

# Recommendations on Communicating Population Projections



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

# Recommendations on Communicating Population Projections

Prepared by  
the Task Force on Population Projections



**United Nations**  
New York and Geneva, 2018

## Note

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PRINTED AT UNITED NATIONS, GENEVA, SWITZERLAND

<b>ECE/CES/STAT/2018/1</b>
<i>Sales No.:</i> E.18.II.E.12 ISBN: 978-92-1-117157-0 e-ISBN: 978-92-1-363288-8
ISSN: 0069-8458

## Preface

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The main purpose of this publication is to provide the producers of national and international population projections with a series of good practices and recommendations on effectively communicating the results of the projections. The publication primarily targets national statistical offices and is expected to be valuable also for users of population projections. The aim is to improve the coherence between what is produced by national statistical offices and what is needed by users, planners and decision makers.

The publication was prepared by a task force established by the Conference of European Statisticians (CES), composed by national experts from national statistical offices, and coordinated by the United Nations Economic Commission for Europe. The good practices and recommendations presented reflect practices in national statistical offices, preferences of users, and developments by academics and researchers in the field of population projections.

## Acknowledgements

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The present recommendations have been prepared by the UNECE Task Force on Population Projections, which consisted of the following members: Patrice Dion (Statistics Canada, chair of the task force), Suzanne Dunsmith and Dan Horscroft (Office for National Statistics, United Kingdom), Nora Galbraith (Statistics Canada), Victor Garcia Vilchis and Felix Velez Fernandez Varela (INEGI, Mexico), Mehmet Dogu Karakaya and Neriman Can Ergen (TurkStat, Turkey), Raymond Kohli (Swiss Federal Statistical Office), Giampaolo Lanzieri (Eurostat), Lena Lundkvist (Statistics Sweden), Graça Magalhaes and Claudia Pina (Statistics Portugal), Marco Marsili (Istat, Italy), François Pelletier and John Wilmoth (United Nations Population Division), and Paolo Valente and Fiona Willis-Núñez (UNECE).

In addition to the members of the task force, the following people have been involved in preparing the recommendations: Stacey Hallman (Statistics Canada); Enver Tasti, Sebnem Bese Canpolat and Metin Aytaç (TurkStat, Turkey); and everyone who completed the user survey and the national statistical office (NSO) survey produced for the purpose of this publication. The task force wishes to acknowledge their contribution with much appreciation.

The task force expresses its deepest gratitude to everyone who kindly accepted to review preliminary versions of the recommendations: Lina Bassarsky, Jakub Bijak, Dalkhat Ediev, Patrick Gerland, Danan Gu, Nico Keilman, Ronald D. Lee, Mark Wheldon and Frans Willekens. The task force is also grateful to the people who attended the presentation and discussion of the preliminary recommendations at the Eurostat/UNECE Work Session on Demographic Projections in April 2016. UNECE is grateful to Statistics Canada for editing the final version of the recommendations.

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## Introduction

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1. This publication contains a series of good practices and recommendations on effectively communicating the results of population projections, in line with the task force's terms of reference. Here, "communication" encompasses not only how projections should be disseminated to users, but also what should be communicated. The aim is to improve the coherence between what is produced by national statistical offices (NSOs) and what is needed by users, planners and decision makers. The publication does not address questions of methodology, except on rare occasions where methods are discussed as ways to produce desired outputs.<sup>1</sup> The publication primarily targets national statistical offices and is expected to be valuable also for users of population projections.
2. The good practices and recommendations presented reflect practices of NSOs, preferences of users, consultations among members of the task force, and developments by academics and researchers in the field of population projections. While consensus on the opinions and practices was not always reached, efforts were made to represent all points of view and to identify clearly where agreement may be lacking.
3. When possible, examples of various NSOs' practices are provided. These examples relate mainly to population projections by age and sex using the cohort-component method (by far the most commonly used). However, the good practices are broad enough that they encompass all kinds of projections (such as projections of households or projections of the population with certain characteristics) and methods (such as simple extrapolations, the cohort-component method, cohort-progression methods and microsimulation). Similarly, this publication does not specifically address issues or challenges related to subnational projections made for planners at local and sectoral levels. However, it promotes an ongoing dialogue with users of population projections, which is critical for ensuring that projections respond adequately to the specific needs of these users.
4. The publication begins with a methodology section (Chapter 1), in which the methods used for data collection are described and some terms are defined. A series of good practices is then presented in four chapters, formulated as broad recommendations. Each chapter tackles a distinct aspect of population projections: providing pertinent and accessible results (Chapter 2), cultivating transparency (Chapter 3), addressing uncertainty explicitly (Chapter 4), and fostering relationships with users (Chapter 5). The publication concludes by identifying areas for future development.

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<sup>1</sup> Methodological aspects of population projections were partially covered in a report provided by a panel of experts convened in 1998 by the National Research Council's Committee on Population (see National Research Council 2000). The panel was asked to examine the scientific foundation of the methodology and assumptions of recent population projections and to review their accuracy. While the exercise was focused mainly on world population projections, the report provides several recommendations that apply in large part to national and subnational population projections.



## List of recommendations and good practices

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### Recommendation 1: Provide pertinent and accessible results

Good practices:

- 1.1 Communicate results in clear and simple language
- 1.2 Introduce information in a progressive manner
- 1.3 Provide results that are consistent for a wide range of projection horizons
- 1.4 Disseminate projection results by single age and year whenever possible
- 1.5 Update the projections on a regular and predetermined basis or when important demographic changes affect the pertinence of the assumptions
- 1.6 Make electronic dissemination materials accessible and easy to navigate
- 1.7 Offer customizable or interactive projection data to users in tabular or graphical formats

### Recommendation 2: Cultivate transparency

Good practices:

- 2.1 Provide descriptions of the data, methods and assumptions
- 2.2 Acknowledge any relevant stakeholders and describe the process and outcomes of all consultations
- 2.3 Clearly define key terms used in dissemination products
- 2.4 Describe how the new projections differ from previous editions
- 2.5 Assess the performance of previous projections

### Recommendation 3: Address uncertainty explicitly

Good practices:

- 3.1 Develop an explicit strategy for characterizing and communicating the uncertainty of population projections
- 3.2 Identify and acknowledge the major sources of uncertainty
- 3.3 Clearly state the uncertain nature of the projection results in high-level dissemination materials
- 3.4 Dedicate space within dissemination materials to promote a better understanding of uncertainty and its interpretations
- 3.5 Pay close attention to verbal expressions of uncertainty
- 3.6 Solicit and publish expert opinions
- 3.7 Provide uncertainty analysis
- 3.8 Provide sensitivity analysis
- 3.9 Provide a range of plausible assumptions

### Recommendation 4: Foster relationships with users

Good practices:

- 4.1 Provide a clearly identifiable means for users to obtain answers from projection makers
- 4.2 Consider developing and offering “outreach activities” to engage directly with users in a substantive manner
- 4.3 Provide notices of forthcoming projection releases to the media and frequent projection users
- 4.4 Embrace traditional and new media
- 4.5 Investigate and document the needs of users

# Chapter 1 - Research framework and terminology

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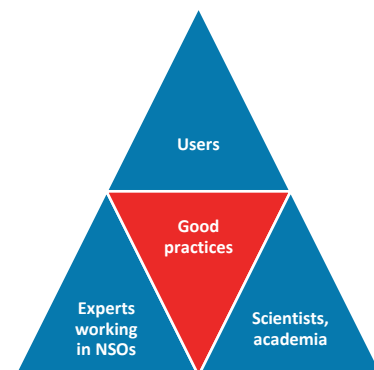
## Research framework

5. While population projection results appear simple on the surface—future population figures broken down by characteristics (mainly age, sex and geography)—their speculative nature and the complex process to build them require that they be supplemented with assessments of their uncertainty and thorough documentation. Important challenges are associated with these tasks, including an often poor understanding of user needs or perceptions and the general challenge of disseminating complex scientific ideas. In fact, the general concepts of forecasts or projections, and what can be expected from such exercises, are often themselves misunderstood.

6. These difficulties are not unique to demographers—they are faced by scientists in general. In recent years, crafting adequate communication of complex science-related topics such as climate change or pharmaceutical research to non-expert audiences has proven especially difficult, with the acute danger of developing mistrust in science when unsuccessful. In fact, the difficulties in communicating science to the public have long been recognized, and this constitutes a field of study in itself, most often referred to simply as science communication.

7. Inspired in part by work in the field of science communication (e.g., Bruine de Bruin and Bostrom 2013; Fischhoff 2013), the research framework developed to guide the production of this publication aims to integrate several points of view. These perspectives are those of the experts working to produce population projections (NSOs), those of projection users, and those of scientists and academic experts (Figure 1). This approach is also consistent with the United Nations Fundamental Principles of Official Statistics, which recommend maintaining regular dialogue with users and consulting the scientific community to ensure the relevance of statistical programmes (United Nations 2015a).

**Figure 1**  
Research framework



8. This publication compares the three viewpoints—users, experts and NSOs—to identify possible sources of conflict. In particular, an attempt was made to better understand the information that users need, their pre-existing interpretations and their decision-making processes. Indeed, as Fischhoff and Davis (2014, p. 13668) explained, “Science communication is driven by what audiences need to know, not by what scientists want to say.”

9. Various tools were designed and used to collect data about these three viewpoints. These tools—a survey of users of national population projections, a survey of NSOs that produce national population projections, a consultation with academic and other non-NSO experts in the areas of population projections and science communication, and a literature review—are described below.