

Statistical Commission
Fifty-fourth session
28 February – 3 March 2023
Item 3(c) of the provisional agenda
Items for discussion and decision: Household surveys

Background document
Available in English only

**United Nations Expert Group Meeting
On
Innovative methods to measure the impact of COVID-19 on mortality through
surveys and censuses**

23 – 25 August 2022, Abu Dhabi, United Arab Emirates

Final Report

Prepared by

United Nations Statistics Division

Contents

Introduction/objectives	2
Preparation for the meeting	3
Participation.....	3
Meeting sessions.....	3
ANNEX 3. Annotated work programme (final).....	18
ANNEX 4. Session 1b – questions for round table discussion on data gaps.....	23
ANNEX 6. Session 6 – Outcome of the group discussion: Draft proposal to improve availability of timely and high-quality adult mortality data	28
ANNEX 7. Session 8 – Questions for round table discussion: Integrating the proposed innovative methods into national statistical systems.....	41
ANNEX 8. Conclusions of the Expert Group Meeting (final)	42

Introduction/objectives

The United Nations Statistics Division, in collaboration with the United Nations Population Division and New York University (NYU) Abu Dhabi, organised an Expert Group Meeting on Innovative Methods to Measure the Impact of COVID-19 on Mortality through Surveys and Censuses, at the NYU Abu Dhabi, from 23-25 August 2022. The meeting was organised under the guidance of the WHO-DESA Technical Advisory Group on COVID-19 Mortality Assessment (TAG). Work conducted by the Expert Group Meeting was directly guided by Working Group 2 of the TAG, chaired by Mr. Stephane Helleringer.

The meeting covered challenges in the production of timely and reliable data on adult mortality during the COVID-19 pandemic in countries that do not have a well-functioning civil registration system and discussed ways to (a) improve adult mortality data collection in terms of quality, availability and timeliness; and (b) generate data from surveys, censuses and an integration of data sources that could be used to measure the impact of epidemics, pandemics and other disasters on adult mortality. Actions and roadmaps to support countries in implementing new solutions and in adopting innovative approaches were also covered in the discussions. The meeting also noted that in supporting the adoption of innovative approaches to collect adult mortality data through surveys, censuses or an integration of multiple data sources in countries, monitoring and review of ongoing literatures, experimentation and national experiences are necessary; followed by testing to ensure national applicability and sustainability. Methodological guidance should be prepared based on the literature review, and country practices and experiences gathered from the piloting whenever necessary.

The meeting highlighted that population censuses and surveys cannot be a substitute for a fully functioning civil registration (CRVS) system. It is essential to continue all efforts and investments in establishing and enhancing such a system, in line with the decision of the United Nations Statistical Commission for all countries to fully implement the UN Legal Identity Agenda for all

(SDG 16.9)¹. In the immediate term, however, where CRVS systems are limited, innovative solutions and approaches provided an opportunity to make the best use of data from surveys, censuses and other new data sources to estimate mortality among both children and adults in countries where CRVS are still incomplete or unreliable.

Preparation for the meeting

Two background papers were made available to inform the discussion during the meeting:

- Improving adult mortality data collection through household surveys and population censuses: a set of recommendations, made available before the Expert Group Meeting
- The Potential of Surveys and Censuses to Fill Adult Mortality Data Gaps in the Context of COVID-19: a Stocktaking Paper, also presented to the 53rd United Nations Statistical Commission, March 2022

A questionnaire (Annex 1) was sent to all participating countries prior to the meeting to gather information on: (i) how censuses and surveys are used to collect adult mortality data, (ii) the availability of data that are disaggregated by basic characteristics such as age and sex, (iii) quality assessment of death registration; (iv), data collection activities during COVID, and plans for data collection post-COVID. Questions were also raised on the challenges countries face in measuring adult mortality and the support needed from the international community to improve the availability, quality and timeliness of adult mortality measurement through censuses and surveys. A summary of the support needed from all participating countries was presented under Session 1b on *Overview of availability of adult mortality data and data needs, for regular monitoring of mortality trends and for measuring the impact of COVID-19 on mortality*. A compilation of all national responses to the questionnaire is available online.

The meeting was also supported by the following three webinars with in-depth discussion around relevant topics. Recording and powerpoint presentations for these webinars are available online.

- Measuring the impact of COVID-19 on Mortality: how can surveys and censuses help, 7 February 2022
- Measuring the Impact of COVID-19 on Mortality: the potential of high frequency surveys, 13 April 2022
- Measuring the Impact of COVID-19 on Mortality: rethinking sampling strategies, 5 July 2022

Participation

The meeting was joined by 53 in-person participants and around 10 remote participants (varied by sessions), from national statistical offices, research institutions, humanitarian agencies, private sector, regional and international organisations and donors. The list of participants is included in Annex 2.

Meeting sessions

The meeting included 9 sessions. A brief description of each session is covered below while more information about the speakers and their presentations, as well as activities undertaken for the two

¹ The United Nations Statistical Commission urged all countries in its 51st session to fully implement the UN Legal Identity Agenda – the holistic approach to civil registration, vital statistics and identity management that is the only mechanism to ensure universal registration of all vital events, translated in comprehensive fertility and mortality statistics and conferring legal identity to all from birth to death.

round-table discussions and a group discussion session is available in Annex 3 – annotated work programme. All documents of the Expert Group Meeting are available [online](#).

Session 0 – Opening session

- Dr. Paula England, Dean of Social Science, NYU Abu Dhabi
- Mr. Kevin McCormack, co-Chair, UNDESA-WHO Technical Advisory Group on COVID Mortality Assessment; Head of Division, Sustainable Development Goals Indicators & Reports, Central Statistics Office, Ireland
- Dr. Dena Assaf, United Nations Resident Coordinator, United Arab Emirates
- Ms. Francesca Perucci, Assistant Director, United Nations Statistics Division

Session 1 - What do we need to measure in terms of adult mortality and where are the gaps?

The session covered current status in measuring adult mortality through censuses and surveys, emerging data needs and areas for data improvements. Presentations included those from national statistical offices about their adult mortality data collection systems and challenges faced; a brief overview of methods to collect and estimate adult mortality in censuses and surveys; availability of national data for the WHO-UNDESA estimates on COVID-19 excess mortality; and the work of the Inter-Secretariat Working Group on Household Surveys and its linkage to the work being covered by the Expert Group Meeting.

The session also covered a summary of challenges and emerging data needs in measuring adult mortality under various global mandates and at the national level, based on the background paper prepared for the meeting and the input from the participating countries through the questionnaire shared prior to the meeting.

The last part of the session included a round-table discussion focusing on data needs around three areas: (a) data disaggregation; (b) short-term fluctuations and (c) measurement of old-age mortality. The list of questions for the panelists is included in Annex 4.

Session 2 – Changes and innovations in better asking questions to capture adult mortality in censuses and surveys

The session provided an overview of recent changes in data collecting on adult mortality and innovative approaches to better meet data needs, such as including new questions or revising existing ones in surveys and censuses. Following the presentations on how censuses and surveys have been asking questions on adult mortality, experiences and lessons learnt were presented by countries and the research community on question variations and additions.

Session 3 – Collecting adult mortality data that are more inclusive

The session discussed ways to improve the inclusiveness of adult mortality data collection, focusing on the most vulnerable population groups, including indigenous population in Brazil, people of different castes in India, and individuals in rural areas. A presentation was also made on a project in the Asia Pacific region on the inclusiveness of death registration.

Session 4 - Innovations in measuring adult mortality through surveys – sampling strategies

The session covered presentations on (a) applicability of sampling strategies for populations that are difficult to survey, such as those in modern-day slavery or drug users, to adult mortality; and (b) sample registration systems that were set up to collect information on vital events including causes of deaths in Sierra Leone and Zambia.

Session 5 – Conducting high-frequency mortality surveys

The session reviewed recent progress in the conduct of mobile phone surveys on mortality measurement, discussed remaining challenges in measurement from mobile phone surveys, and identified possible opportunities for further improvement. Presentations were made for surveys conducted in emergency situations to collect mortality data and for rapid phone surveys carried out during COVID.

Session 6 – Group discussion: improving census and survey design to better measure adult mortality

During the session, in-person participants were divided into 4 groups and discussed the priority to be assigned to a list of recommendations included in the background paper on Improving adult mortality data collection through household surveys and population censuses: a set of recommendations, based on their experiences and national circumstances. Additional recommendations were also proposed. Countries were invited to express their interest in joining piloting for further developing the recommendations. Instructions for the group discussion are included in Annex 5. The groups reconvened and reported the outcomes of their discussions, summarized in Annex 6.

Session 7 – Integrating survey and census data on adult mortality with other data sources

The session focused on methods that integrate survey with other data sources such as censuses, administrative data (CRVS), and nontraditional data such as geospatial information and crowdsourcing. Methods presented include record-linkage of the census and demographic and health surveillance system; collecting data on household deaths in HIV-focused surveys; integration of census, survey and geospatial information to understand the barriers against death registration; seroprevalence surveys that can be an integrated part of disease surveillance systems to support detection of and response to the next pandemic; and obtaining timely COVID-19 excess mortality data through crowdsourcing (publicly available sources) for countries with complete death registration. A presentation was also made on how the UN Population Division produced adult mortality estimates based on an integration of data from CRVS, censuses and surveys.

Session 8 - Integrating the proposed innovative methods into national statistical systems

The session was a round-table discussion. Panelists discussed resource constraints in national statistical offices and how they would impact introduction of new data collection methods in the existing systems. Discussion also covered how the proposed innovative methods can be integrated into national statistical systems, serving different levels of data demand, under different national statistical/survey system settings and with different statistical capacities, and further work needed including new guidance and resources required for adopting the new methods. Lastly, the discussion addressed how different communities can work together to help further the agenda. Panelists included experts from national statistical offices (Ghana and Ireland), research institute (Stéphane Helleringer, NYU Abu Dhabi), donors (Gates Foundation and USAID), and a regional organization (WHO EMRO). Questions for the panelists are included in Annex 7.

Session 9 - Conclusions and recommendations

The session reviewed a set of conclusions that was produced based on the presentations and discussions at the Expert Group Meeting and discussed next steps and road maps to improve availability and timeliness of adult mortality data at the national level. The revised conclusions of the meeting, as well as the outcome of the group discussion in Session 6 were shared with all participants after the meeting, for their final review by 2 September 2022. Final conclusions of the meeting are available in Annex 8 and suggestions made on the worksheet discussed under Session 6

in Annex 9. During the session, Fiji volunteered to be a pilot country to test the innovative methods discussed during the meeting.

ANNEX 1. Questionnaire on national adult mortality measurement

Background

The questionnaire is prepared in the context of the upcoming United Nations Expert Group Meeting Innovative methods to measure the impact of COVID-19 on mortality through surveys and censuses, 23-25 August 2023, with the following objectives:

- Foster a better understanding on how adult mortality is measured in your country
- Support the development of a background paper that will be used to facilitate the discussion during the Expert Group Meeting
- Identify areas for which support is needed from the international community

Your contribution is very important to our work in formulating recommendations for national statistical offices to improve adult mortality measurement.

Note: There is no internationally-agreed definition on adult mortality. But in this specific context, please consider adult mortality as mortality of individuals 5 years and older. Older-age mortality (age 50+) is of particular interest to our work as well because of mortality data for this age group is extremely scarce for countries without a complete civil registration and vital statistics system.

1. Information about you

- a. Name of the organization:
- b. Your name:
- c. Your email:
- d. Your title and responsibility in the organization:

2. Regular adult mortality measurement in your country

- a. What are the data sources that can be used to measure adult mortality in your country? (select all that apply)
 - Death registration
 - Population censuses
 - Household surveys
 - A combination of different data sources
 - Others, please specify:
- b. If death registration is used to measure adult mortality, please indicate the national-level completeness.
- c. What method(s) is used to assess the adult mortality registration completeness?
- d. Do you assess the adult mortality registration completeness by key demographic characteristics to understand inequality in registration? If yes please explain how it is done and provide a brief summary on the inequalities.

- e. Please list surveys carried out since 2005 that have been used to collect adult mortality data.

3. Adult mortality data collection during COVID-19

Please list all new data collection activities on adult mortality during the COVID-19 pandemic, including new surveys, new questions in existing surveys, additional exploration of administrative records, nontraditional data sources such as geospatial or records from burial site?

4. Data collection on adult mortality post-COVID

- a. Is there a plan to incorporate new data collections such as starting a new survey on mortality, or adding additional mortality questions to regular surveys post-pandemic? If yes please describe briefly the activities.

- b. When will the next population census be conducted in your country?

- c. Would you be considering modifying or adding new questions on mortality in the next census? If yes please specify what changes are being introduced.

5. What are the challenges that you have on measuring adult mortality?

6. Please kindly let us know how we can support you in improving the availability, quality and timeliness of adult mortality measurement.

ANNEX 2. List of participants (final)

Tebogo Laletsang
Senior Statistician, Census and
Demographic Analysis
Statistics Botswana
Botswana
Email: tlaletsang@statsbots.org.bw;
laletsangT25@gmail.com
In-person

Christian Marcelo Garces Mayorga
Analista de Innovación en Métricas y
Metodologías
Instituto Nacional de Estadística y Censos
Ecuador
Email: christian_garces@inec.gob.ec
In-person

Abena Osei-akoto
Director, Surveys and Censuses
Ghana Statistical Service
Ghana
Email: abena.osei-
akoto@statsghana.gov.gh;
abenaani@gmail.com
In-person

Sri Wahyuni
Senior Statistician
BPS - Statistics Indonesia
Indonesia
Email: swahyuni@bps.go.id
In-person

Gerard Doolan
Statistician
Vital Statistics
Central Statistics Office
Ireland
Email: Gerard.Doolan@cso.ie
Remote

Damian Rivadeneira
National Responsible for the
Employment Survey
Instituto Nacional de Estadística y
Censos
Ecuador
Email:
damian_rivadeneira@inec.gob.ec
In-person

Meli Leslie Ligalaulau Nadakuca
Senior Statistician
Fiji Bureau of Statistics
Email: mnadakuca@statsfiji.gov.fj;
leslie27.m@gmail.com
In-person

Ari Purbowati
Statistician
BPS - Statistics Indonesia
Indonesia
Email: purbowati@bps.go.id;
purbowati.ari@gmail.com
In-person

Kevin McCormack
Head of Division,
Sustainable Development Goals
Indicators & Reports
Western European Delegate to UN
IAEG-SDG
Co-Chair UN IAEG-SDG WGGI
Central Statistics Office
Ireland
Email: kevin.mccormack@cso.ie
In-person

Samta Sucktikun
Technical staff
Social Statistics Department
LAO Statistics Bureau
Lao PDR
Email: sacktikun@gmail.com
In-person

Thirakha Chanthalanouvong
Director General of Social Statistics
Department
LAOS Statistics Bureau
Lao PDR
Email: thirakha12@gmail.com
In-person

Mohammed Fassi Fihri
Director, HCP
Morocco
Email: m.fassifihri@hcp.ma
In-person

Atoumane Fall
Directeur, par intérim, des Statistiques
démographiques et sociales (DSDS)
Senegal
Email: Atoumane.FALL@ansd.sn;
athmanfal@gmail.com
In-person

Nedeye Lala Travare
Cheffe du Bureau du Recensement et
des Statistiques Migratoires (BRSM)
Email: lala.travare@ansd.sn
In-person

Kaludeera Saman Ravindra Lal Senadeera
Deputy Director (Statistics)
Secretary of the Ministry of Finance
Sri Lanka
Email: ksrlsenadeera@yahoo.com;
ravindrasenadeera@gmail.com
In-person

Galande Johnstone
Senior Statistician
Uganda Bureau of Statistics
Uganda
Email: galandej1@gmail.com
In-person

Stephen Kwizera Baryahirwa
Head of Department
Social Surveys and Censuses
Uganda Bureau of Statistics
Uganda
Email: baryasteve@yahoo.com;
stephen.baryahirwa@ubos.org
In-person

Ebtesam Al Shehhi
Expert
Statistics Centre - Abu Dhabi
United Arab Emirates
Email: emalshehhi@scad.gov.ae
In-person

Thumna Alrashdi
Senior Population & Demography
Statistician
Statistics Centre - Abu Dhabi
United Arab Emirates
Email: tsalrashdi@scad.gov.ae
In-person

Adil Aljasmi
Population & Demographic
Statistician
Statistics Centre - Abu Dhabi
United Arab Emirates
Email: asaljasmi@scad.gov.ae
In-person

Dr Mariam Abdallah Al-Mulla
Director, Communicable Diseases
Abu Dhabi Department of Health
United Arab Emirates
Email: malmulla@adphc.gov.ae
In-person

Ms Abeer Abdulla
Head, Statistics and Data Management
Abu Dhabi Department of Health
United Arab Emirates
Email: asabdulla@doh.gov.ae
In-person

Ms Aliaa Al-Kharji
Focal Person, Health Data
Abu Dhabi Department of Health
United Arab Emirates
Email: aalkharji@doh.gov.ae
In-person

Ms Noora Darwish Al-Khoori
Specialist, Rapid Pandemic Response
Abu Dhabi Public Health Centre
Email: nalkhoori@adphc.gov.ae
In-person

Ms Fedaa Nazmi El-Saleh
Focal Person, Rapid Response
Abu Dhabi Public Health Centre
United Arab Emirates
Email: felsaleh@adphc.gov.ae
In-person

Ms Rayan El-Sayed
Statistician
Ministry of Health and Prevention
United Arab Emirates
Email: Rayan.ElSayed@mohap.gov.ae
In-person

Dr Sumaya Al-Zarouni
Assistant Director General, Medical Affairs
Emirates Health Services
United Arab Emirates
Email: Sumaya.Abdalateef@ehs.gov.ae
In-person

Mr Khaled Al-Jallaf
Director, Research and Data Analysis
Dubai Health Authority
United Arab Emirates
Email: Kaljallaf@dha.gov.ae
In-person

Ms Asmaa El-Mekki Ahmed
Epidemiologist
Dubai Health Authority
United Arab Emirates
Email: AEAhmed@dha.gov.ae
In-person

Mrs Hosn Abdi
Epidemiologist
Dubai Health Authority
United Arab Emirates
Email: Reach_habdi@dha.gov.ae
In-person

Ha Nham Thi Thu
Statistician, Department of Population and
Labour Statistics
VietNam Statistics Office
Viet Nam
Email: nhamthuha73@gmail.com;
ntthuha@gso.gov.vn
In-person

Bernardo Queiroz
Associate Professor of Demography
Universidade Federal de Minas Gerais
Brazil
Email: blanza@gmail.com; lanza@cedeplar.ufmg.br
In-person

Yempabou Bruno Lankoande
Lecturer and researcher
Université Joseph Ki-Zerbo
Burkina Faso
Email:
BLANKOANDE@issp.bf;lankyem@yahoo
.fr
In-person

Prabhat Jha
University Professor and Professor of Global Health
University of Toronto
Email: prabhat.jha@utoronto.ca
In-person

Aashish Gupta
David E.Bell Fellow
Harvard University
Email: aashishgupta@hsph.harvard.edu;
aashishgupta@outlook.in
In-person

Nandita Saikia
Professor
International Institute for Population Sciences
India
Email: nanditasaikia@iipsindia.ac.in
In-person

Emelda Aluoch Okiro
Head, Population Health Unit
KEMRI/Wellcome Trust collaborative
programme
Kenya
Email: EOkiro@kemri-wellcome.org
In-person

Tom Moultrie
Professor of Demography
University of Cape Town
South Africa
Email: tom.moultrie@uct.ac.za
Remote

Jenny Alejandra Garcia Arias
Postdoc
Institut National d'Études Démographiques
INED
Venezuela
Email: jenny.garcia@ined.fr
In-person

Vesper Chisumpa
Senior lecturer
University of Zambia
Zambia
Email: vchisumpa@gmail.com
In-person

Trevor Croft
Senior Technical Director
International Survey Research
ICF
Email: Trevor.Croft@icf.com
In-person

Ariel Karlinsky
PhD student
Hebrew University
Email: karlinsky@gmail.com
Remote

Erica Simons
Epidemiologist, Epicenter
Principal Investigator
COVID seroprevalence and retrospective
mortality survey in Abidjan
Médecins Sans Frontières
Email:
Erica.SIMONS@epicentre.msf.org
Remote

Toshiko Kaneda
Technical Director
Demographic Research
Population Reference Bureau
Population Reference Bureau
Email: tkaneda@prb.org
Remote

Samantha Dolan
Program Officer
Bill & Melinda Gates Foundation
Email:
Samantha.Dolan@gatesfoundation.org
In-person

Jessica Justman
Senior Technical Director
Principal Investigator, PHIA Project
ICAP at Columbia, Mailman School of Public Health;
Associate Professor of Medicine in Epidemiology
Division of Infectious Diseases, Vagelos College of
Physicians and Surgeons
Columbia University
Email: jj2158@cumc.columbia.edu
In-person

Manuel Alebela
Epidemiology Adviser
Medical Department
MSF Operational Center Geneva
Email: Manuel.ALBELA@geneva.msf.org
Remote

Ashira Menashe-Oren
Post-doctoral researcher
Université catholique de Louvain
Université catholique de Louvain
Email: ashira.menashe-oren@uclouvain.be
In-person

Scott Dowell
Deputy Director for Surveillance and Epidemiology
Bill & Melinda Gates Foundation
Email: Scott.Dowell@gatesfoundation.org
Remote

Apoorva Jadhav
Senior Technical Advisor for Demography and Health Policy
USAID
Email: ajadhav@usaid.gov
In-person

Rajesh Srinivasan
Global Director of Research
Gallup
Gallup
Email: Rajesh_Srinivasan@gallup.com
Remote

Kieran Walsch
Senior Statistician
Department of Statistics
International Labour Organization
Email: walshk@ilo.org
Remote

Danzhen You
Senior Adviser
Statistics and Monitoring
United Nations Children's Fund
Email: dyou@unicef.org
Remote

Romesh Silva
Senior Technical Specialist
Email: rosilva@unfpa.org
Remote

Tapiwa Jhamba
Technical Advisor
United Nations Population Fund
Email: jhamba@unfpa.org
Remote

Nirmala Naidoo
Statistician
World Health Organization
Email: naidoon@who.int
In-person

William Msemburi
Technical Officer
World Health Organization
Email: msemburiw@who.int
In-person

Henry Doctor
Coordinator, Information Systems for Health
Division of Science, Information and
Dissemination
WHO Regional Office for the Eastern
Mediterranean
Email: doctorh@who.int
In-person

Eman Abdelkreem Aly
Technical officer
Information Systems for Health
Department of Science, Information and
Dissemination
WHO Regional Office for the Eastern
Mediterranean
Email: alye@who.int
In-person

Gero Carletto
Manager
Data Production and Methods
Development Data Group
World Bank
Email: gcarletto@worldbank.org
Remote

Petra Nahmias
Chief of Section
Statistics Division
Economic and Social Commission for Asia
and the Pacific
Email: nahmiasp@un.org
Remote

Gloria Mathenge
Statistician
Statistics Division
Economic Commission for Africa
Email: gloria.mathenge@un.org
Remote

Guiomar Bay
Population Affairs Officer
Economic Commission for Latin America
and the Caribbean
Email: guiomar.bay@un.org
Remote

Helena Cruz Castanheira
Population Affairs Officer
Email: helena.cruz@cepal.org
Remote

Dena Assaf
UN Resident Coordinator
UNCT
Email: dena.assaf@un.org
In-person

Saif Awad
UN Data Officer
UNCT
Email: saif.awadh1@un.org
In-person

Stéphane Helleringer
Professor
Social Science Division
Social Research and Public Policy
Program
Chair, TAG-Working Group 2
Email: sh199@nyu.edu

Soumaila Ouedraogo
Postdoctoral associate in Demography
Email: so2276@nyu.edu

Cheryl Sawyer
Senior Population Affairs Officer
United Nations Population Division
Email: sawyerc@un.org
In-person

Vladimira Kantorova
Population Affairs Officer
United Nations Population Division
Email: Kantorova@un.org
Remote

Francesca Perucci
Assistant Director
United Nations Statistics Division
Email: perucci@un.org
In-person

Francesca Grum
Chief
Demographic and Social Statistics Branch
United Nations Statistics Division
Email: grum@un.org
Remote

Srdjan Mrkic
Chief
Demographic Statistics Section
United Nations Statistics Division
United Nations Statistics Division
Email: mrkic@un.org
Remote

Margaret Mbogoni
Senior Statistician
Email: mbogoni@un.org
Remote

Meryem Demirci
Inter-regional advisor
United Nations Statistics Division
Email: demircim@un.org
In-person

Haoyi Chen
Coordinator, Inter-Secretariat Working Group
on Household Surveys
United Nations Statistics Division
Email: chen9@un.org
In-person

Seiffe Tadesse
Statistician
United Nations Statistics Division
Email: tadesse5@un.org
Remote

Adriana Skenderi
Statistician
United Nations Statistics Division
Email: skenderi@un.org
Remote

Maria Isabel Cobos H.
Statistician
United Nations Statistics Division
Email: cobos@un.org
Remote

Andrew Smith
Statistician
United Nations Statistics Division
Email: smith61@un.org
Remote

Hiroaki Ogawa
Associate Statistician
United Nations Statistics Division
Email: ogawah@un.org
Remote

Predrag Savic
Associate Statistician
United Nations Statistics Division
Email: predrag.savic@un.org
Remote

Jasmine Ha
Assistant Professor
Western University;
Consultant
United Nations Statistics Division
Email: jasmine.ha@uwo.ca
Remote

Andrea Succi
Intern
Email: andrea.succi@un.org
Remote

ANNEX 3. Annotated work programme (final)

Tuesday, 23 August 2022

Registration: 8:30-8:45am

Session 0. Welcome (8:45-9:15am)

Moderator: Mr. Stéphane Helleringer, NYU Abu Dhabi

- Dr. Paula England, Dean of Social Science, NYU Abu Dhabi
- Mr. Kevin McCormack, co-Chair, UNDESA-WHO Technical Advisory Group on COVID Mortality Assessment; Head of Division, Sustainable Development Goals Indicators & Reports, Central Statistics Office, Ireland
- Dr. Dena Assaf, United Nations Resident Coordinator, United Arab Emirates
- Ms. Francesca Perucci, Assistant Director, United Nations Statistics Division

Session 1. What do we need to measure in terms of adult mortality and where are the gaps? (9:15 – 12:15am)

The session covers:

- The **current status** in measuring adult mortality through censuses and surveys, for monitoring adult mortality regularly and assessing the impact of the pandemic (or other types of disasters).
- **Data needs**, for countries that do not have a reliable civil registration and vital statistics system to produce statistics on adult mortality. These could include: data coverage in terms of the level of geographic areas, age groups and/or other key disaggregation dimensions; frequency of data (annually or other frequency) and reliability requirement (coefficient of variation?). The discussion will also cover the data needs for monitoring adult mortality both regularly and during a crisis such as COVID-19. Data needs will also be classified under a tier system, with the tier-1 as the core requirement and tier-2 as additional data needs.
- Following the discussions above, **areas for data improvement** will be highlighted to inform discussions in the remaining sessions of the meeting. Criteria for which support would be needed to use censuses and surveys for adult mortality estimates will also be covered.

Session 1a. Current status of adult mortality data collection (9:15-10:30am)

Moderator: Francesca Perucci, UNSD

- Presentations:
 - o *National presentations about current data sources and identify data needs and gaps (5 mins each, 35m in total)*
 - Botswana
 - Ecuador
 - Fiji
 - Ghana
 - Lao PDR
 - Morocco
 - Sri Lanka
 - o *Availability of national data for COVID-19 excess mortality estimates (10m): William Msemburi, WHO*
- Q&A (15m)

Coffee and tea break (10:30-10:45am)

Session 1b. Data needs and gaps (10:45am – 12:15pm)

Moderator: Stephane Helleringer, NYU Abu Dhabi

- Presentations:
 - o *The work of the Inter-Secretariat Working Group on Household Surveys* (10m), Francesca Perucci, UNSD and Gero Carletto, World Bank; co-Chair of the Inter-Secretariat Working Group on Household Surveys
 - o *A summary of questions and estimation methods to obtain mortality measures from censuses* (10m): Bernardo Queiroz, Universidade Federal de Minas Gerais, Brazil
 - o *Overview of availability of adult mortality data and data needs, for regular monitoring of mortality trends and for measuring the impact of COVID-19 on mortality* (10m). Haoyi Chen, UN Statistics Division and Stephane Helleringer, NYU Abu Dhabi and Chair, UNDESA-WHO Technical Advisory Group on COVID Mortality Assessment, Working Group 2
- Round-table discussion (50m):
 - o Emelda Okiro, KEMRI/Wellcome Trust collaborative programme, Kenya
 - o Jenny Garcia, Institut National d'Études Démographiques INED, France
 - o Nandita Saikia, International Institute for Population Sciences, India
 - o Ari Purbowati and Sri Wahyuni, Indonesia BPS
- Discussion (20m)

LUNCH AT NYUAD (12:15-1:45pm)

Session 2. Changes and innovations in better asking questions to capture adult mortality in censuses and surveys (1:45-3:30pm)

This session aims to give an overview of recent changes in data collecting on adult mortality and innovative approaches to better meet with data needs, such as including new questions in surveys and censuses.

Moderator: Tebogo Laletsang, Botswana

- Presentations (5m each)
 - o *Availability of adult mortality data from population censuses*. Meryem Demirci, UNSD
 - o *Questions used in surveys to estimate adult mortality*, Trevor Croft, Demographic and Health Survey
 - o Country presentations (experiences, quality of data and lessons learnt)
 - *Collecting mortality in the 2019 Viet Nam population and housing census*, Ha Nham Thi Thu, VietNam Statistics Office
 - *Experiences and quality of mortality data from population censuses/surveys in Indonesia*: Ari Purbowati/Sri Wahyuni, BPS Indonesia
 - *Asking causes of death in censuses and surveys*: Galande Johnstone/Stephen Baryahirwa, Uganda Bureau of Statistics
 - *Asking about death registration during census: experiences and lessons learned from the 2013 Senegal Census*. Atoumane Fall and Lala Travare, National Agency of Statistics and Demography of Senegal
 - o *Extending the reference period for data collection for COVID impact assessment: Evidence from India*. Nandita Saikia, International Institute for Population Sciences, India
 - o *Experiences in asking the place of death*. Vesper Chisumpa, University of Zambia
- Q&A (30m)

Coffee and tea break (3:30-3:45pm)

Session 3. Collecting adult mortality data that are more inclusive (3:45pm-4:45pm)

The session discusses ways to improve the inclusiveness of adult mortality data collection, focusing on measuring old-age mortality (60 and older) and those living in institutions and difficult to survey areas that are usually poorly covered by surveys and censuses.

Moderator: Meryem Demirci, UNSD

- Presentations (8m each)
 - o *Mortality of indigenous populations in Latin America*. Bernardo Queiroz, Universidade Federal de Minas Gerais, Brazil
 - o *Social disadvantage and life expectancy in India*, Aashish Gupta, Harvard University
 - o *Adult mortality: Measuring rural-urban gaps*, Ashira Menashe-Oren, Université Catholique de Louvain
 - o *Implementing inequality assessments of death registration in CRVS systems*. Petra Nahmias, UN ESCAP Statistics Division
- Q&A (20m)

Wednesday, 24 August 2022

Session 4. Innovations in measuring adult mortality through surveys – sampling strategies (8:45am – 10:15am)

The session covers various sampling strategies to collect data on rare events; and sample registration systems in countries without complete death registration system.

Moderator: Cheryl Sawyer, UN Population Division

- Presentations (10-15m each)
 - o *Application of principles of network sampling to estimating prevalence of modern-day slavery/mortality*, Rajesh Srinivasan, Gallup Poll
 - o *Innovative sampling strategies for difficult to survey population*, Haoyi Chen, UNSD
 - o Sample registration systems:
 - *Healthy Sierra Leone (HEAL+SL) national mortality study*, Prabhat Jha, University of Toronto
 - *Sample registration system with Verbal Autopsy (SAVVY)*. Vesper Chisumpa, University of Zambia
- Q&A (20m)

Coffee and tea break (10:15-10:30am)

Session 5. Conducting high-frequency mortality surveys (10:30am – 12:15pm)

The session reviews recent progress in the conduct of mobile phone surveys on mortality measurement, discusses remaining challenges in measurement from mobile phone surveys, and identifies possible opportunities for further improvement.

Moderator: Meryem Demirci, UNSD

- Presentations (8-10 mins each):
 - o *Mobile phone surveys to measure mortality – the experience of MSF and Epicentre from the field*. Manuel Albela Miranda, Médecins Sans Frontières
 - o *Rapid mortality mobile phone surveys (RaMMPS) during COVID-19: Insights from Burkina Faso*. Bruno Lamkoande, Université Joseph Ki-Zerbo, Burkina Faso
 - o *Using phone surveys to assess mortality: evidence from Bihar, India*. Aashish Gupta, Harvard University
 - o *Excess and cause-specific mortality from SARS-COV-2 in India*. Prabhat Jha, university of Toronto (moved from session 7)
- Q&A

LUNCH AT NYUAD (12:15-1:45pm)

Session 6. Group discussion: Improving census and survey design to better measure adult mortality (1:45-4:45pm, with coffee break 3:30-3:45pm)

Moderator: Haoyi Chen, UNSD

- **Group work:** Participants are split into small groups of 7-8 mixing NSOs, academics and UN/other organization, preferably by geographic region to allow identifying specific needs
- **Expected output:** a ranked list of design elements to be included in upcoming surveys/censuses or to be tested in additional studies. Each group reports to plenary.

Hospitality dinner from NYU Abu Dhabi, 7pm

Thursday, 25 August 2022

Session 7. Integrating survey and census data on adult mortality with other data sources (8:45am-10:30am)

The session focuses on methods that **integrate survey** with other data sources such as censuses, administrative data (CRVS), and nontraditional data such as geospatial information. An overview of using **follow-up surveys for verbal autopsy** will also be covered in the session, although not in great details as there is a WHO group already leading the work on this topic.

Moderator: Meli Leslie Ligalaulau Nadakuca, Fiji

- Presentations:
 - o *Estimating mortality from census data: a record linkage study in the Nouna Demographic and Health Surveillance System in Burkina Faso.* Bruno Lankoande, Université Joseph Ki-Zerbo, Burkina Faso
 - o *Integrating CRVS, surveys and census data on adult mortality.* Cheryl Sawyer, UN Population Division
 - o *Measuring mortality in HIV-focused surveys: experiences from the PHIA Project.* Jessica Justman, ICAP Global Health
 - o *Integrated disease serosurveys.* Samantha Dolan, Bill & Melinda Gates Foundation
 - o *Integration of census, survey and geospatial data.* Atoumane Fall, Senegal National Agency of Statistics and Demography
 - o *Obtaining COVID-19 excess mortality data through public sources.* Kevin McCormack, Central Statistics Office, Ireland
- Q&A

Coffee and tea break (10:30 -10:45am)

Session 8. Integrating the proposed innovative methods into national statistical systems (10:45am – 12:15pm)

The session discusses the overall resource constraints in national statistical offices; and how that would impact on introducing new data collection in the existing system. Discussions will also cover how the proposed innovative methods can be **integrated into national statistical systems**, serving different levels of data demand, under different national statistical/survey system settings and with different statistical capacities; and **further work** needed including new guidance and resources required for adopting the new methods. The session will also discuss broader **consultations** of the proposed recommendations with national statistical offices, and through the **UN Statistical Commission** in 2023. Lastly how different communities can work together to help further the agenda will also be discussed.

Moderator: Francesca Perucci, UNSD

- Round table discussion (reacting to a set of questions to be provided before the meeting):
 - o Abena Osei-akoto, Director, Surveys and Censuses, Ghana Statistical Service
 - o Kevin McCormack, Head of Division, Sustainable Development Goals Indicators & Reports, Ireland Central Statistics Office

- Stéphane HELLERINGER, Professor NYU Abu Dhabi; Chair, TAG COVID Mortality – Working Group 2
 - Samantha Dolan, Program Officer, Bill & Melinda Gates Foundation
 - Apoorva Jadhav, Senior Technical Advisor for Demography and Health Policy, USAID
 - Eman Abdelkreem Aly, Technical officer, Information Systems for Health Division of Science, Information and Dissemination, WHO EMRO
 - International agency: Sofiya Yuveshanova (*remote*), Monitoring and Evaluation Specialist, UNICEF
- Q&A

LUNCH AT NYUAD (12:15-1:45pm)

Session 9. Conclusions and recommendations (1:45 – 3:00pm)

The session reviews the proposed recommendations and discusses next steps as proposed in the background document; and as further discussed during the meeting.

- Conclusion and recommendations of the Expert Group Meeting, UNSD
- Discussion

Session 10. Closing (3:00-3:30pm)

ANNEX 4. Session 1b – questions for round table discussion on data gaps

Introduction: We have 4 great panelists, who have spent considerable amounts of time trying to address some of the emerging data needs and gaps that we just introduced. So, we will hear and learn from their experiences, and we will try to glean some leads, and generate some discussion, about the role that surveys and censuses might play filling those gaps. We will have 3 rounds of questions, focusing on specific area of needs: data disaggregation, as well as short-term fluctuations and the measurement of old-age mortality. Every presenter gets 3-4 minutes to respond to each question.

Round 1: disaggregation

- Indonesia: Indonesia is a large and populous country, stretching across many islands. Could you tell us how the BPS generates mortality data that are representative of the different population groups that form the country? Are there groups for which disaggregated data are not available or might be difficult to obtain?
- Saikia: Dr. Saikia, recently, you have investigated socioeconomic differentials in mortality in India, for example between regions or by living arrangement and SES status. What were some of the data-related challenges you encountered in studying these issues? Are there particular differentials that you could not investigate due to data limitations?
- Okiro: Prof. Okiro, you have spearheaded efforts to generate sub-national estimates of health indicators in Kenya. Could you tell us about these efforts? What is the role that surveys and censuses have played in helping you measure health, and particularly child mortality, at the county level in Kenya?

Round 2: timeliness and short-term fluctuations

- Okiro: Prof. Okiro, an immediate follow-up question for you: since the beginning of the COVID-19 pandemic, your work has brought great insights about the true extent of the spread of SARS-CoV-2 in Kenya; you have also documented the impact of the pandemic on healthcare utilization. On the other hand, the true death toll of the pandemic in Kenya, and other countries in Africa, often remains matter of debate. Could you reflect on the data gaps that have led to this uncertainty? In your view, how might they be alleviated in future COVID-19 waves?
- Indonesia: Indonesia has been affected by multiple waves of the COVID-19 pandemic. It is also vulnerable to natural disasters. Could you tell us about the systems of data collection that exist in the country to document the mortality fluctuations created by such crises? What role do surveys and censuses play in this data ecosystem?
- Garcia: Dr. Garcia, your recent work has focused on assessing the completeness of various data sets on COVID-related mortality, including in Latin American countries with incomplete civil registration and health information systems. Could you tell us about the gaps and uncertainty you encountered in these data? How, in your view, might surveys and censuses be used to fill some of those gaps?

Round 3: old-age mortality

- Garcia: Dr. Garcia, a follow-up question for you, as we shift our focus to the measurement of old-age mortality. Throughout the world, the burden of COVID-related mortality has particularly affected the older segments of the population. In measuring excess mortality related to the pandemic, what are some of the estimation challenges that have been created by this steep age gradient in COVID mortality?
- Indonesia: In Indonesia, the % of the population in the older age groups has been increasing steadily, and the UN projects that this increase will accelerate in the coming decades. Currently, how does the BPS generate data about old-age mortality? What are some of the difficulties you encounter in collecting and analyzing such data?
- Saikia: Dr. Saikia, you have investigated a broad array of the determinants and risk factors of ill-health at older ages in India, including education, disability, or smoking. In doing so, have you encountered specific challenges in linking these determinants and risk factors to mortality outcomes? Are there data innovations that might help improve our understanding of the determinants of old-age mortality?
- Okiro: Prof Okiro, much of your work has focused on child health and mortality in Kenya. Are there data-related lessons from this work that might help guide the study of old-age mortality in Kenya? Are there particular challenges that you foresee for investigating health and mortality in old-age?

ANNEX 5. Session 6 – Group discussion: improving census and survey design to better measure adult mortality

- Each group will nominate a chair to lead the discussion; and a rapporteur to report back to plenary
- Within each group, the following are the suggested guiding questions:
 - o Please review the list of recommendations on next page and for each one, discuss:
 - Urgency in filling a crucial data gap for policymaking such as the older age mortality level, for countries without a good death registration system
 - Relevance to your national circumstances in filling data gaps for adult mortality. If not relevant, please explain.
 - Feasibility in testing or adopting each of the recommendations in your national context. If not feasible, please explain why the proposed recommendations cannot be adopted in your country
 - How would the recommendation be integrated into the existing data collection system, or the national statistical system in your country?
 - o Additional recommendations that you would like to propose for censuses and/or surveys?
 - o Based on the above considerations: agree on and assign priorities in implementing each of the recommendations in your countries, into 3 broad categories (high, medium, low)
 - o What guidance and support are needed in adoption of the recommendations?
 - o Is any country in the Group interested in joining the piloting and contributing to further development?

Coffee break: 3:30-3:45pm

Report back: 3:45-4:45pm

Group 1 (A6-117)

Ecuador

Fiji

Sri Lanka

Bernardo

Jenny

UAE

Group 2 (A6-175)

Indonesia

Lao

Viet Nam

Prabhat

Aashish

Nandita

Group 3 (A6-1149)

Botswana

Uganda

Vesper

Emelda

Jessica

Group 4 (A6-010)

Ghana

Morocco

Senegal

Bruno

Soumaila

Ashira

Table 1. Draft recommendations proposal to improve availability of timely and high-quality adult mortality data

Proposal	Reference #	Applicable data source (census and/or census)	Rational	Corresponding emerging data needs	Suggested next steps
Collect month and year of each deceased persons reported in RHD (Recent Household Deaths)	1	Census	Core topic in the Census P&R Revision 3; Improve accuracy in reporting of household deaths; allows monitoring monthly changes in mortality	#1: Achieve better coverage of old-age groups	Implement the existing international recommendations
Collect orphanhood data for all household members regardless of age of persons	2	Census	Additional topic in the census P&R	#1: Achieve better coverage of old-age groups	Implement the existing international recommendations
Expand the reference period for questions on household deaths from one year to two (24 months) or three years (36 months); or a duration that fits the window of crisis, such as pandemics or natural disasters (earthquake/Tsunami)	3	Census	Analysis of changes in the level and pattern of adult mortality during health crises and estimate excess mortality in countries with incomplete civil registration.	#4: Measure (recent) short-term fluctuations in mortality	Test and assess the impact of the longer reference period on the quality of data Implement the question during or post-crisis
Include questions on year of death and age at death for the deceased parent	4	Census	Important to understand the timing of adult death and produce better estimates of mortality; could also be used to estimate excess mortality due to a crisis	#1: Achieve better coverage of old-age groups	Test and assess feasibility of asking this question in national context This will be considered in the next revision of the P&R
Add question(s) about registration status of reported household deaths to death registration coverage by geographical areas	5	Census	Support analysis of completeness of death registration by age, sex and geographic areas; facilitates integration with data from death registration	#5: Measuring completeness and gaps in death registration and health information systems	Test and assess feasibility of asking this question in national context This will be considered in the next revision of the P&R
Collect month and year of each deceased persons reported in RHD	6	Survey	Core topic in the Census Principles and Recommendations &R; (add a reference to the acronym). Improve accuracy in reporting of household deaths; allow monitoring monthly changes in mortality	#1: Achieve better coverage of old-age groups	Adopt the existing international recommendations
Collect orphanhood data for all household members regardless of age of persons	7	Survey	Additional topic in the census P&R rev 3	#1: Achieve better coverage of old-age groups	Adopt the existing international recommendations
Include questions on year of death and age at death for the deceased parent; and age of parent alive in the orphanhood question	8	Survey	Important to understand the timing of adult death and produce better estimates of mortality; could also be used to estimate excess	#1: Achieve better coverage of old-age groups	

			mortality due to a crisis		
Add question(s) about registration status of reported household deaths to death registration coverage by geographical areas and key sociodemographic characteristics	9	Survey	Support analysis of completeness of death registration by age, sex and geographic areas; facilitates integration with data from death registration	#5: Measuring completeness and gaps in death registration and health information systems	Test and assess feasibility of asking this question in national context
Add questions on basic socioeconomic characteristics (e.g., education) of the deceased	10	Survey	Study educational level and marital status of deceased household members to measure mortality differentials	#3: Tracking socioeconomic disparities in adult mortality	Only include when sample size is large
Add questions about smoking among surviving and deceased household members	11	Survey	Strengthen measurement of mortality related to CVD and other non-communicable diseases	#2: Documenting risk factors of adult deaths	Only include when sample size is large
Increase survey sample size	12	Survey	Increase the precision of adult mortality estimates; reduce the estimate reference period to 3-4 years (instead of 7-8 years in current status) before the survey collection date for SSH	#1: Achieving better coverage of older age groups	Available resource needs to be allocated
Test innovative sampling frames and approaches	13	Survey	Increase the precision of adult mortality estimates; reduce the estimate reference period to 3-4 years	#1: Achieving better coverage of older age groups	Start with broader testing in different countries
Initiate pilot programmes of mortality-focused high-frequency mobile phone surveys	14	Survey	Increase timeliness and availability of adult mortality data	#1: Achieving better coverage of older age groups	Solicit interest from countries
Integrate mortality data collection (RHD and orphanhood) in all representative data collections in the country	15	All sources	Increase the precision by polling samples together; and improve comparability of data across data sources	#1: Achieving better coverage of older age groups	
Improve integration of census, survey data with other data sources	16	All sources	Improve overall adult mortality estimates availability, quality and timeliness	#1 - #5	Document existing methodologies and produce guidance Encourage new studies on data integration to explore the full potential of existing data sources

ANNEX 6. Session 6 – Outcome of the group discussion: Draft proposal to improve availability of timely and high-quality adult mortality data

Proposal	Reference #	Applicable data source (census and/or census)	Rational	Corresponding emerging data needs	Suggested next steps	Group 1	Group 2	Group 3	Group 4	Lao PDR	Apoorva Jadhav	Bernardo Queiroz
Collect month and year of each deceased persons reported in RHD (Recent Household Deaths)	1	Census	Core topic in the Census P&R Revision 3; Improve accuracy in reporting of household deaths; allows monitoring monthly changes in mortality	#1: Achieve better coverage of old-age groups	Implement the existing international recommendations	High: the date most included detailed month and year only (Jenny Garcia)	High: not the date; only month as it is difficult to collect date	High: sex should be asked	High	High: not the date; only month as it is difficult to collect date		
Collect orphanhood data for all household members regardless of age of persons	2	Census	Additional topic in the census P&R	#1: Achieve better coverage of old-age groups	Implement the existing international recommendations	High: The period should be extended to three years, or the years in which it is possible to cover the pandemic period. The question wording should include the exact date used as the timeline (e.g. "past three years": January 2020 to	Low: orphanhood questions too long to include in the census	Low: refer to "Parental survivorship" instead of "orphanhood". My notes indicate 'Medium'. Zambia 2022 Census of Population and Housing is collecting this information. The section is referred to as "Survivorship of	Medium: maybe added in the census long form	Low: orphanhood questions too long to include in the census		

						December 2022). This can reduce errors and enable comparability when census collection lasts more than one day. (Jenny Garcia)		Biological Parents" in the questionnaire. (Vesper Chisumpa Zambia)				
Expand the reference period for questions on household deaths from one year to two (24 months) or three years (36 months); or a duration that fits the window of crisis, such as pandemics or natural disasters (earthquake/Tsunami)	3	Census	Analysis of changes in the level and pattern of adult mortality during health crises and estimate excess mortality in countries with incomplete civil registration.	#4: Measure (recent) short-term fluctuations in mortality	Test and assess the impact of the longer reference period on the quality of data Implement the question during or post-crisis	High, 3 years	High, 3 years; also add pregnancy-related questions	High, 2 years	Maintain 1 year for census; longer reference period can be included in the census long form. Need to experiment in a survey first to inform incorporation in censuses	Not applicable		
Include questions on year of death and age at death for the deceased parent(s) for parental survivorship questions	4	Census	Important to understand the timing of adult death and produce better estimates of mortality; could also be used to estimate excess mortality due to a crisis	#1: Achieve better coverage of old-age groups	Test and assess feasibility of asking this question in national context This will be considered in the next revision of the P&R	High	Low; needs to clarify which question this is for	Low	Low: for surveys/census long form [Tom: be mindful of the sample size]	Low: Some additional questions can be added to ask about year of deaths		

<p>Add question(s) about registration status of reported household deaths to death registration coverage by geographical areas</p>	<p>5</p>	<p>Census</p>	<p>Support analysis of completeness of death registration by age, sex and geographic areas; facilitates integration with data from death registration</p>	<p>#5: Measuring completeness and gaps in death registration and health information systems</p>	<p>Test and assess feasibility of asking this question in national context</p> <p>This will be considered in the next revision of the P&R</p>	<p>Low: the concept of registration is not clear, is it death certificates, or death registration? Need to understand what we are trying to collect</p> <p>High: the wording of the question should be tailored to the system used by each country to collect its usual vital statistics. This is because: 1) not all countries report their VS from civil registration data, some countries continue reporting the health system data. 2) there are countries in which the registration</p>	<p>Low: more appropriate to a follow-up survey to the census or surveys</p>	<p>High</p>	<p>High</p>	<p>Low</p>	<p>Ask a question on whether the death and birth was officially registered - this would give an idea of coverage across countries and specific population groups. It might be helpful to strengthen CRVS. Mozambique has included a question on this in the 2017 census.</p>
--	----------	---------------	---	---	---	--	---	-------------	-------------	------------	--

						n is legally linked to an specific geographical area, e.g. place of occurrence of the death, place of usual residency or place of permanent residency (in cases in which population registry is in use). The recommendation should emphasize the purpose of assessing the incompleteness of the reported VS. (Jenny Garcia)						
Collect month and year of each deceased persons reported in RHD	6	Survey	Core topic in the Census Principles and Recommendations &R; (add a reference to the acronym).	#1: Achieve better coverage of old-age groups	Adopt the existing international recommendations	High	High	High	High	High		

Collect orphanhood data for all household members regardless of age of persons	7	Survey	Additional topic in the census P&R rev 3	#1: Achieve better coverage of old-age groups	Adopt the existing international recommendations		Medium: prefer direct RHD in general to orphanhood data Medium: prefer direct RHD in general to orphanhood data. We have never asked this questions in our census/survey. We plan to ask it in Intercensal Population Survey 2025. We will to compare the results with other methods. (BPS Indonesia)	High	High	High		
Include questions on year of death and age at death for the deceased parent; and age of parent alive in the orphanhood question	8	Survey	Important to understand the timing of adult death and produce better estimates of mortality; could also be used to estimate excess mortality due to a crisis	#1: Achieve better coverage of old-age groups			Medium (BPS Indonesia)	High	High	Mid		

Add question(s) about registration status of reported household deaths to death registration coverage by geographical areas and key sociodemographic characteristics	9	Survey	Support analysis of completeness of death registration by age, sex and geographic areas; facilitates integration with data from death registration	#5: Measuring completeness and gaps in death registration and health information systems	Test and assess feasibility of asking this question in national context	The concept of registration is not clear, is it death certificate, or death registration? Need to understand what we are trying to collect	Medium. It is important to complete information about the coverage of the death certificate. Are the sociodemographic characteristics in question for the deceased? If yes, then no need to ask. (BPS Indonesia)	High: There is need to know the registration status of deaths occurring in households. This information is an indicator of the extent of death registration (Vesper Chisumpa, Zambia)	High	Low		
Add questions on basic socioeconomic characteristics (e.g., education) of the deceased	10	Survey	Study educational level and marital status of deceased household members to measure mortality differentials	#3: Tracking socioeconomic disparities in adult mortality	Only include when sample size is large	Low	Medium: education	High: distinguish between household and individual level characteristics, limit to 6	High, occupation, marital status, residence	Medium: education and occupation		
Add questions about smoking among surviving and deceased household members	11	Survey	Strengthen measurement of mortality related to CVD and other non-communicable diseases	#2: Documenting risk factors of adult deaths	Only include when sample size is large	Low	Low. Low. Difficult to obtain information for the deceased. (BPS Indonesia)	Low: data might be unreliable	High: also consider those who are impacted by pollution from cooking	Low		
Increase survey sample size	12	Survey	Increase the precision of adult mortality estimates; reduce the estimate reference period to 3-4 years (instead of 7-8 years in current status) before the survey	#1: Achieving better coverage of older age groups	Available resource needs to be allocated		Medium Yes but need to consider the cost and the estimation level that can be	Yes but need to consider the cost	Large is relative, vary by countries	Low		

			collection date for SSH				obtained (BPS Indonesia)					
Test innovative sampling frames and approaches	13	Survey	Increase the precision of adult mortality estimates; reduce the estimate reference period to 3-4 years	#1: Achieving better coverage of older age groups	Start with broader testing in different countries		High	High	High	High		
Initiate pilot programmes of mortality-focused high-frequency mobile phone surveys	14	Survey	Increase timeliness and availability of adult mortality data	#1: Achieving better coverage of older age groups	Solicit interest from countries	Low - has experience with telephone survey but no experience with mortality data collection High: Given that countries already have some experience in carrying out mobile phone surveys for other research topics (Jenny Garcia)	Low - no experience with phone surveys Low. We have very low response rate for CATI in our survey even though it costs a lot (BPS Indonesia)	High: but need to be piloted for mortality data collection	High: but country-specific; depending on mobile phone penetration level	Low. We never have been conducted by mobile phone survey		
Integrate mortality data collection (RHD and orphanhood) in all representative data collections in the	15	All sources	Increase the precision by polling samples together; and improve comparability of	#1: Achieving better coverage of older age groups			Low (BPS Indonesia)	Medium: need to share more experiences		Low		

country			data across data sources									
Improve integration of census, survey data with other data sources	16	All sources	Improve overall adult mortality estimates availability, quality and timeliness	#1 - #5	Document existing methodologies and produce guidance Encourage new studies on data integration to explore the full potential of existing data sources		Low: provide guidance on how it could be done Medium: need to share more experiences . Need to provide guidance on how it could be done (BPS Indonesia)	High		Low: need to improve the CRVS data can compare with census and survey and Need to provide guidance on how it could be done		

Follow-up surveys	17	Surveys			Follow-up surveys, after the census		Carry out follow-up surveys after the census [comments from Tom: make it more specific]			Follow up census 2025 and Lao Social Indicators Survey 2022/23	For Census, the idea of doing a post-census mortality survey would be ideal. For that, countries would need to plan before the enumeration so that they can deploy survey teams as soon as census data are available . The longer the time lapse between the census and the follow up survey, the more difficult it becomes to revisit the correct households. Doing a CAPI	Follow-up surveys together with verbal autopsy would be an interesting approach to understand some specific causes of death - such as maternal mortality, violence
-------------------	----	---------	--	--	-------------------------------------	--	--	--	--	--	---	--

											<p>census makes this easier, both for shorter data processing time and being able to use metadata to help locate the correct households. Regarding the recommendation to better link census data with other data sources: This is intriguing, and an area that many NSOs need more guidance, including how to put in disclosure avoidance measures.</p>
--	--	--	--	--	--	--	--	--	--	--	---

Analyze and publish the data & metadata	18	All sources					High (BPS Indonesia)			High		
What can offer as global statistical guidelines/manuals; something that countries can use; IUSSP on mortality estimation; survey/manual...												Prepare some sort of Manual (line WHO Maternal Mortality using census manual). - with experiences - overview of questions asked - and their limitations - overview of methods used to analyze the data
Providing support after the priority setting												
Analyze and publish the data & metadata												
Guidelines on best practices												
Platform to share experiences; and innovative experiences...												
Jenny: RHD, reference to exact date												

Collaboration between health & statistics office												
Detailed history on sibships and sibling survivorship with age at death of sibs (Nirmala from WHO HQ)												
VA for deaths in households (Nirmala from WHO HQ)												
GIS data to enable geospatial analysis of inequalities (Nirmala from WHO HQ)												

ANNEX 7. Session 8 – Questions for round table discussion: Integrating the proposed innovative methods into national statistical systems

Round 1

From your experience working with countries (OR, in your country for a NSO) on improving data availability and national capacity; and also reflecting on the discussions in the past two days, what is the most important challenge in adopting innovative approaches in improving adult mortality data collection through censuses and surveys? (is it funding/technical capacity/resistance to change; there has been lots of “complains” about relying too much on the modelling but are we ready to change the culture and embrace more changes (and sometimes more resource requirements).

Round 2

From your community, how can we work together to help improve the availability and timeliness of adult mortality, while ensuring that these efforts are country-driven, well-integrated with the national statistical systems and sustainable? How would you contribute to this effort?

ANNEX 8. Conclusions of the Expert Group Meeting (final)

Advocacy

1. The meeting underscored the importance of sensitizing and advocating for the importance of availability and timeliness of adult mortality data.

Collaboration

2. The meeting stressed the importance of strengthening the collaboration between different communities, both at the global and national level, including national statistical offices, health ministries, other national government institutions that play a role in death registration, research institutions, humanitarian emergency response organisations, civil society organisations and development partners (donors), to better respond to data needs on adult mortality in countries with incomplete or no death registration systems, including data that allows appropriate and relevant disaggregation to monitor inequalities. The meeting also emphasized that this collaboration is key for strengthening national capacity to produce more timely and relevant data for monitoring the impacts of crises on the level and pattern of mortality. The ultimate goal is to institutionalize such surveys within national health information systems.
3. At the global level, such collaboration could be further fostered through an expanded TAG-WG2 on excess mortality associated with the COVID-19 pandemic of WHO-UNDESA, with additional members representing NSOs and other parts of the data/statistical system in countries, including participants from this Expert Group Meeting; and TAG members of other working groups.
4. It was also highlighted that capacity building activities should aim to improve the capacity of all national partners and to strengthen the collaboration among them for the production, integration and analysis of data on adult mortality, including through censuses and surveys, taking into consideration international recommendations, while at the same time for improving death registration systems in countries.

Priorities in adopting innovative approaches

5. The meeting discussed a set of recommendations on innovative approaches (see Annex 1) to improve adult mortality data availability through censuses and surveys in countries where CRVS is incomplete and is still being further developed; and identified priorities for implementing those innovative approaches to fill data gaps on adult mortality in those countries.
6. Those priorities intend to guide (a) national statistical offices and other parts of the national/data system such as research institutions, health ministries and others, in adopting new solutions, while acknowledging national variations in terms of policy priorities, level of statistical development, availability of both human and financial resources, and setup of national statistical systems including census and survey operations; and (b) international, regional, national partners and donors to collaboratively support the implementation of these priorities, through provision of technical and financial support, guidance and testing in the national context.
7. The meeting stressed that the proposed innovation priorities could be further revised after an open global consultation with countries and experts later this year, and

shared as a background document at the United Nations Statistical Commission in March 2023 through the Inter-Secretariat Working Group on Household Surveys (ISWGHS) .

Adoption of innovative approaches

8. Before adopting new solutions and other innovative approaches in countries, it is necessary to first conduct a review of national experiences in countries that have already tested such solutions, and of existing experiments and literatures; this should be followed by testing to ensure the applicability of the recommendations in the national context. The implementation of the new solutions should be integrated into the existing national statistical systems, to ensure sustainability.
9. Methodological guidance should be prepared based on a thorough literature review, country practices and experiences gathered from the piloting whenever necessary.

Institutional

10. A mechanism should be established to set the implementation plan and research agenda, oversee the testing of the new solutions; facilitate the timely sharing of experience and innovative approaches among countries by establishing a community of practice, and within the global community on technical priorities and institutional collaboration mechanisms. In addition, existing platforms such as the World Health Survey Plus, ISWGHS, the World Programme on Population and Housing censuses and Data4Now could be utilized.
11. It was suggested that the WHO-UNDESA TAG may consider expanding the mandate of-WG2 to cover methodologies, including data analysis on regular monitoring adult mortality through censuses and surveys; and for responses to other crisis.