

15TH SESSION OF THE OIC-STATCOM

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**Session: Modernising Population and Housing Statistics through Digital
and Interoperable Data Systems**

Global Trends in the 2030 Census Round and Integrated Population Data Systems

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UNSD



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Statistics Division
Demographic and Social Statistics Branch
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Outline

- Global trends in the 2030 round
- Recommendations on modernization of PHCs in the 2030 round
- UNSD activities in support of *Integrated Population Data Systems*



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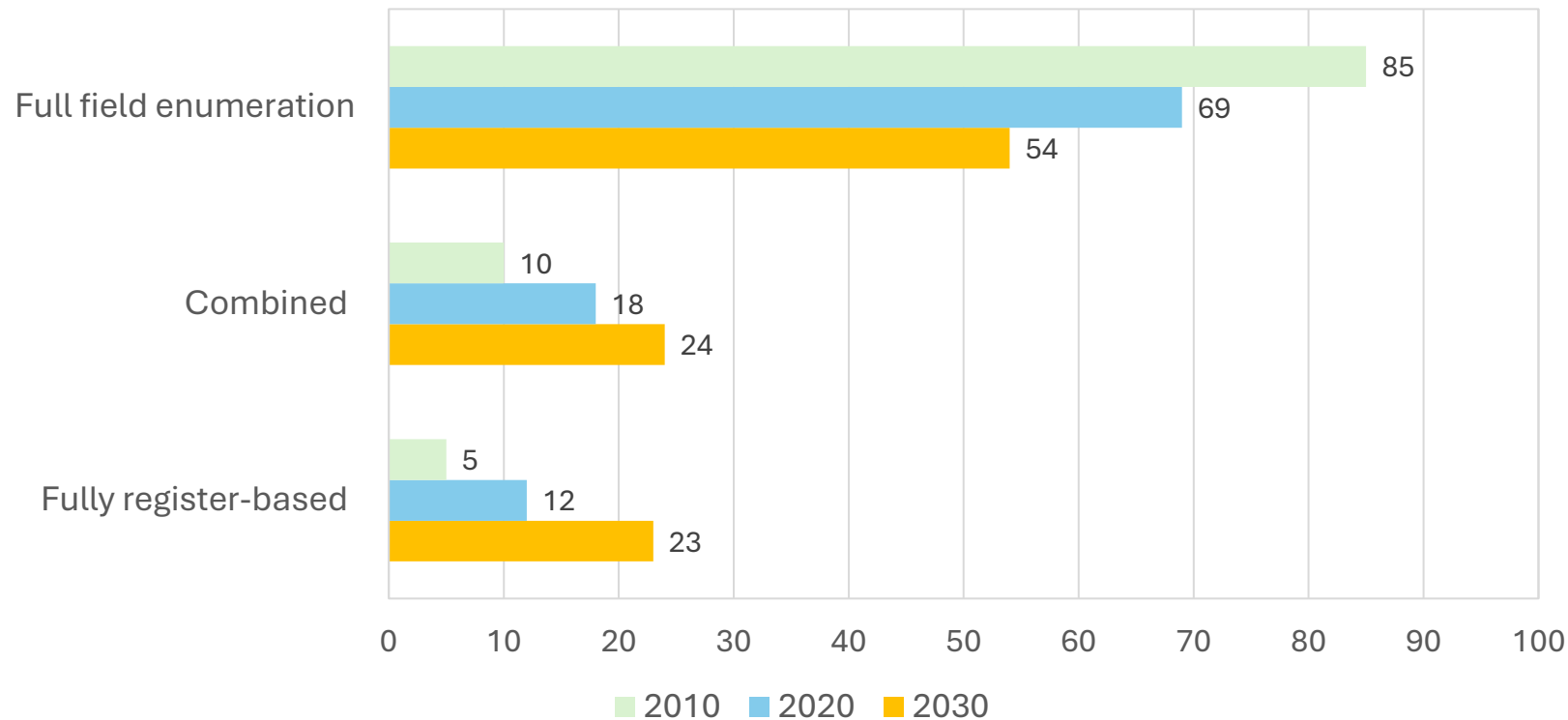
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Global Trends in the 2030 Round

Proportion of countries by census methodology
(2010, 2020, 2030 rounds)



- A growing number of countries plan to change census methodology from the traditional to other approaches involving the use of administrative data sources, mainly because of:
 - high costs
 - increasing non-response
 - demand for more timely information
- Significant progress observed in use of administrative data sources, due to:
 - Improving coverage and quality of registers
 - Enhanced legal provisions for use of admin data

Sources: UNSD surveys conducted in 2013 (126 responses) and 2024 (155 responses)



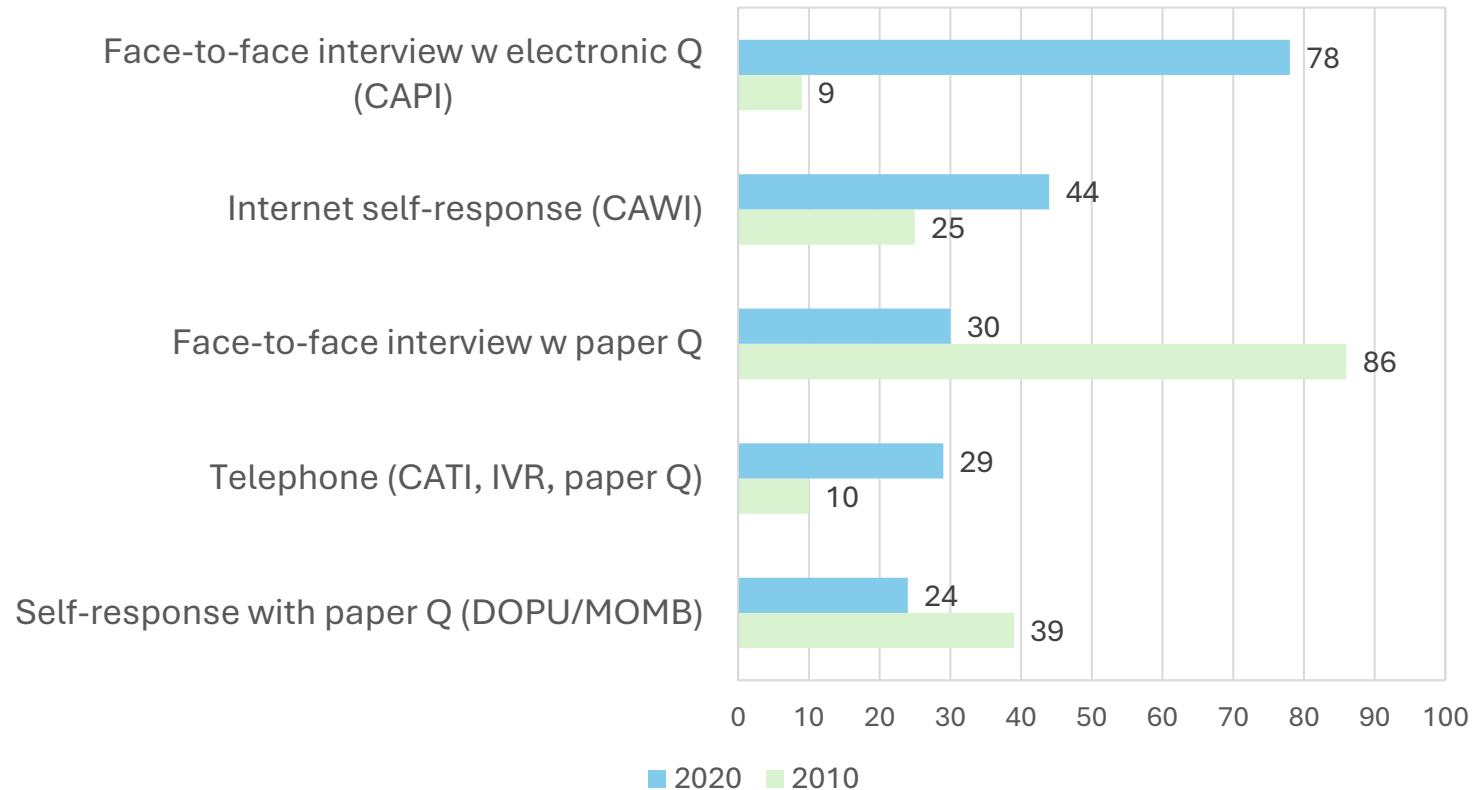
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Global Trends in the 2030 Round

Proportion of countries by enumeration method
(2010, 2020 rounds)



In 2020 round:

- Nearly 80% of countries used tablets or smart phones (CAPI) for data collection
- Almost half of countries adopted Internet based self response (CAWI)

PAPI - Paper questionnaire with face-to-face interview

CAPI - Computer-assisted personal interview

CAWI - Computer-assisted self-interview

PASI - Paper questionnaire with self-interview

CATI - Computer-assisted telephone interview

Source: UNSD surveys conducted in 2013 (126 responses) and 2024 (155 responses)



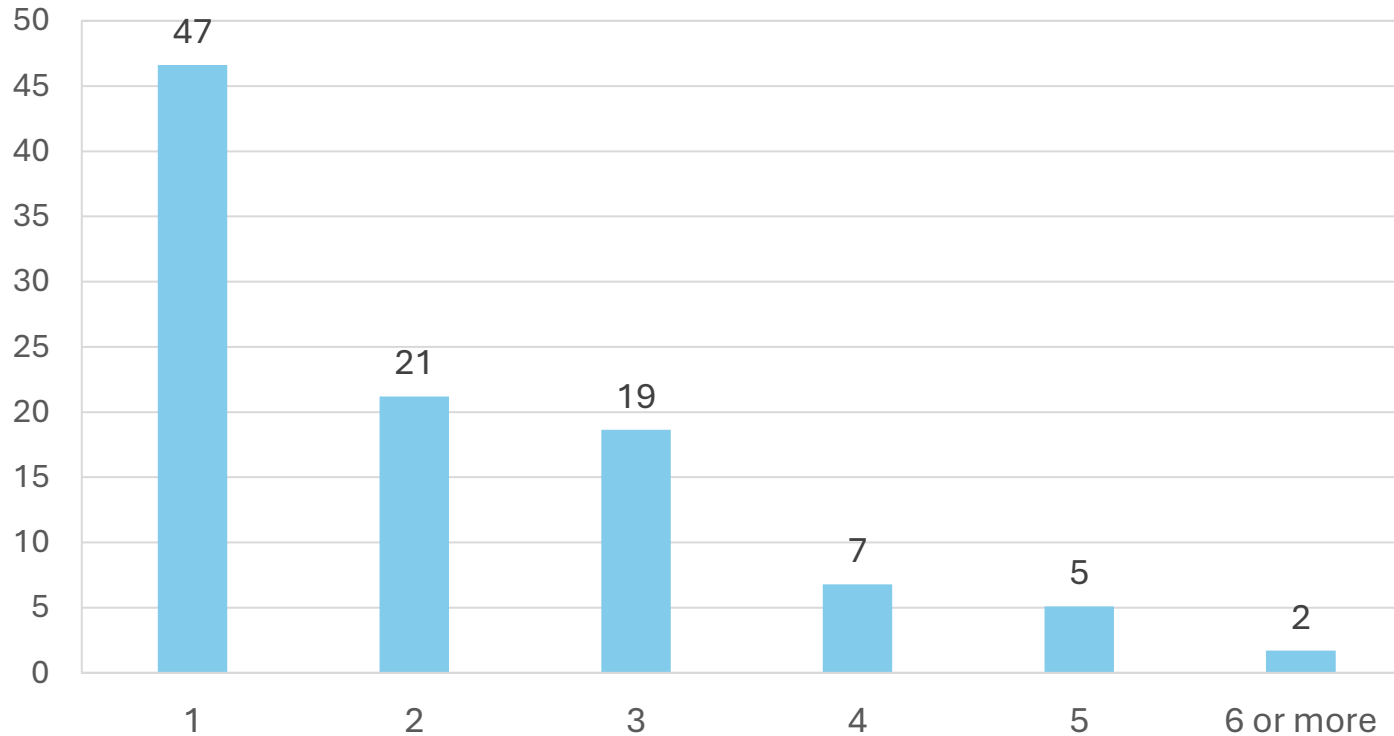
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Global Trends in the 2030 Round

Number of modes of enumeration used
(proportion of countries, 2020 round)



In 2020 round:

- In most countries, multi-mode data collection was used, whereby electronic questionnaires (CAPI or CAWI) were used in combination with paper questionnaires (PAPI or PASI) and/or CATI

Source: UNSD survey conducted in 2024 (155 responses)



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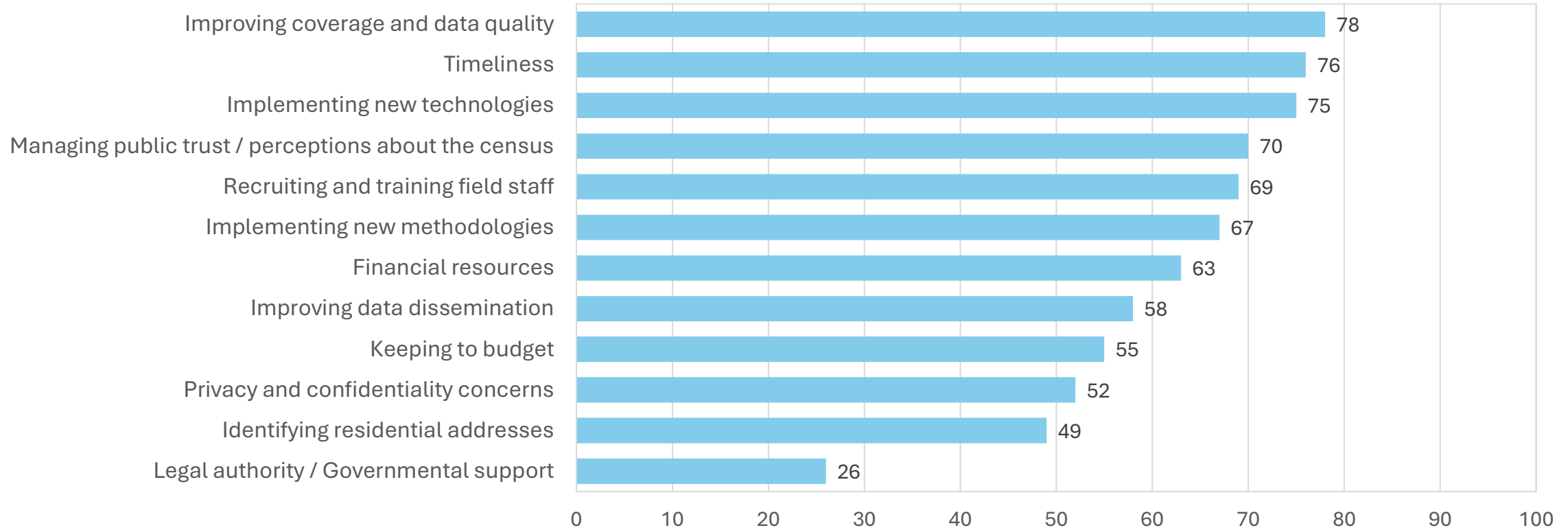
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Global Trends in the 2030 Round

"Significant" or "Moderate" Challenge

(proportion of countries, 2020 round)



Source: UNSD survey conducted in 2024 (155 responses)



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Recommendations on Modernization of PHCs – from P&R Rev.4

- ❖ **Digital Collection:** Deploy CAPI, CAWI, CATI, and digital support channels for multi-mode data collection.
- ❖ **Leverage Administrative Data:** Explore and utilize administrative data (not only as a direct data source for register-based or combined censuses, but also to support field-based operations) to help cut costs and boost frequency.
- ❖ **Design PHCs with Data Interoperability:** Build a "population spine" using unique PINs for ease of integration with administrative and other sources of data.
- ❖ **Geospatial Integration:** Apply GIS and principles of GSGF from the planning stage for precise geocoding, recognizing the increased role of geospatial tools in planning, conducting field operations, and analyzing and disseminating results.
- ❖ **AI & Machine Learning:** Utilize AI/ML across census operations, including for satellite imagery analysis, small-area estimation, and automated coding, subject to careful evaluation against bias.
- ❖ **Quality Assurance:** Implement a UN-NQAF-aligned quality framework across all processes.
- ❖ **Risk Management & Contingency Planning:** Establish risk registers, emergency protocols, contingency planning and defenses against misinformation.
- ❖ **Estimation for Inaccessible Areas:** Use modeled methods and small area estimation (SAE) techniques by combining geospatial information with other sources—such as previous census or survey data—when fieldwork is disrupted.



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UNSD activities in support of Integrated Population Data Systems

- ❖ P&R Rev.4 recognizes the population and housing census as a foundational pillar within integrated population data systems.
- ❖ Building integrated systems requires fulfilling key conditions to generate continuous, interoperable, resilient data ecosystems capable of producing timely, frequent, and granular statistics.
- ❖ **Prerequisites for Integrated Systems:**
 - **Unique Identifiers:** Implementation of standardized administrative keys across national databases to enable seamless, secure record linkage.
 - **Common Geographies & Geocoding:** Universal adoption of address, building, and dwelling registers aligned with the Global Statistical Geospatial Framework (GSGF).
 - **International Standards:** Alignment with the *Principles and Recommendations for Population and Housing Censuses (Revision 4)* to ensure global data comparability.
 - **Technical Infrastructure:** Establishing scalable cloud and on-premise system architectures designed for seamless cross-source data integration, continuous data synchronization, and automated validation.
 - **Governance & Privacy:** Establishment of rigorous data protection protocols and institutional frameworks that uphold public trust while enabling data sharing.



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UNSD activities in support of Integrated Population Data Systems

- ❖ **Establishment of UN CEPPS:** Created by the United Nations Statistical Commission in 2025, the Committee of Experts on Population and Social Statistics (CEPSS) drives the modernization of demographic and social data.
 - **Modernizing Social and Demographic Statistics:** Reviews existing national and international practices to provide strategic guidance on modernization in support of the 2030 Agenda for Sustainable Development.
 - **Breaking Down Silos:** Addresses the historical evolution of social and demographic statistics within isolated thematic silos (such as health, education, gender, migration, and work) to improve their interoperability.
 - **Promoting Cross-Sectoral Analysis:** Enhances national statistical systems' capacity to produce integrated, high-quality, and disaggregated statistics reflecting complex societal issues, human well-being, and economic/environmental interlinkages.
 - **Development of SIPPS** (the System of Integrated Population and Social Statistics) as a core output of CEPSS.
 - **SIPPS** includes a conceptual framework and implementation guidelines. The Conceptual Framework features three common structures providing a system architecture for organizing population and social statistics:
 - Population groups
 - Social sectors and outcome domains
 - Level of society and social actors



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UNSD methodological framework for PHCs

**Principles and Recommendations for Population and Housing Censuses, Revision 4
(2025)
NEW**

**Handbook on Management of Population and Housing Censuses, Revision 2
(2016)
Under review**

**Technical
Report on
Post
Enumeration
Surveys
(2010)**

**Handbook
on GIS in
support of
Census
Activities
(2009)

Under
review**

**Handbook
on
Measuring
Economic
Activity
(2010)

Revised
under E-
learning
course**

**Handbook
on
Measuring
International
Migration
through
censuses
(2017)**

**Guidelines
on the use
of registers
and
administrati
ve data for
population
and housing
censuses
(ECE 2018)**

**Guidelines
on the Use
of Electronic
Data
Collection
Technologie
s in
Population
and Housing
Censuses
(2019)**

**Handbook
on Editing
for
Population
and Housing
Censuses,
Revision 2
(2019)**

**Technical
Report on
Measuring
SDG
Indicators
through
Population
and Housing
Censuses
and Civil
Registration
Data
(2021)
NEW**

**Handbook
on
Registers-
based
Population
and Housing
Censuses

(2022)

NEW**



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