49TH Session of the Commission on Population and Development

11 – 15 April 2016 United Nations, New York

Strengthening the demographic evidence base for the post-2015 development agenda

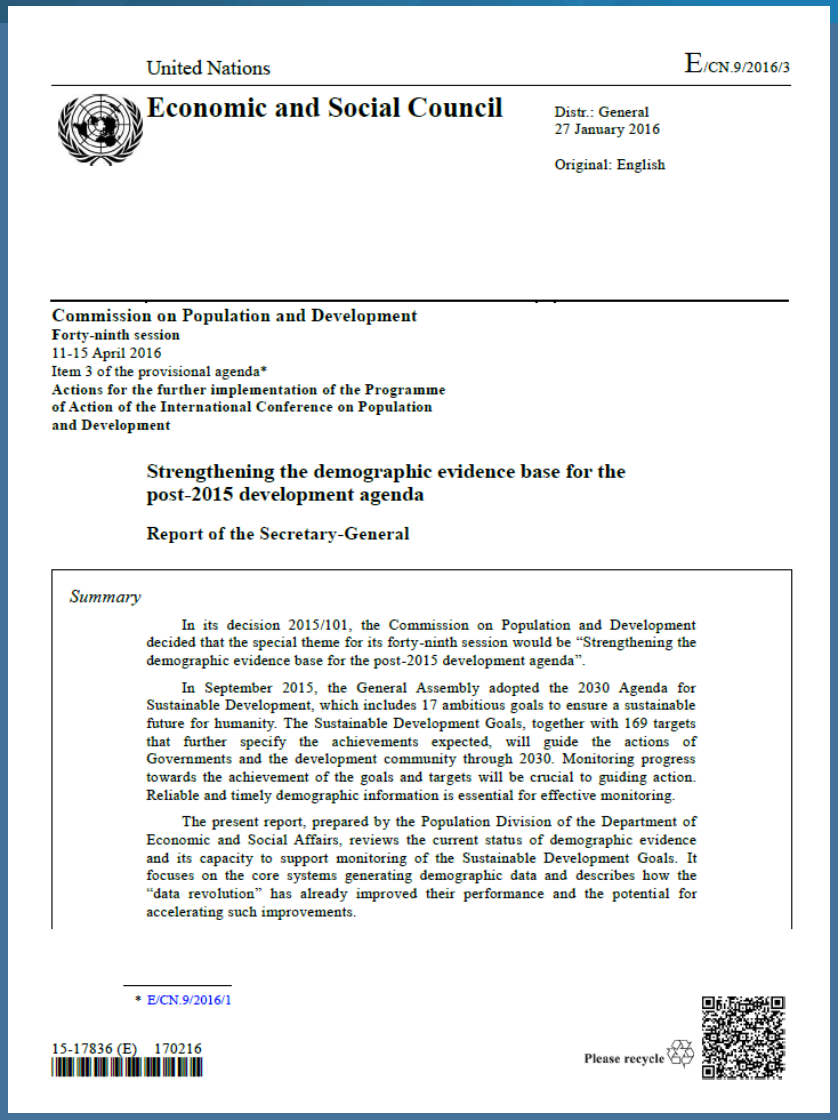
www.unpopulation.org #CPD49 #UNPopulation

49TH Session of the Commission on Population and Development

11 – 15 April 2016 United Nations, New York

Introduction of the report of the Secretary-General on Strengthening the demographic evidence base for the post-2015 development agenda (E/CN.9/2016/3)

Available at:
www.unpopulation.org



United Nations E/CN.9/2016/3

Economic and Social Council

Distr.: General
27 January 2016

Original: English

Commission on Population and Development
Forty-ninth session
11-15 April 2016
Item 3 of the provisional agenda*
Actions for the further implementation of the Programme of Action of the International Conference on Population and Development

Strengthening the demographic evidence base for the post-2015 development agenda

Report of the Secretary-General

Summary

In its decision 2015/101, the Commission on Population and Development decided that the special theme for its forty-ninth session would be "Strengthening the demographic evidence base for the post-2015 development agenda".

In September 2015, the General Assembly adopted the 2030 Agenda for Sustainable Development, which includes 17 ambitious goals to ensure a sustainable future for humanity. The Sustainable Development Goals, together with 169 targets that further specify the achievements expected, will guide the actions of Governments and the development community through 2030. Monitoring progress towards the achievement of the goals and targets will be crucial to guiding action. Reliable and timely demographic information is essential for effective monitoring.

The present report, prepared by the Population Division of the Department of Economic and Social Affairs, reviews the current status of demographic evidence and its capacity to support monitoring of the Sustainable Development Goals. It focuses on the core systems generating demographic data and describes how the "data revolution" has already improved their performance and the potential for accelerating such improvements.

* E/CN.9/2016/1

15-17836 (E) 170216

Please recycle

Outline:

I. Introduction

II. The core sources of demographic data

III. Harmonization and dissemination

IV. Consistent and reliable estimates

V. Integrating geo-referenced datasets

VI. Big data and new technologies

VII. Disaggregation

VIII. The way forward

I. Introduction

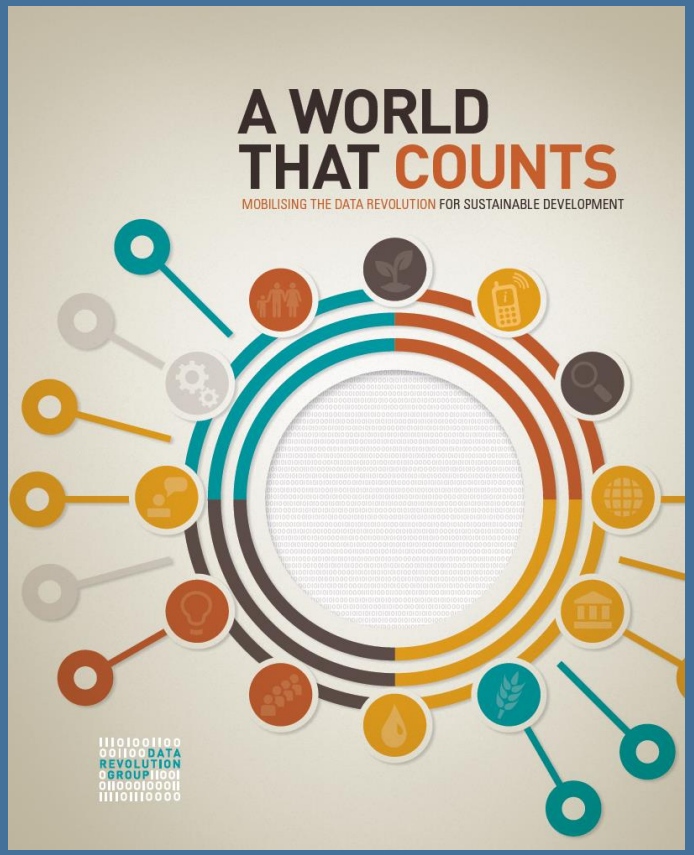
- Demographic data are essential to review progress, plan and implement actions to achieve the goals and targets of the Programme of Action of the International Conference on Population and Development (ICPD) and the 2030 Agenda for Sustainable Development;
- Reliable and timely data are needed on the size, growth and distribution of the population, as well as on births, deaths and migration

Independent Advisory Group on a Data Revolution for Sustainable Development (2014). ***A World That Counts: Mobilizing the Data Revolution for Sustainable Development***

Recognized that improving the reliability, timeliness and accessibility of demographic data key for efforts to strengthen statistical systems for monitoring the SDGs

This report reviews the status of demographic data and suggests strategies to improve the core instruments used to generate them

Focuses on data for the estimation of population dynamics —population counts, births, deaths and migrants— and on data about the proximate determinants of fertility



http://www.undatarevolution.org/report

II. Core sources of demographic data

A. Population censuses

B. Population Registers

C. Civil registration and vital statistics

D. Household surveys

E. Health and Demographic Surveillance Systems

II.A Population censuses

- Essential source of **population numbers by age and sex, marital status, location**, educational attainment, occupation, ethnicity, migrant status, household composition, housing characteristics and other relevant characteristics
- **Enumerate all the people in a country** at a particular time
- **Yield data for small groups and small geographic areas**
- **Essential to assess whether any group is being left behind** in the development process

II.A Population censuses

- 214 countries or areas conducted a census in 2005-2014 covering 93 per cent of the world's population.
- Increasing use of multi-modal approaches, continuous or ad-hoc surveys to supplement census or registers

II.A Population censuses

- **Increasing use of ICT innovations** to improve every stage of census operations: cartographic update (GPS, GIS), logistics, monitoring, questionnaire design, and data collection, coding, storage, analysis and dissemination
- Electronic platforms to disseminate national and subnational summary indicators (e.g., CensusInfo, PC-AXIS)
- Interactive online tabulators based on microdata: REDATAM, IPUMS-International "Analyze Data Online" system
- 2015 revision of UN *Principles and Recommendations for Population and Housing Censuses*

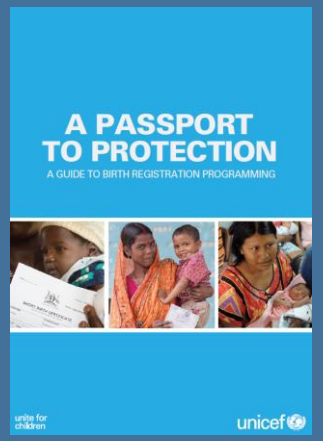
II.B Population Registers

- Continuous record selected information about each resident of a country
- They are an excellent source of up-to-date statistics on the size, characteristics and location of the population and of its components of change -- births, deaths and changes of residence
- When they record all changes of residence, including those of individuals who leave the country, population registers and other administrative records of the entry, residence and employment of the foreign-born population, are valuable sources of information on international migration
- But few countries maintain population registers and use them for statistical purposes, mostly in Europe

II.C Civil registration and vital statistics (CRVS)

- A well-functioning civil registration system with information on births and deaths is a key source of data for vital statistics on fertility and mortality
- Registration also helps to ensure that every person has a legal identity, facilitating access to the benefits and protections of the state

- The SDGs call for universal birth registration. In 2015, 230 million children under 5 still lacked a birth certificate (85 mill in Africa and 135 mill in Asia & Oceania)



Birth and death registration in the SDGs

Target 16.9 By 2030, provide legal identity for all, including birth registration

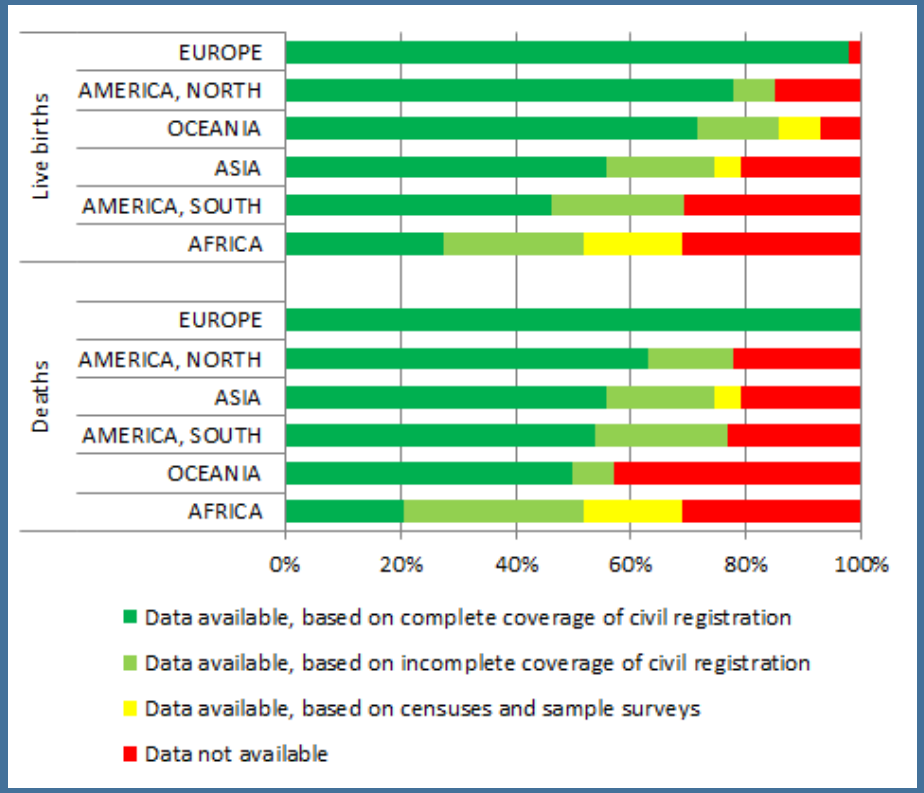
*Proportion of children under 5 years whose **births have been registered** with a civil authority, by age*

Target 17.19 By 2030….support statistical capacity building in countries:

*Proportion of countries that a) have conducted at least one Population and Housing Census in the last ten years, and b) **have achieved 100 per cent birth registration and 80 per cent death registration***

II.C Civil registration and vital statistics (CRVS)

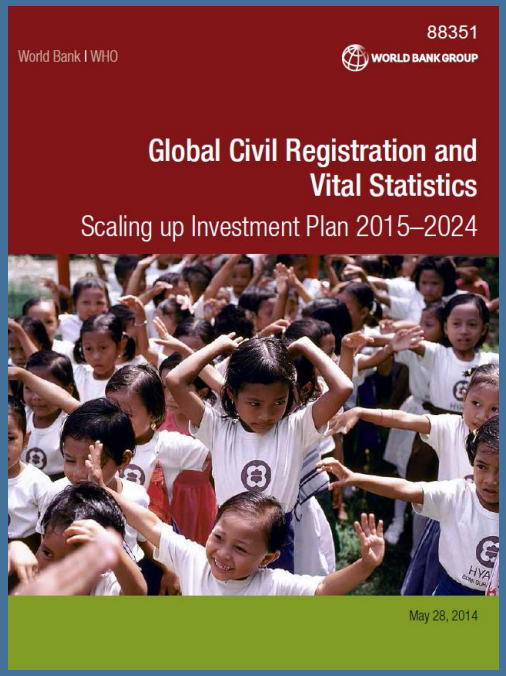
- Among 234 countries or areas, only 60 per cent register at least 90 per cent of births and just 56 per cent register at least 90 per cent of deaths. Furthermore, only 39 per cent have reasonably complete data on causes of death and 41 per cent lack data on most causes



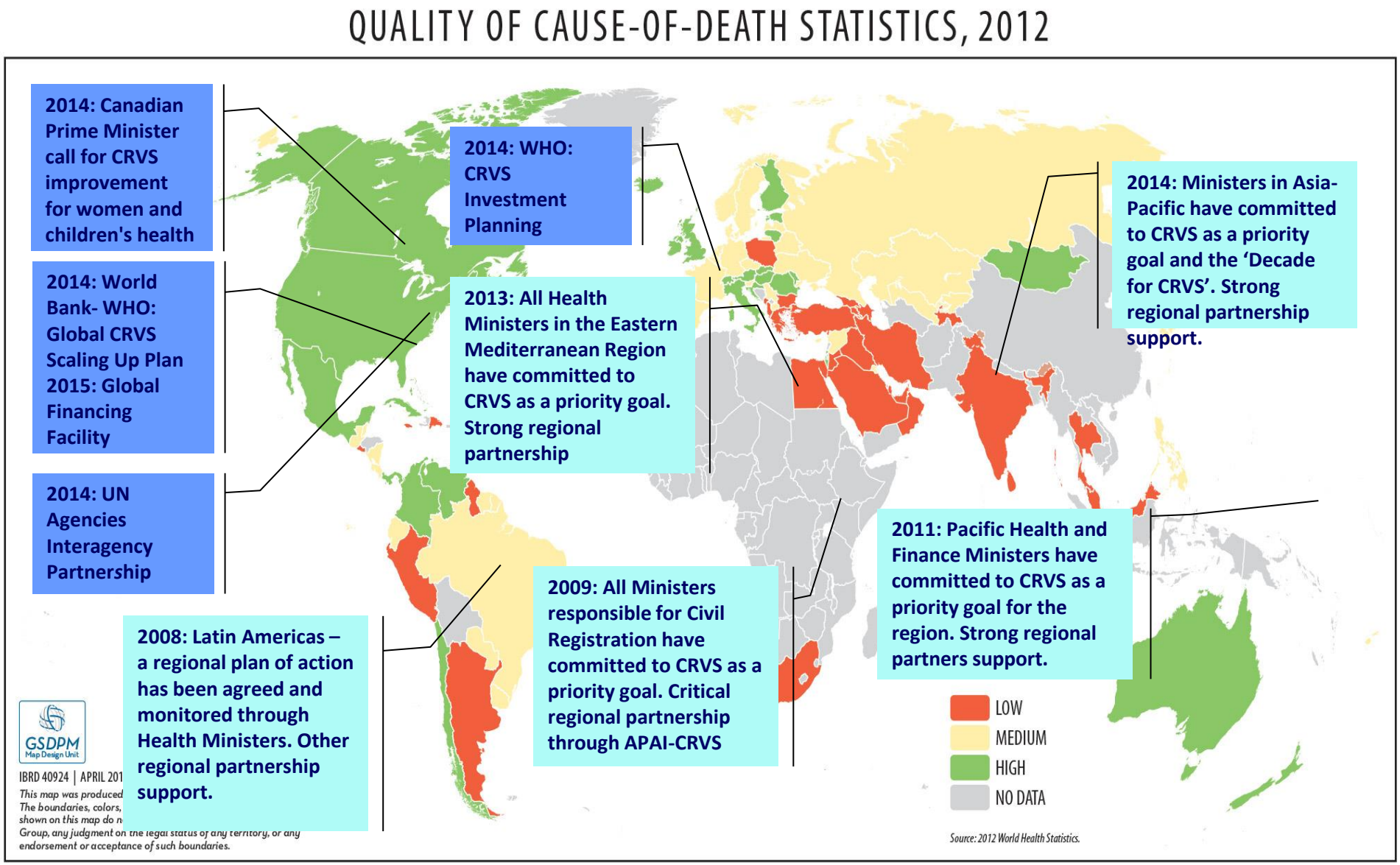
Global and regional commitments to CRVS

- **The sustainable improvement and expansion of CRVS in developing countries will require increased political will and commitment from the countries themselves, as well as enhanced support from donors and the international community.**

- **World Bank and WHO, Global Civil Registration and Vital Statistics: Scaling–up Investment Plan 2014-2025**
- **Government of Canada funding for CRVS within its US$3.5 billion phase I Muskoka commitment**
- **Bloomberg Philanthropies / AUSAID: Data for Health project in 20 countries**
- **Global Financing Facility for Reproductive, Maternal, Newborn, Child, and Adolescent Health (GFF)**
- **Regional ministerial conferences and plans of actions**



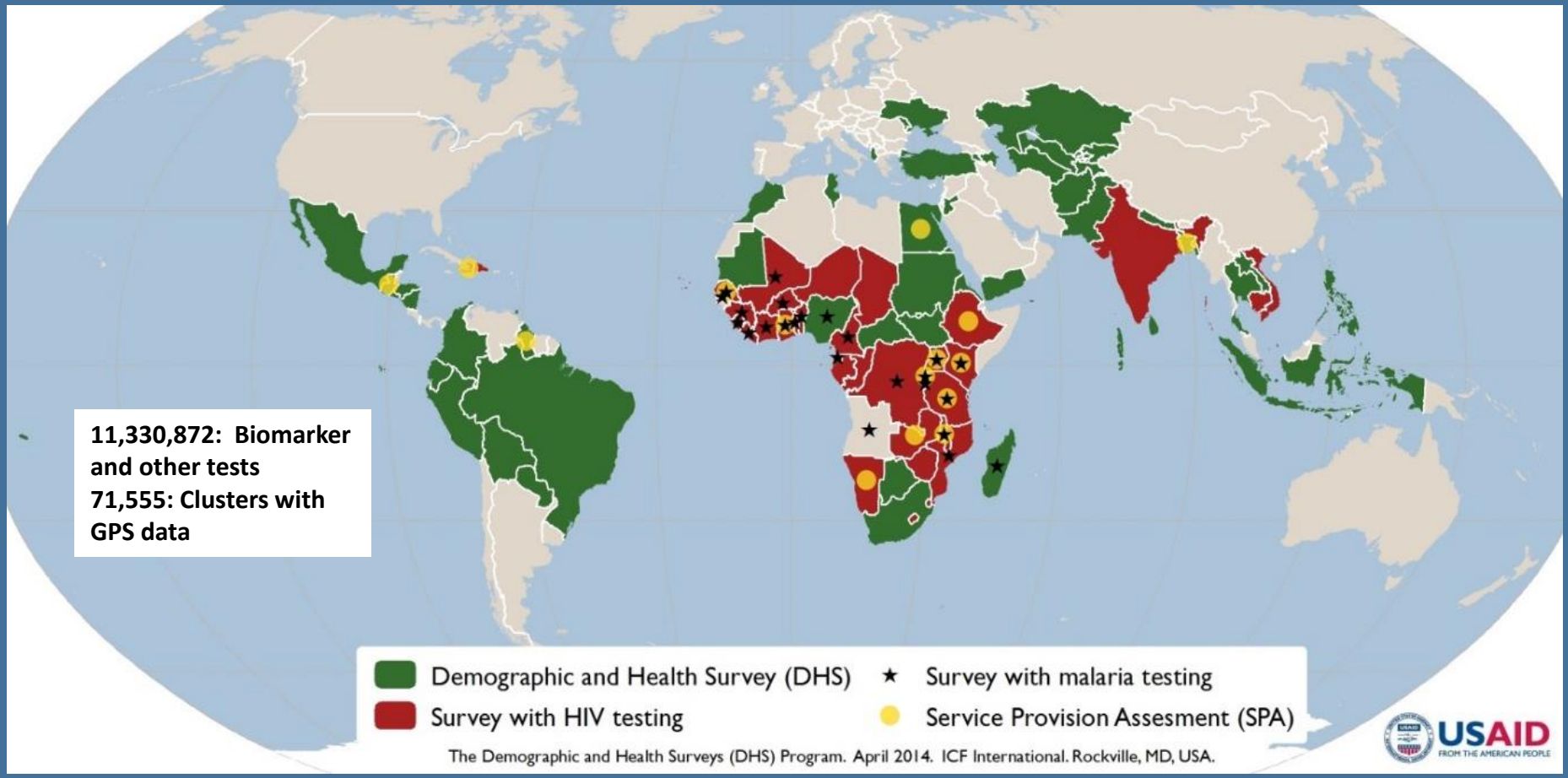
Global and regional commitments to CRVS



II.D Household surveys

- Surveys are also essential to monitor SDGs, complementing other sources of data especially in countries lacking CRVS
- Primary source of information on reproductive health, children, adult and maternal mortality, KAP, and social determinants
- Contribution of national and international survey programs (CPS, WFS, DHS, MICS, PAPCHILD/PAPFAM, WHS, LSMS, etc.)
- Longitudinal surveys critical to document changes over time and their causes (SHARE, GGP, SAGE, etc.)
- The uneven geographic distribution of some population groups relevant for the 2030 Agenda, including migrants and ethnic groups, require special sampling techniques

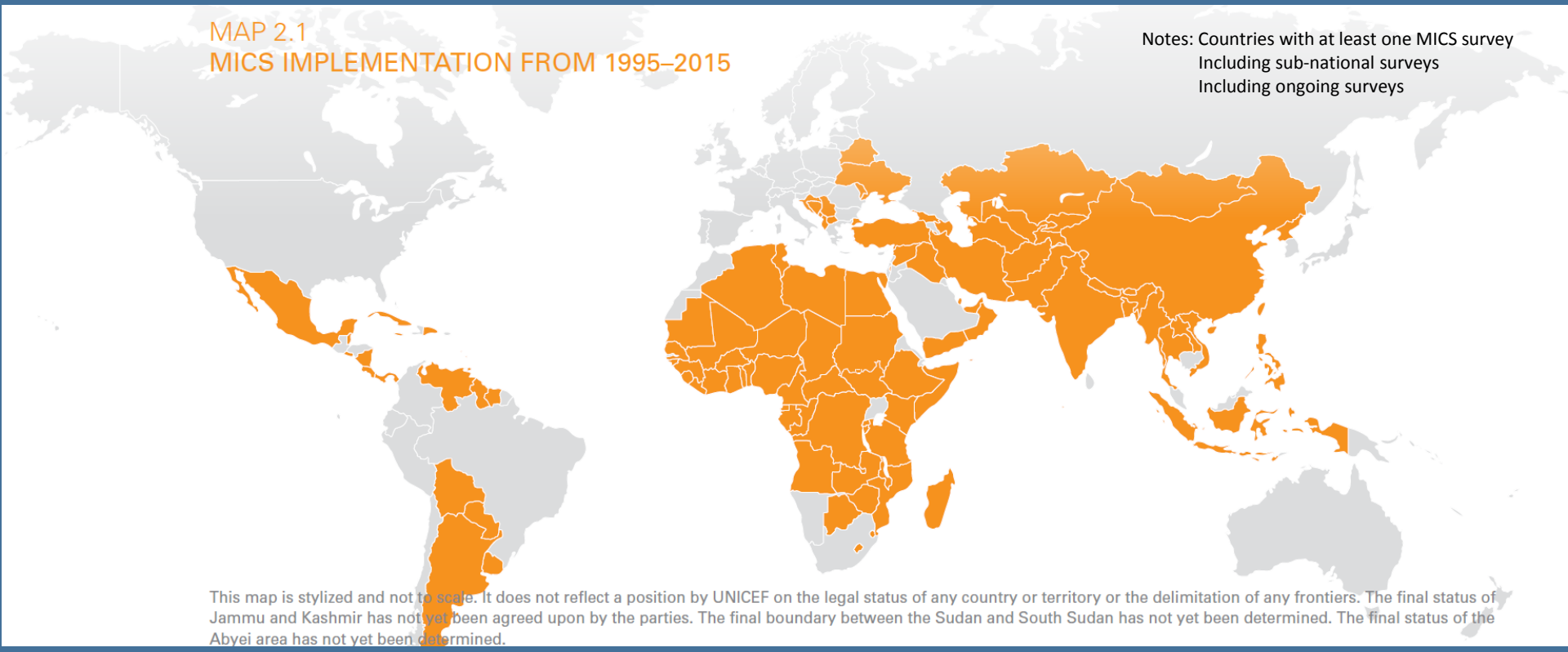
Since 1984: 320+ DHS surveys in 90 countries



49TH Session of the Commission on Population and Development

11 – 15 April 2016 United Nations, New York

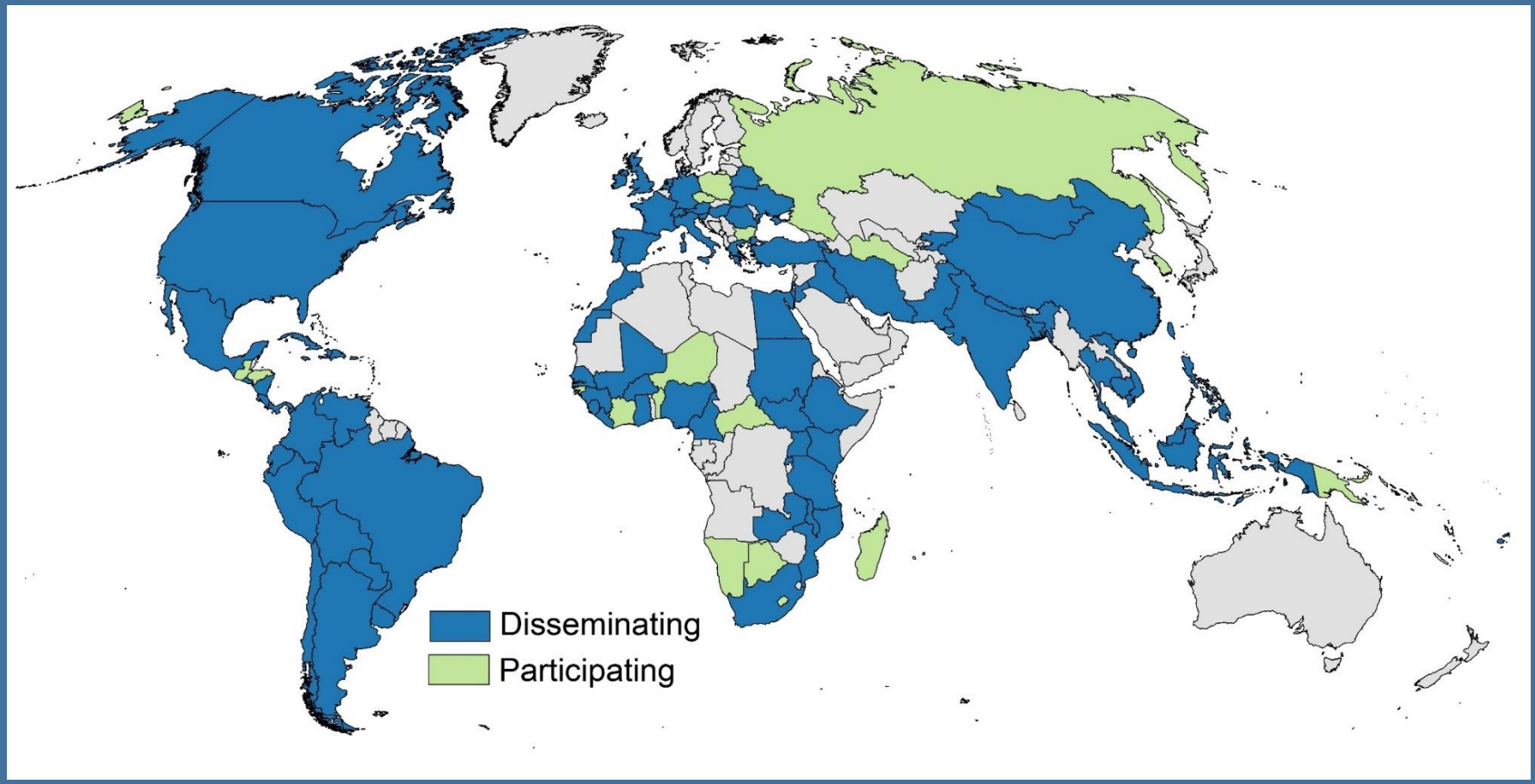
Since 1995: 296 MICS surveys in 108 countries



III. Compilation, harmonization and dissemination

- United Nations Statistics Division
  - Aggregate demographic statistics from censuses and CRVS for 230 countries or areas via the yearly Demographic Yearbook since 1948
  - Online Census and CRVS Knowledge Databases
- UN-ECLAC CELADE repository of census micro-data in Latin America since 1970s and REDATAM for analysis of census micro-data
- PARIS21 (1999-): to promote and facilitate statistical capacity development and a better use of statistics in developing countries
- IPUMS International: Integrated Public Use Microdata Series International provides access to 277 census samples dating from 1960 to 2014 and covering 82 countries

IPUMS International: 277 census samples (1960-2014)



Over 100 Collaborating National Statistical Agencies

IV. Consistent and reliable estimates

- Demographic evidence encompasses data generated by statistical systems and estimates derived from those data
- Global estimates are necessary to fill data gaps, to reconcile differences between data sources, and to insure consistency, reliability international comparability
- This entails evaluation of the basic data, adjustments for deficiencies detected, and the use of estimation methods appropriate for each situation

IV. Consistent and reliable estimates

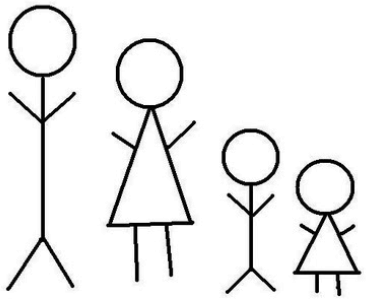
Institutions that produce sets of consistent estimates of demographic indicators:

- ***UN Population Division*: total, urban and rural population; migrant stocks and flows, ABR, contraceptive prevalence, and unmet need for family planning for MDG monitoring. Collaborates with UNICEF, WHO, and UNFPA in child mortality and maternal mortality**
- ***Human Mortality Database (HMD)* by the University of California at Berkeley and the Max Planck Institute for Demographic Research**
- ***Human Fertility Database (HFD)* by the Max Planck Institute for Demographic Research and the Vienna Institute of Demography**
- ***UN-ECLAC CELADE:* Databases on internal and international migration, and on spatial population distribution and urbanization in Latin America**
- ***Internal Migration around the Globe (IMAGE)* project coordinated by the University of Queensland, Australia**

V. Integrating geo-referenced datasets

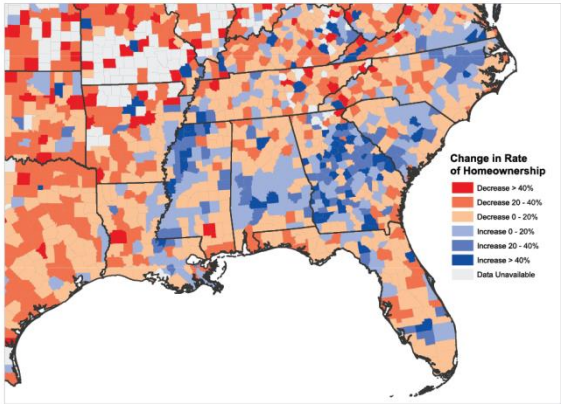
- The production and dissemination of data with geographic references facilitate disaggregation by location
- Integration has proved essential in assessing the impacts of climate change, planning at the national and local levels, studying inequalities within countries and locating population groups vulnerable to natural disasters, famine and other risks
- Major producers of open access global products:
  - Center for International Earth Science Information Network (CIESIN) of Columbia University: Gridded Population of the World (GPW) and Global Rural-Urban Mapping Project (GRUMP)
  - WorldPop project of the Geo-Data Institute of the University of Southampton: high resolution gridded population distribution for Latin America, Africa and Asia
  - TerraPop by IPUMS International integrating population micro-data from IPUMS; summary indicators for geographic areas, and global raster data derived from satellite imagery and climate models

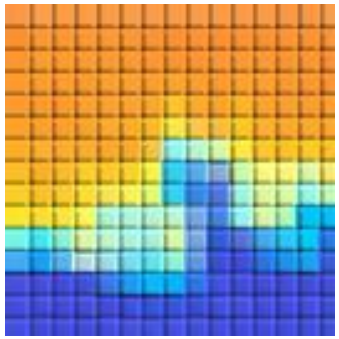
TerraPop: Three Source Data Formats



Microdata:
Characteristics of individuals and households

Small-area data: Characteristics of places defined by administrative boundaries

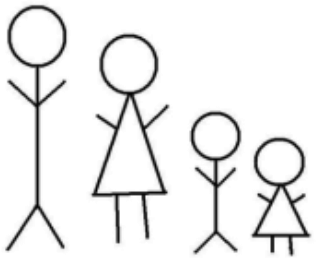




Raster data:
Associated to geographic coordinates

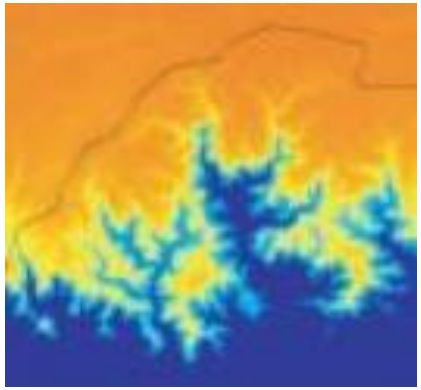
Location-Based Integration

Microdata

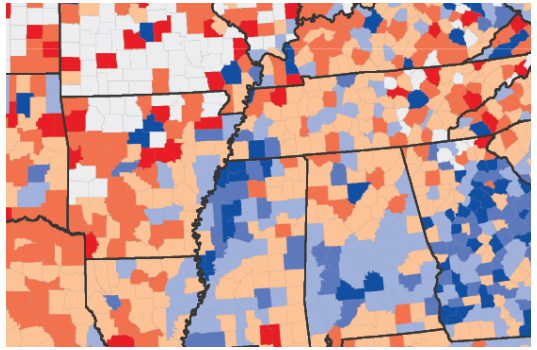


Individuals and households with their environmental and social context

AGE	SEX	LANDCOV	AVGTEMP
10	Male	Forest	21.20
27	Female	Forest	24.30
54	Female	Pasture	24.10
37	Male	Cropped	25.60
37	Female	Cropped	28.10
42	Female	Urban	26.70
20	Female	Forest	24.30
39	Male	Urban	26.80
77	Female	Cropped	27.70
11	Female	Cropped	22.30
31	Female	Pasture	25.10
23	Male	Forest	24.40
24	Female	Urban	21.50
40	Female	Urban	23.40



Rasters



Area-level data

VI. Big data as a complement to demographic data

- Large-volume, high-velocity and wide variety of digital information generated continuously by GPS devices, mobile phones, automated teller machines, scanning devices, sensors, satellites, search engines, social media and crowdsourcing
- Many potential uses and applications, but lack of representativity and access, and technical challenges to use this new type of information
- Most commonly used for population-related issues: satellite imagery and Call Detail Records (CDR) generated by mobile phones for **human mobility and population distribution**
- Governments should develop policies for the use of big data, including **safeguards to ensure privacy and confidentiality**, and guidelines to facilitate access to data controlled by private firms

VII. The challenge of disaggregation

Review of progress of the 2030 Agenda will require disaggregated population data, including for groups defined by income, sex, age, migratory status, geographic location and other characteristics relevant in national contexts.

- **Censuses, population registers and CRVS [aim to]cover the whole population**
- **Provide access to micro-data for the full population, with confidentiality safeguards**
- **Link population registers and administrative data, or with surveys to complement**
- **Geo-reference all data at the smallest administrative level to facilitate data integration between data sources**

VIII. The way forward

1) Support censuses and civil registration and vital statistics (CRVS):

- **Contribute anonymized micro-data of the 2010 round of censuses and surveys to national, regional and international repositories -- essential to provide a baseline for global SDG monitoring**
- **Support the complete enumeration of the population and its basic characteristics as part of the 2020 round of censuses.**
- **Support the Global Financing Facility for Reproductive, Maternal, Newborn, Child, and Adolescent Health (GFF) or other financing mechanisms to strengthen CRVS and health information systems**

VIII. The way forward

2) Strengthen household surveys, administrative registers and other data sources

- **Improving national capacity to conduct surveys** while adhering to international guidelines for data collection, documentation and dissemination.
- Governments and international organizations to **support greater cooperation between research institutions and NSOs, including through South-South cooperation**
- Governments, donors and international organizations to continue **supporting national and international data harmonization and integration** between multiple data sources

VIII. The way forward

3) Leverage ICT and new data sources to improve the efficiency and effectivenesss of the demographic evidence for SDG, by:

- **Geo-referencing and the dissemination of datasets including spatial information to become standard practice in all data collection efforts**
- **Supporting the integration of demographic and other types of data sources, and adopting open-data policies for public-use, geo-referenced and anonymized micro-data from all major sources, including censuses, surveys and civil registration, with safeguards to privacy and confidentiality**

Thank you