population register as:

an individualized data system, that is, a mechanism of continuous recording, or of coordinated linkage, of selected information pertaining to each member of the resident population of a country in such a way to provide the possibility of determining up-to-date information concerning the size and characteristics of that population at selected time intervals.

According to the Organisation for Economic Co-operation and Development:²

population registers are accounts of residents within a country. They are typically maintained via the legal requirement that both nationals and foreigners residing in the country must register with the local authorities. Aggregation of these local accounts results in a record of the population and population movement at the national level.

The World Bank in the *ID4D Practitioner's guide*³ defines a population register as:

a database of every individual that has the right to reside in the country, including citizens and non-citizens, children, and adults. Population registers typically contain demographic data and life-event information that is the basis of or exchanged⁴ with other identification systems and databases such as national ID systems, civil registers, and others (adapted from Harbitz and Kentala 2013⁵).

From these definitions, the basic characteristics of a population register can be derived.

- a) A population register is a repository of up-to-date information on some basic characteristics of all residents of a country.
- b) A population register is continuously updated by linking reports of events recorded in other administrative registers, mainly from civil registration and immigration records.
- c) A population register has the potential to provide data on a population and its characteristics on a continuous basis at all administrative levels.

The civil register, population register and identification register⁶ provide important information about the identity and civil status of persons. This information is needed to facilitate a wide variety of transactions and to deliver services to the population.

Basic information contained in the population register

The basic minimum information usually included in a population register is: name, sex, date of birth (and/or age)⁷, place of birth and current physical address.⁸

¹United Nations. 2014. *Principles and recommendations for a vital statistics system, Revision 3*. In: United Nations. 1969. *Methodology and evaluation of population registers and similar systems*. New York: United Nations. Paragraph 454.

²<https://stats.oecd.org/glossary/detail.asp?ID=2089>

³World Bank. 2019. *ID4D Practitioner's guide: Version 1.0 (October 2019)*. Washington, DC: World Bank. Page 221.

⁴Although the information from the civil registration database is used to update the population register, there is some information from the population register that can be shared with the CRVS system, such as the unique identity number and/or date of marriage of the parent of the child whose birth is registered. Hence the word 'exchange'. Such exchange of information can also happen between the population register and other registers

⁵Harbitz and Kentala. 2013. *Dictionary for civil registration and identification*. Washington, DC: Inter-American Development Bank.

⁶The World Bank (2019) *ID4D Practitioner's guide* identifies these three registers as foundational ID systems.

⁷Age is usually derived from the date of birth but in countries where some persons (particularly the elderly) are not able to provide date of birth, age can be used instead.

⁸In countries without a well-established physical address system, address can include the name of a village, district or sub regional area that is well (officially) recognised.

To create and/or enhance uniqueness in individual records, a unique ID number/code is included with each person's record.

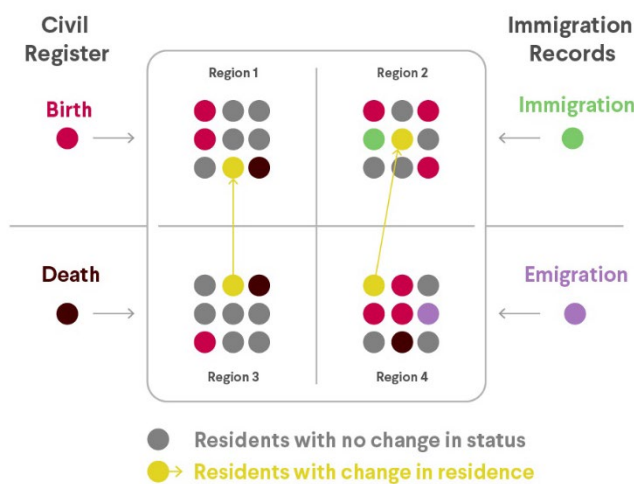
The term 'resident population' varies from one country to another, depending on the purported use of the population register. The register normally includes citizens and non-citizens who are legal residents of the country, and it is not uncommon to include citizens living abroad.⁹ Individuals residing temporarily in a country are, however, not included among the 'resident population'. For people to qualify for inclusion, a minimum period of stay within the country is commonly specified.

Establishment of population register

The initial step towards establishment of a population register is to build a stock of the existing resident population. There are two ways of doing this: a) by using existing databases to consolidate a list of residents; or b) registering eligible residents through a one-time mass registration.¹⁰

Updating of the population register

Once the stock of all currently living residents is established, it is continuously (in some cases in real time) updated, using a flow of information on vital events registered in the civil registration system, as well as records of migrations into or out of the country. A resident is entered in a population register when her/his birth or in-migration is registered and is retired from the register (i.e., marked as dead or moved out of the country) when his/her death or out-migration is registered (see Figure 1).¹¹



In addition to the information from the civil registration of births and deaths of residents, characteristics of these events, such as sex, date and place of occurrence, are also recorded in the civil registration and vital statistics (CRVS) system and transferred to the population register. New entrants, other than newborns, such as those left out during the establishment of the register and new immigrants, are registered in the population register, based on the submission of documents as specified in the relevant law and issued by designated authorities.

Figure 1. Updating the population register

More layers of information related to change in civil status can be added to the population register, depending on the needs of the country. For example, information on marital status, date of marriage and/or divorce, can be added and subsequently updated from the civil registration system.

While the establishment and maintenance of population registers rely on information collected by administrative databases (mainly the civil register and immigration

⁹It is important that citizens living abroad are clearly identified.

¹⁰A more detailed discussion on methods of building of the initial register is available in Part 2 of this Knowledge series.

¹¹No record should be deleted from the population register. Records of the deceased and out-migrants should be appropriately marked.

database/register of residents), the architecture of the registers should not be seen as a stand-alone database that permanently copies information from other registers. Rather, they can constitute one coherent database or a system of interconnected and interoperable databases, often at different locations and operated by different authorities. For example, in the Nordic countries, the civil register and population register are one entity and any changes in civil status are directly entered in the population register.

A population register cannot be described as such without it being linked to the civil registration of vital events, which constitute information fundamental to its continuous updating, together with changes in physical address.¹² Civil registration and vital statistics systems are the foundation of an inclusive, robust, trustworthy population register. In this respect, a population register is a kind of continuous census, encompassing the structure of the population at any given point in time, with all modifications occurring within it on a moment-to-moment basis.¹³

As noted above, a population register maintains information about an individual's current residential address and records any changes in address resulting from entry into a country or change of residence within a country. While maintaining such updates of internal movements remains a vital aspect of maintaining a population register, a change of residence or address within a country is usually voluntarily reported which makes it difficult to maintain accurate records and data on internal movement. In a few countries, however, it is a legal requirement to provide formal notification of one's departure and to register at one's new place of residence. There are also countries where addresses in the population registers are updated using the information in address databases maintained by separate agencies designated by law.

Operation and maintenance of a population register

The establishment, operation and maintenance of a population register require legislative authority and strict definitions regarding access and retrieval of information.¹⁴ At the national level, operations and maintenance of a population register are the responsibility of a relevant ministry, usually the ministry of interior.¹⁵ Population registers are not always maintained as a centralised database and can be a network of interoperable local population registers. In some countries, separate population registers are established and maintained at the sub-national level and are used to update the national level population register at pre-decided intervals, based on agreed protocols.¹⁶ With the advancement in information and communication technology, more countries are now establishing a separate data centre to serve the numerous e-services and data needs of the government. In this set-up, the population register is hosted in the government data centre, to which all data users are connected.

¹²The physical address should be accompanied by geographic location particulars, such as province, district, name of the village or town (or even ward within the town). A large majority of low- and middle-income countries may not have any physical address system, particularly in rural areas, in which case just the location particulars mentioned above are required. The geographic location codes should be part of the database so they can be used for compilation of statistics at various of geographic levels.

¹³Implementation of the United Nations Legal Identity Agenda: United Nations Country Team Operational Guidelines, May 2020.

¹⁴Implementation of the United Nations Legal Identity Agenda: United Nations Country Team Operational Guidelines, May 2020.

¹⁵Much of the information collected by population registers is received from agencies responsible for civil registration and international migration, which in many countries are departments within a ministry of Interior/home affairs. Responsibility for population registers often falls under this ministry.

¹⁶It is not always the case that these separate databases are copied into a central database/register and yet can remain interconnected and interoperable.

Differences between a population register and an identification register

The key differences between a population register and an identification register are described in Table 1.

Table 1. Differences between a population register and an identity register

Population register	Identification register
Stores information of all residents of a country.	May include only those residents who attain a legally minimum age (usually 18 years) and in some countries only citizens are included.
Envisages continuous (in some countries, real-time) updating based on information on vital events recorded in the civil registration system.	Is not necessarily updated from civil registration data on a continuous and/or in real-time basis; may be largely demand-driven.
Does not include biometric information, such as photographs and fingerprints.	A modern identification register necessarily includes biographic and biometric information of all registered individuals.
A fully developed population register can provide data to produce population and vital statistics and also migration statistics on a regular basis.	Identification registers that include only adult persons cannot be used for producing population and vital statistics.

These differences are relevant when the population register and the identification register are two separate entities. In some countries, however, population registers and identification registers are established and operated as a single database or as two separate, but interoperable databases linked through unique identity numbers assigned to individuals. In several countries, there is no population register; the civil register and identification register co-exist but are neither linked nor interoperable, which is not desirable. The failure to link and/or ensure interoperability between the two databases creates a loophole in the identity ecosystem; for example, there is a risk that records of the deceased can remain active if the identification register is not updated with the facts of death in time. Furthermore, delinked/non-interoperable databases often yield unharmonised records: different identification details of a given individual in the two sources.

Unique identity numbers (UIN)

Every person's record in the population register is assigned a unique identification number.¹⁷ In countries that use the civil register system for real-time update of the population register, a new-born child is simultaneously entered into the civil register of birth, which is used to update the population register, and a unique identity number is assigned to the new-born.¹⁸ Similarly, in the event of a death being registered in the civil registration system, the unique identity number of the deceased is retired from the population register. In countries where a separate authority or agency is responsible for identity management, the unique identity numbers may be assigned by the said agency on a real-time basis to individuals registering in the population register for the first time, either through birth or as defined by law. In the case of death, the population register is first updated, based on information on death registration from the civil register system, which in turn will help retire the unique identity number from the identity management database on a real-time basis. Other layers of identity, such as

¹⁷In some countries, the unique identifier is not a number and people are identified using a combination of attributes.

¹⁸In some countries, such as Bhutan, Vietnam and Botswana, there is a backward linkage from the population register to birth register, as the UIN generated in the population register flows back to the birth record and is used as the birth registration id number.

biometric information of individuals, are added to the identification database after the individuals attain a certain age as specified law. Unique identity numbers are also used to link the population register and the identification register, as well as other registers used for administrative or statistical purposes.

Legal identity and the population register

The United Nations Legal Identity Agenda (UNLIA)¹⁹ emphasises legal identity for all, starting from birth. Civil registration establishes the existence of a person under the law and is fundamental for granting legal identity and for producing the data needed to plan, monitor and measure a country's development efforts.²⁰ The UNLIA also promotes a holistic approach to a legal identity system, in which every new legal identity is introduced into the identity system when the birth is registered, and is retired from the system immediately after death. Figure 2 is the holistic framework for a civil registration, vital statistics and national identity management system proposed under the UNLIA.^{21,22} This framework very clearly establishes the population register as the pathway to the identity management system and is particularly relevant in countries where the population register and identity register are maintained as two separate databases, linked through unique identity numbers. This systematic, holistic and life cycle-based approach helps build an identity system that is robust, trustworthy and inclusive.

Population and vital statistics and statistics on migration from the population register

Figure 2 also depicts the flow of information originating from the civil registration office to the national statistics office²³ and to the agency responsible for the population register for the compilation of population and vital statistics. Information on the occurrence of vital events, their characteristics, as well as the characteristics of parents or deceased people, is transmitted to the national statistics office on a regular basis for the production of vital statistics. On the other hand, information such as name, date of occurrence, sex, and place of residence flow from the civil registration office to the population registration agency for continuous updating of the population register. The population register, therefore, has the potential to provide statistics on the population on a dynamic basis at regular intervals and at various geographic levels, provided the changes of physical address of the residents are also updated. The continuous recording of changes of physical address (internal and external) can also provide basic statistics on internal and external migration statistics at regular intervals. The population register also provides statistics on denominators that can be used to compile fertility and mortality indicators (e.g. SDG indicators²⁴).

¹⁹The UN Legal Identity Expert Group (LIEG) was established in September 2018 at the request of the UN Secretary-General and backed by the UN DSG. The group, in support of the UN Legal Identity Agenda (2020–2030), aimed to: a) take a unified approach to legal identity across the collaboration with the World Bank; and b) support member states to accelerate progress to achieve SDG 16.9 and SDG 17.19.

²⁰United Nations Legal Identity Agenda: Fulfil the promise to leave no one behind. https://unstats.un.org/legal-identity-agenda/documents/Conference%20in%20Prep%20for%20HLPF2019%201%20pager_final.pdf

²¹Figure 2 is an adaptation of the diagrammatic representation of the framework included in the UNCT Operational Guidelines on the implementation of the UNLIA.

²²There are countries, which maintain a person based civil register as opposed to an event-based register. In such cases, individual records of residents are updated with changes in civil status resulting from vital event as and when they occur throughout a lifetime, starting with birth and ending with death.

²³In some countries, the civil registration office itself is responsible for the compilation of vital statistics.

²⁴See <https://www.unescap.org/resources/stats-brief-october-2020-issue-no-26-population-registers-key-resource-producing-vital>



Civil Registration, Vital Statistics and Identity Management System

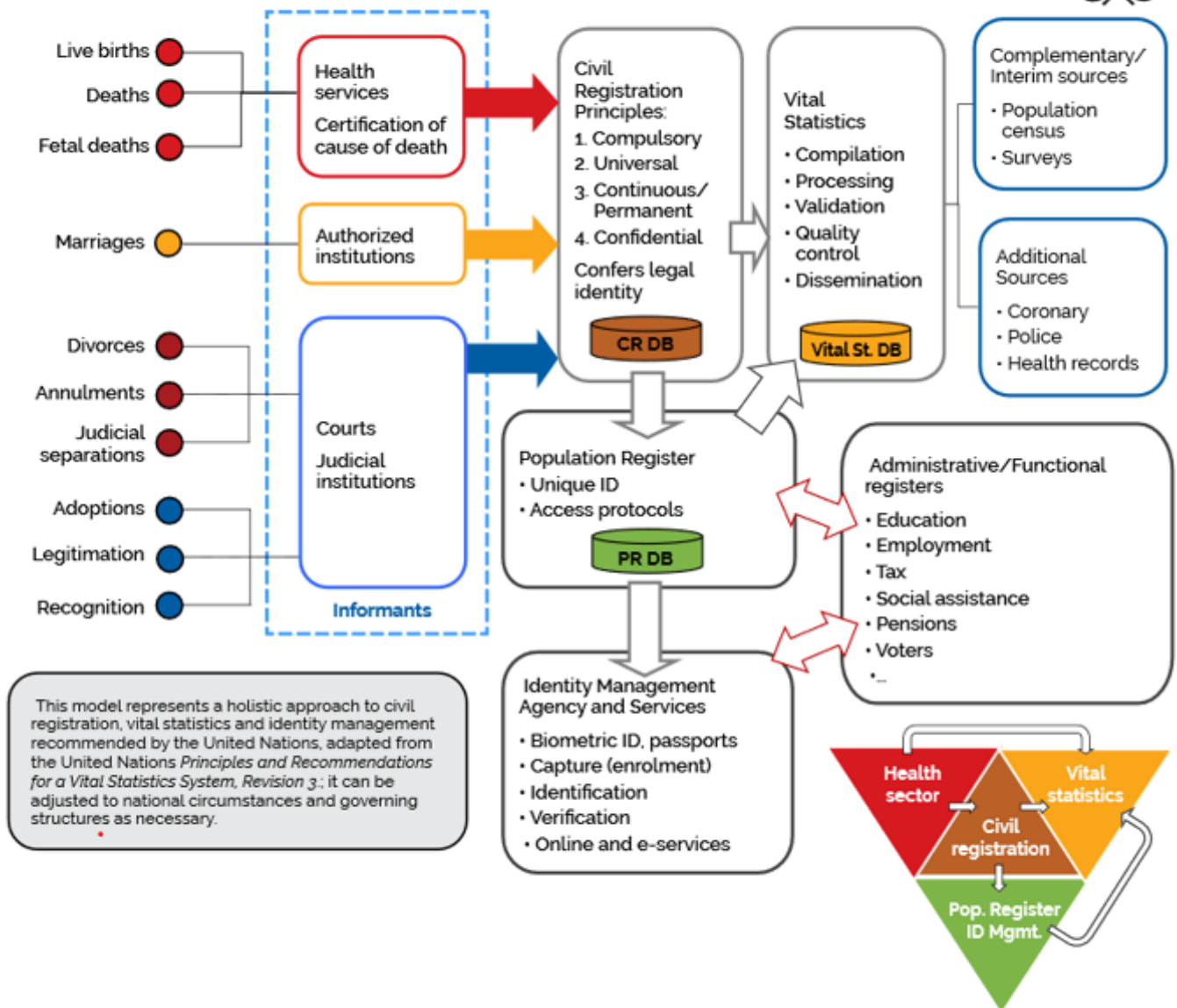


Figure 2. Holistic framework depicting the link between civil registration, vital and population statistics, and the population register

Source: Framework for civil registration, vital statistics, and identity management system developed by the UN Legal Identity Expert Group.²⁵

²⁵See: *Implementation of the United Nations Legal Identity Agenda: United Nations Country Team: Operational Guidelines: May 2020.*

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