

MODEL-BASED ESTIMATES AND PROJECTIONS OF FAMILY PLANNING INDICATORS 2016

REGIONS

A systematic and comprehensive set of annual, model-based estimates and projections is provided for a range of family planning indicators for a 60-year time period. Indicators include contraceptive prevalence, the unmet need for family planning and the demand for family planning satisfied by use of contraception (any method or modern methods alone). All results pertain to married or in-union women of reproductive age and cover the period from 1970 to 2030. Best estimates based on medians, as well as 80 per cent uncertainty intervals (represented by lines) and 95 per cent uncertainty intervals (represented by shaded areas), are provided for the world, for regions and for development groups. The results are based on data available as of April 2016.

A Bayesian hierarchical model combined with country-specific time trends was used to generate the estimates, projections and uncertainty assessments. The model accounts for differences by data source in the characteristics of the sample population and in the contraceptive methods included in survey-based estimates of prevalence. Details of the methodology are described in:

Alkema L., V. Kantorova, C. Menozzi and A. Biddlecom (2013). National, regional and global rates and trends in contraceptive prevalence and unmet need for family planning between 1990 and 2015: a systematic and comprehensive analysis. *The Lancet*. Vol. 381, Issue 9878, pp. 1642– 1652.

The model-based estimates and projections were derived from survey-based estimates by country, as compiled in:

United Nations, Department of Economic and Social Affairs, Population Division (2016). *World Contraceptive Use 2016*. New York: United Nations.

Regional and global estimates are weighted averages of model-based country estimates, using the number of married or in-union women aged 15-49 for the reference year in each country, as reported in:

United Nations, Department of Economic and Social Affairs, Population Division (2016). *Estimates and Projections of the Number of Women Aged 15-49 Who Are Married or in a Union: 2016 Revision*. New York: United Nations.

Warning: Estimates equal to medians of the Bayesian posterior distribution do not retain the additive property of individual observations. This occurs because, mathematically, the sum of medians does not necessarily equal the median of sums. For example, the sum of the median estimates of modern and traditional contraceptive prevalence does not necessarily equal the corresponding median estimate of total contraceptive prevalence, even though each of the original observations and all of the simulated values that make up the Bayesian posterior distribution possess this property.

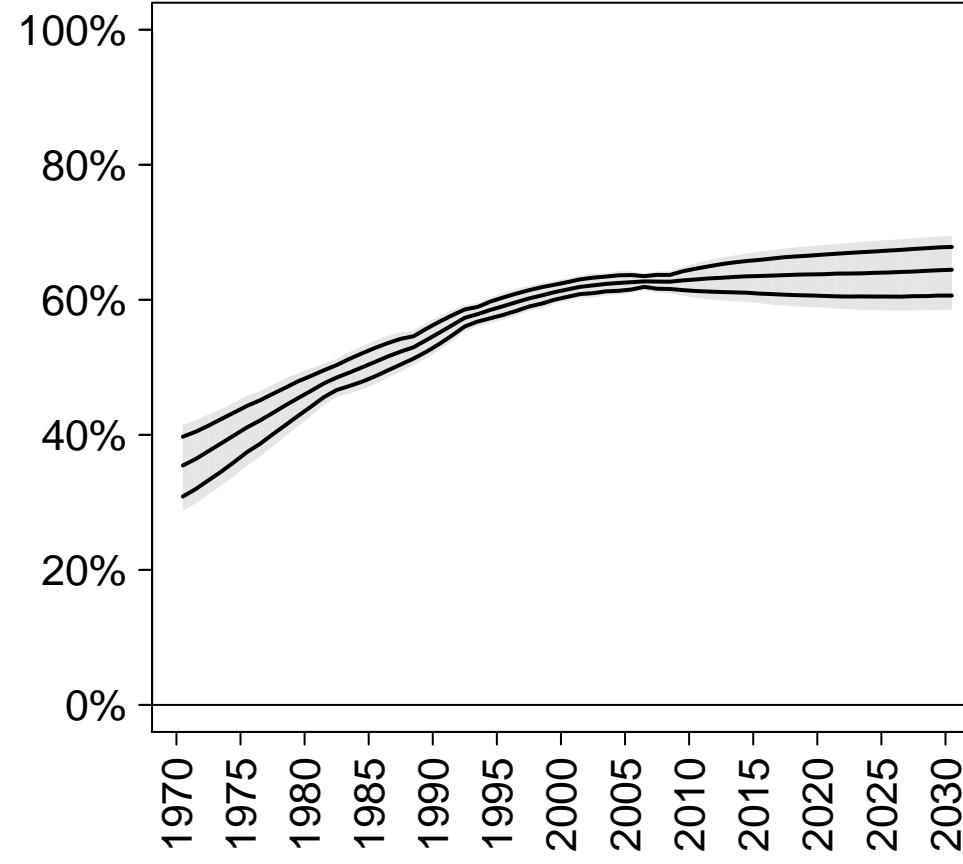
Note: The designations employed and the material presented in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The term "country" as used in this publication also refers, as appropriate, to territories or areas.

Copyright © 2016 by United Nations. All rights reserved.

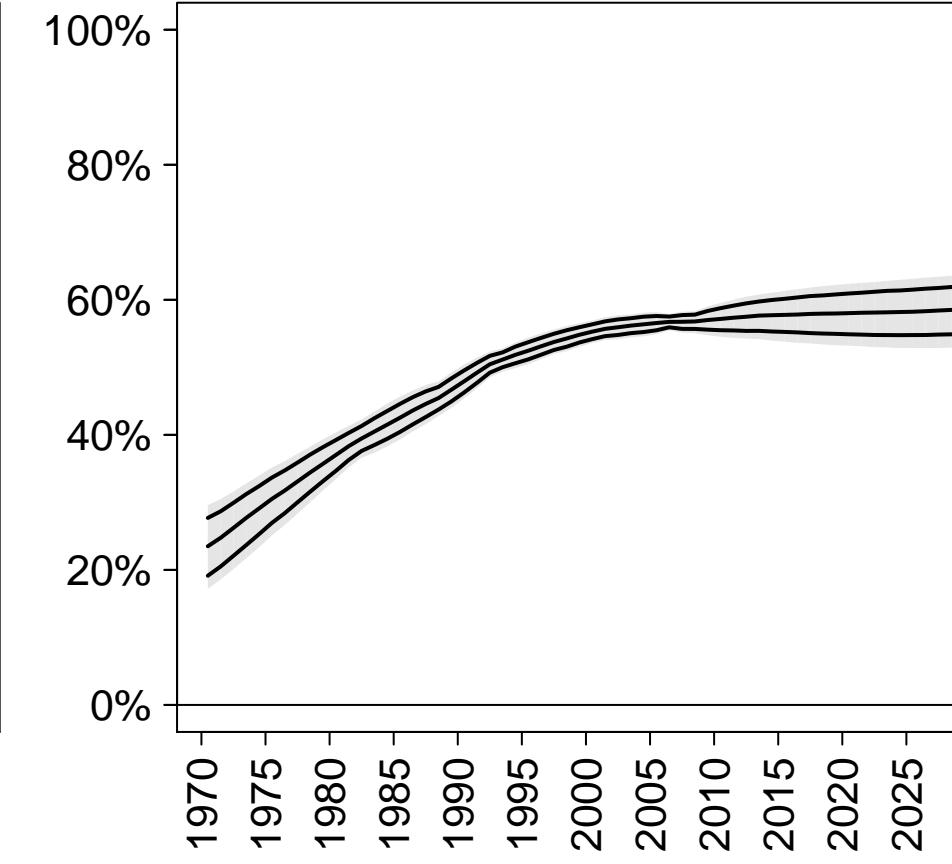
Suggested citation: United Nations, Department of Economic and Social Affairs, Population Division (2016). *Model-based Estimates and Projections of Family Planning Indicators 2016*. New York: United Nations.

World

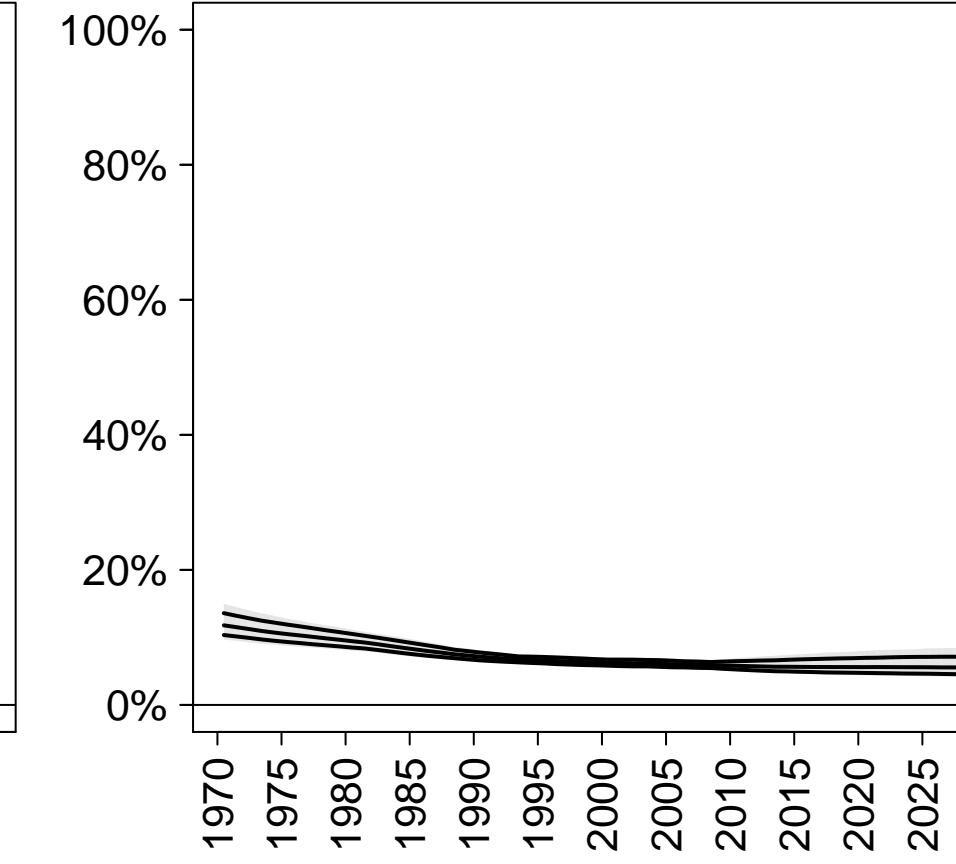
CP (any)



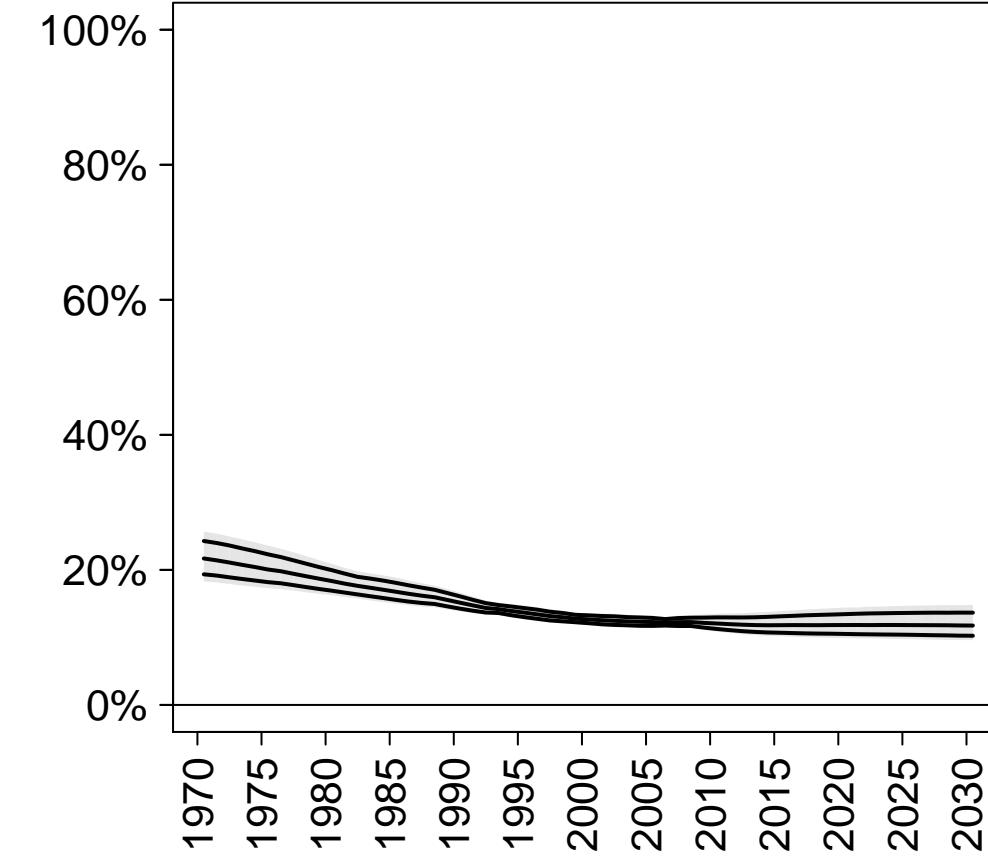
CP (modern)



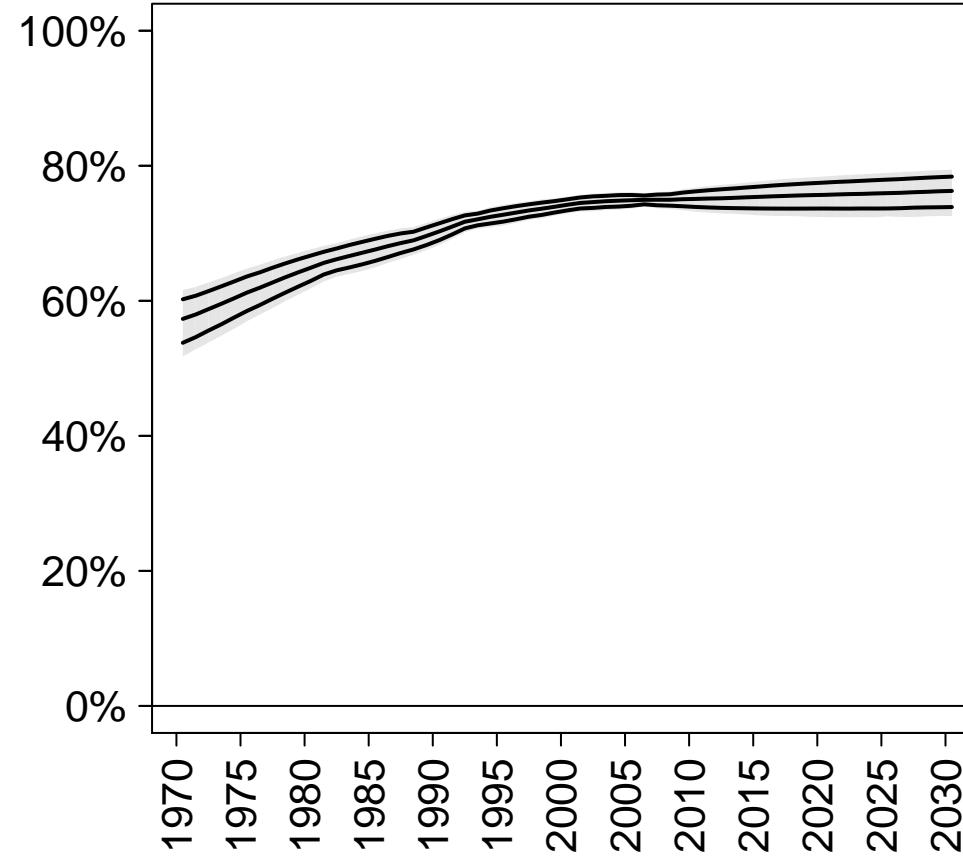
CP (traditional)



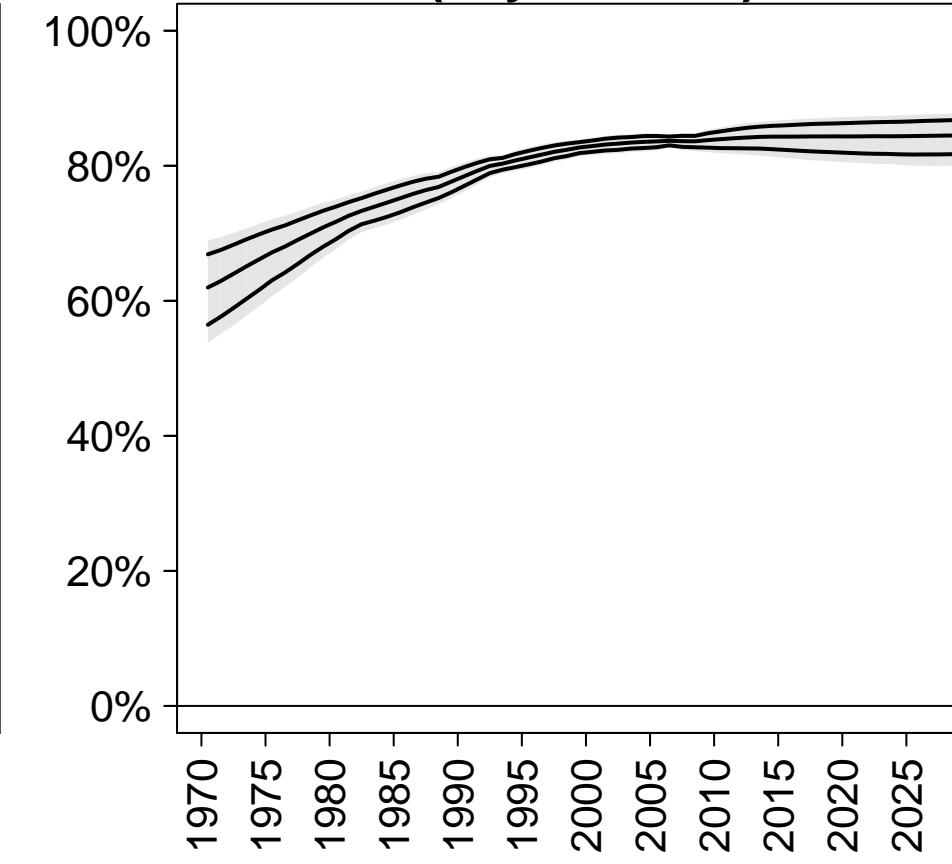
Unmet need



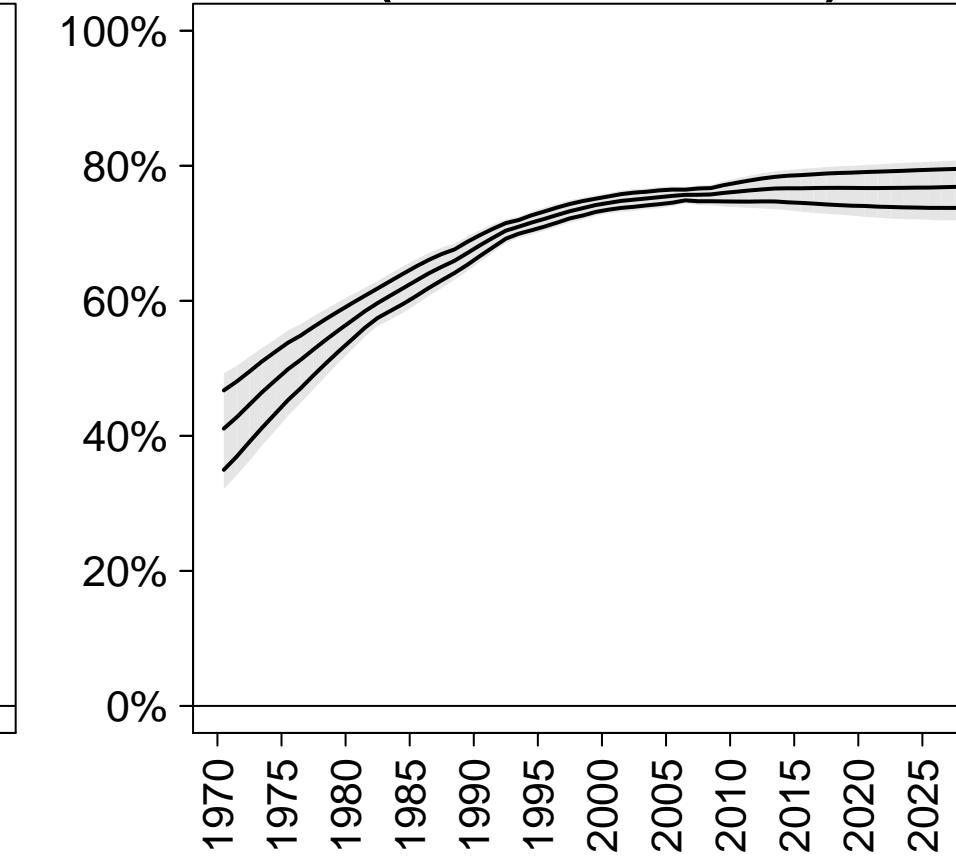
Total demand



**Demand satisfied
(any method)**

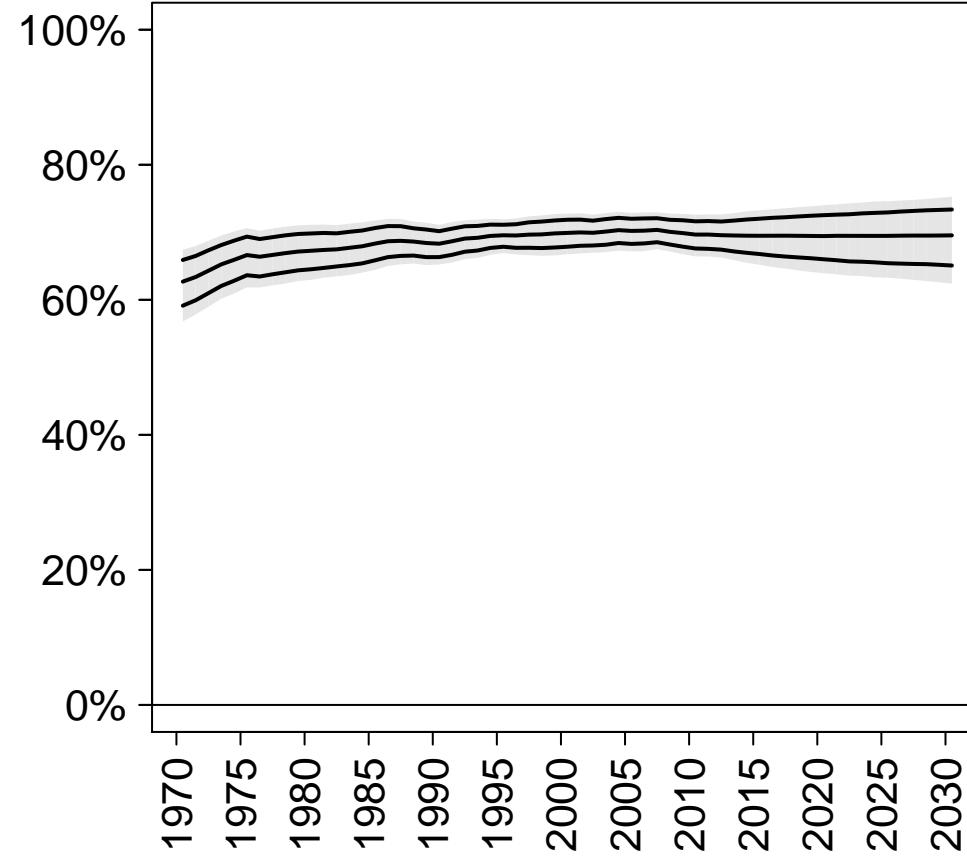


**Demand satisfied
(modern methods)**

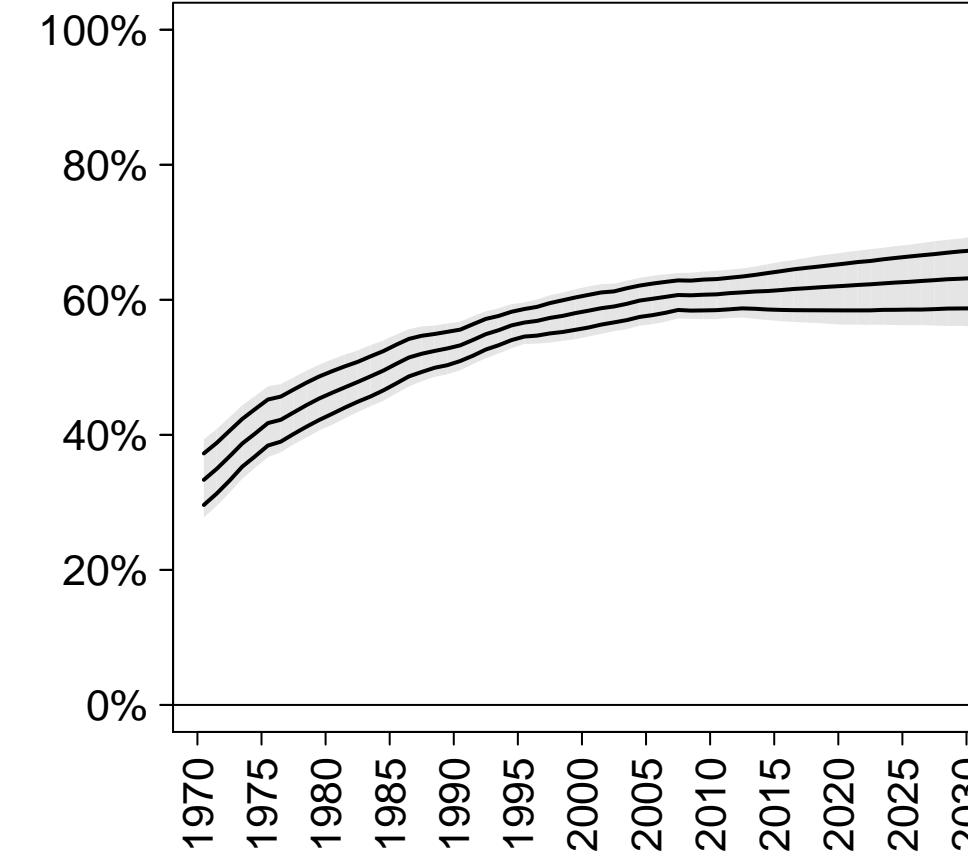


Developed countries

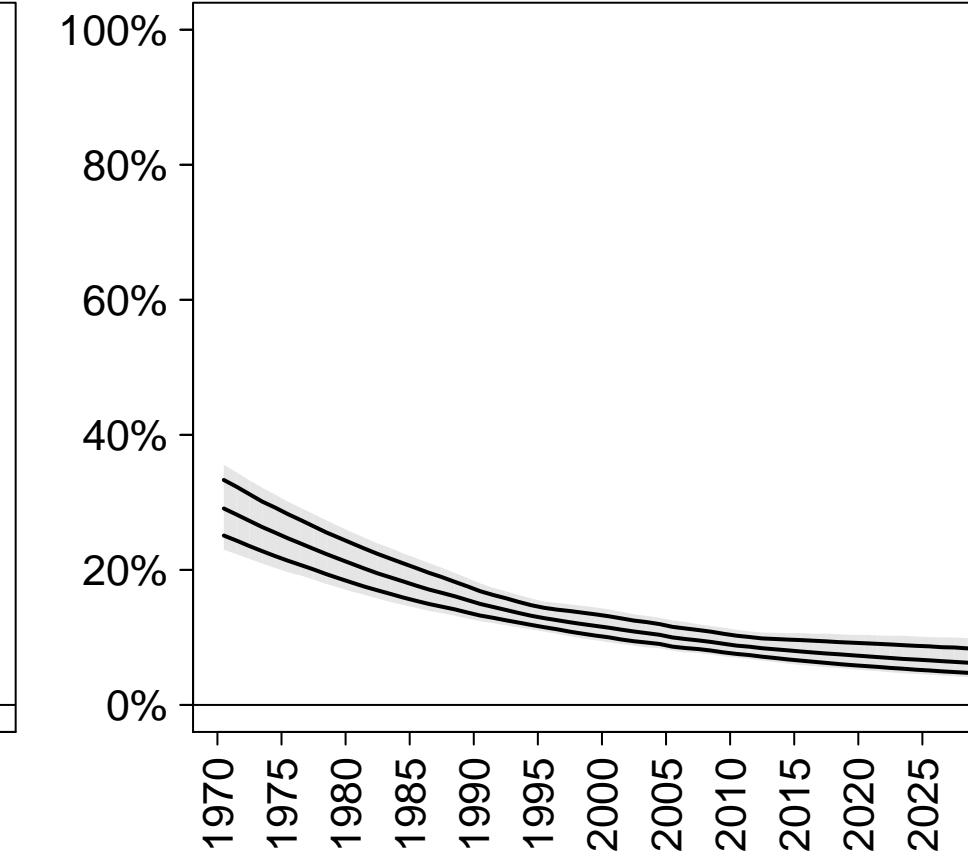
CP (any)



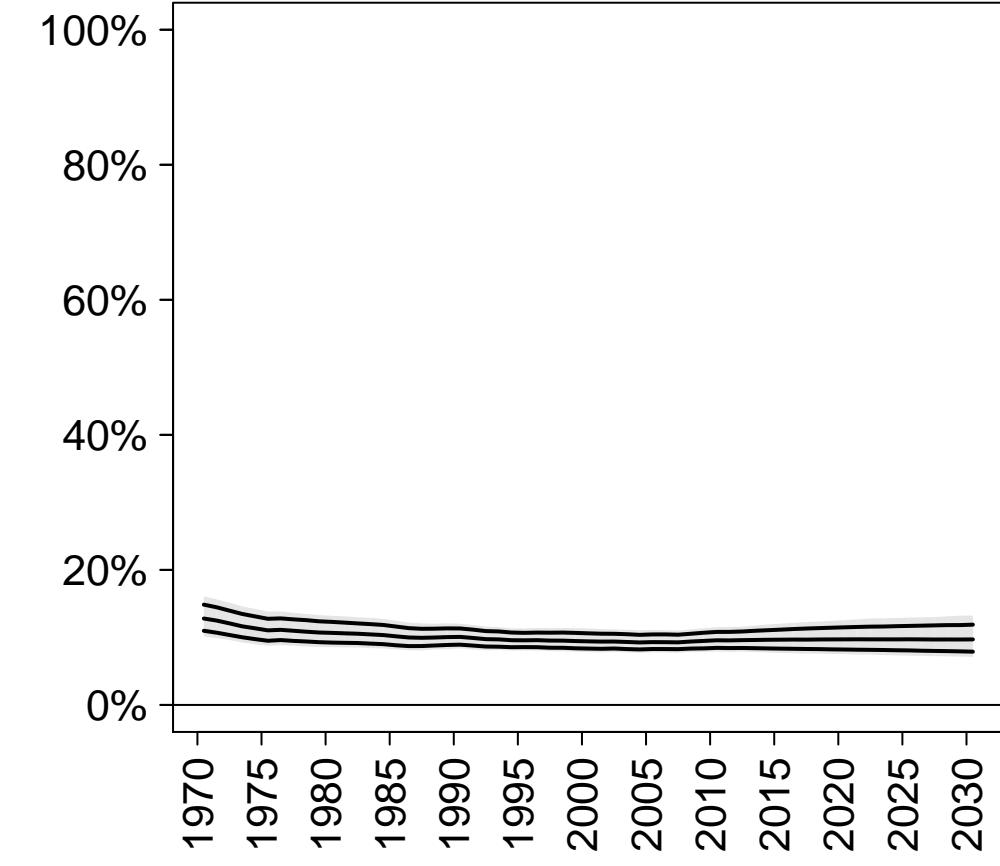
CP (modern)



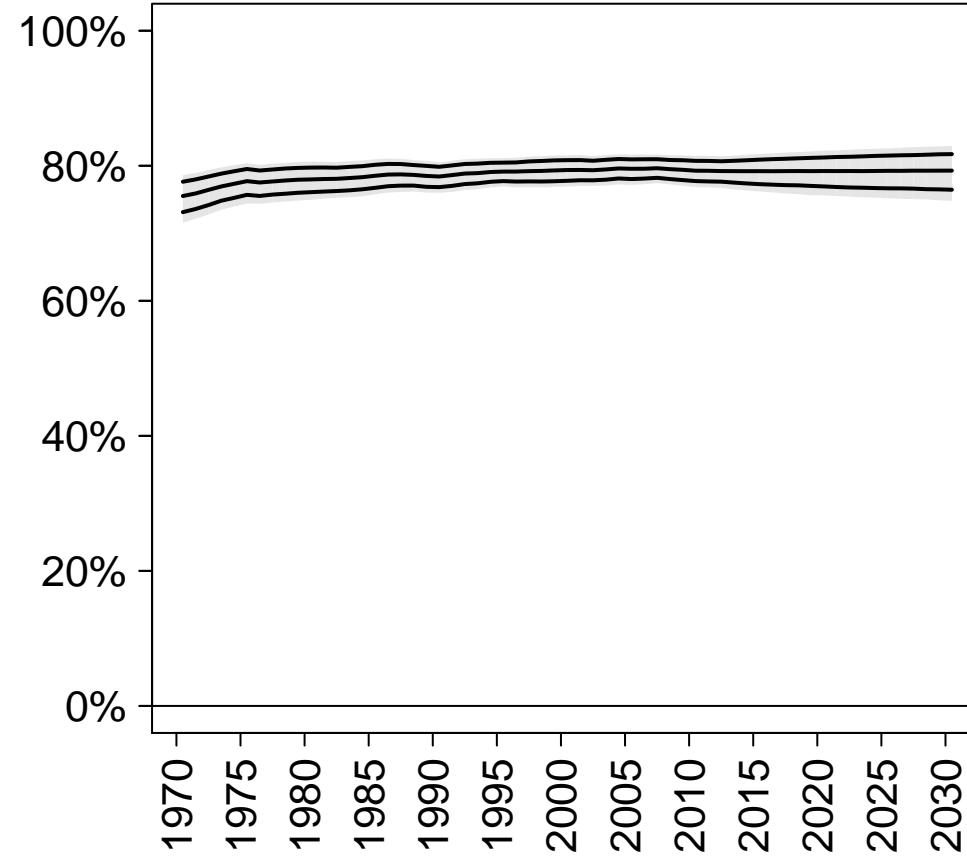
CP (traditional)



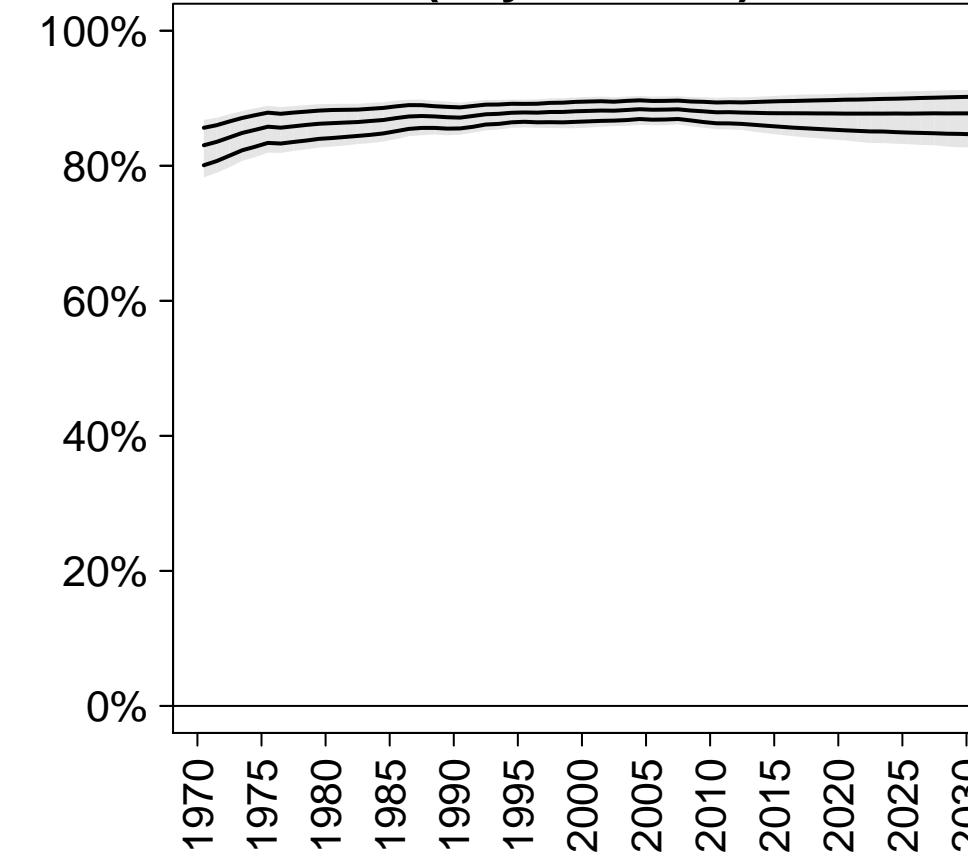
Unmet need



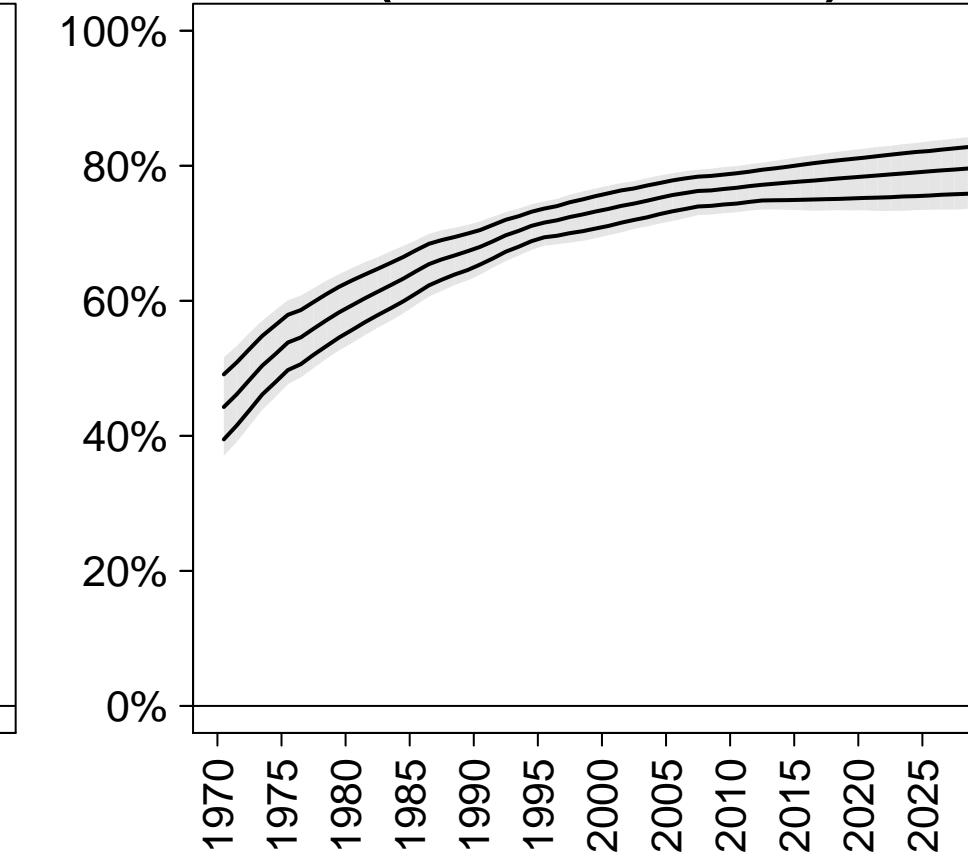
Total demand



**Demand satisfied
(any method)**

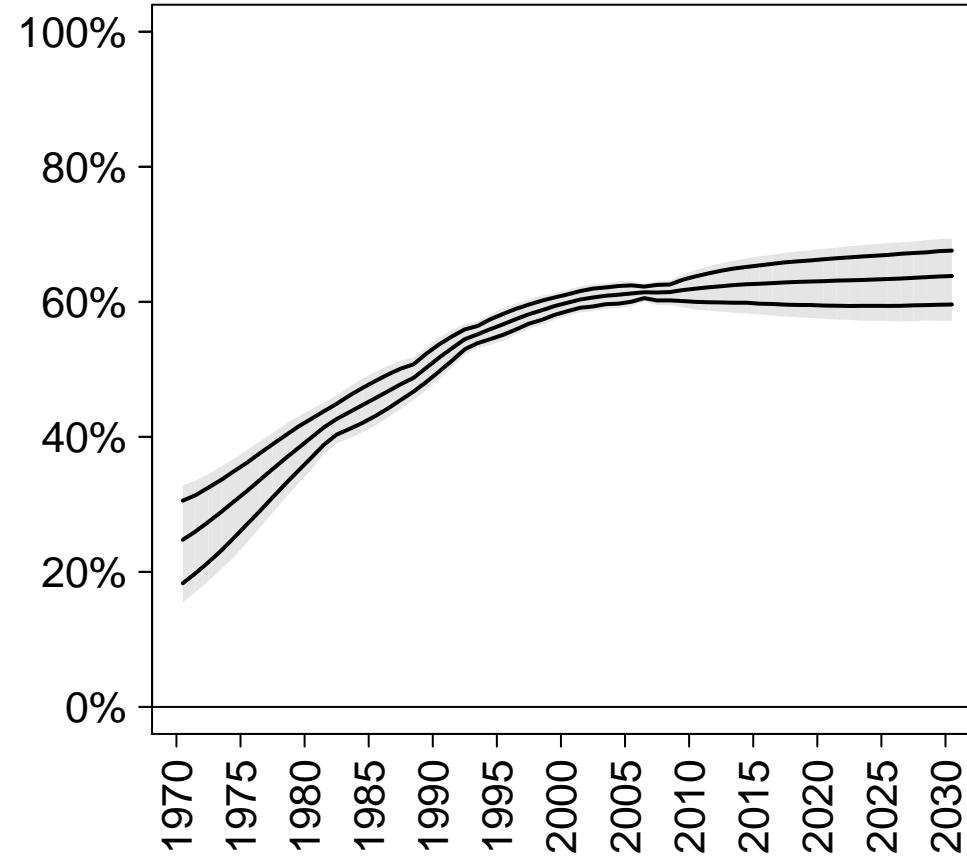


**Demand satisfied
(modern methods)**

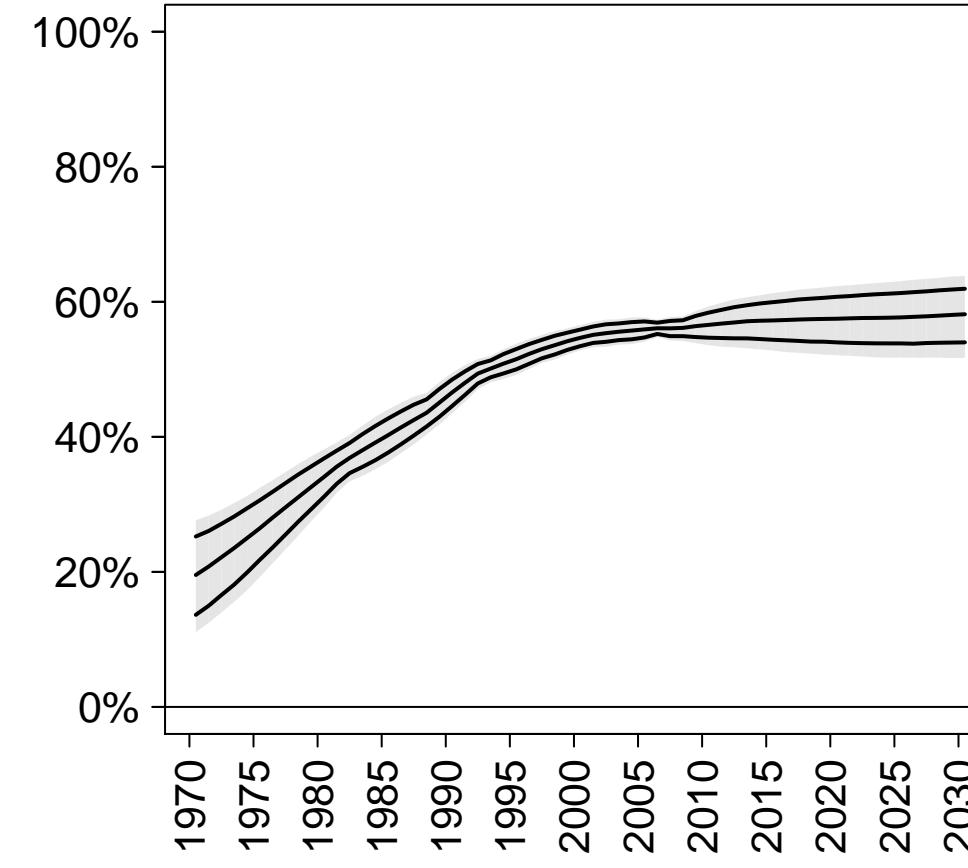


Developing countries

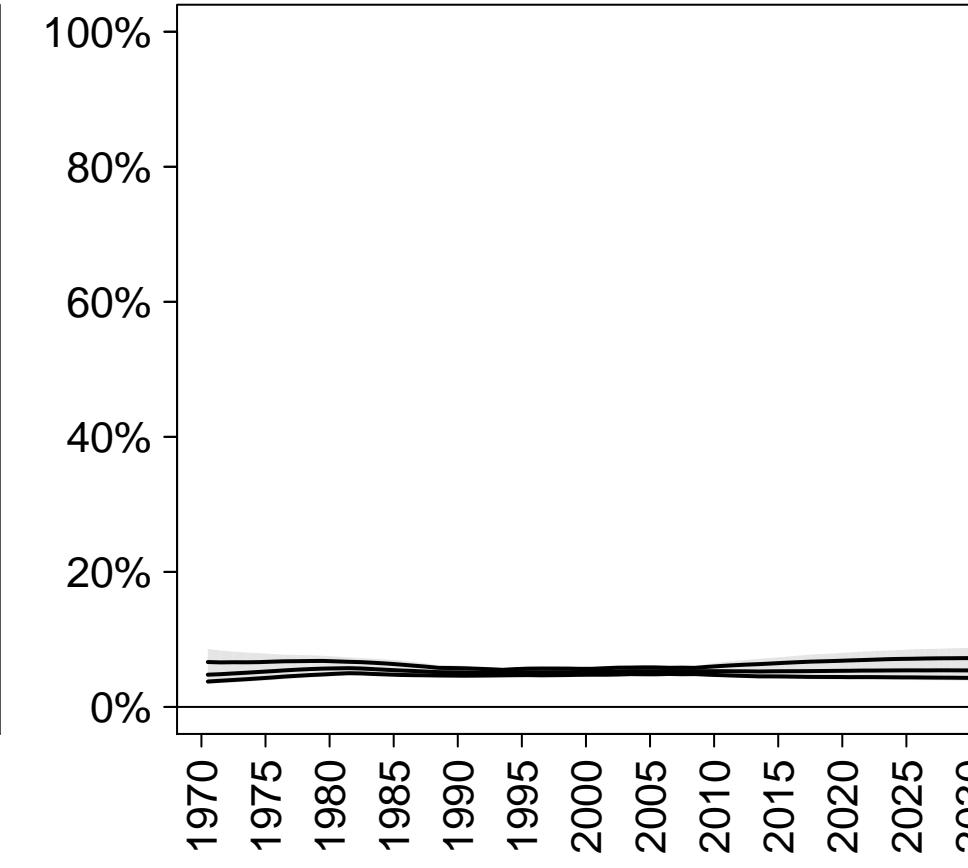
CP (any)



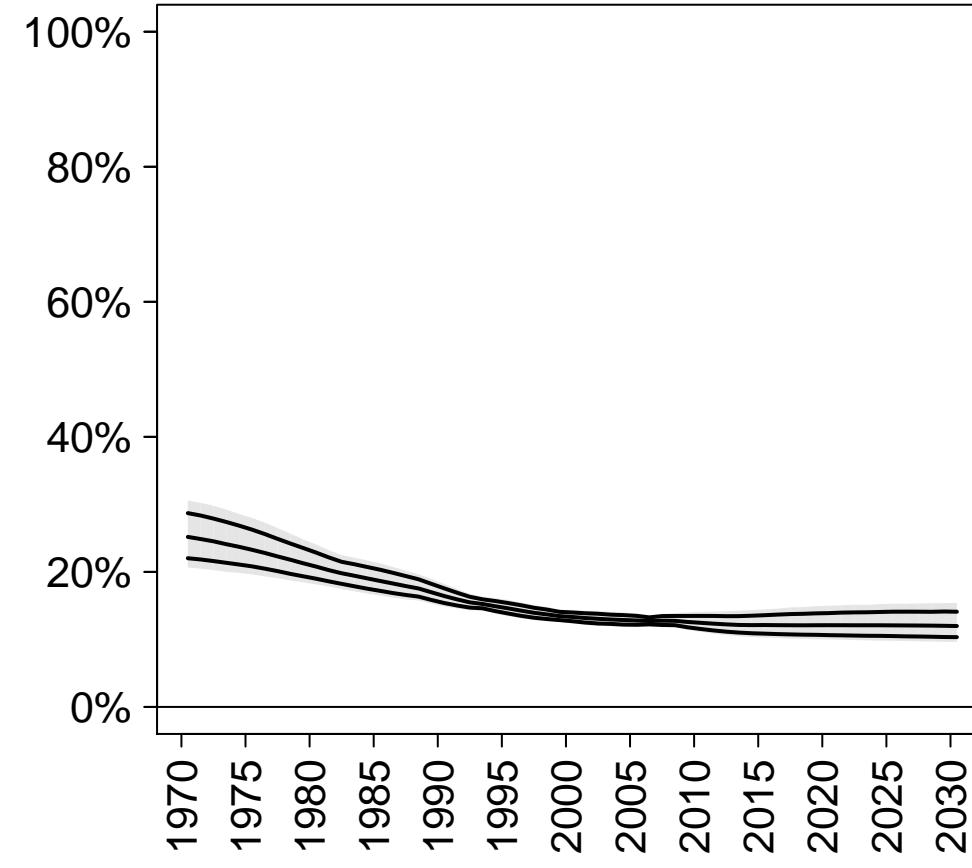
CP (modern)



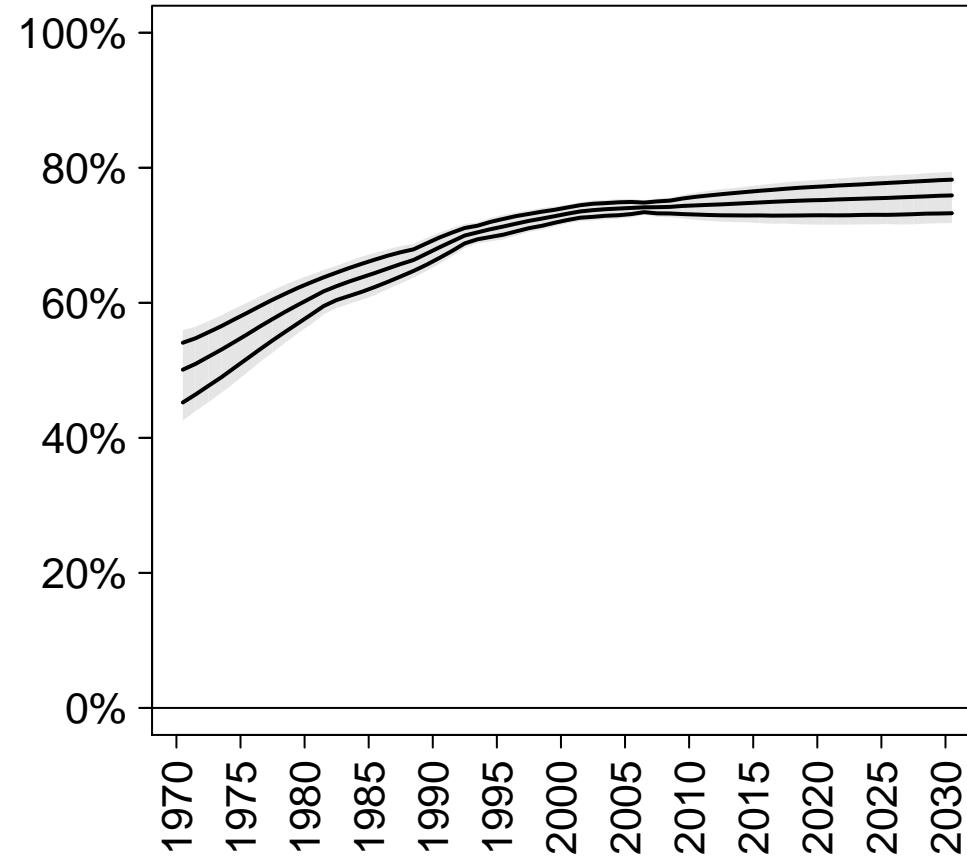
CP (traditional)



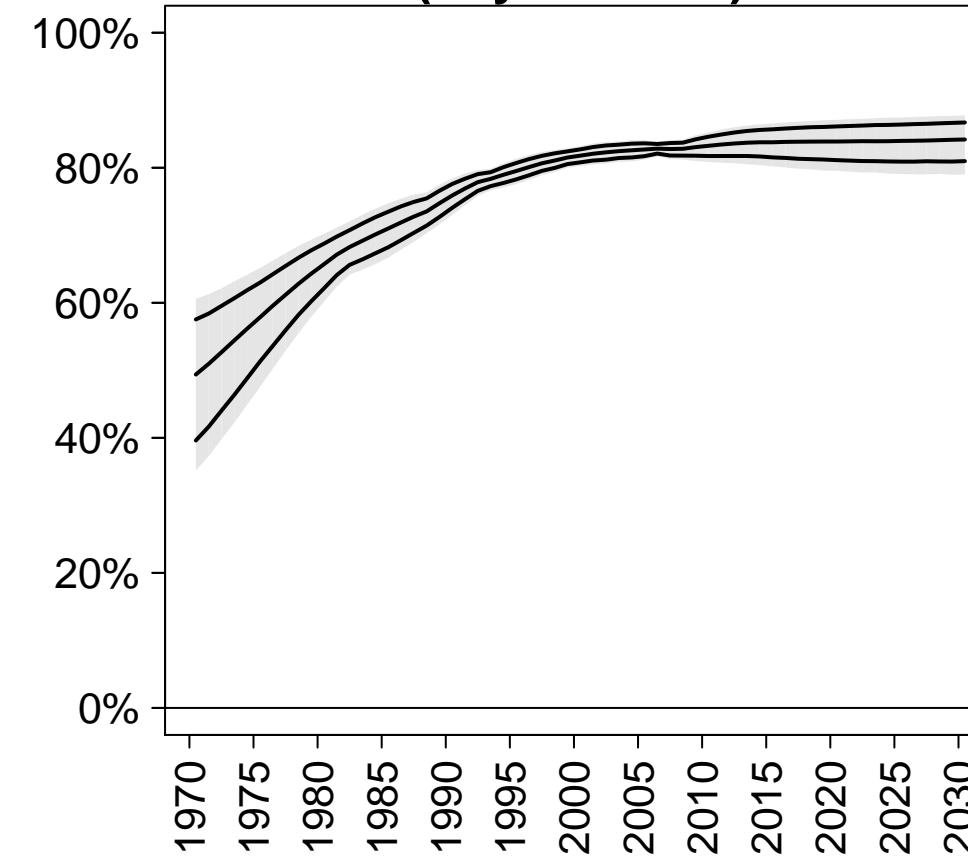
Unmet need



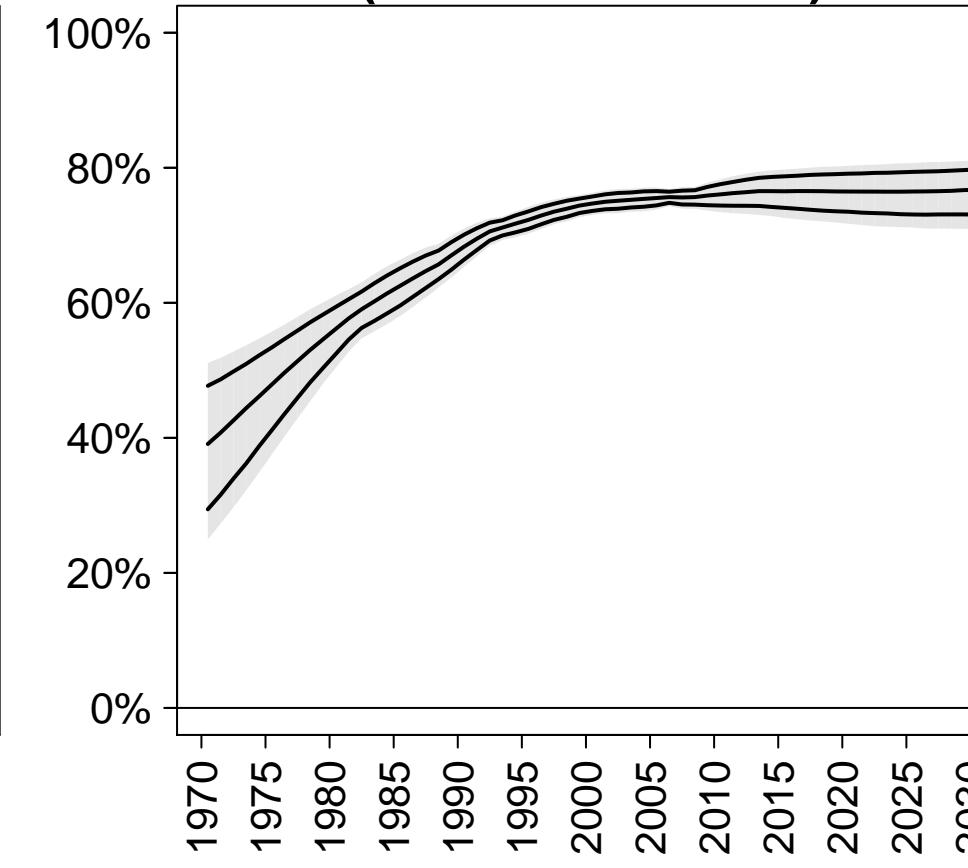
Total demand



**Demand satisfied
(any method)**

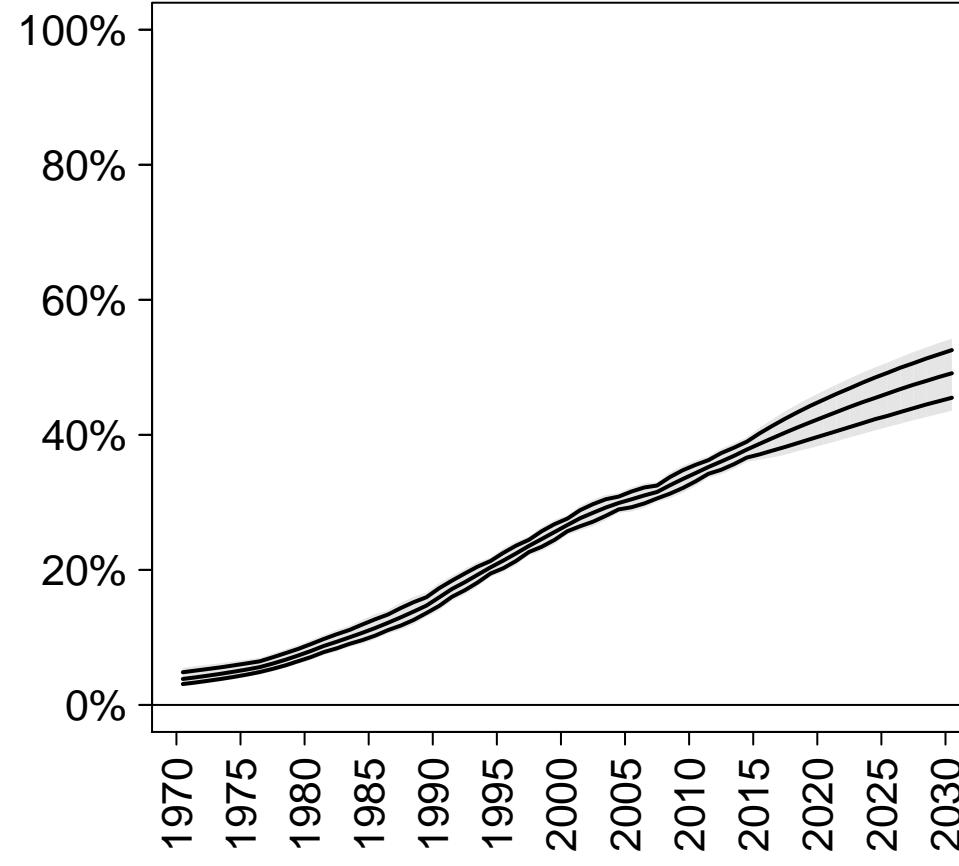


**Demand satisfied
(modern methods)**

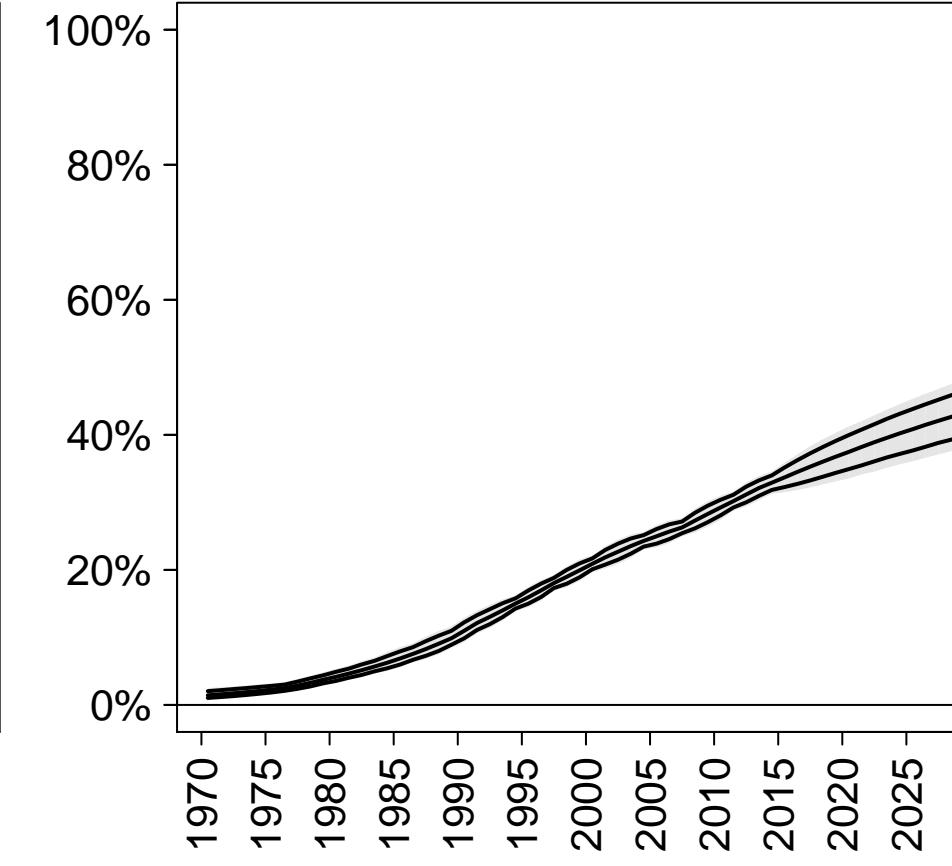


Least developed countries

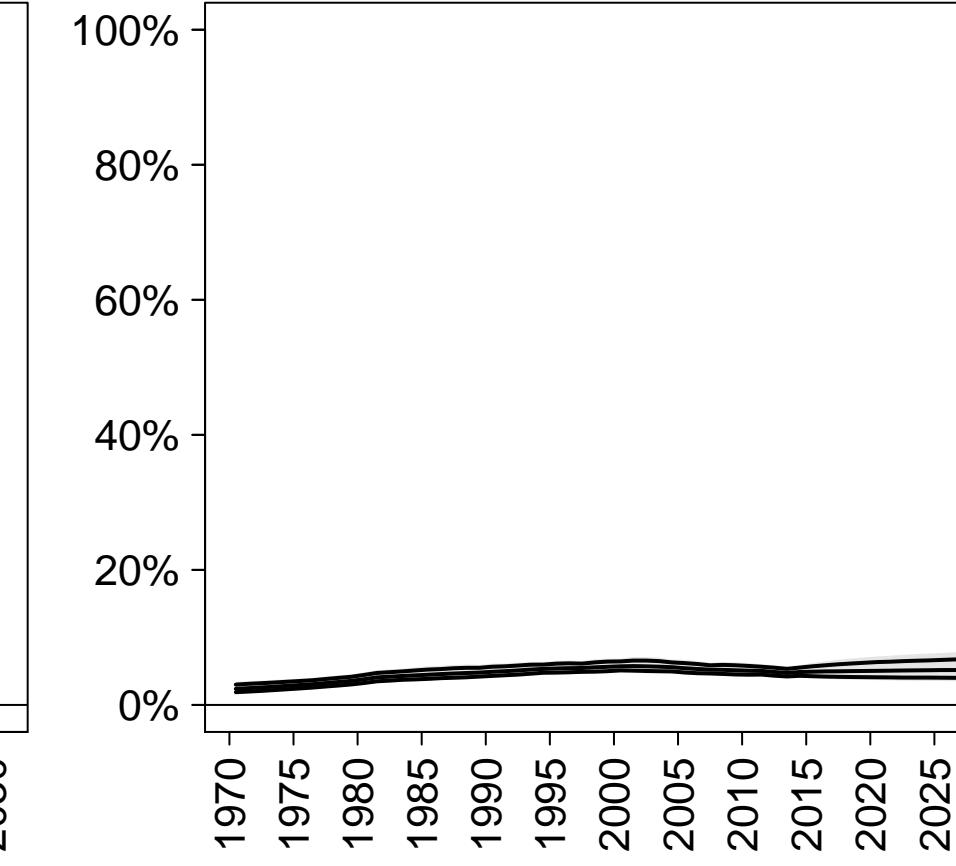
CP (any)



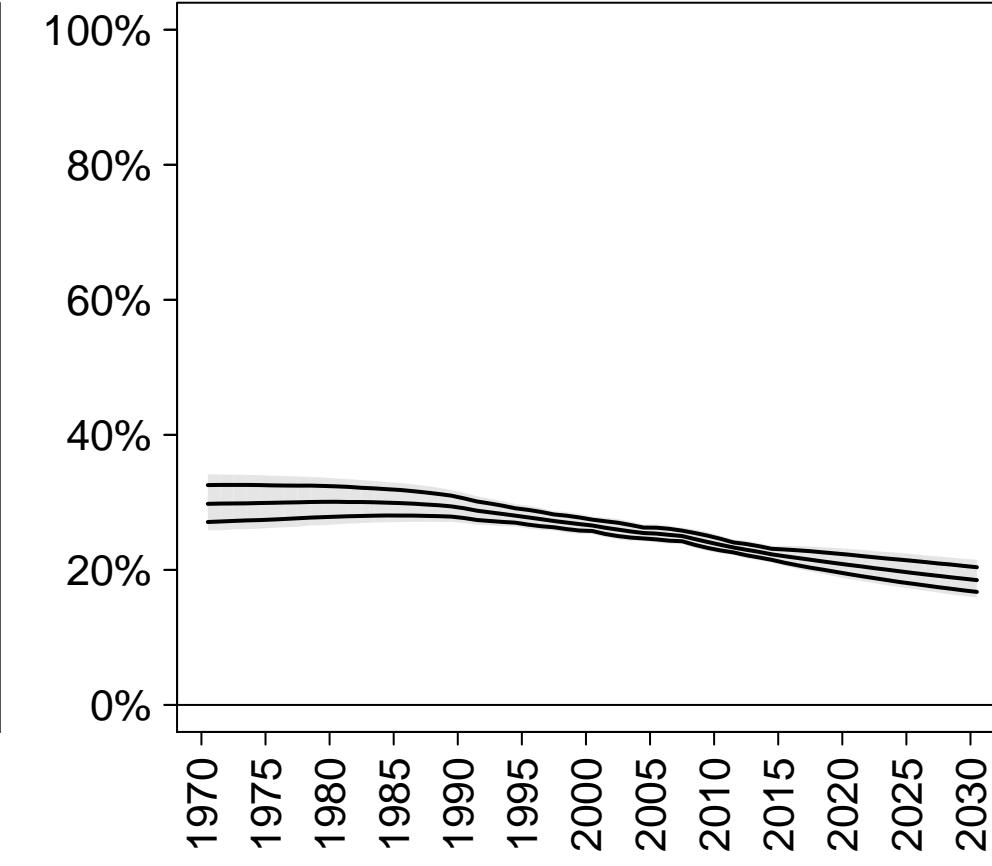
CP (modern)



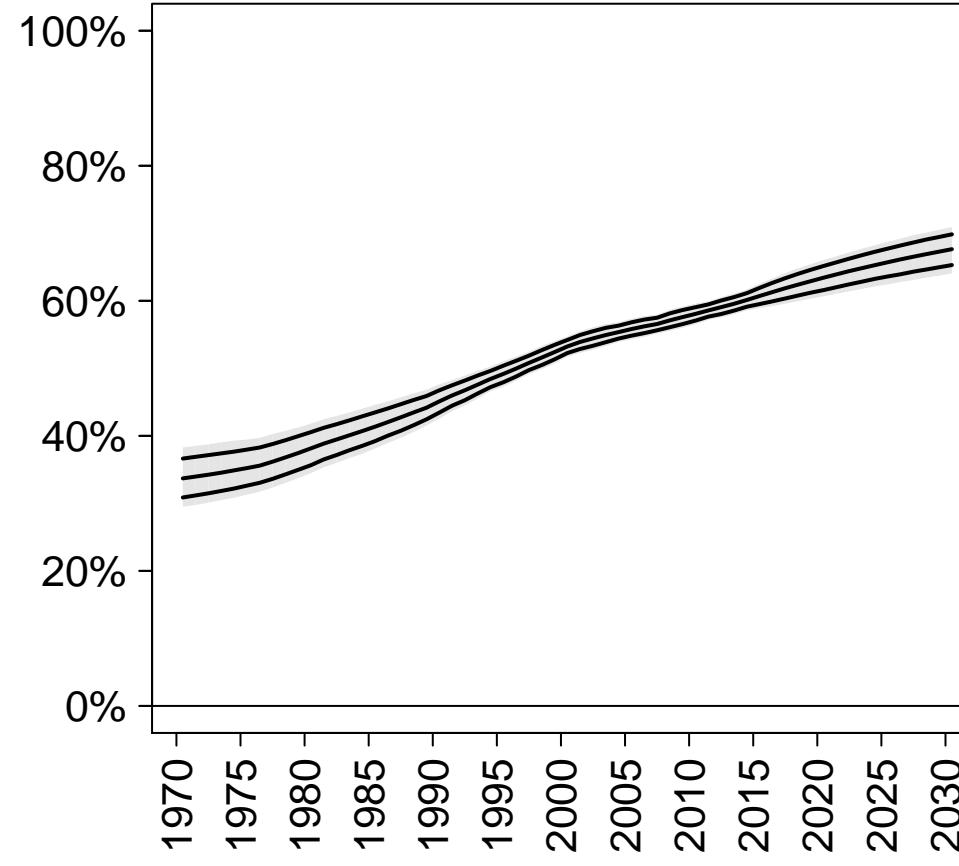
CP (traditional)



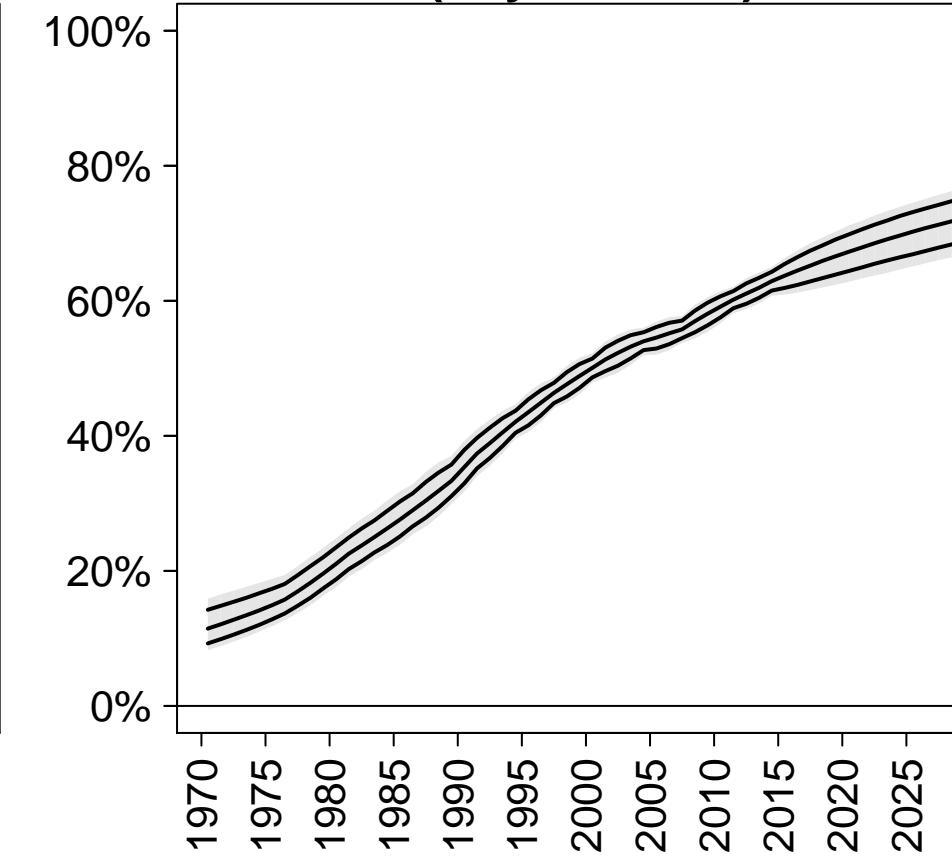
Unmet need



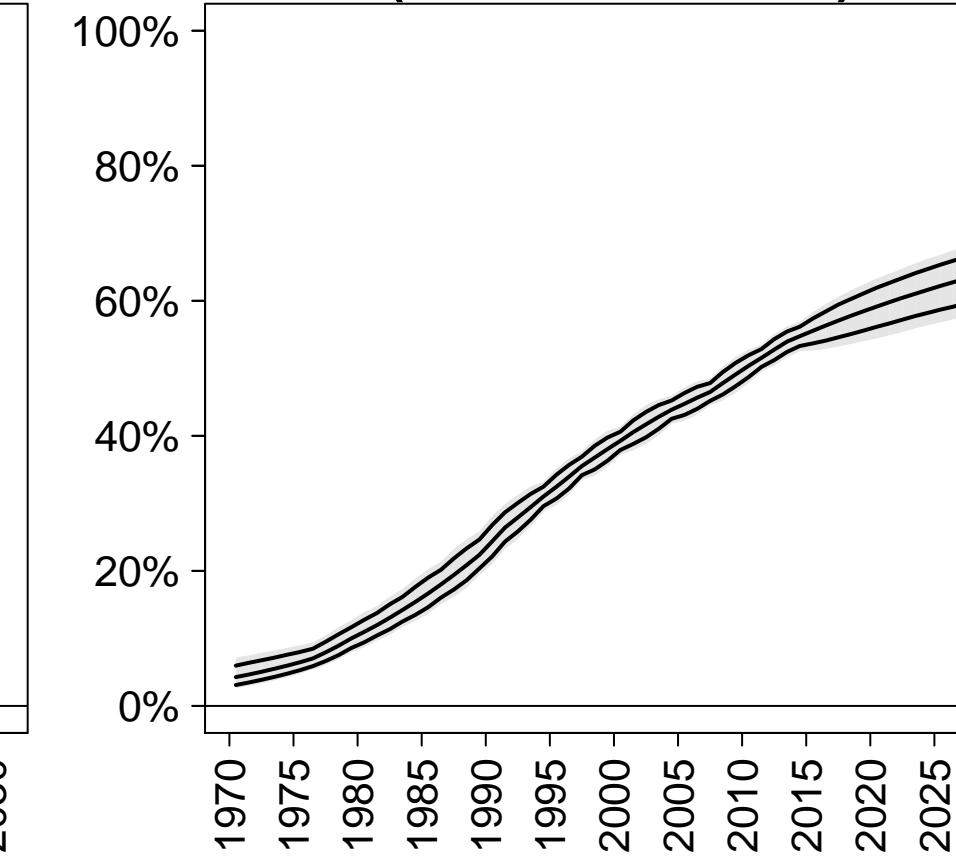
Total demand



**Demand satisfied
(any method)**

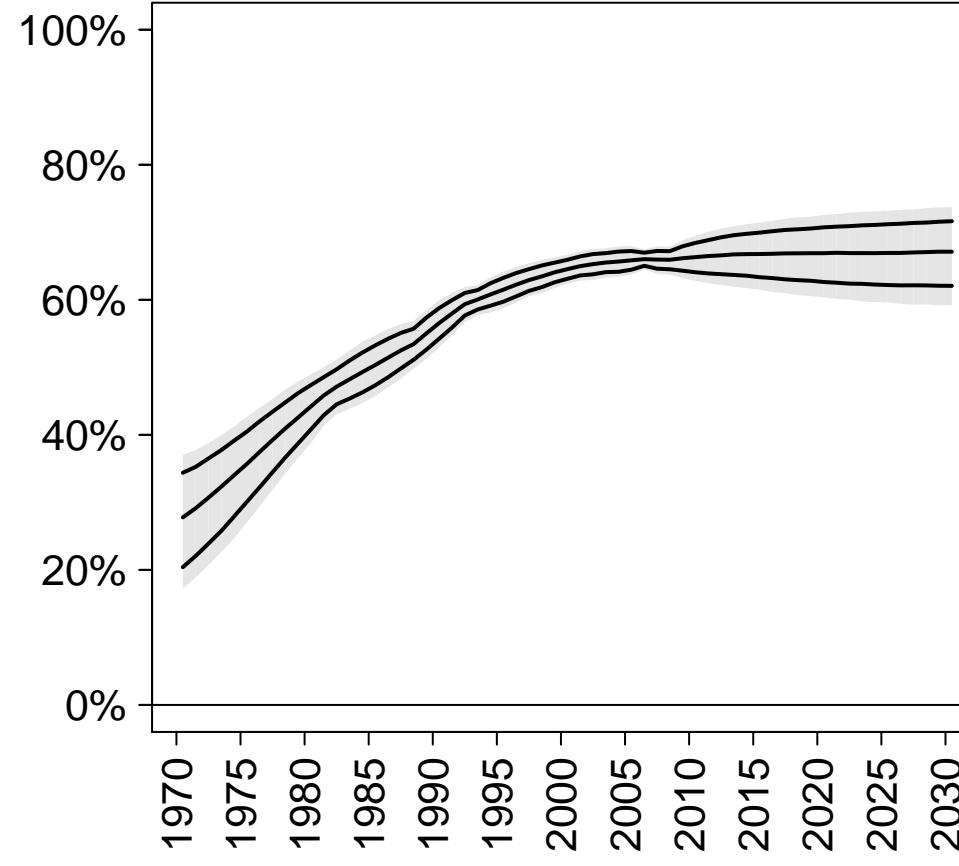


**Demand satisfied
(modern methods)**

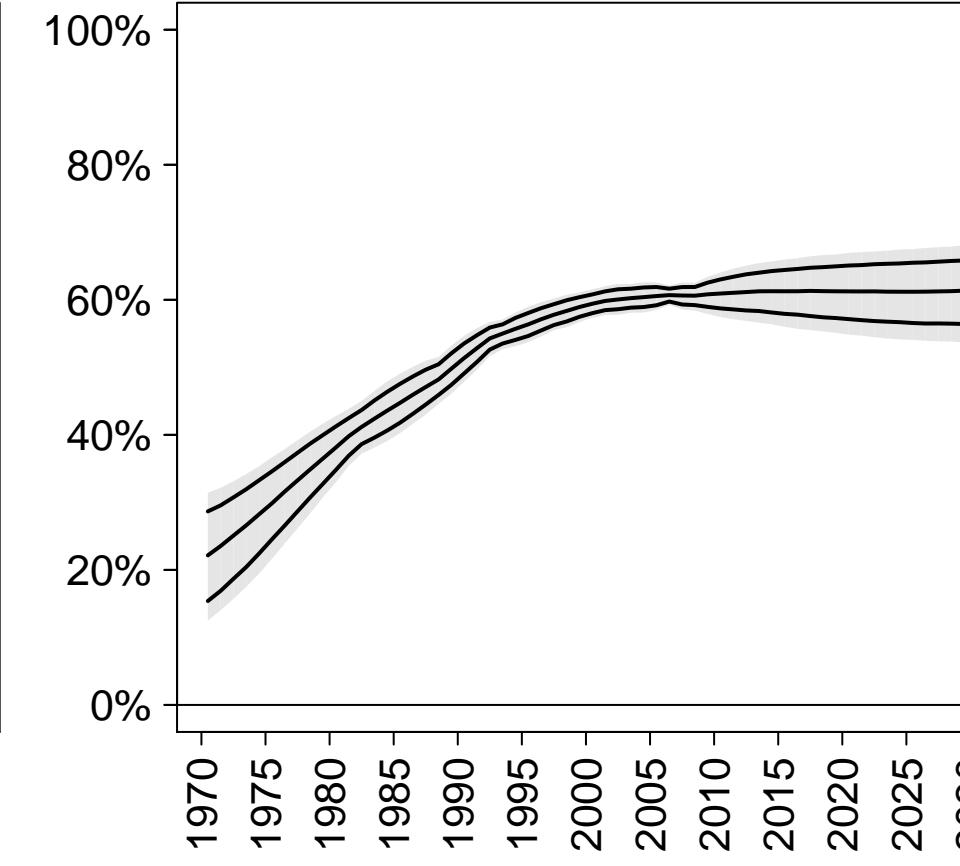


Other less developed countries

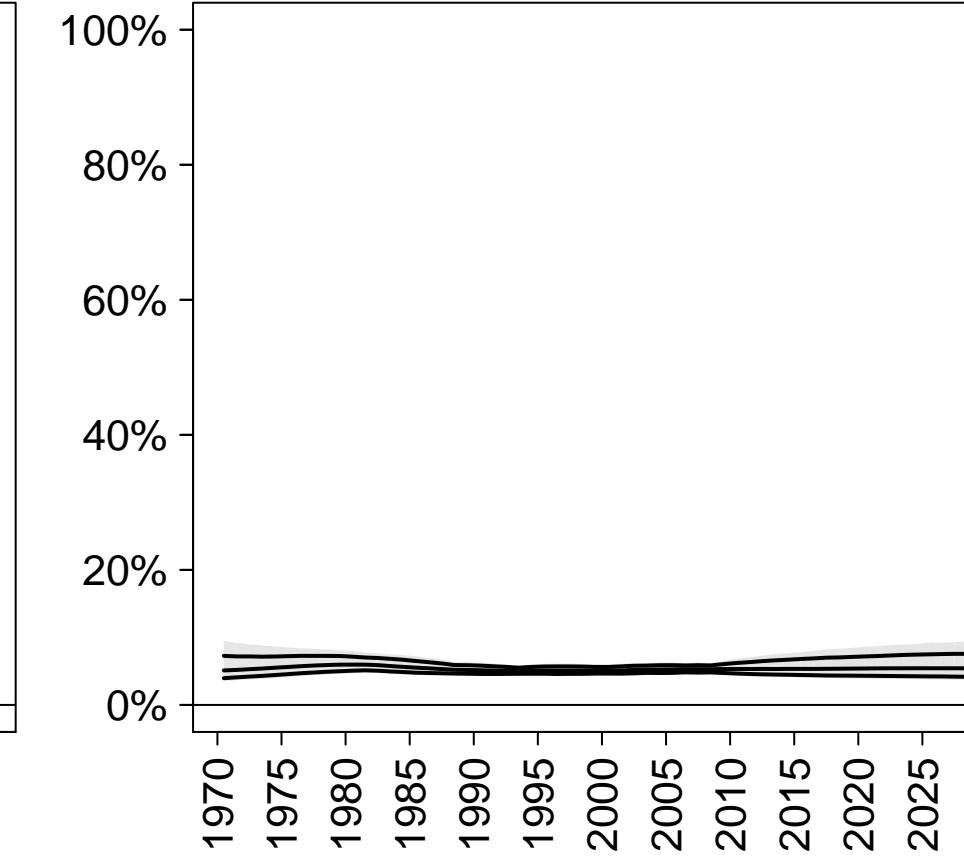
CP (any)



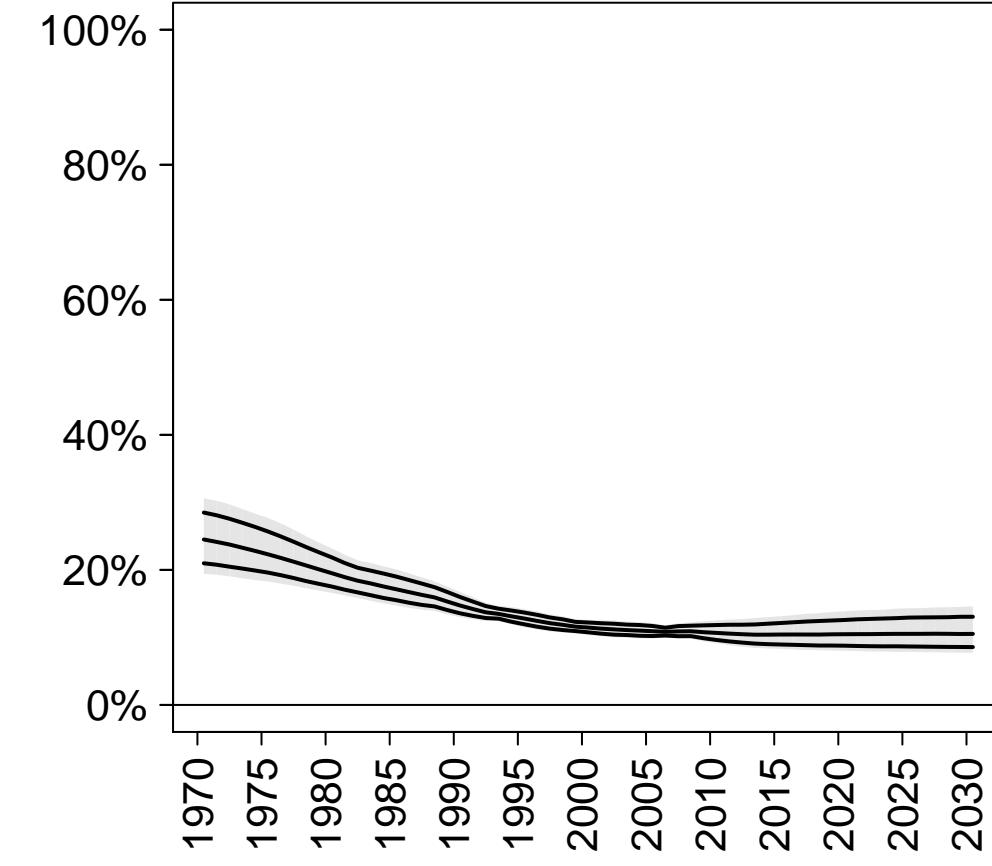
CP (modern)



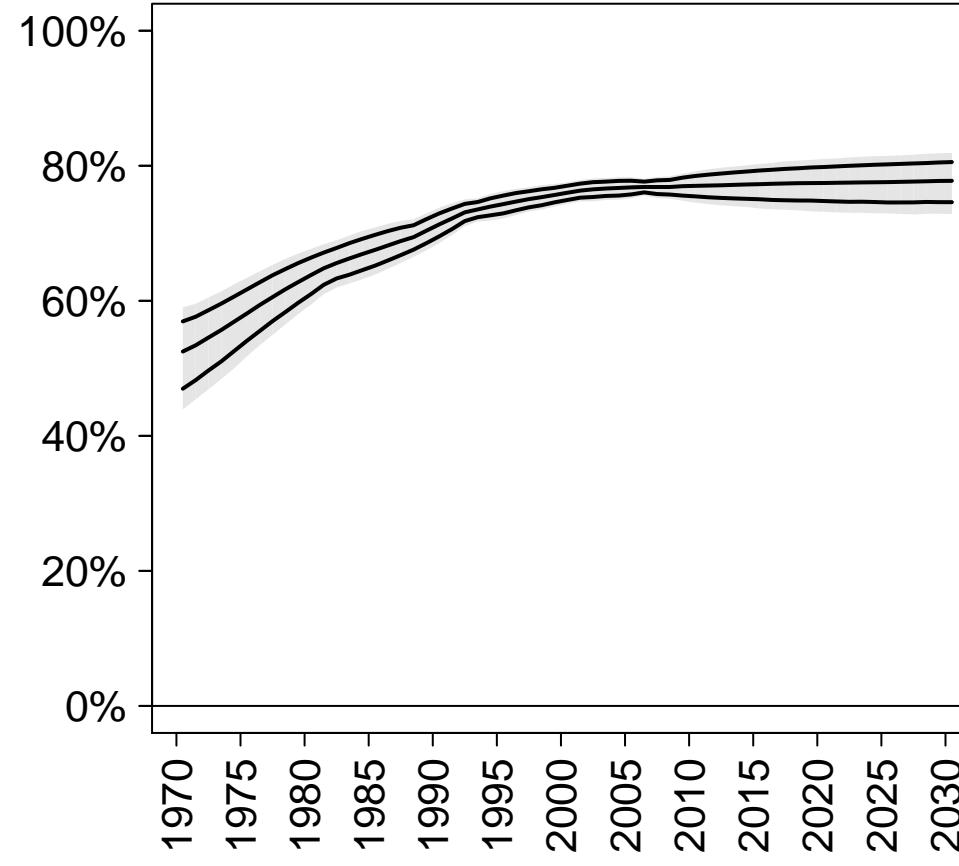
CP (traditional)



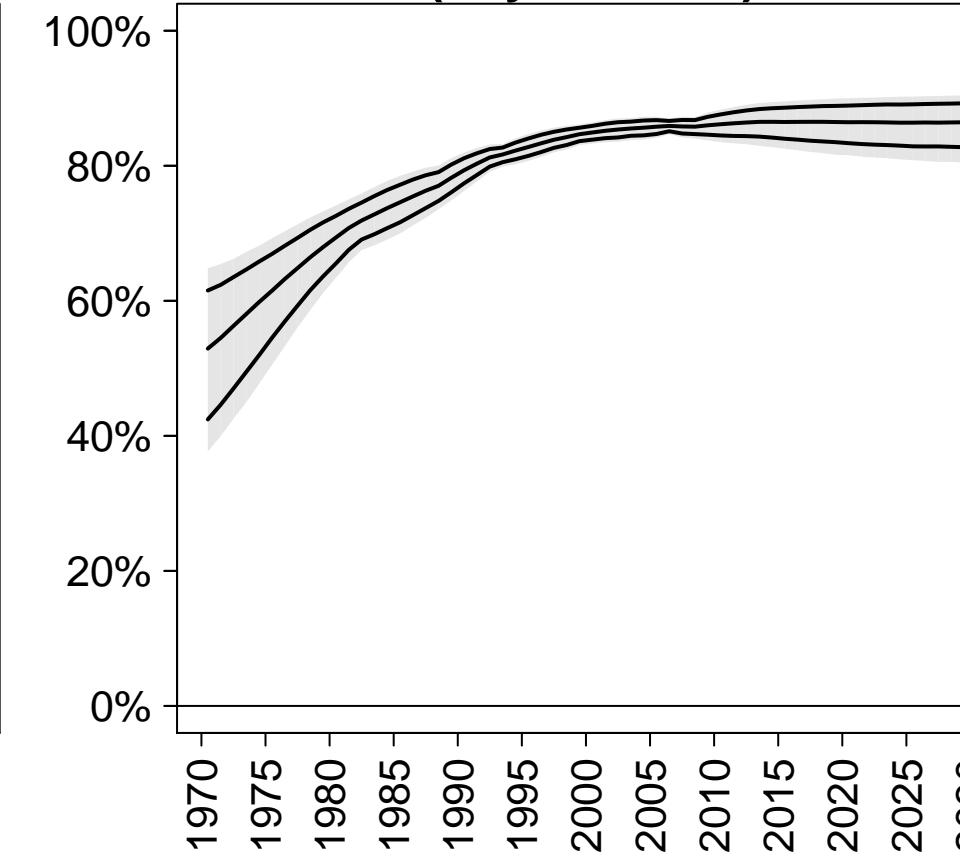
Unmet need



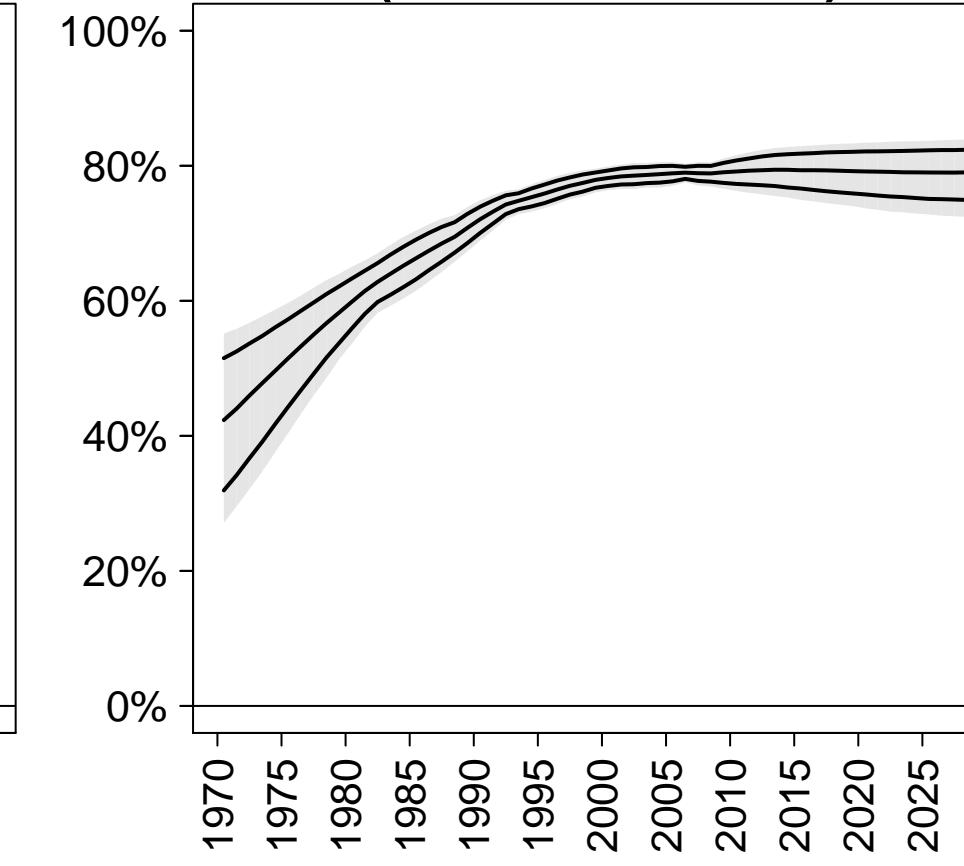
Total demand



**Demand satisfied
(any method)**

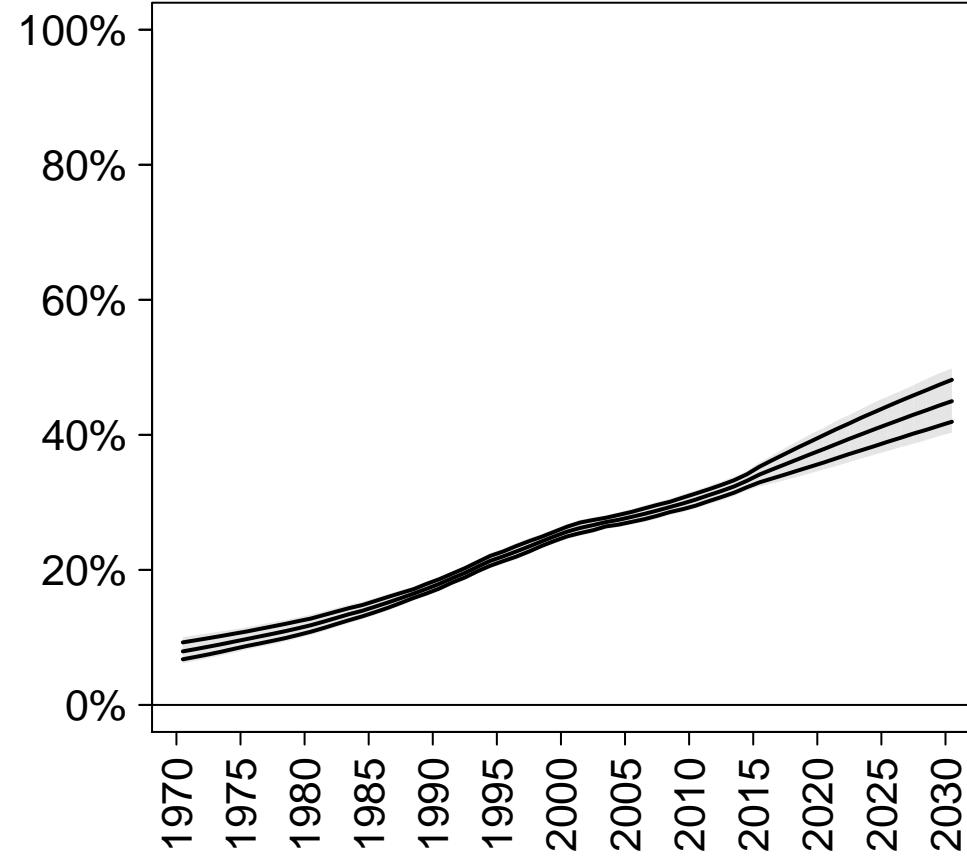


**Demand satisfied
(modern methods)**

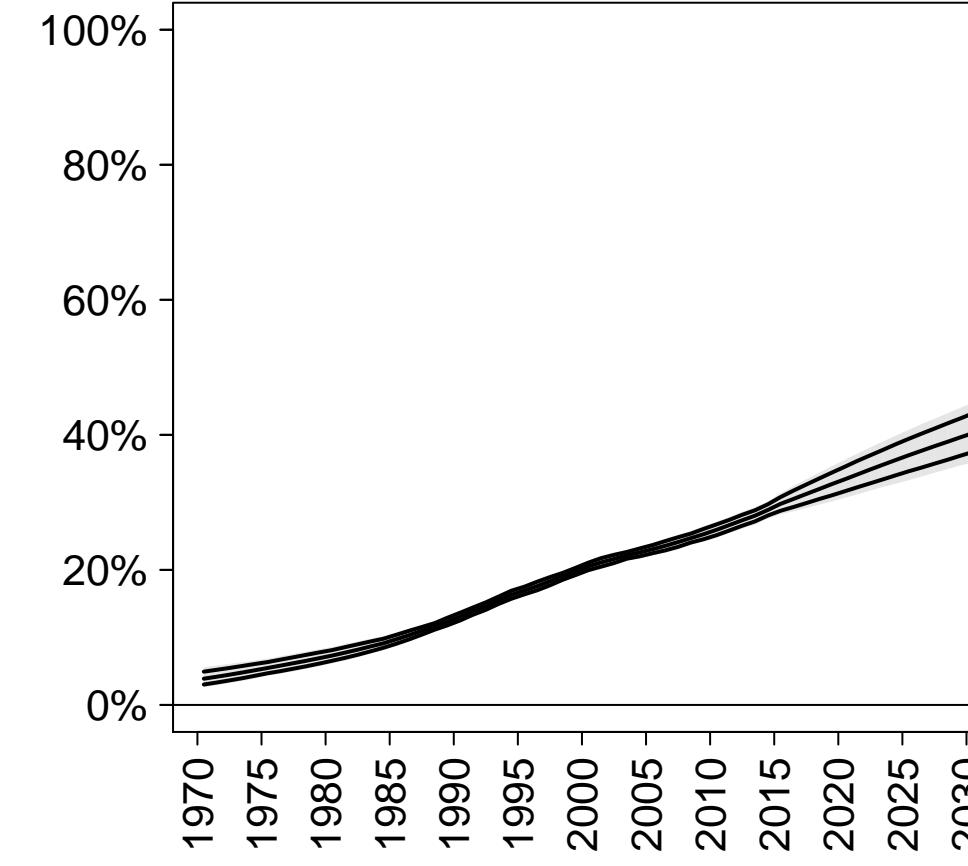


Africa

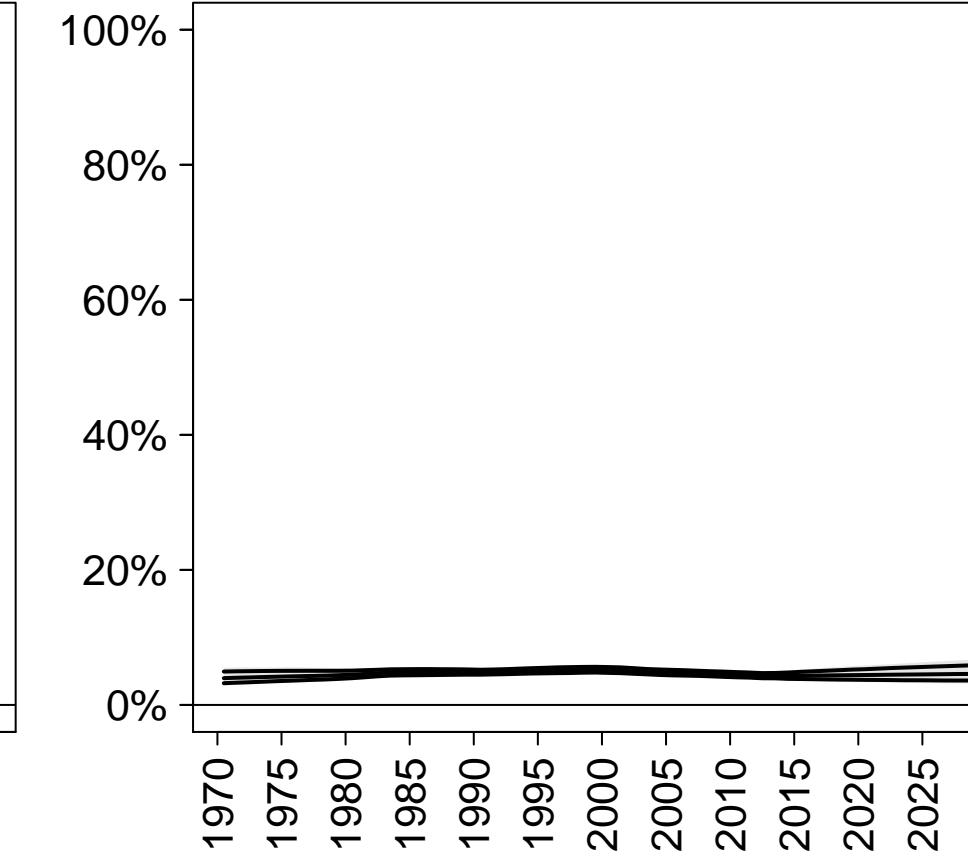
CP (any)



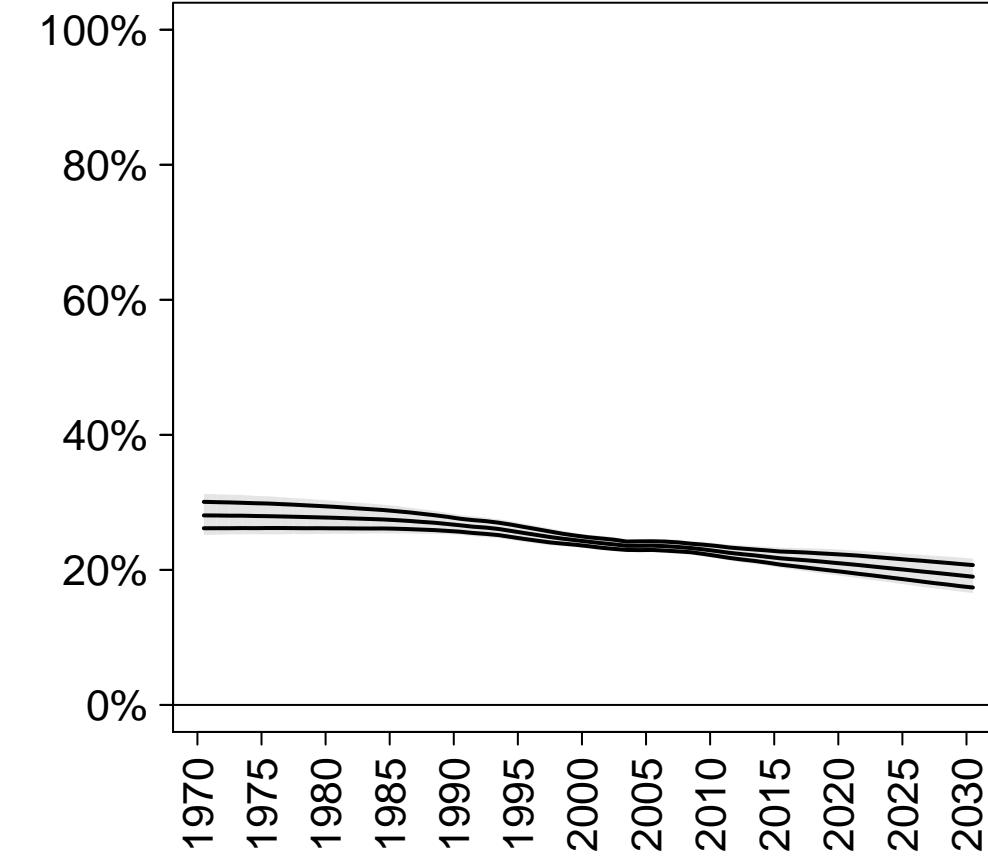
CP (modern)



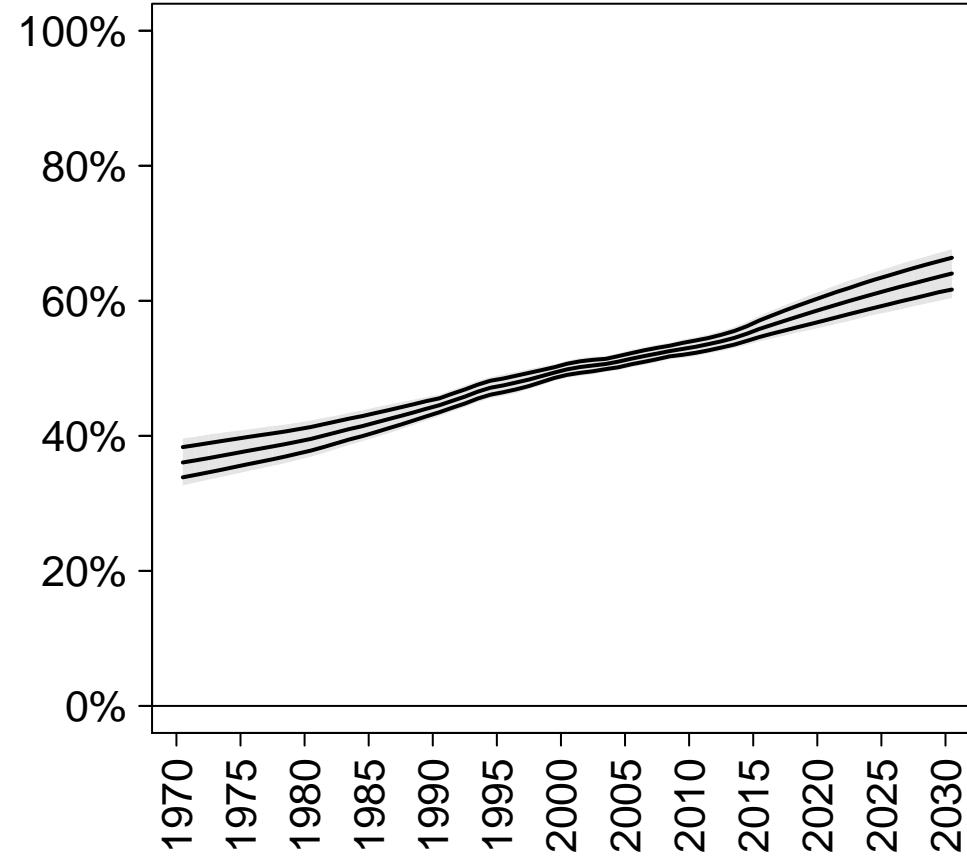
CP (traditional)



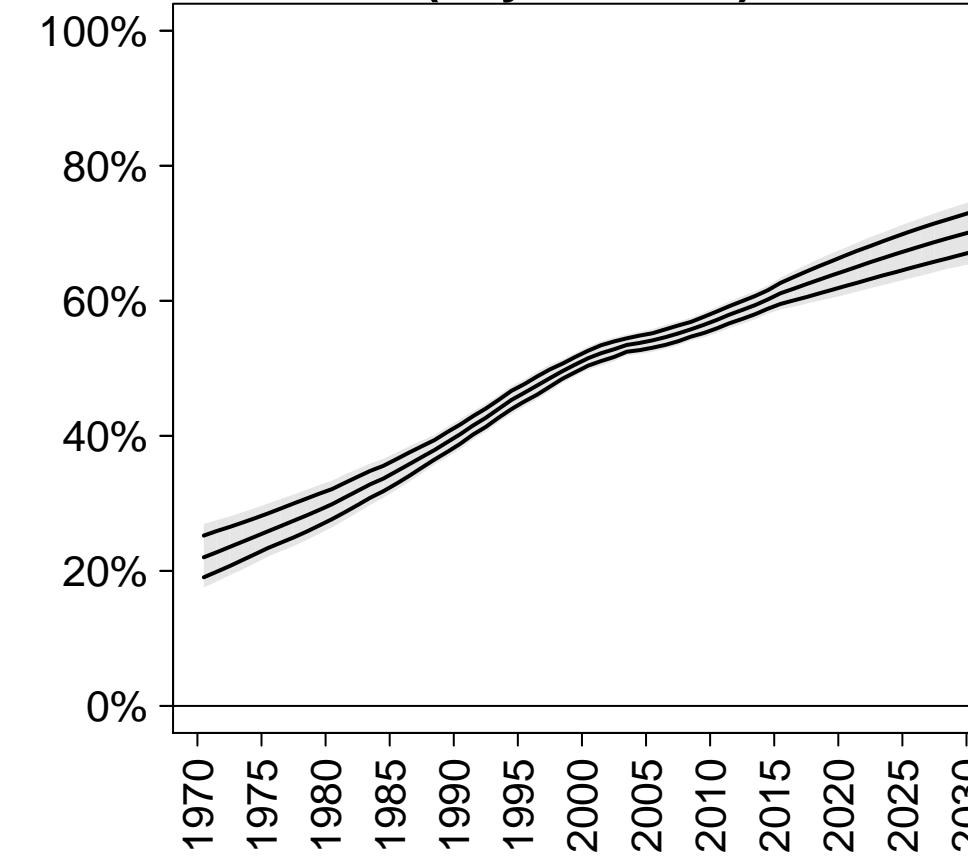
Unmet need



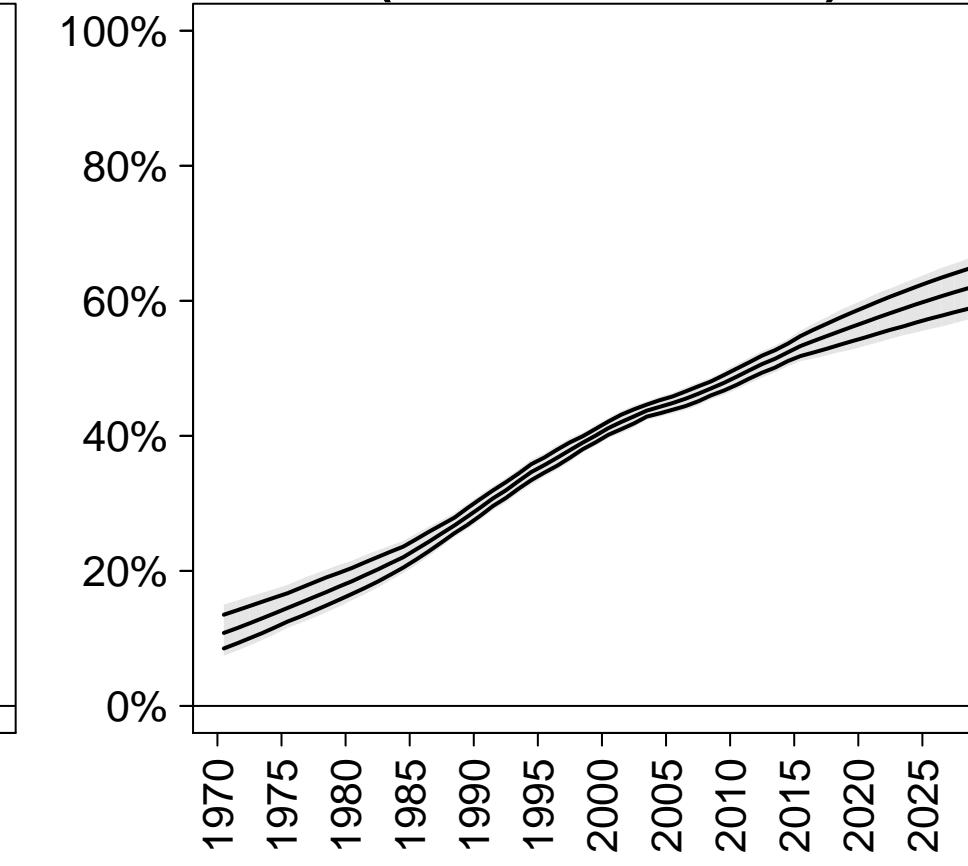
Total demand



**Demand satisfied
(any method)**

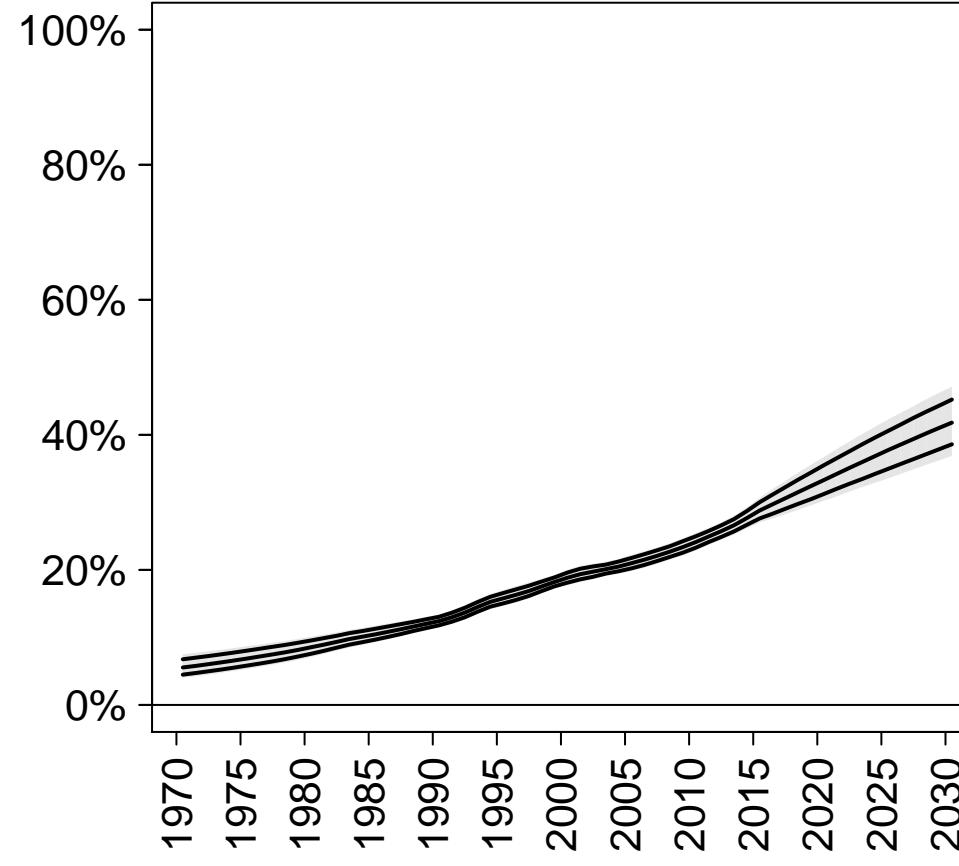


**Demand satisfied
(modern methods)**

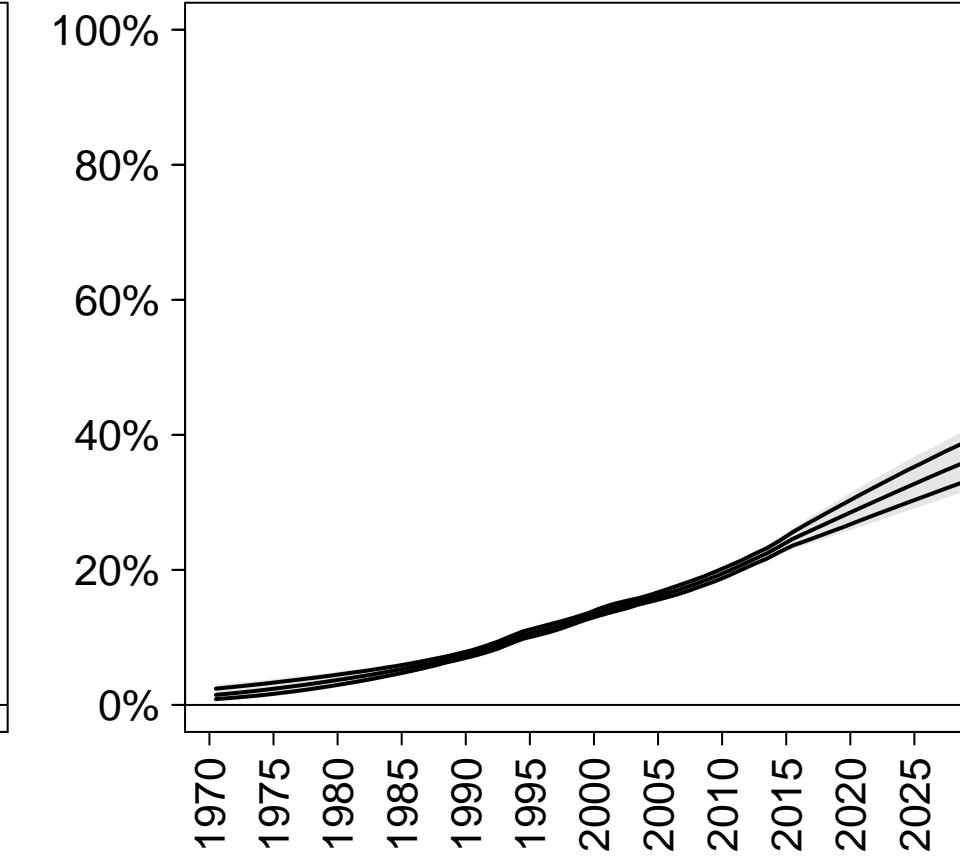


Sub-Saharan Africa

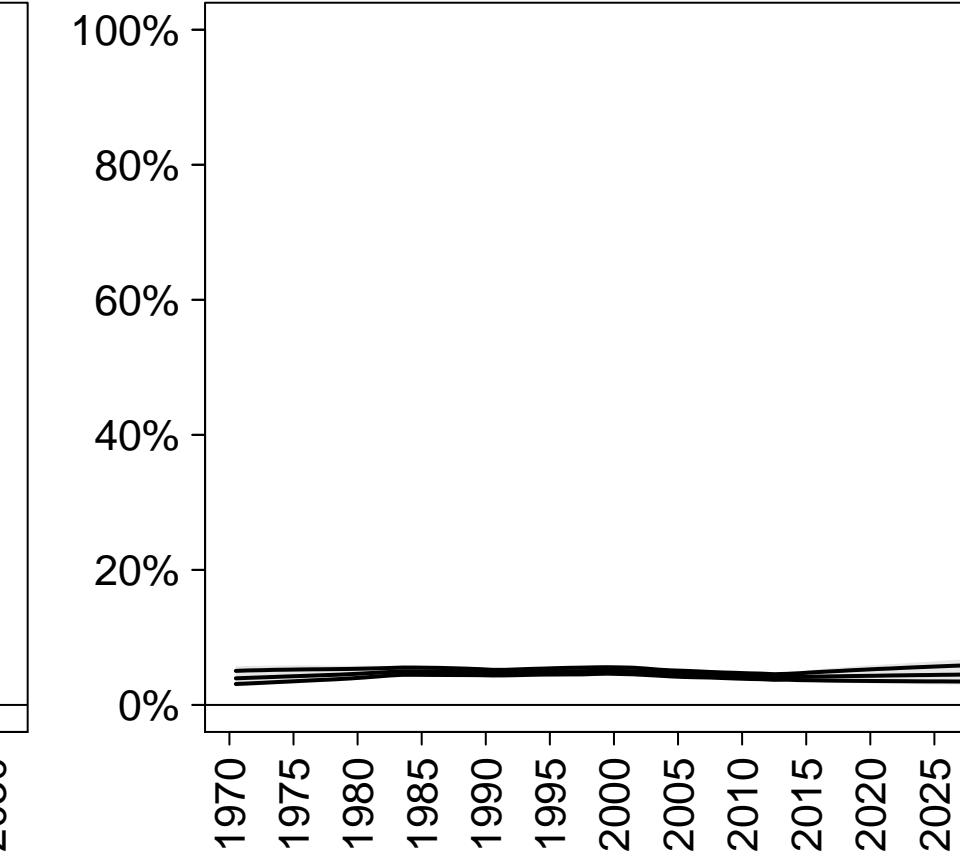
CP (any)



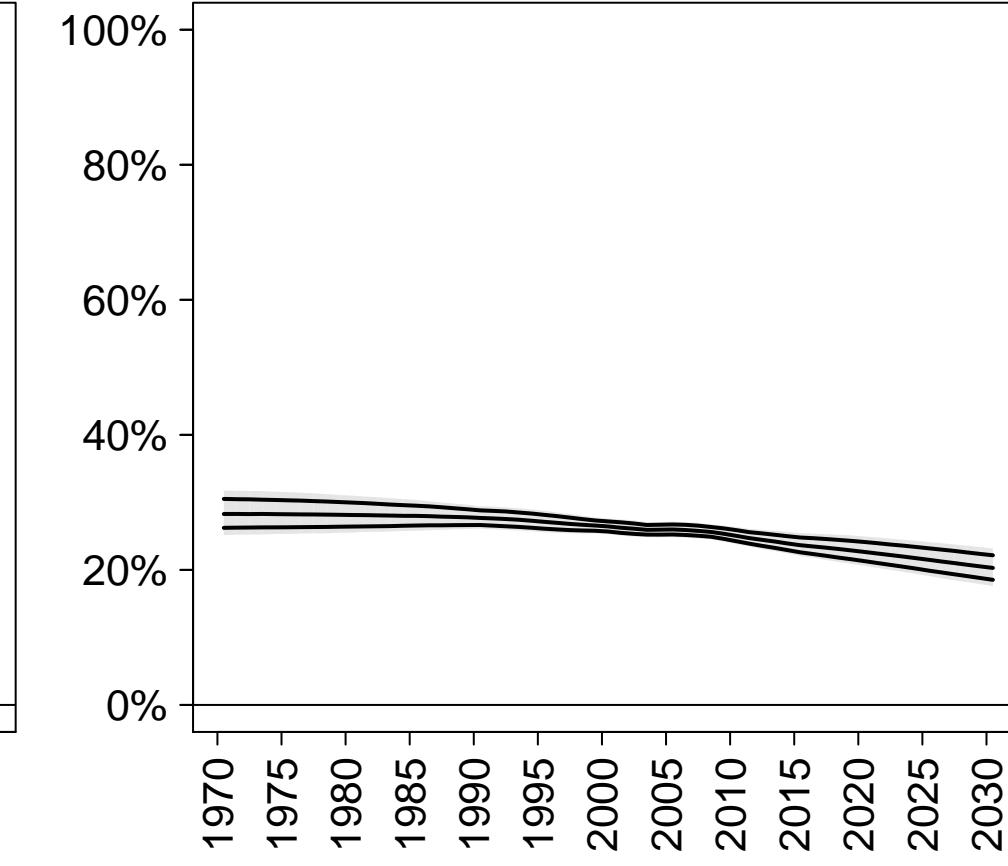
CP (modern)



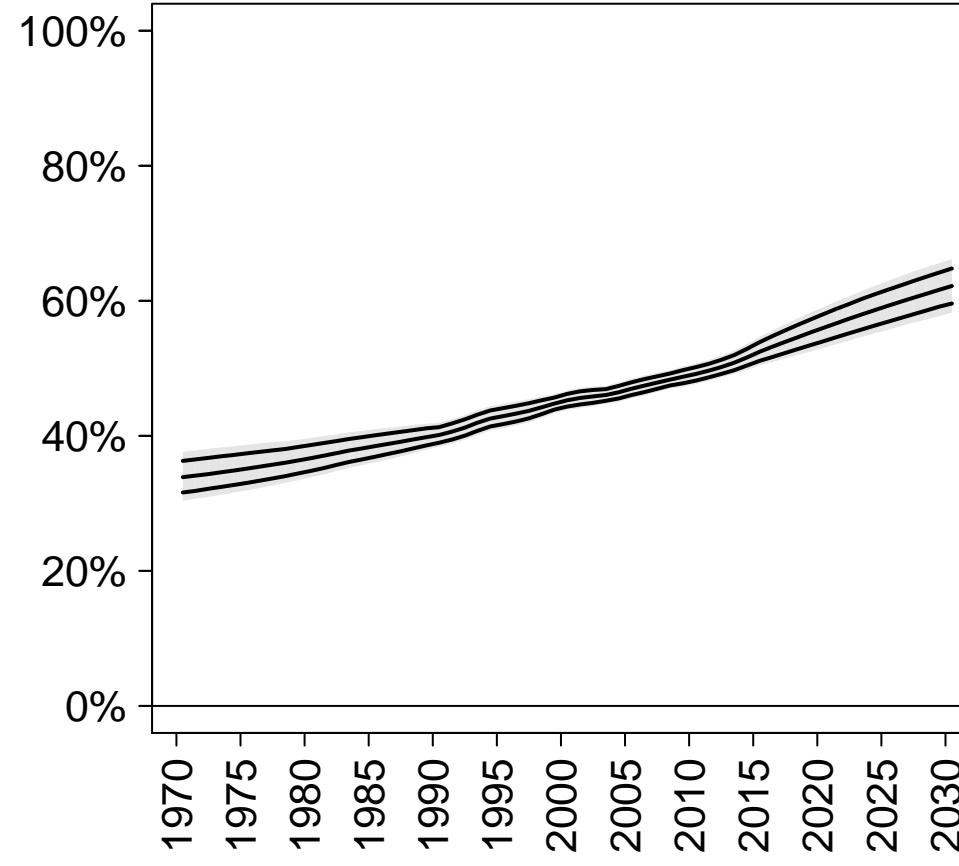
CP (traditional)



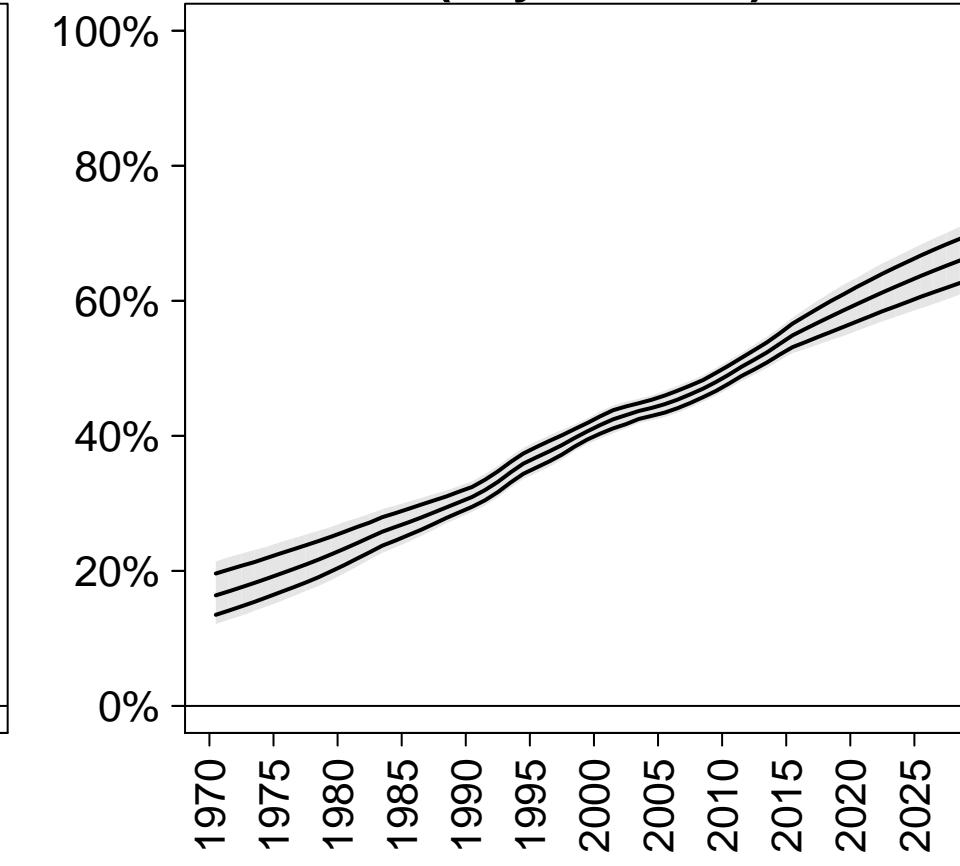
Unmet need



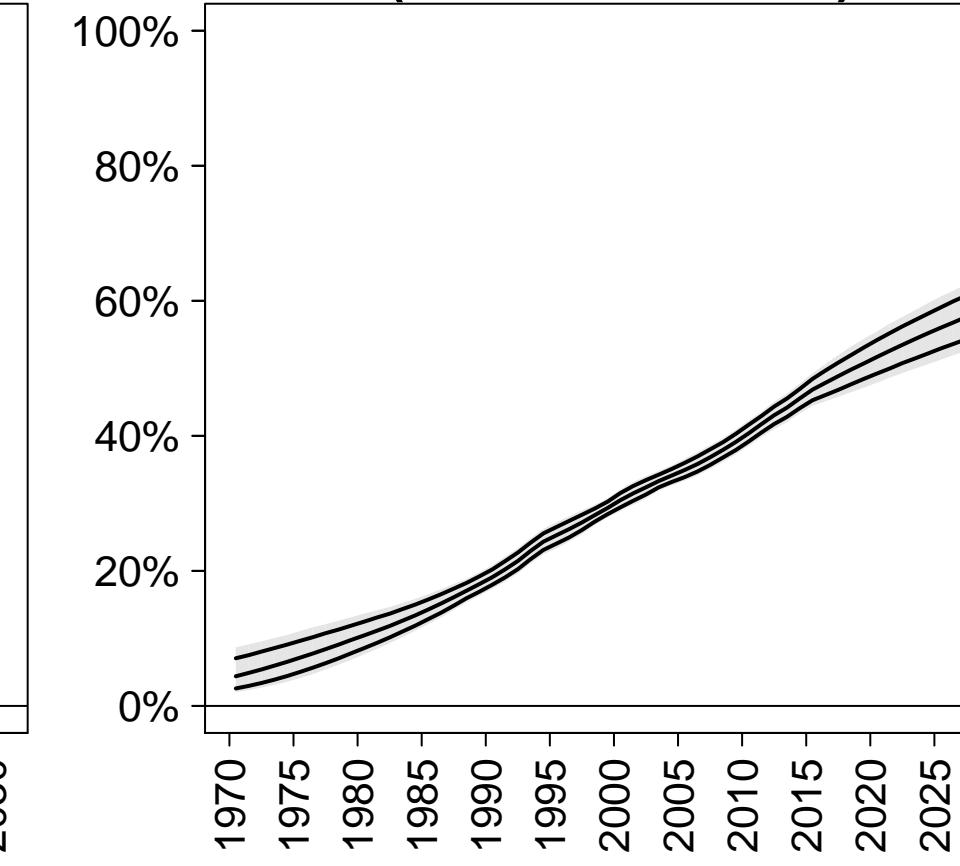
Total demand



**Demand satisfied
(any method)**

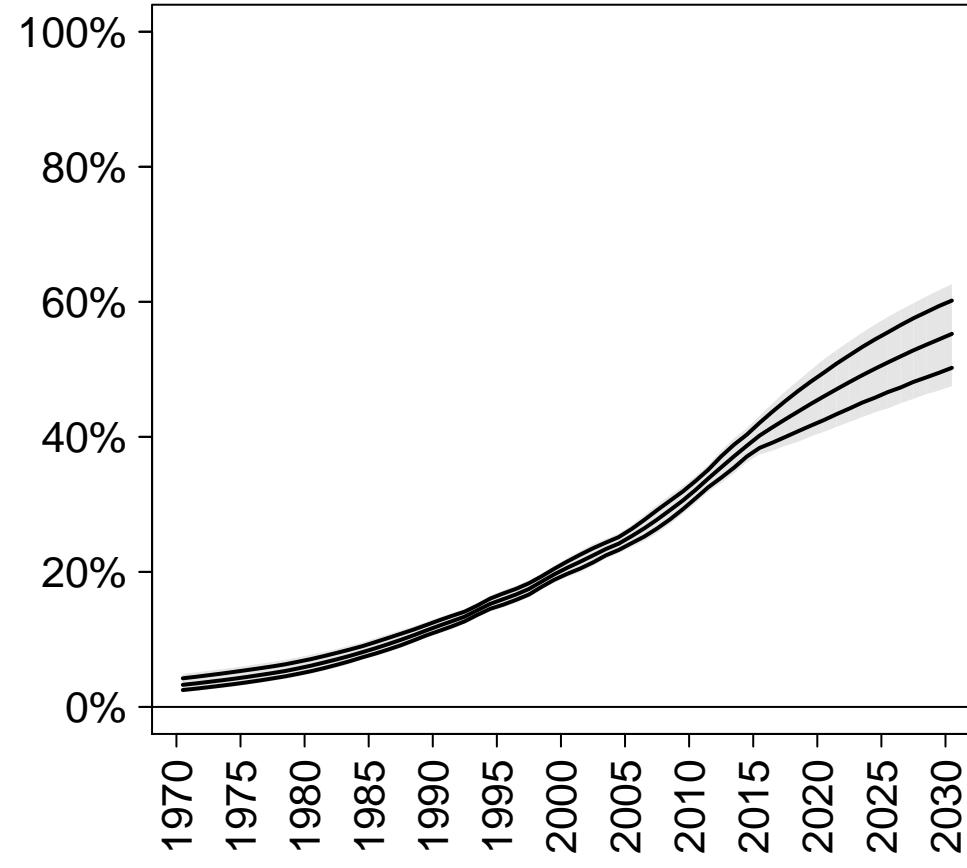


**Demand satisfied
(modern methods)**

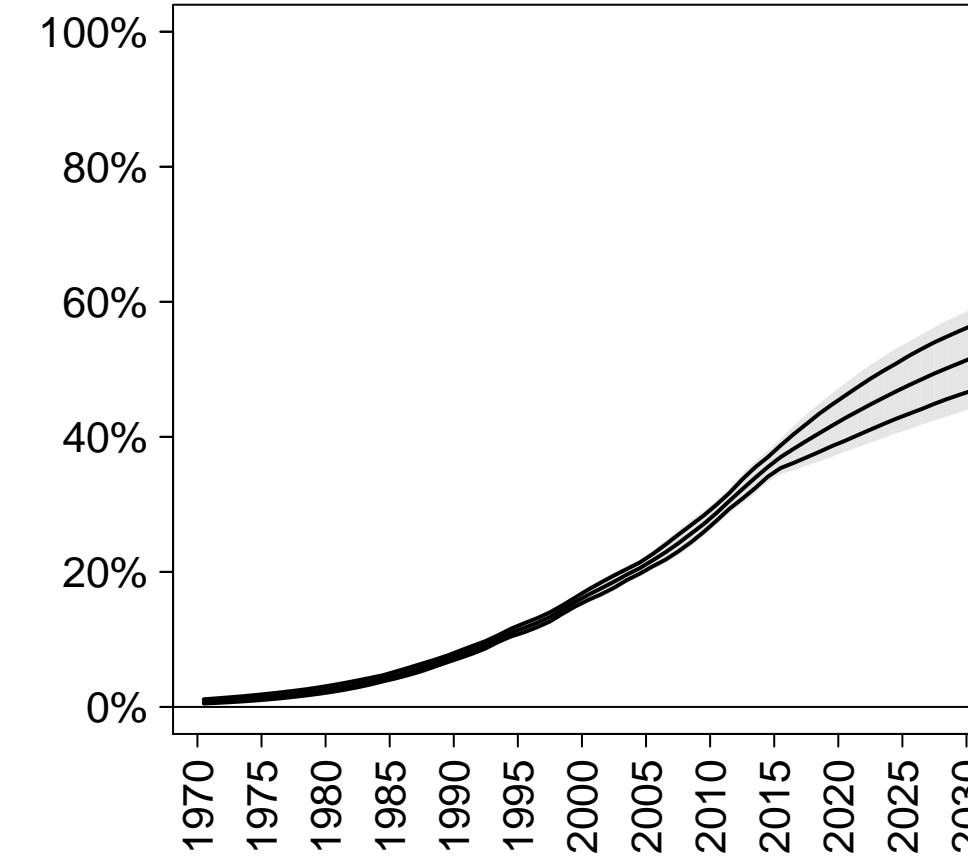


Eastern Africa

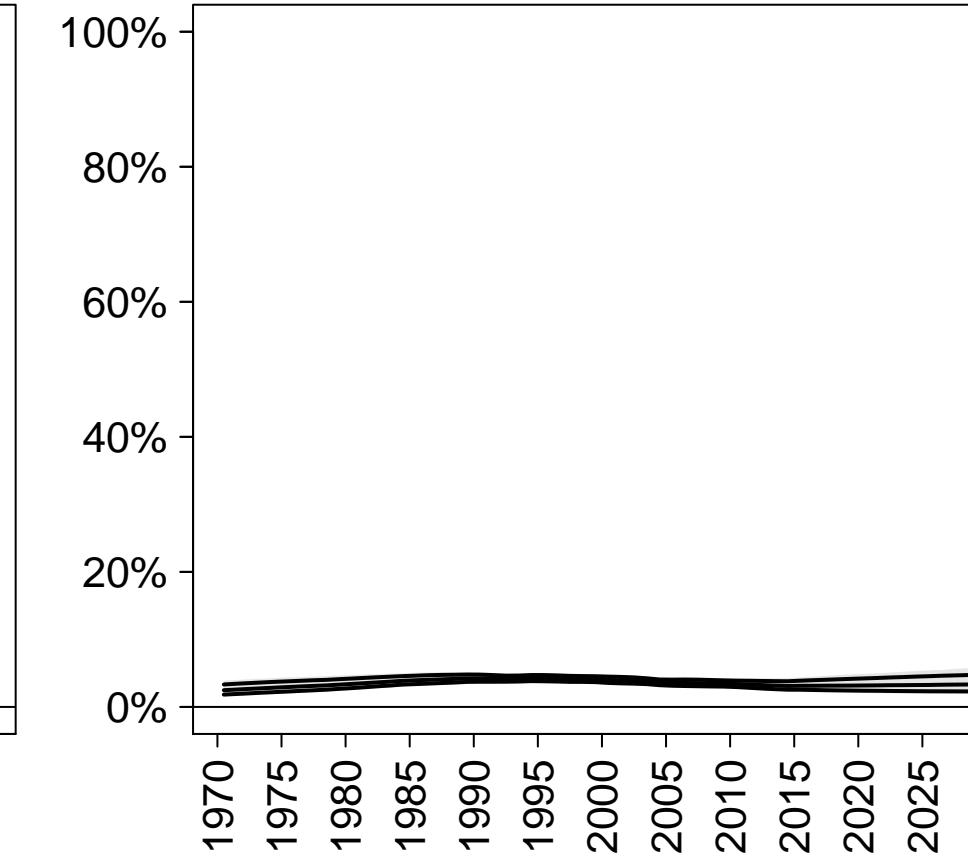
CP (any)



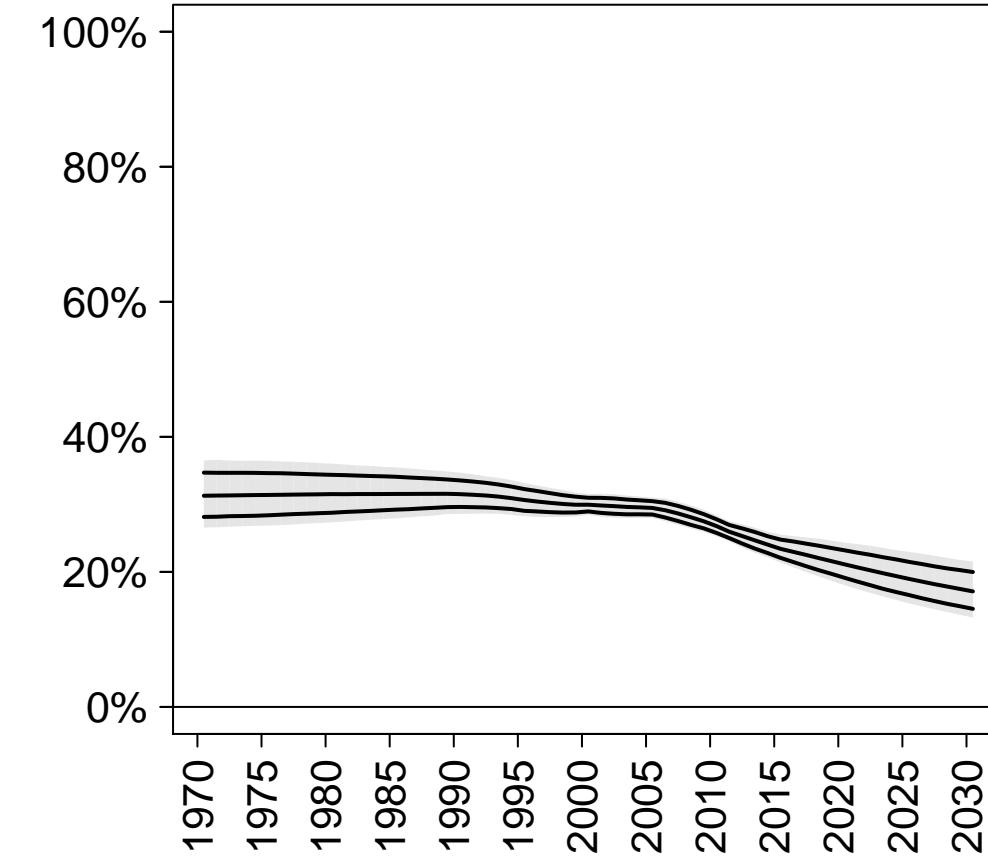
CP (modern)



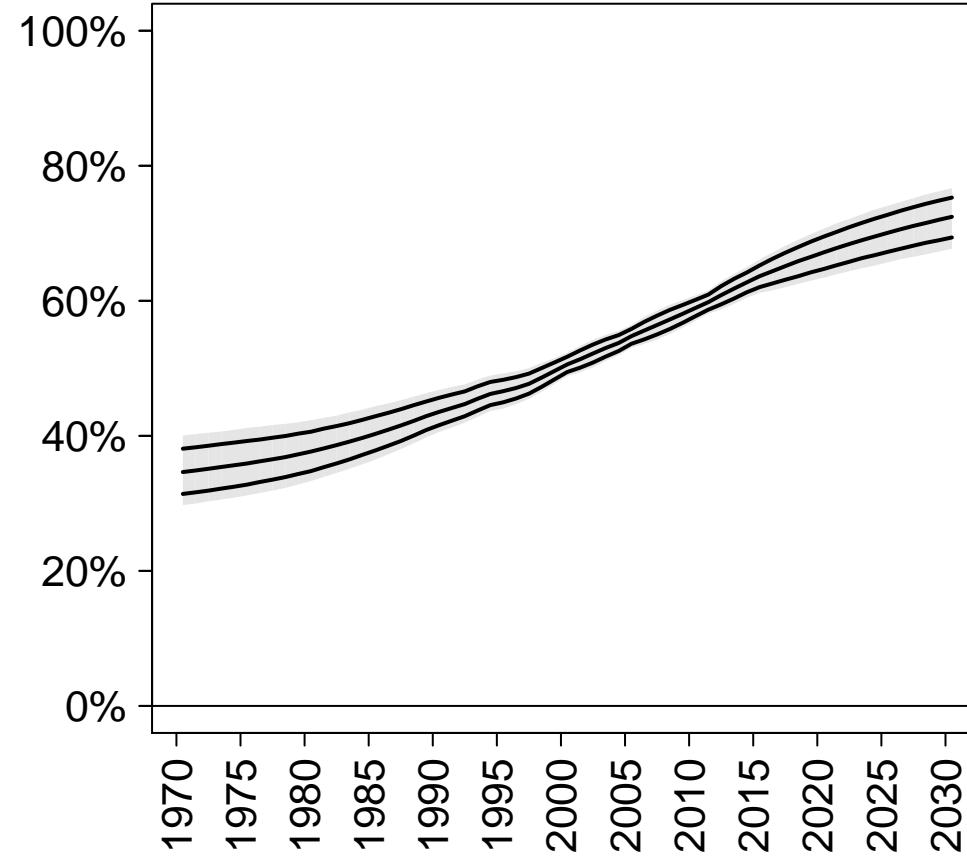
CP (traditional)



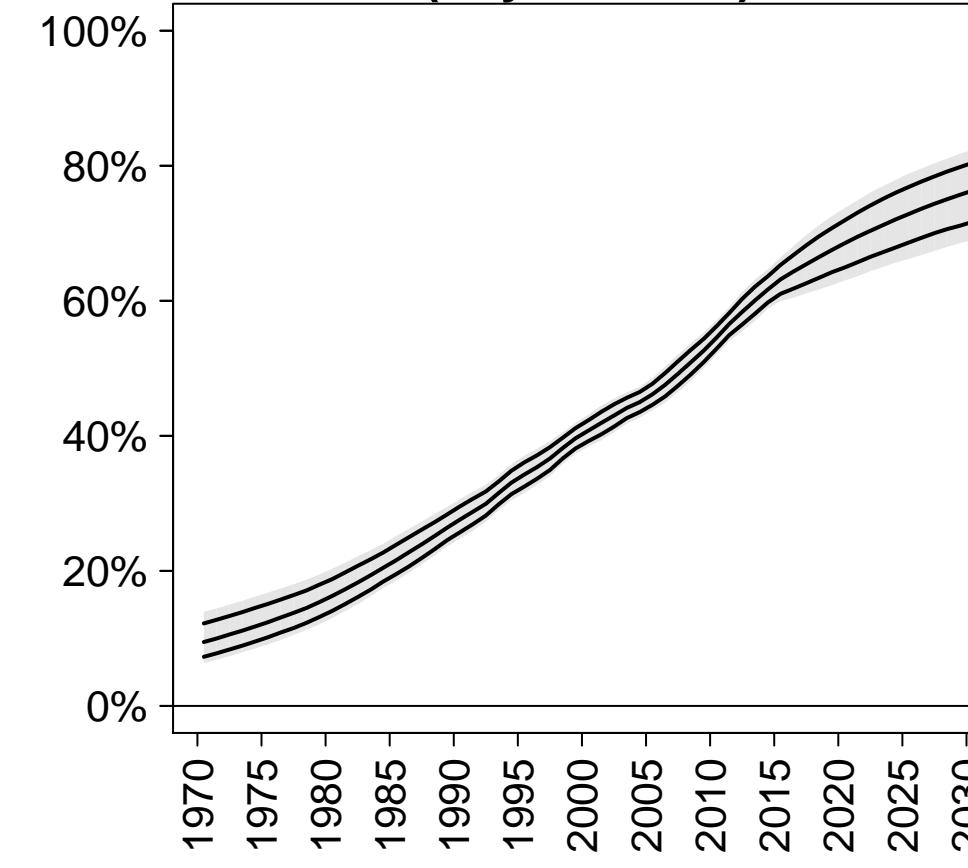
Unmet need



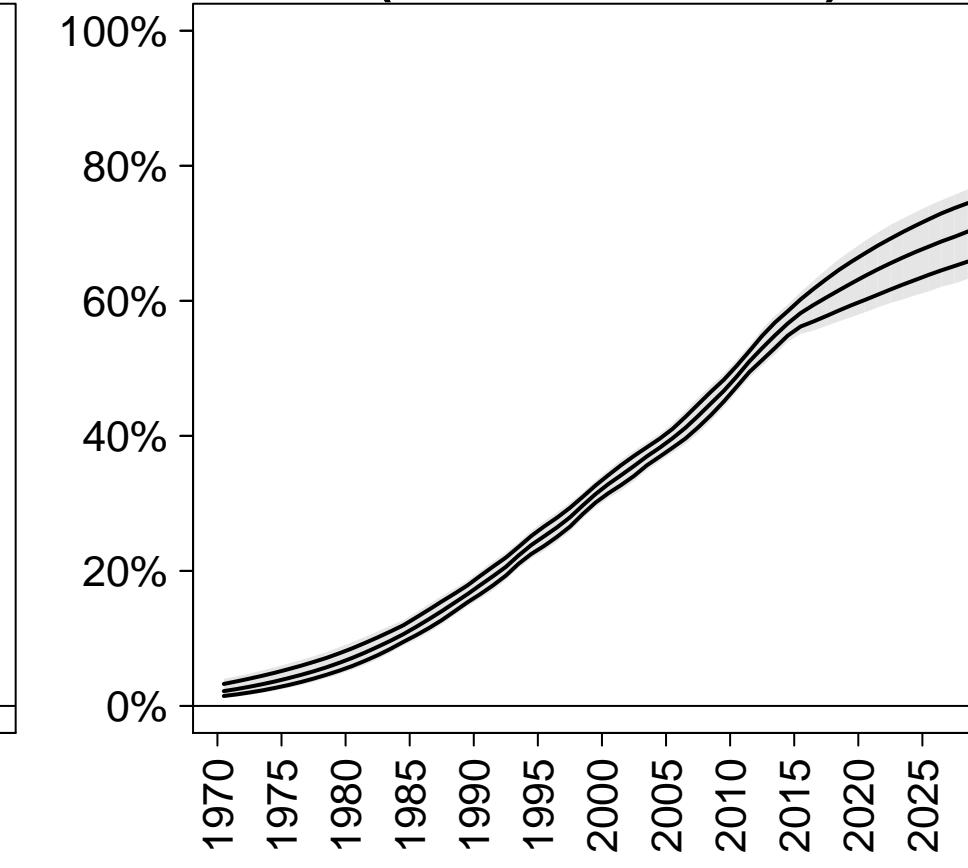
Total demand



**Demand satisfied
(any method)**

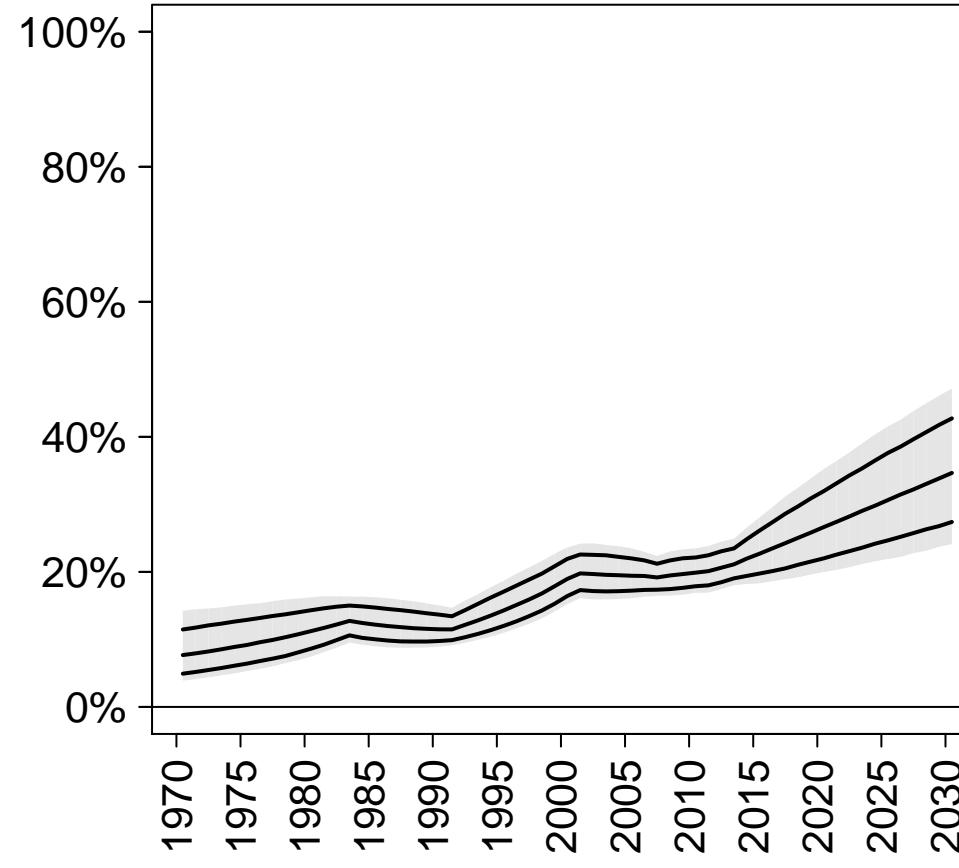


**Demand satisfied
(modern methods)**

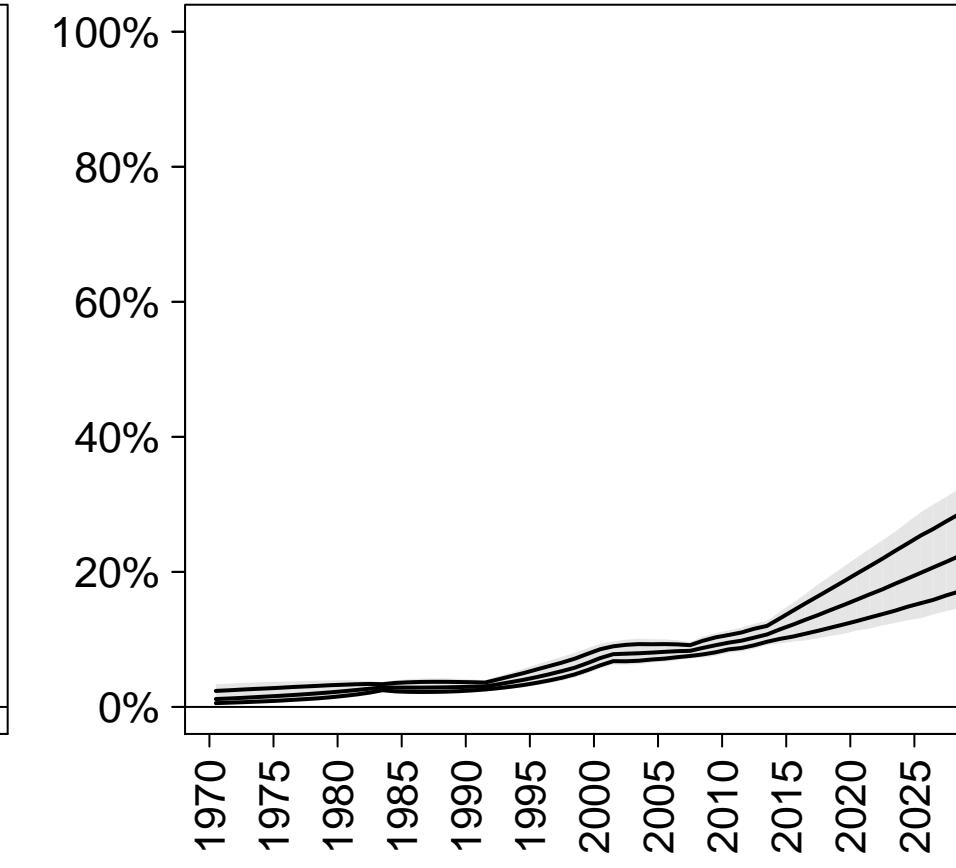


Middle Africa

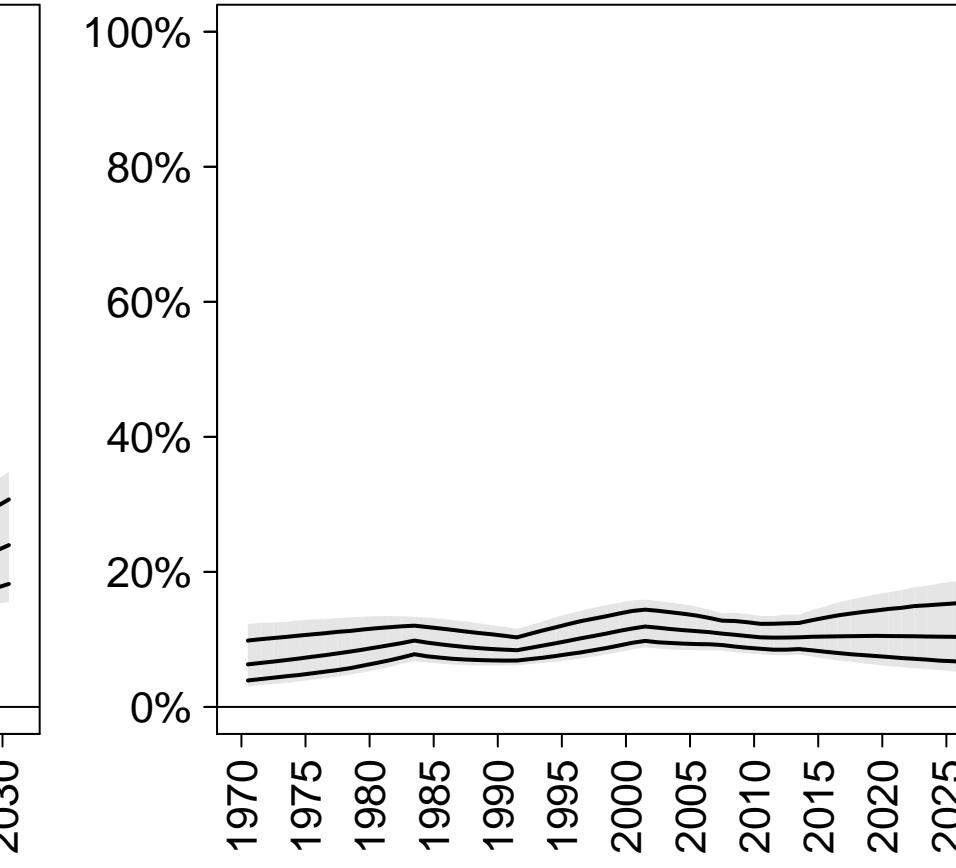
CP (any)



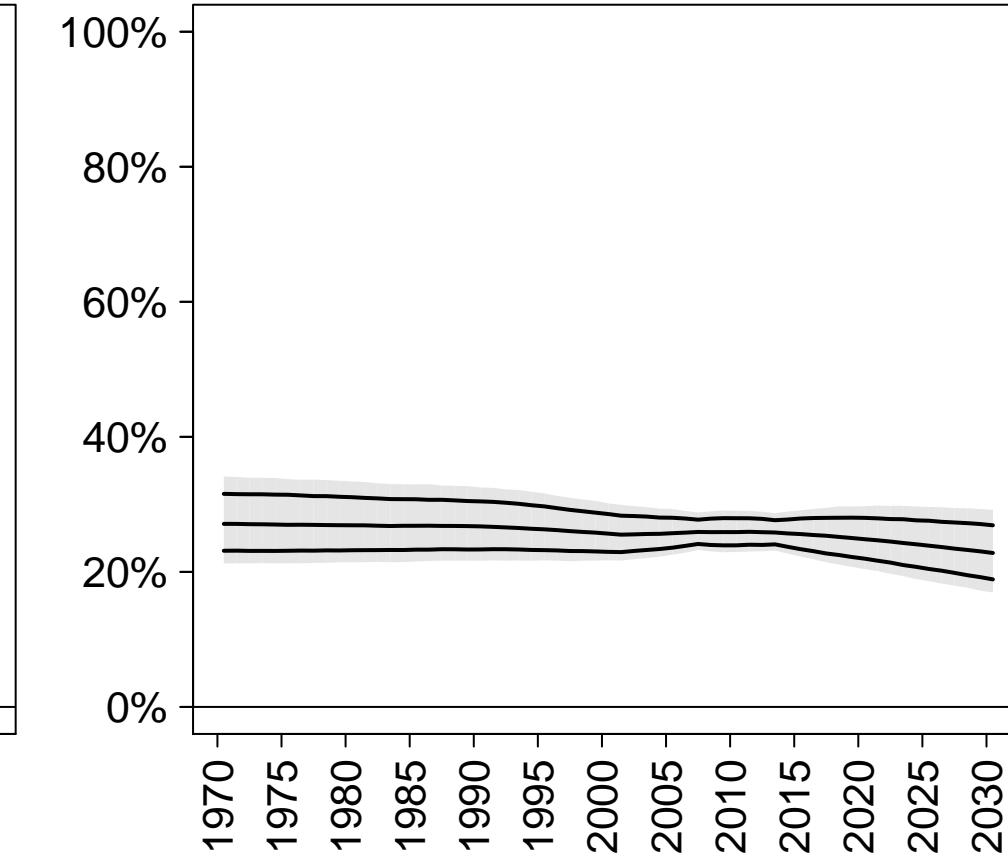
CP (modern)



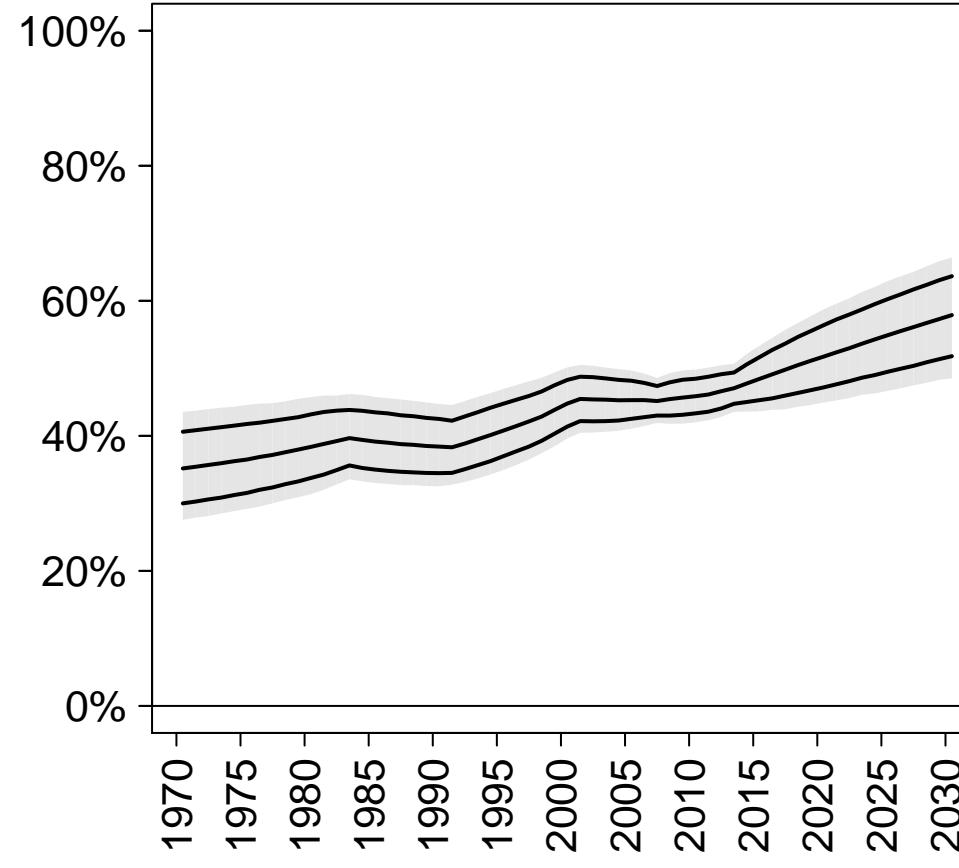
CP (traditional)



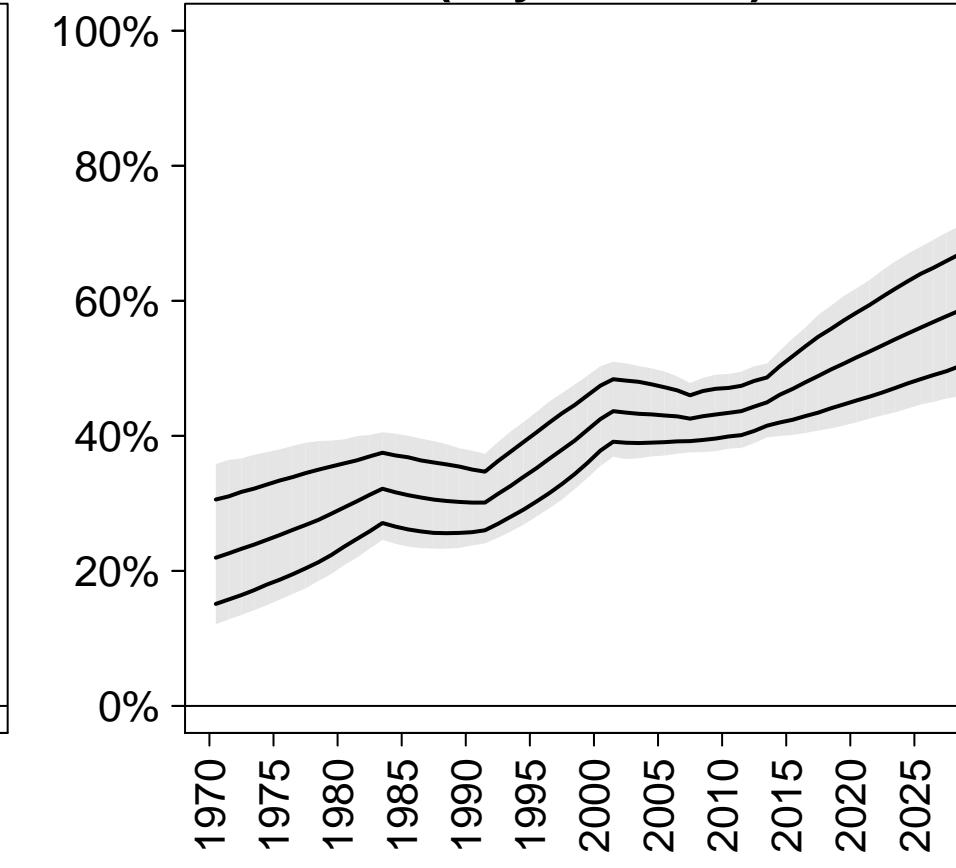
Unmet need



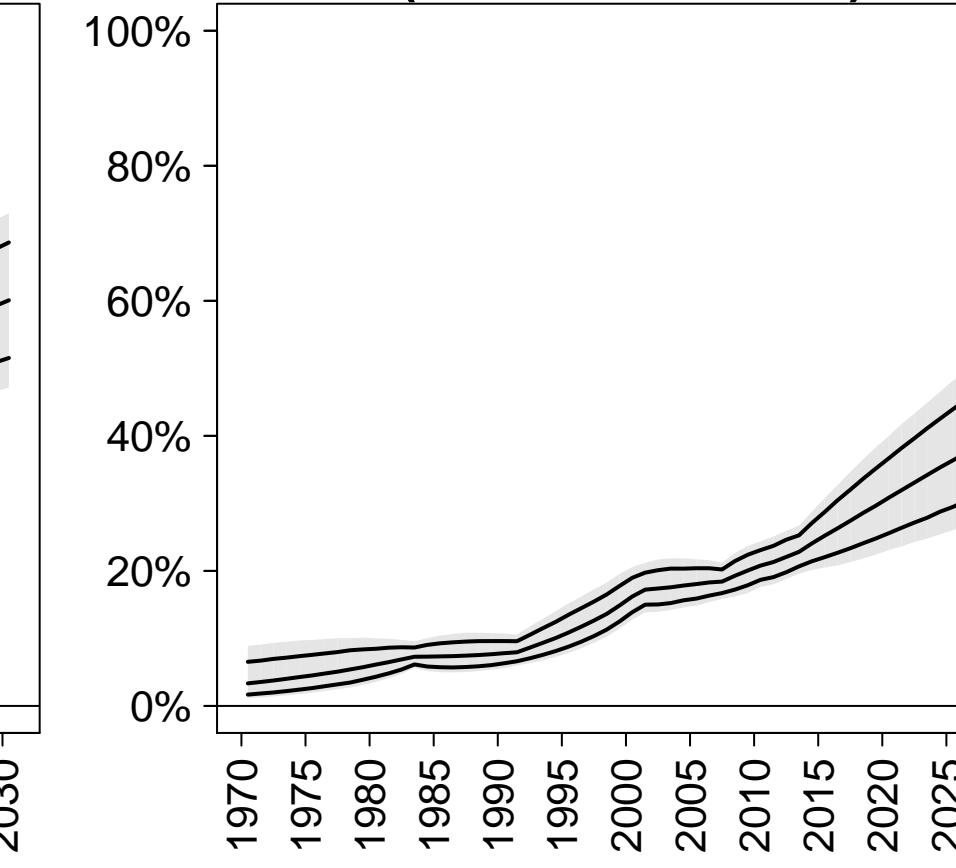
Total demand



**Demand satisfied
(any method)**

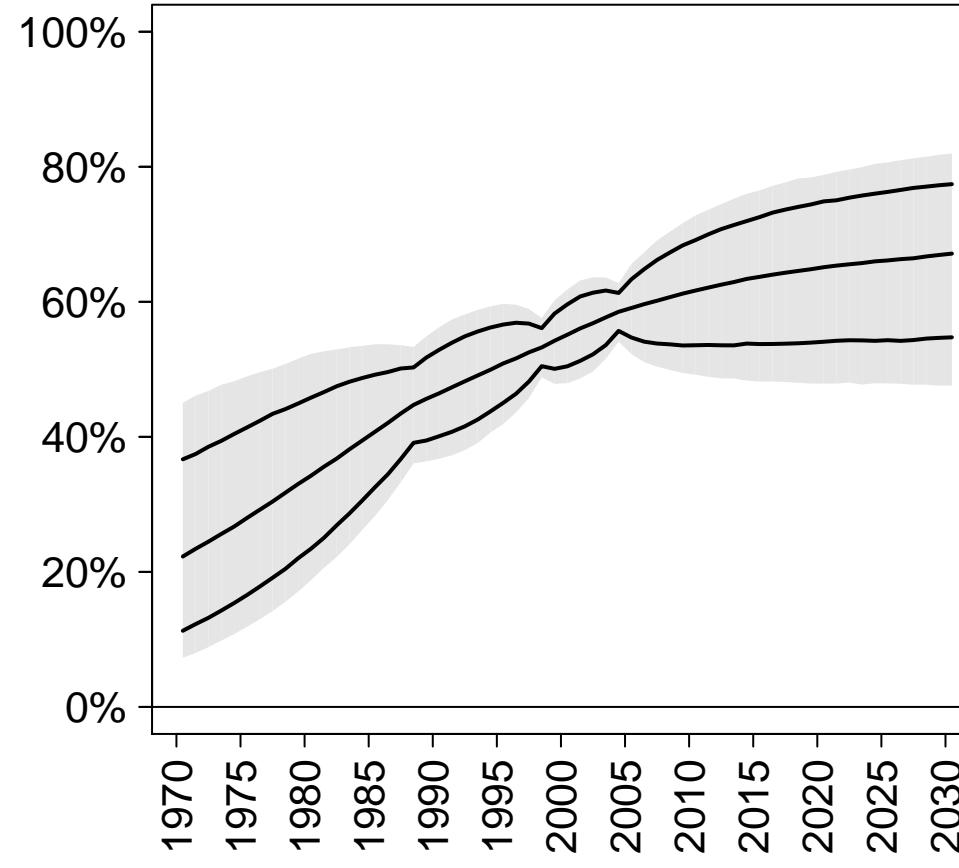


**Demand satisfied
(modern methods)**

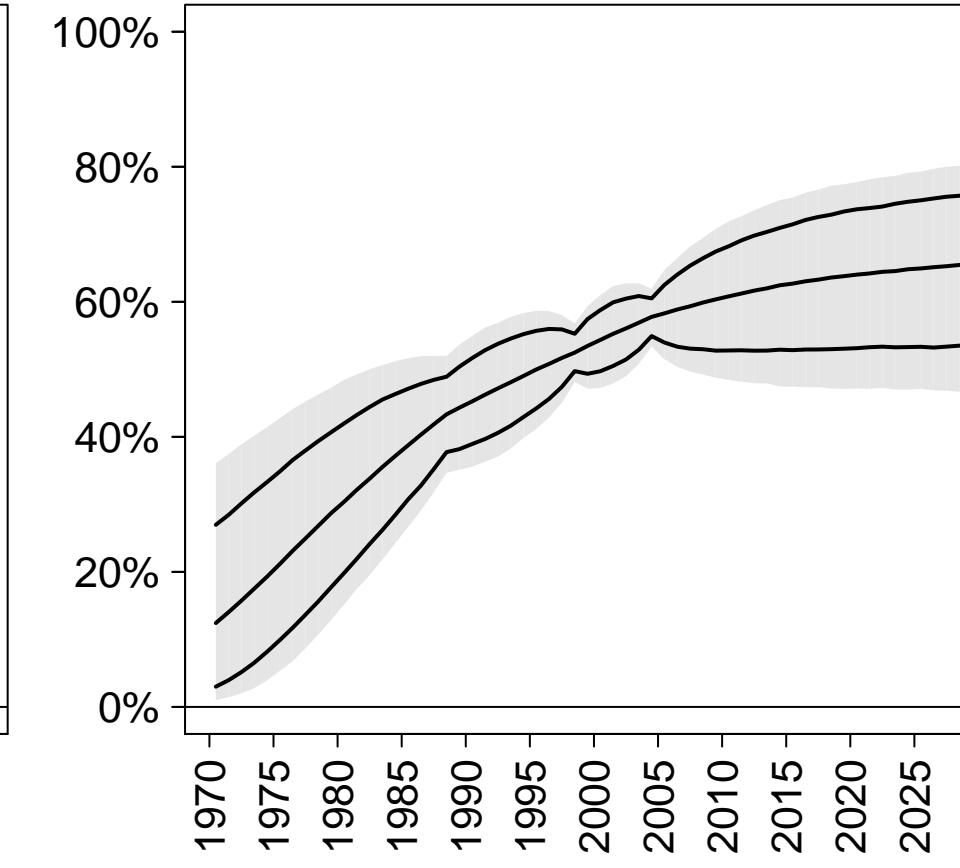


Southern Africa

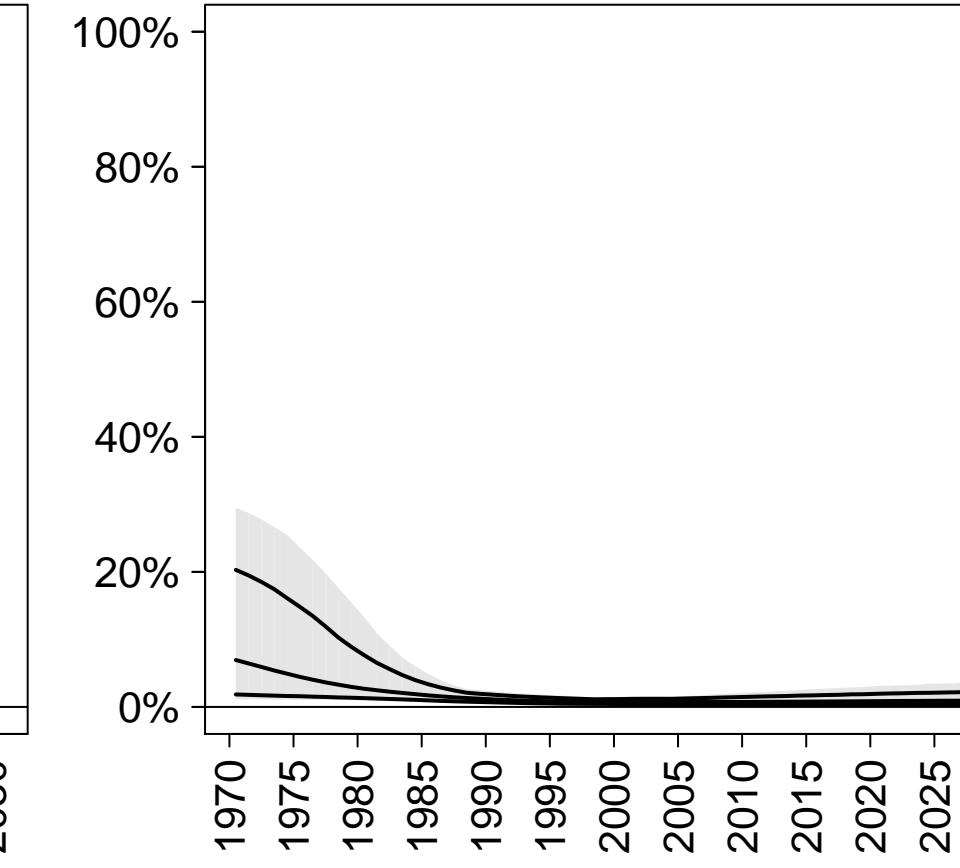
CP (any)



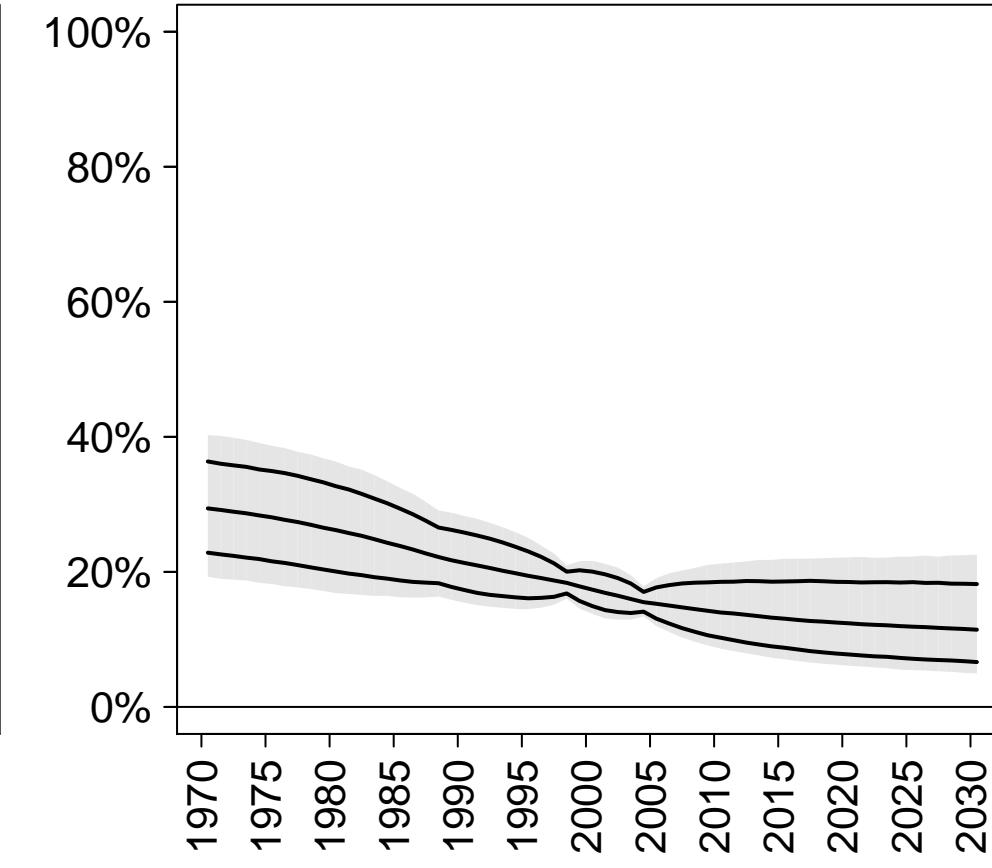
CP (modern)



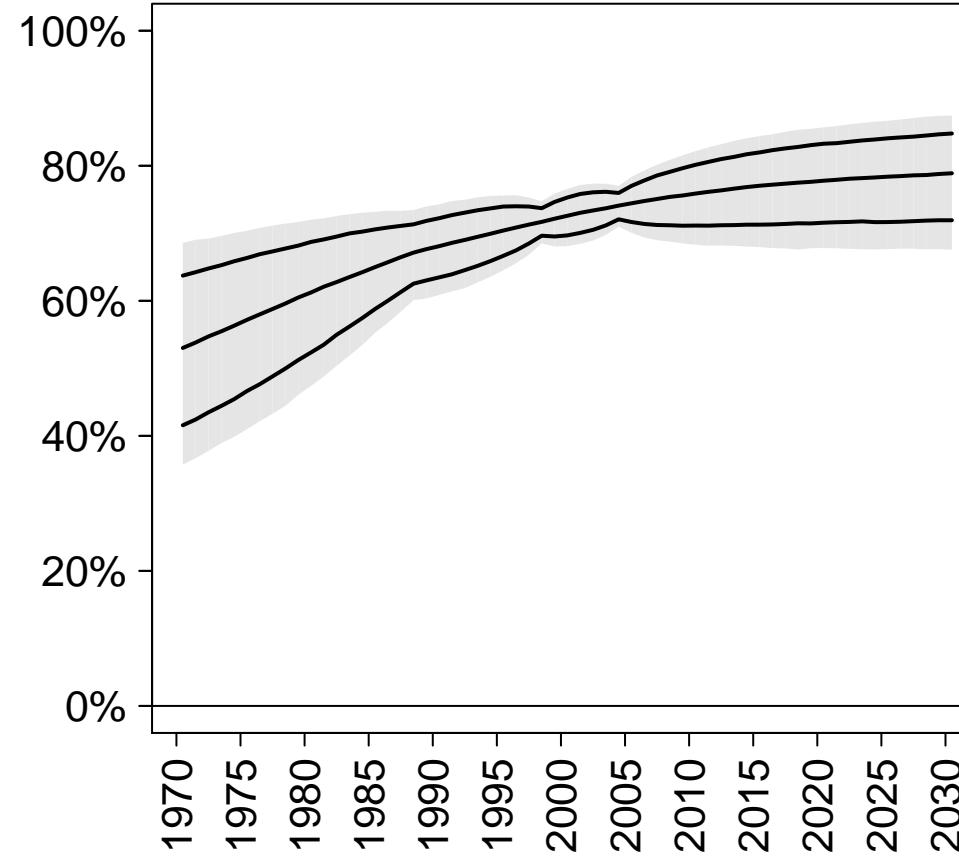
CP (traditional)



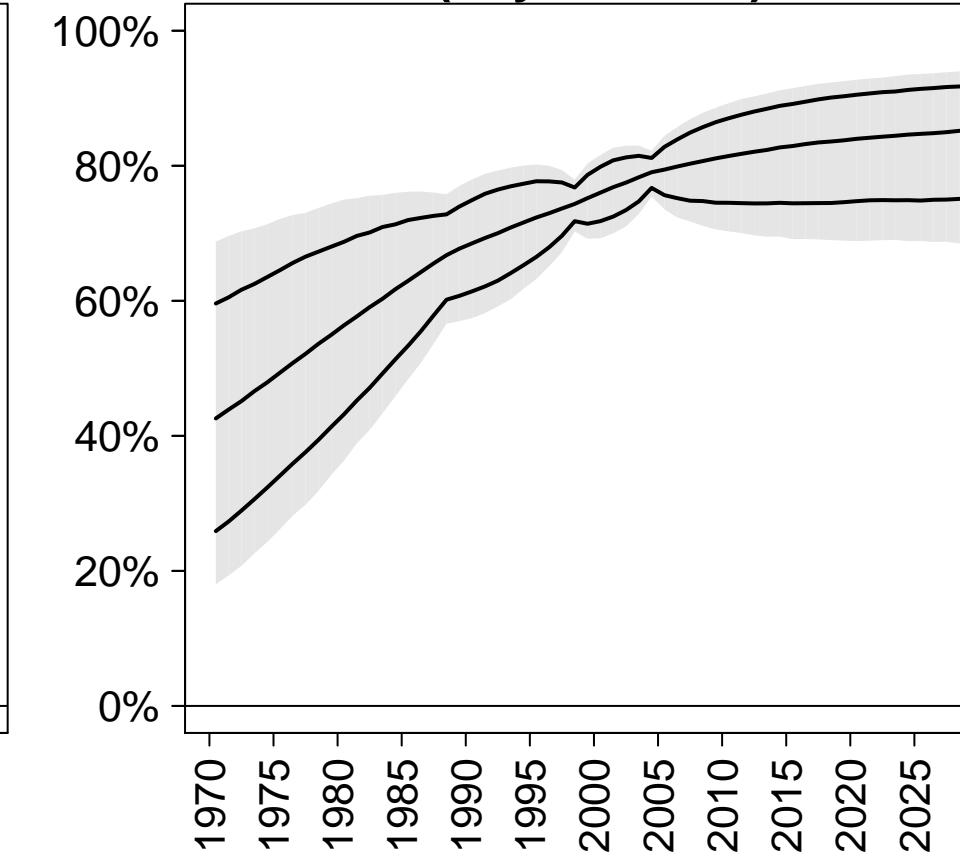
Unmet need



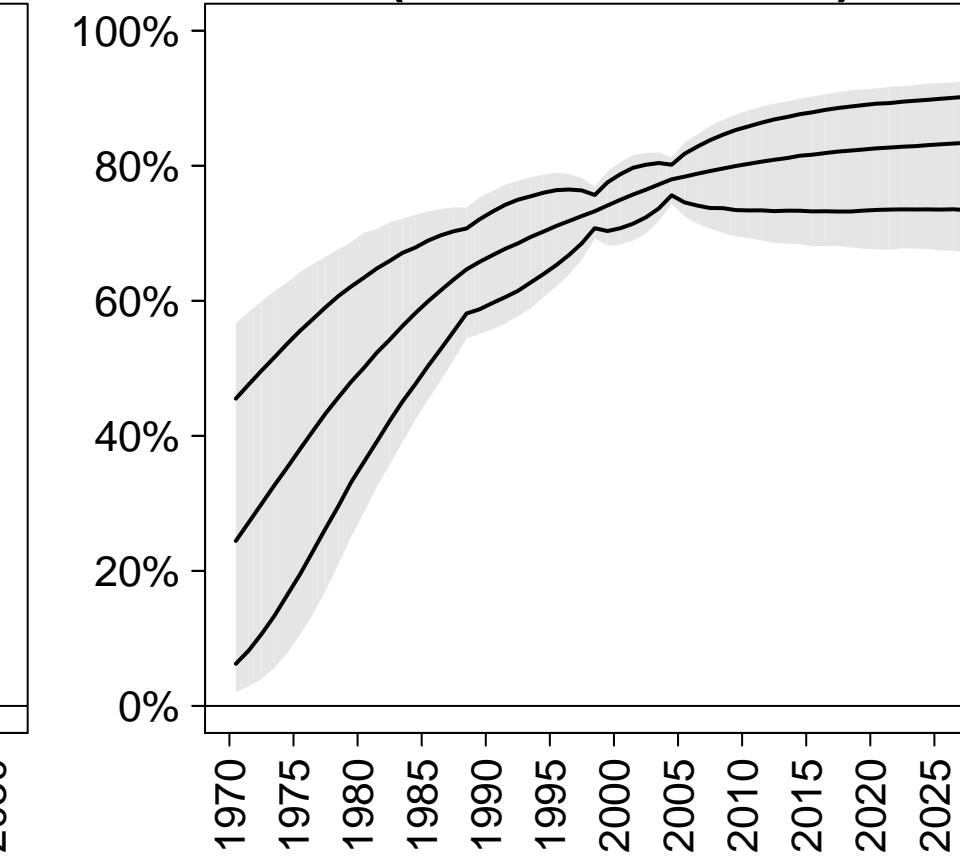
Total demand



**Demand satisfied
(any method)**

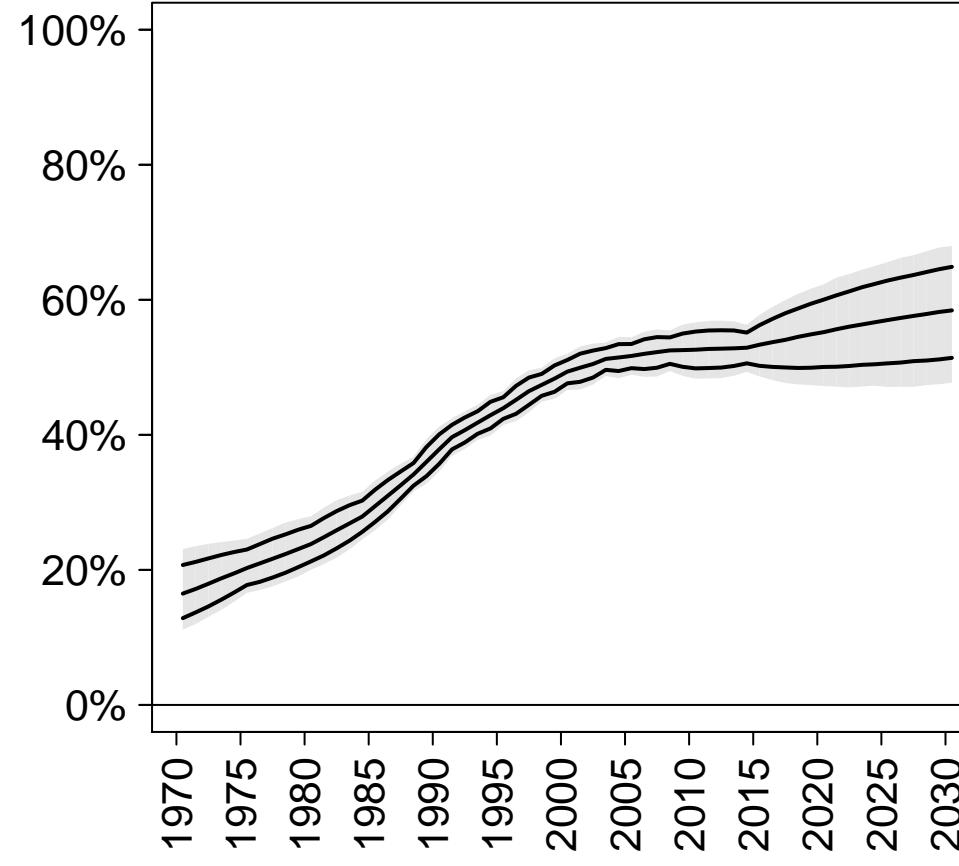


**Demand satisfied
(modern methods)**

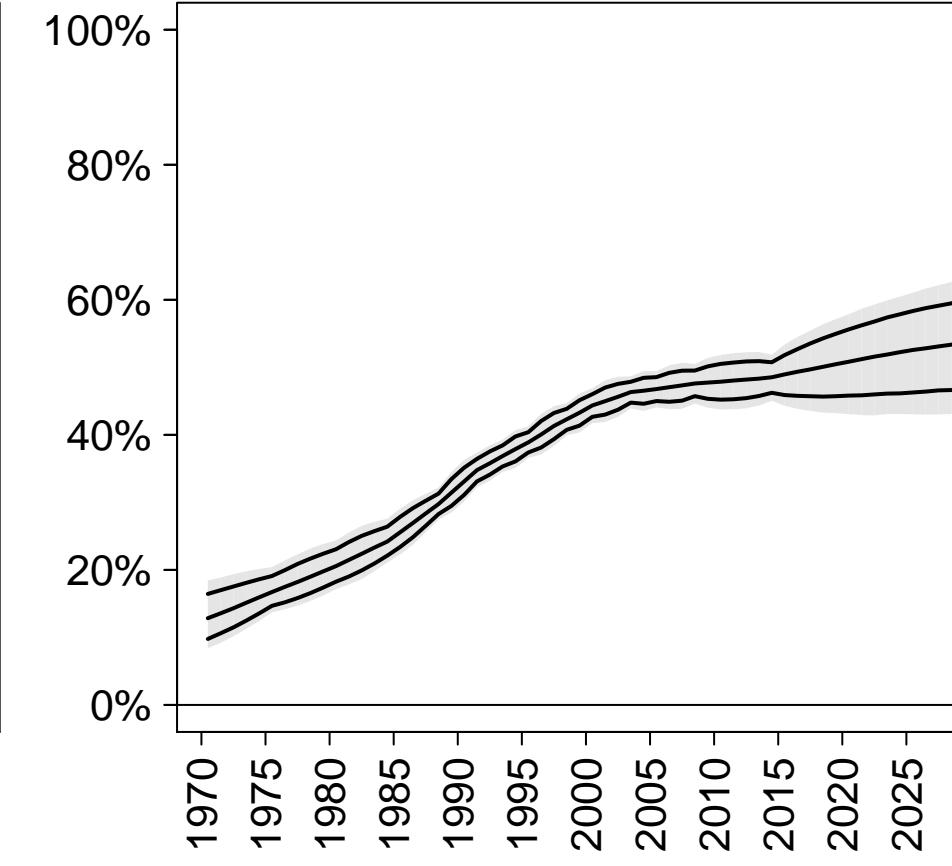


Northern Africa

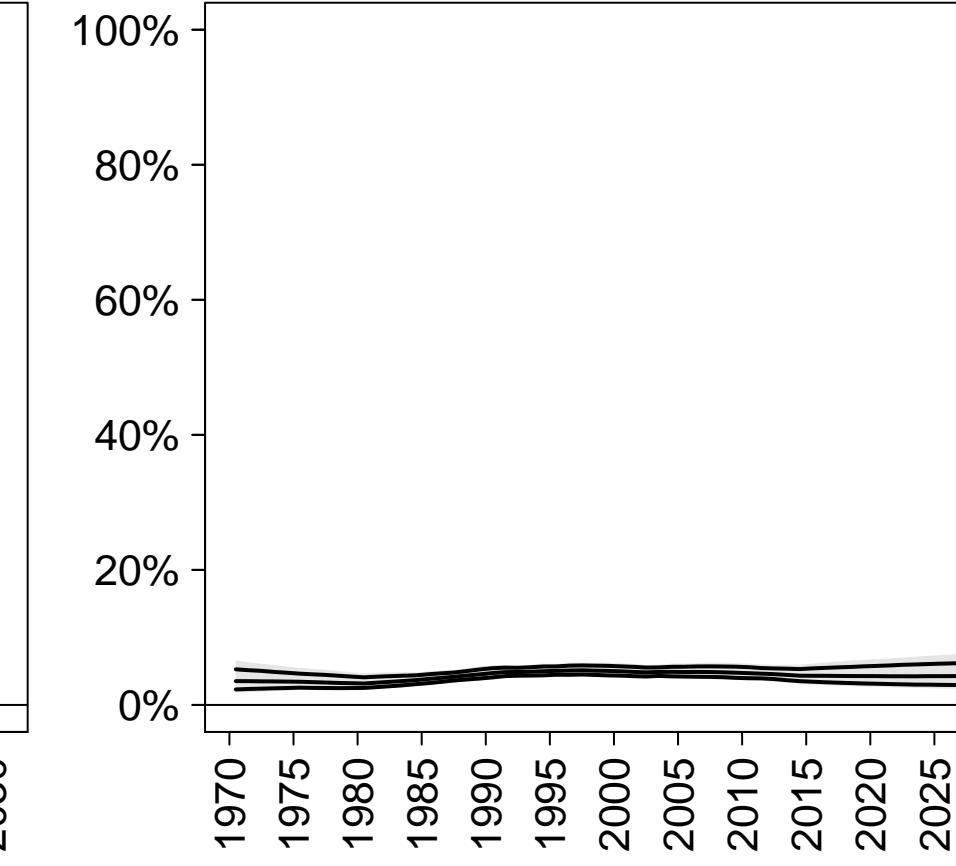
CP (any)



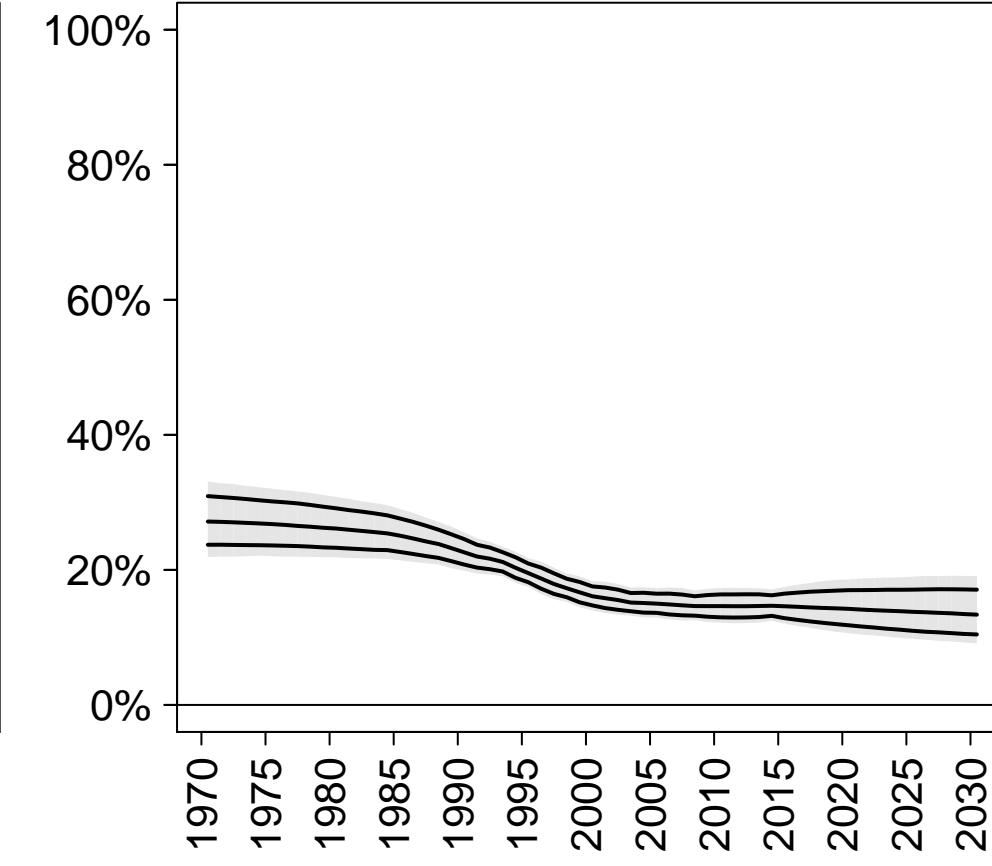
CP (modern)



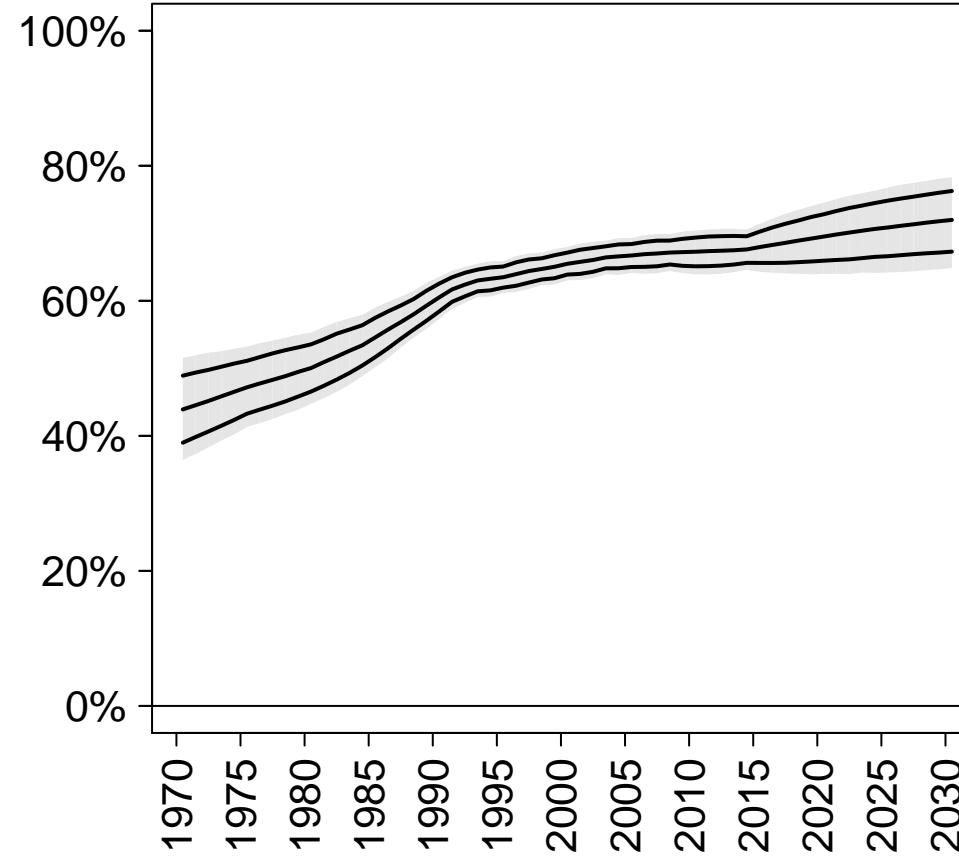
CP (traditional)



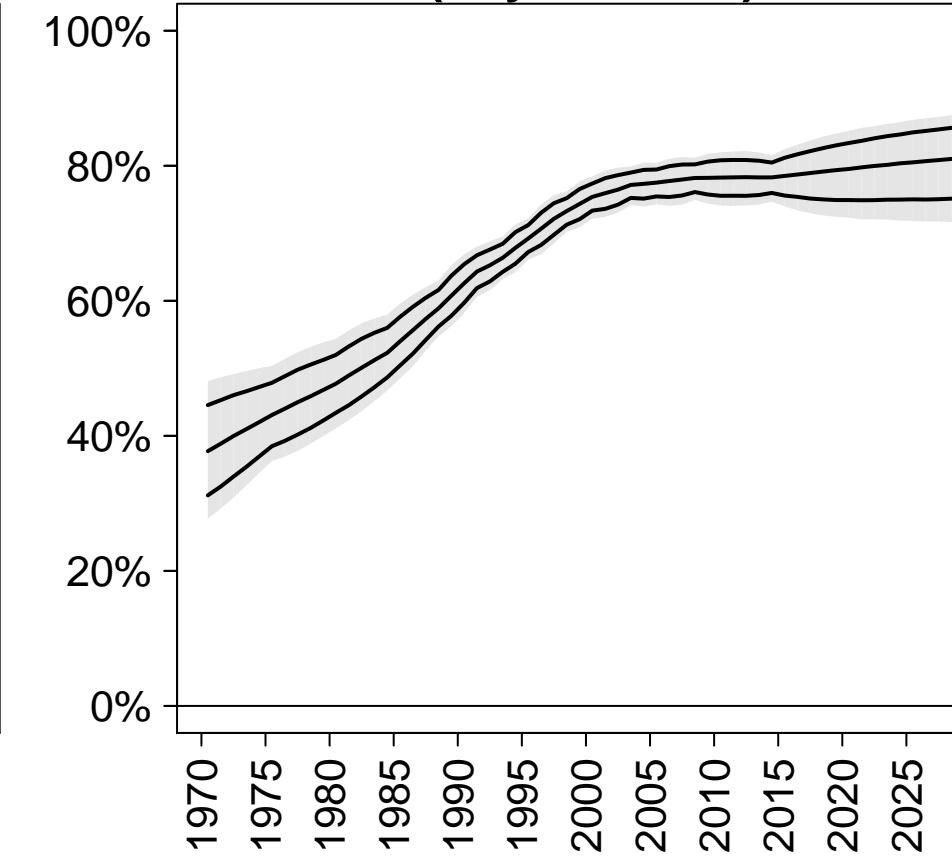
Unmet need



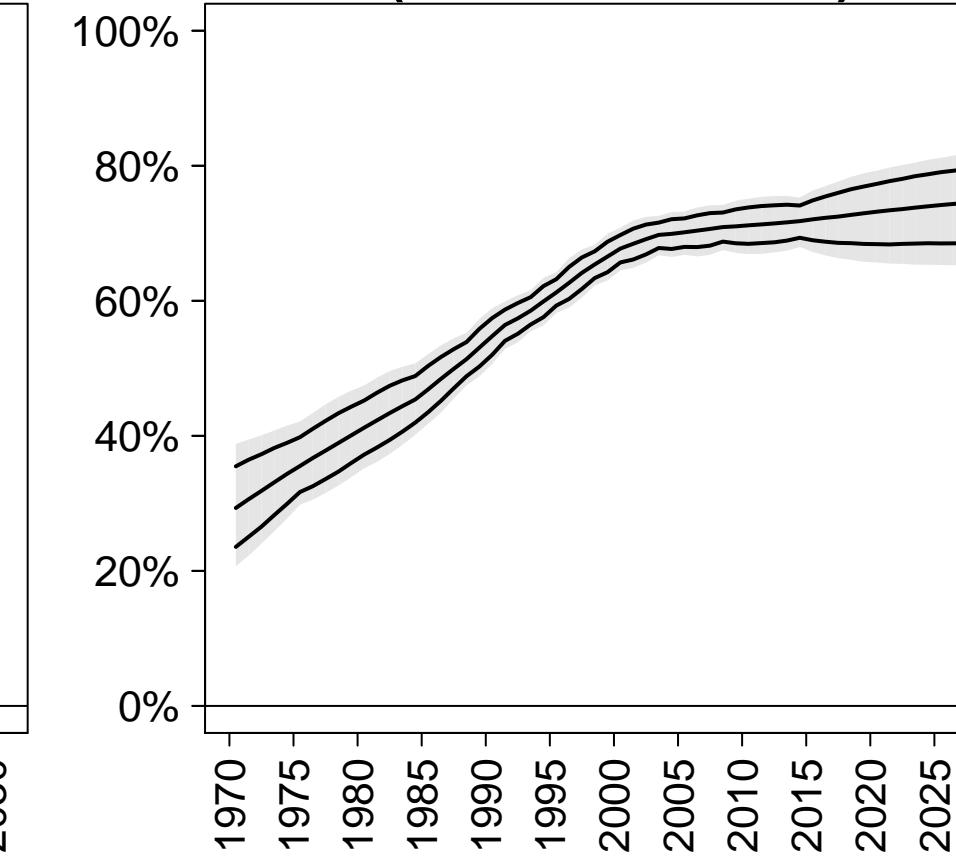
Total demand



**Demand satisfied
(any method)**

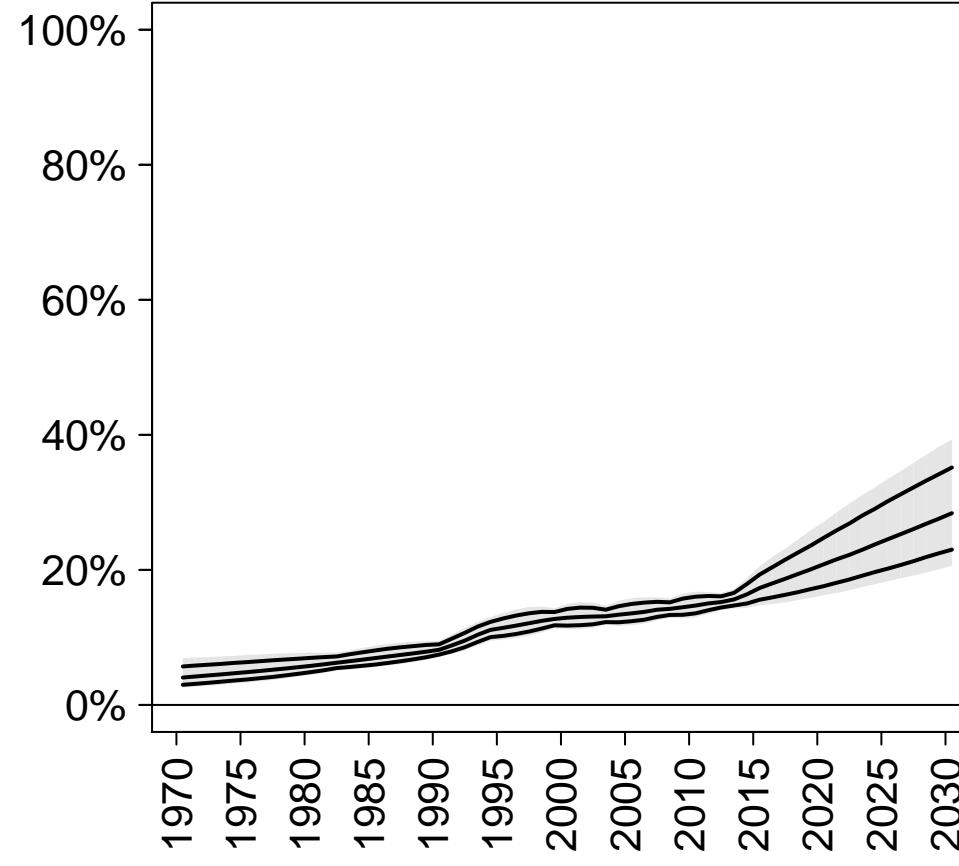


**Demand satisfied
(modern methods)**

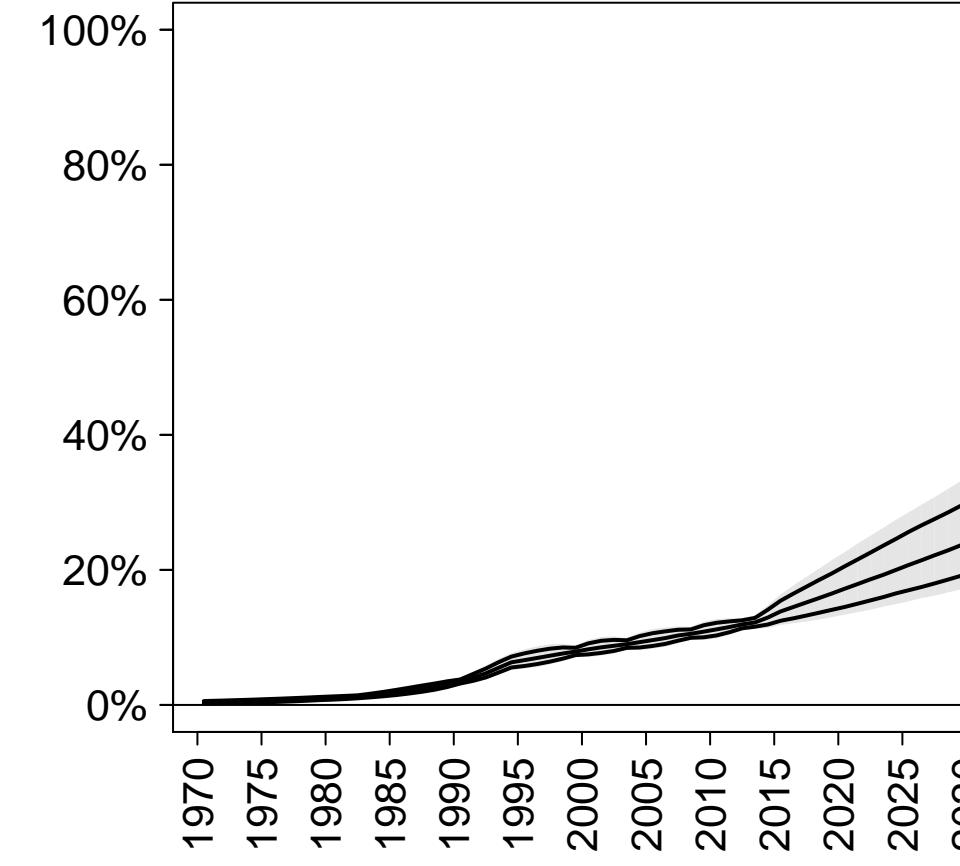


Western Africa

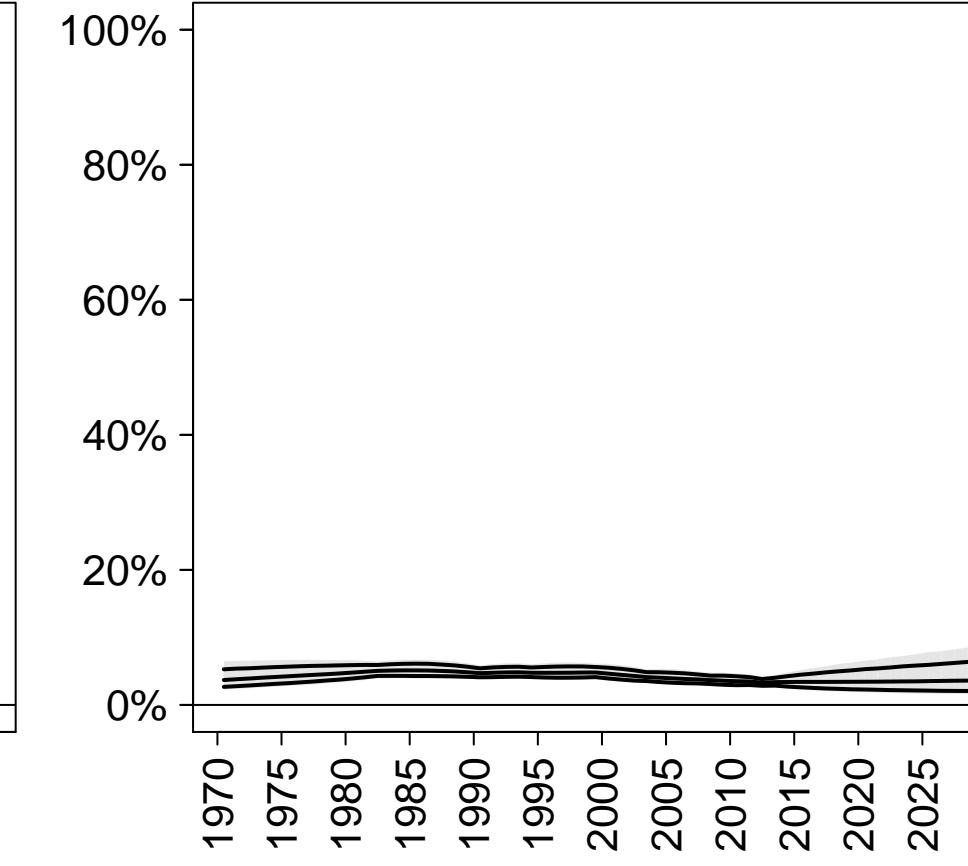
CP (any)



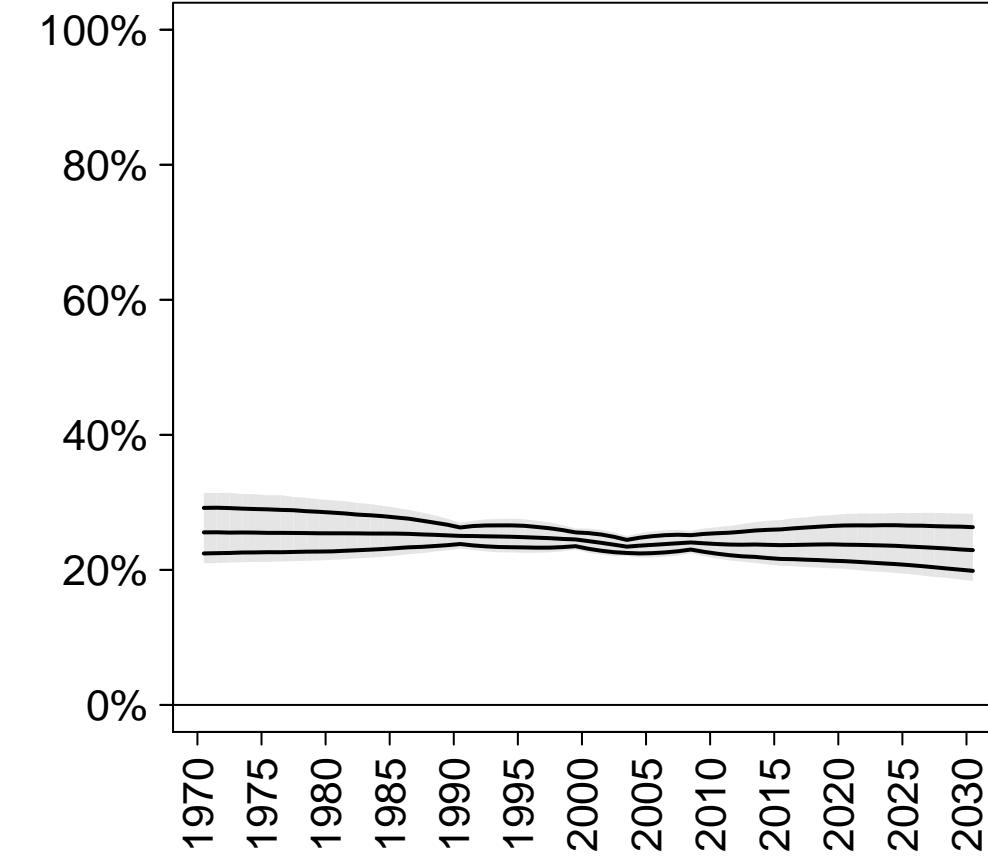
CP (modern)



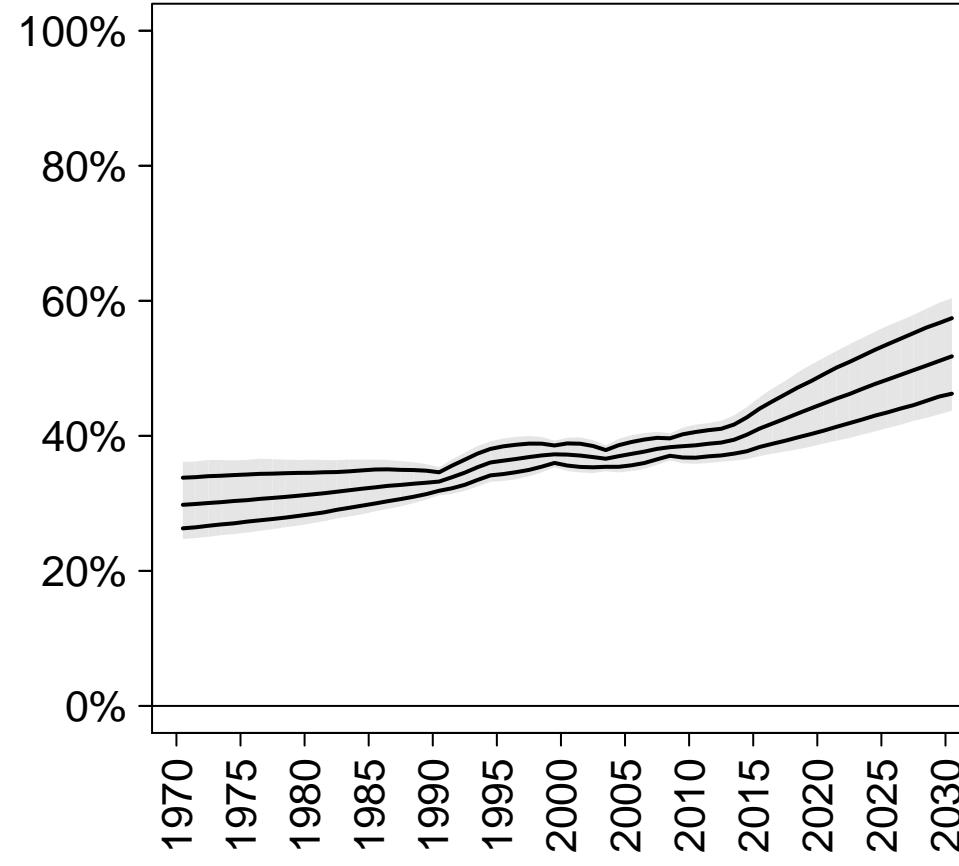
CP (traditional)



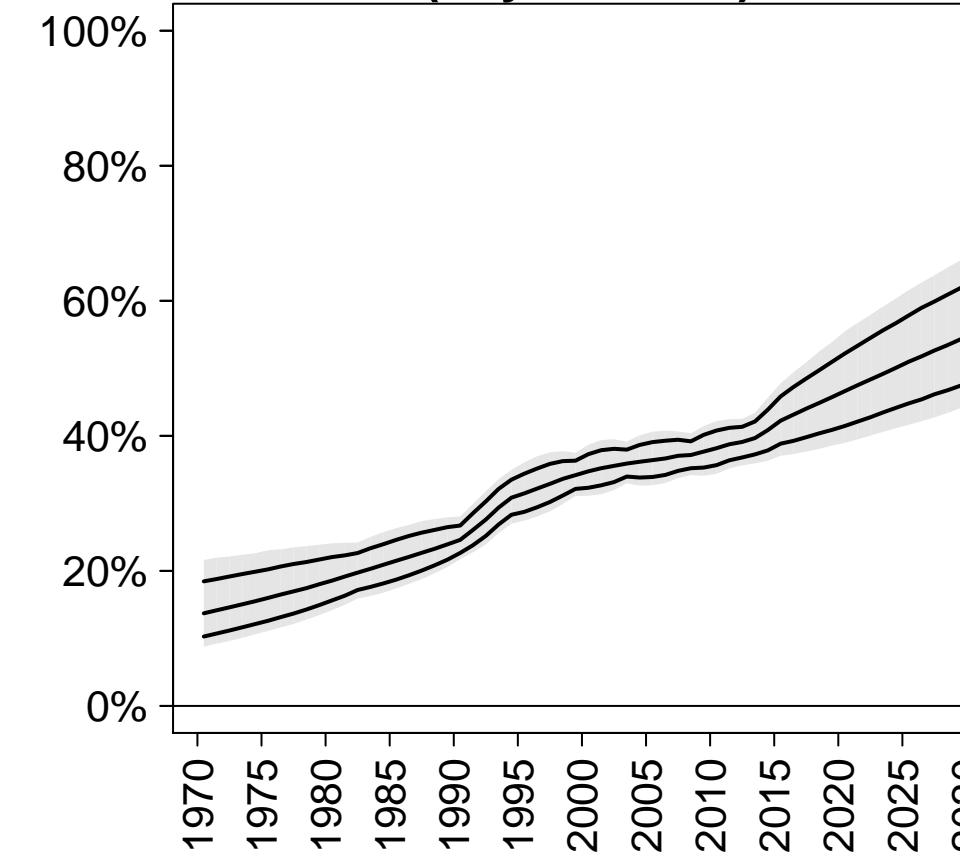
Unmet need



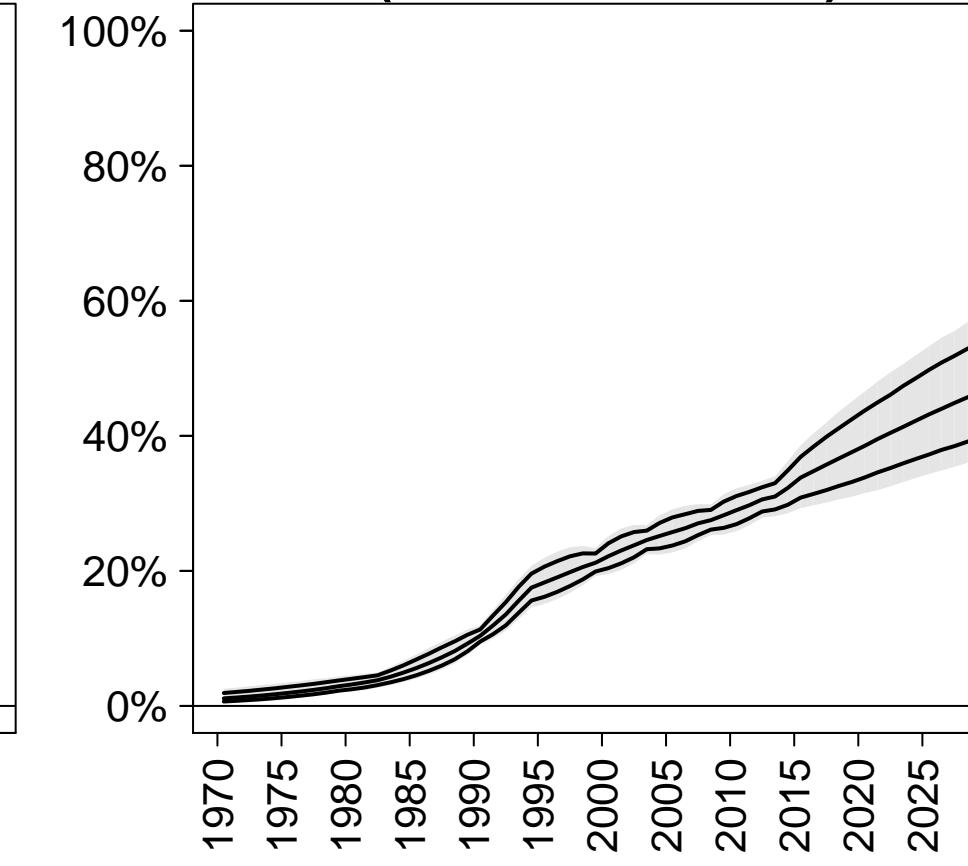
Total demand



**Demand satisfied
(any method)**

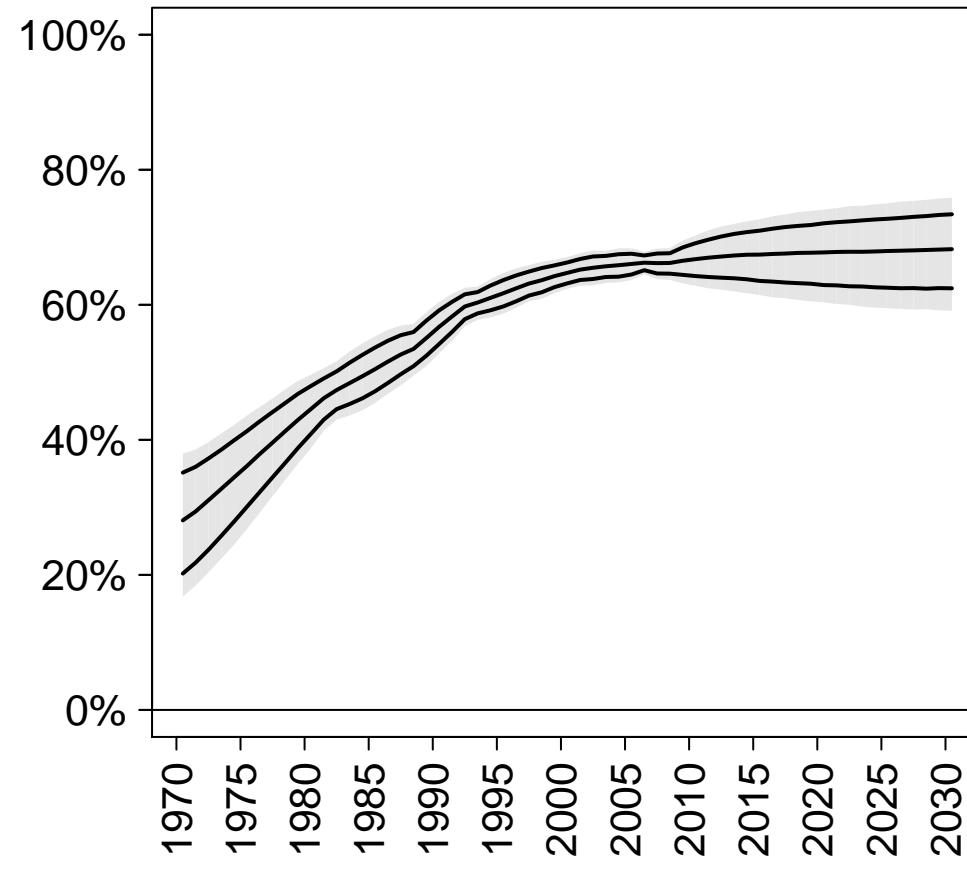


**Demand satisfied
(modern methods)**

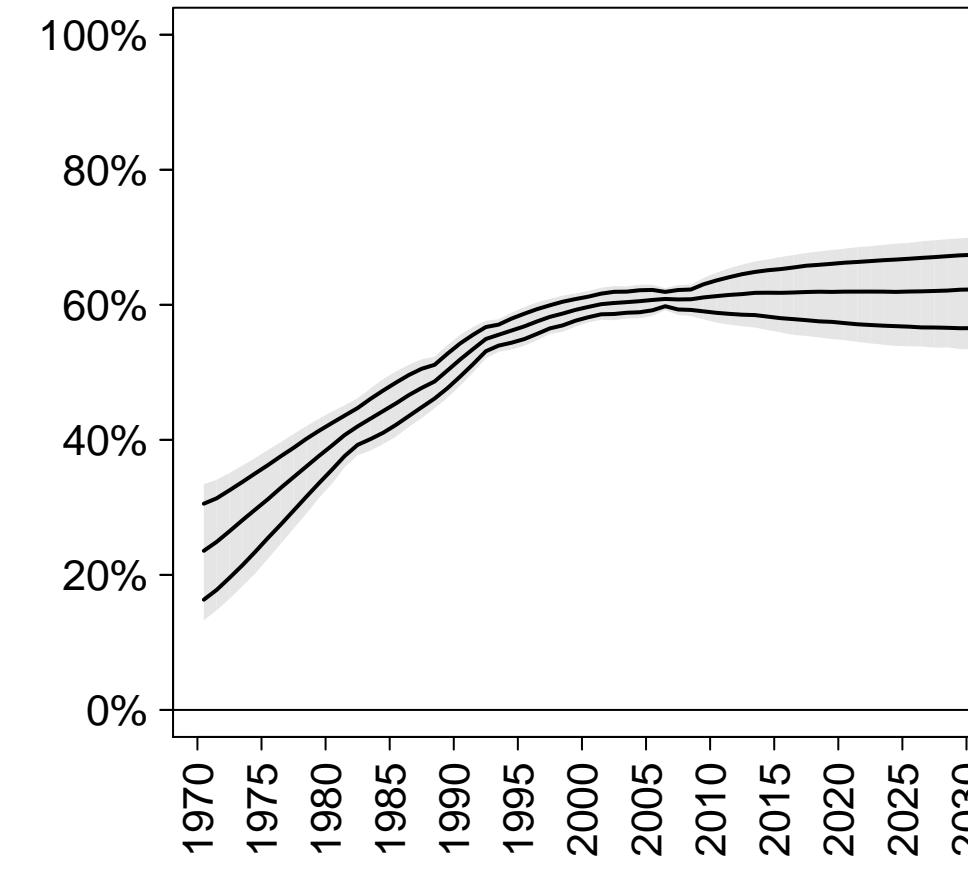


Asia

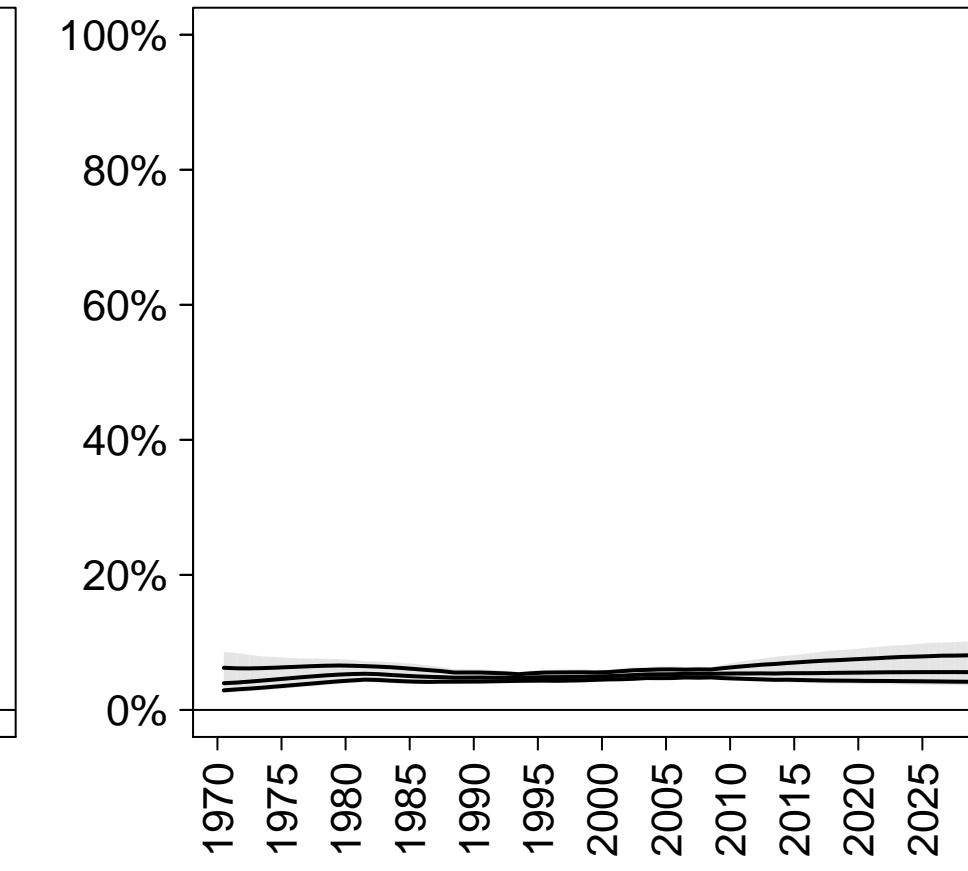
CP (any)



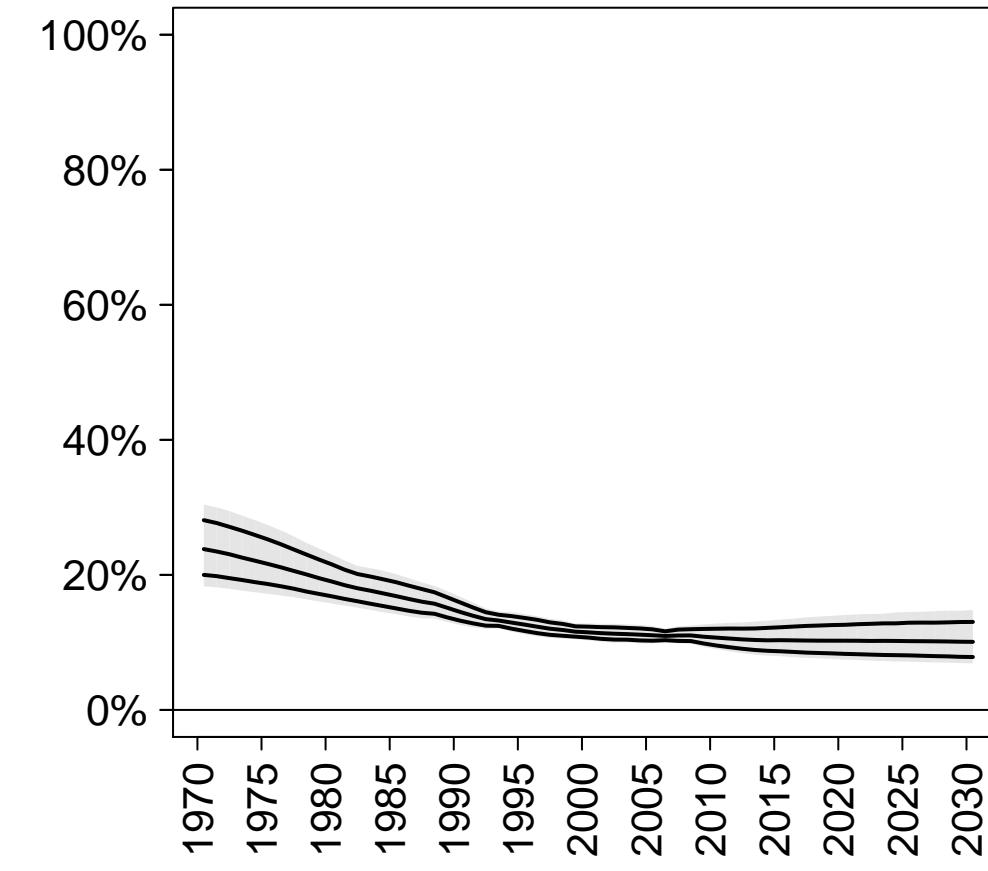
CP (modern)



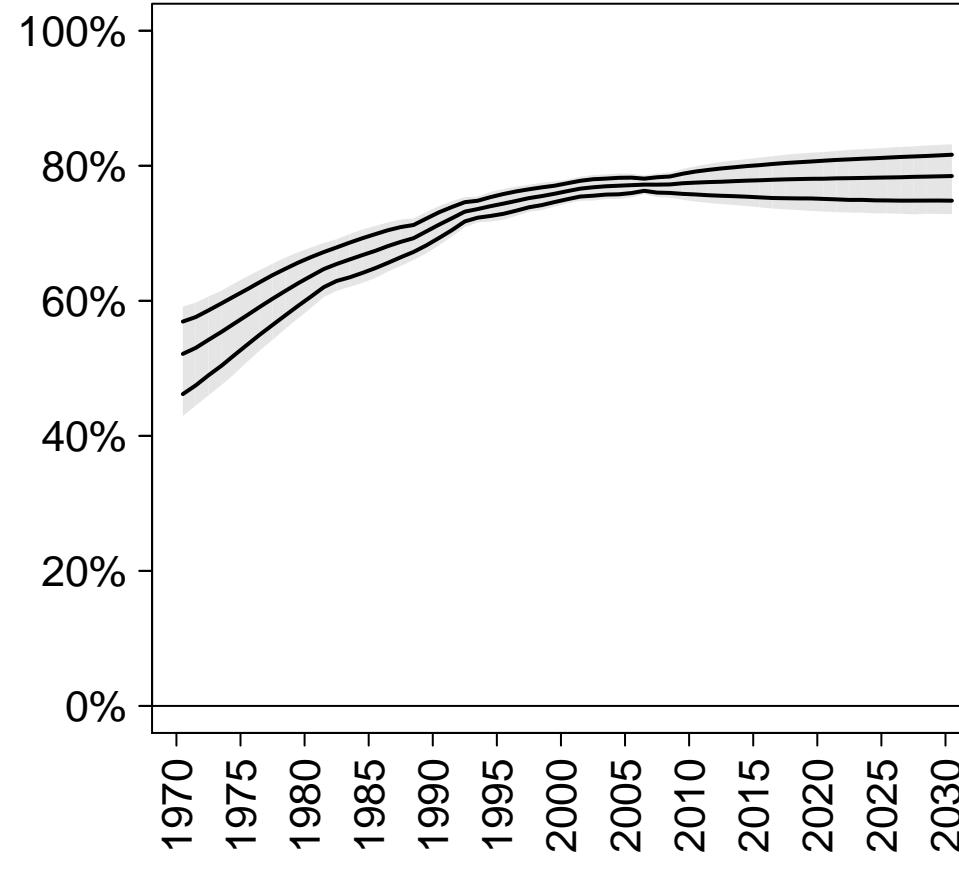
CP (traditional)



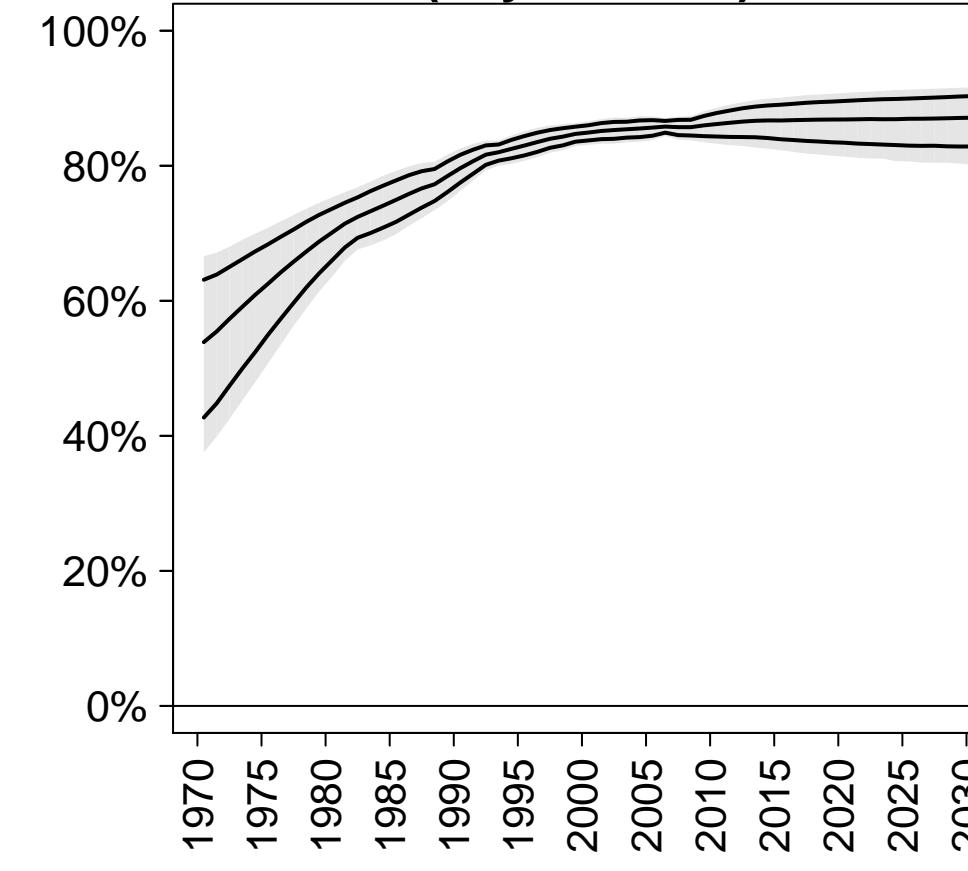
Unmet need



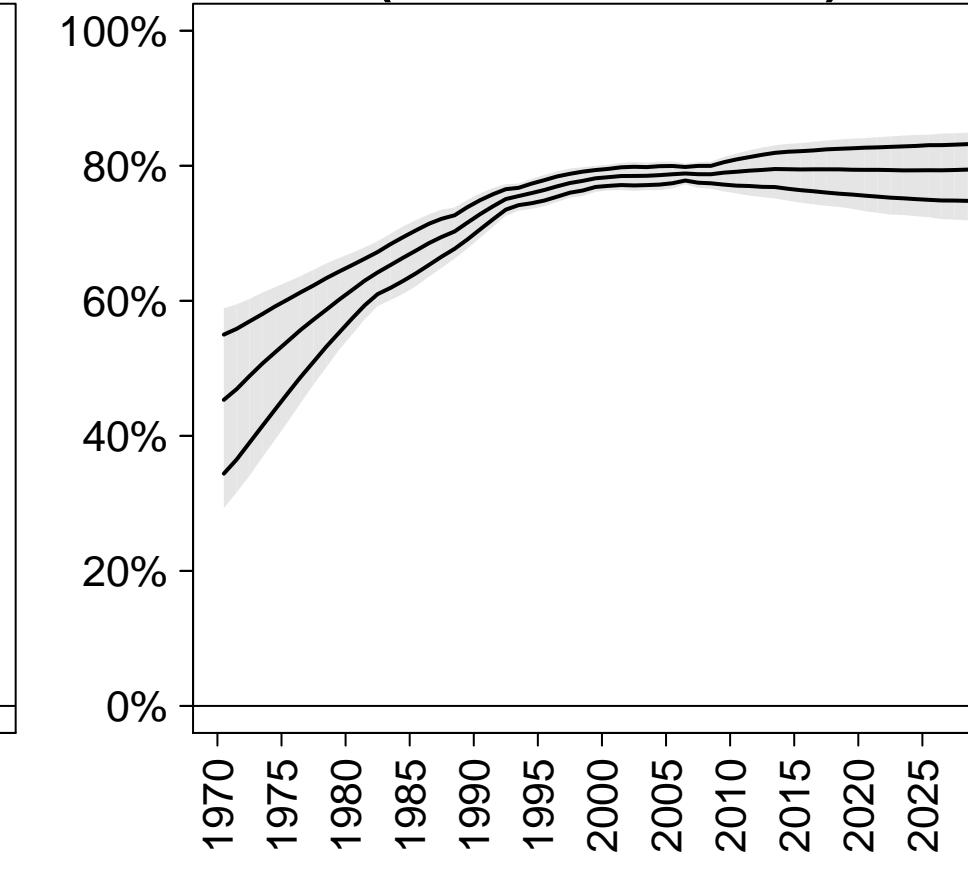
Total demand



**Demand satisfied
(any method)**

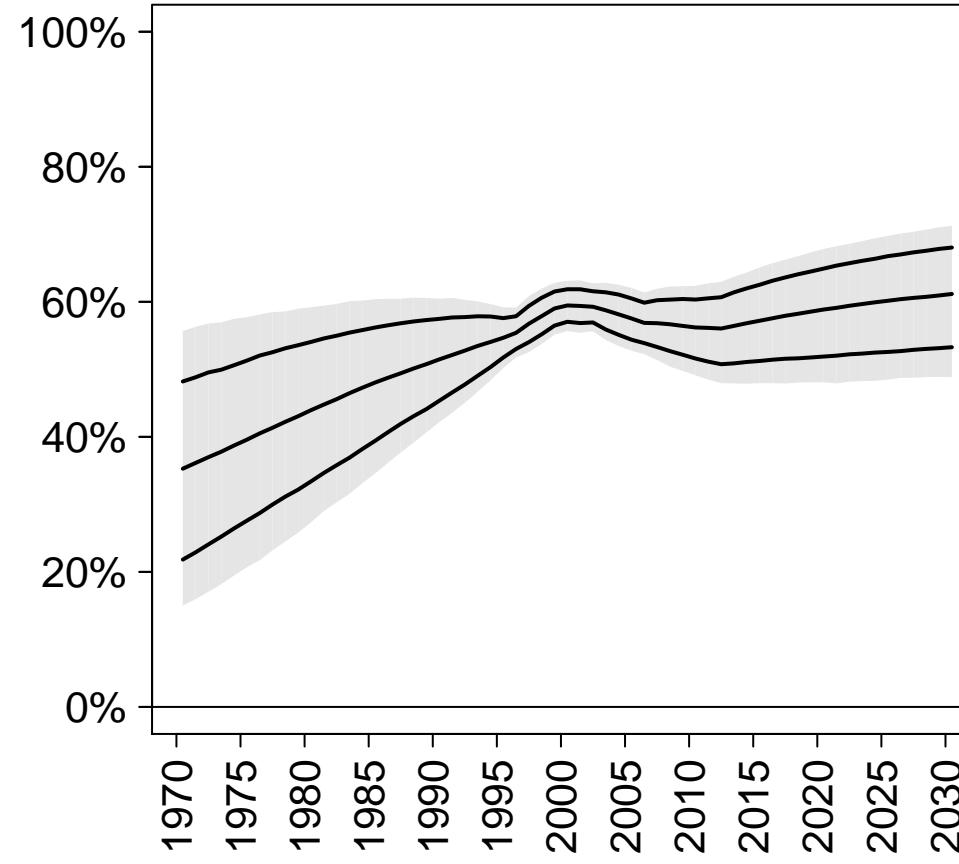


**Demand satisfied
(modern methods)**

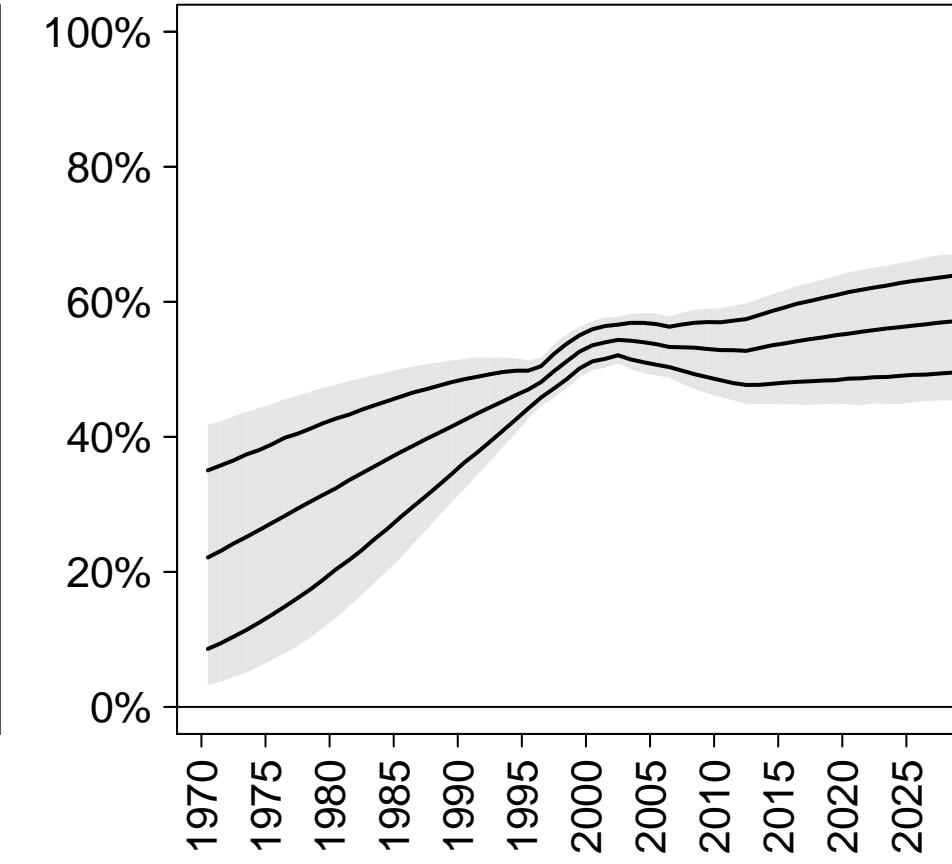


Central Asia

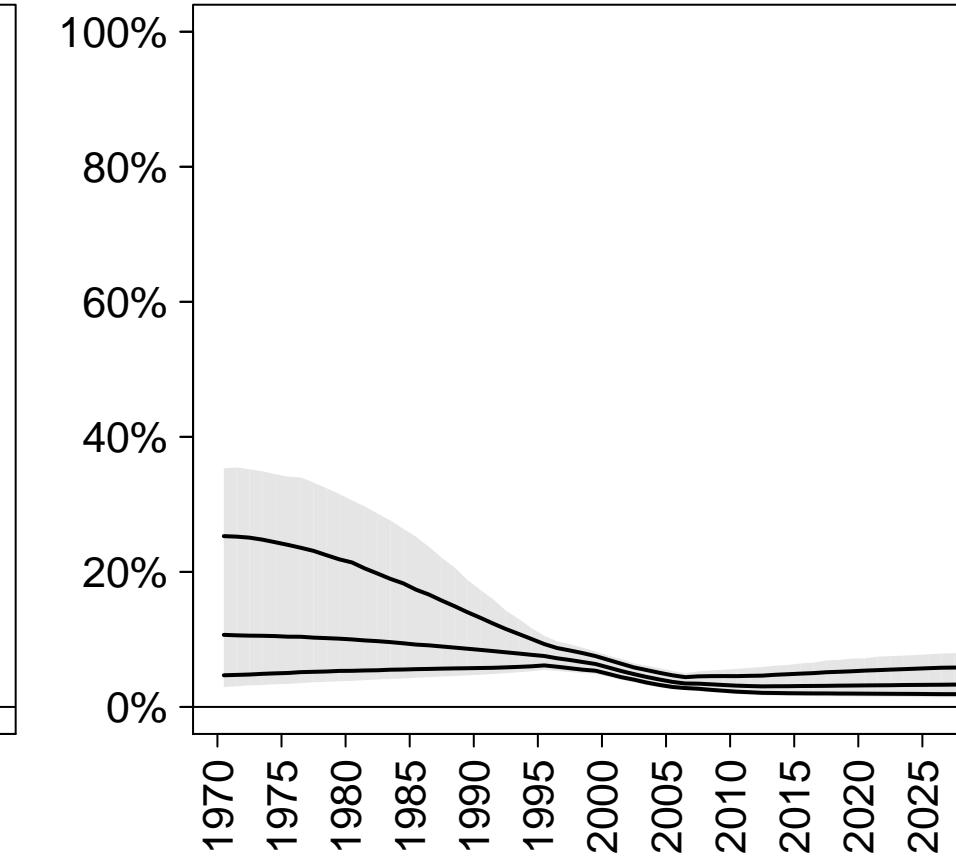
CP (any)



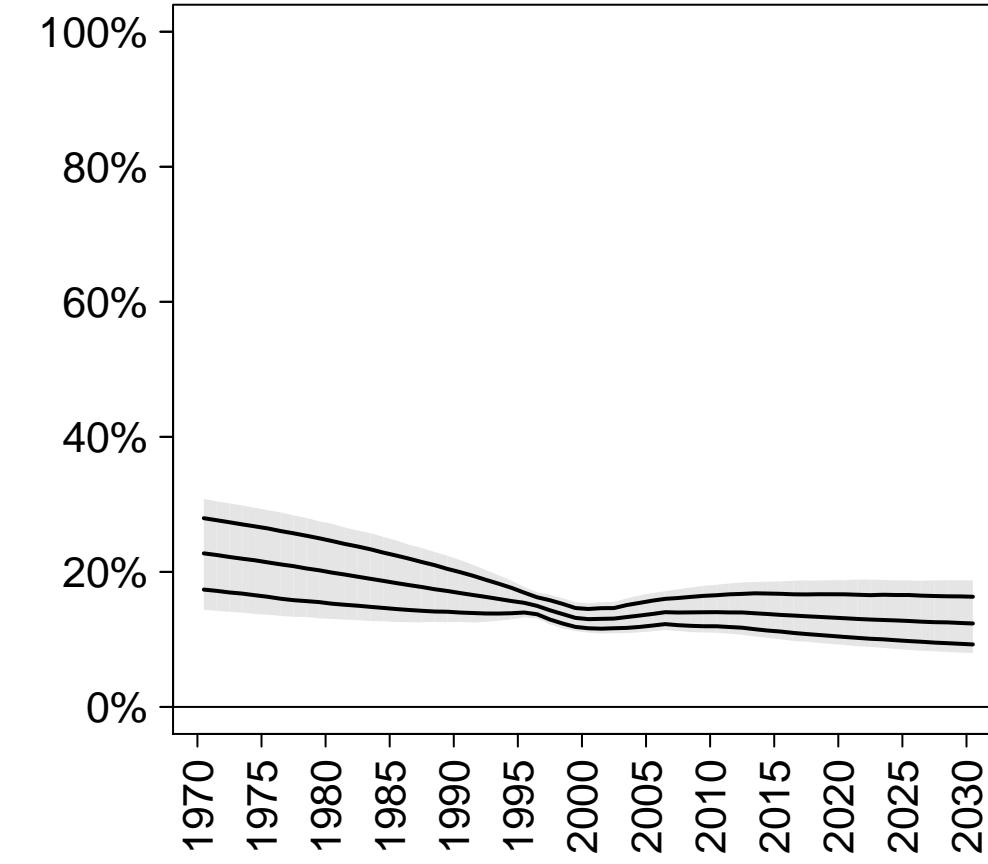
CP (modern)



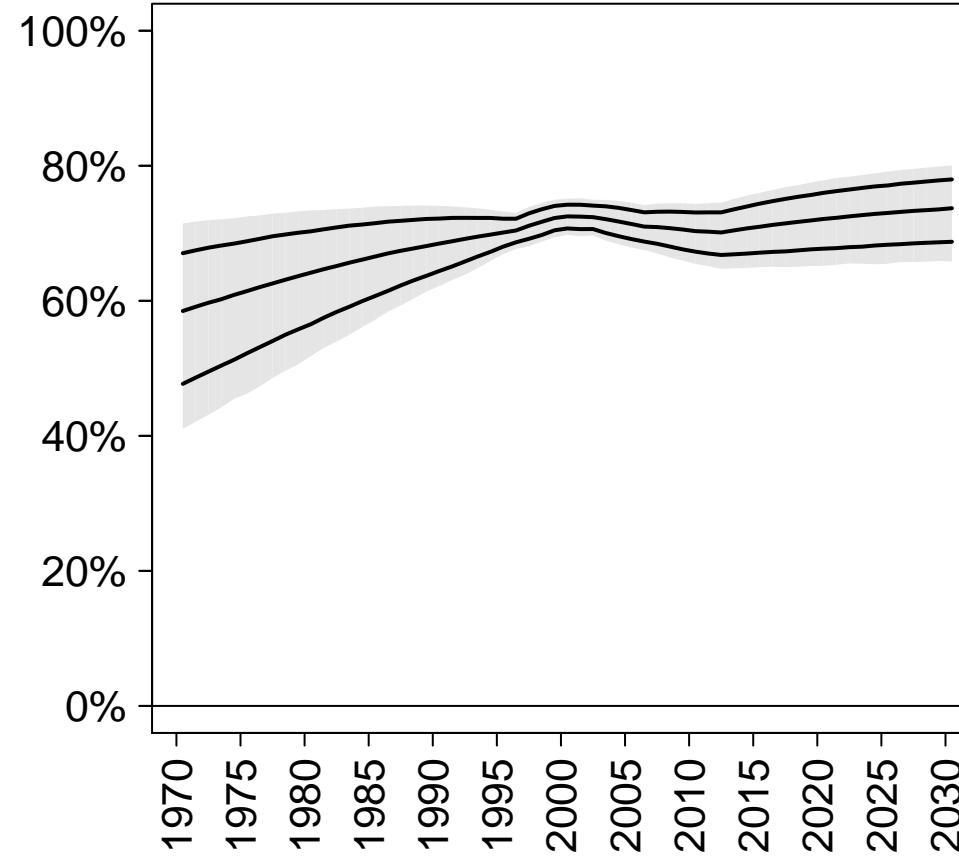
CP (traditional)



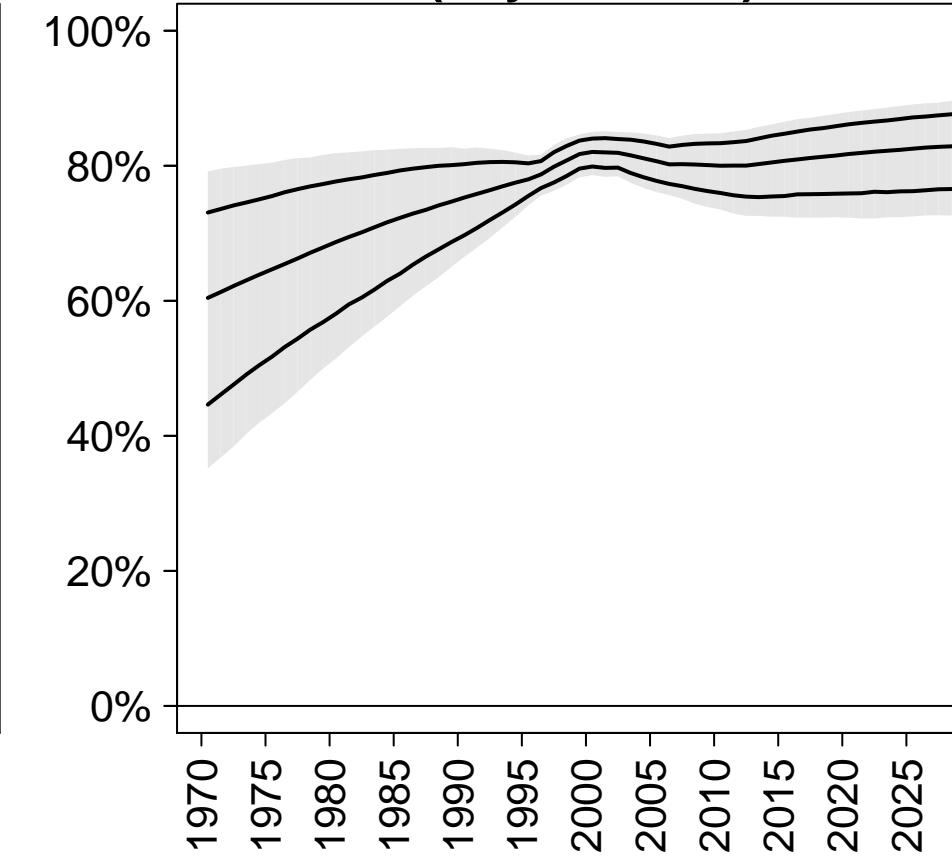
Unmet need



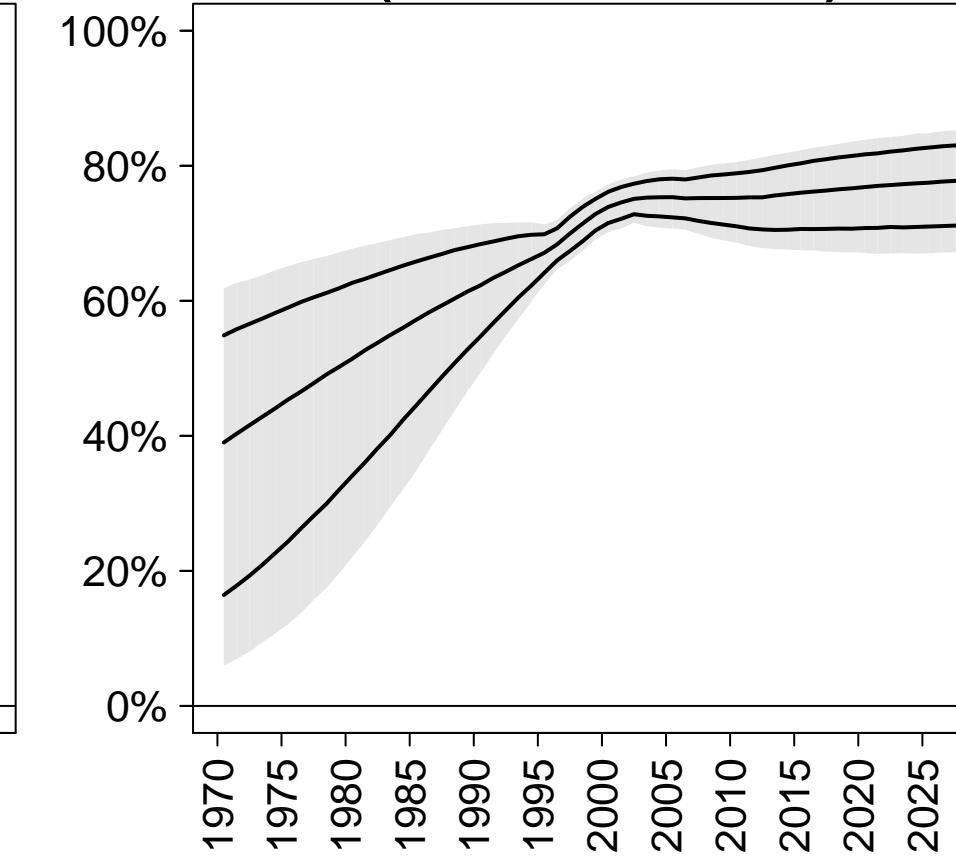
Total demand



**Demand satisfied
(any method)**

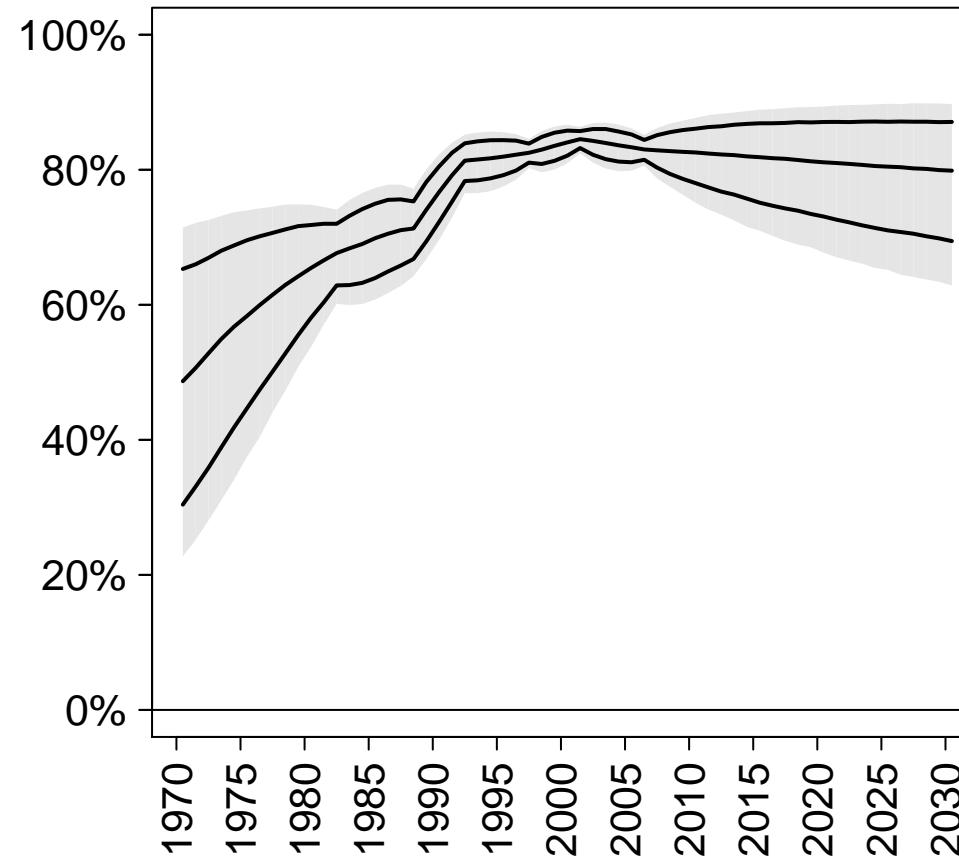


**Demand satisfied
(modern methods)**

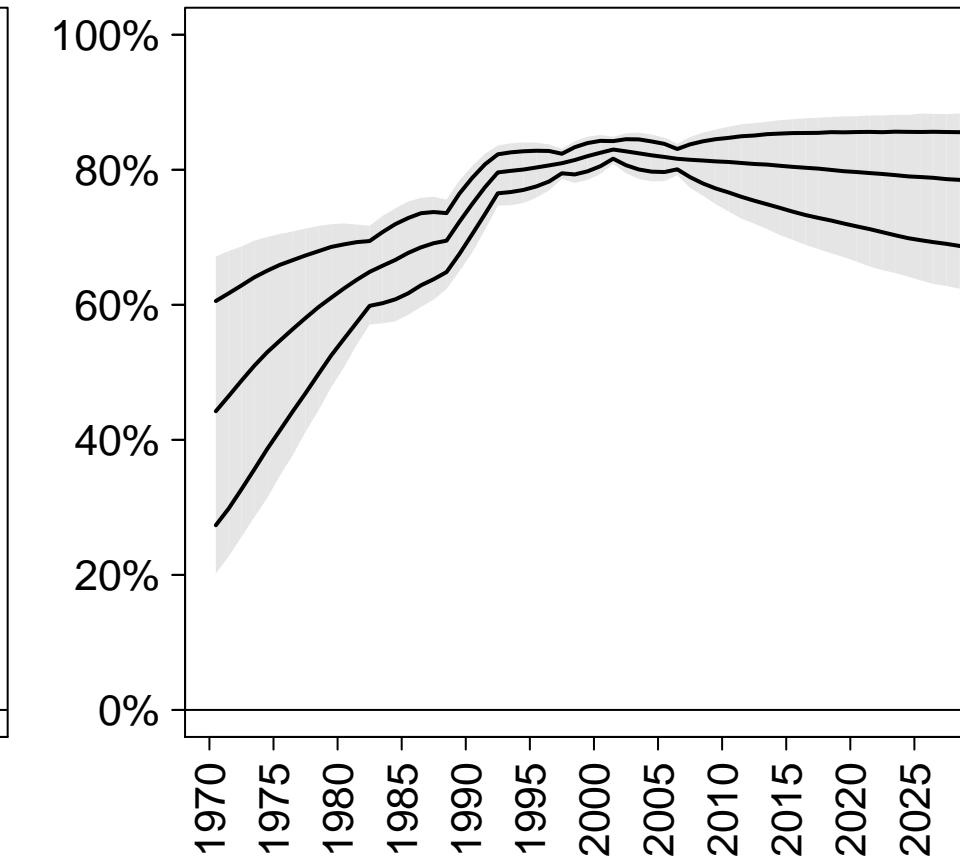


Eastern Asia

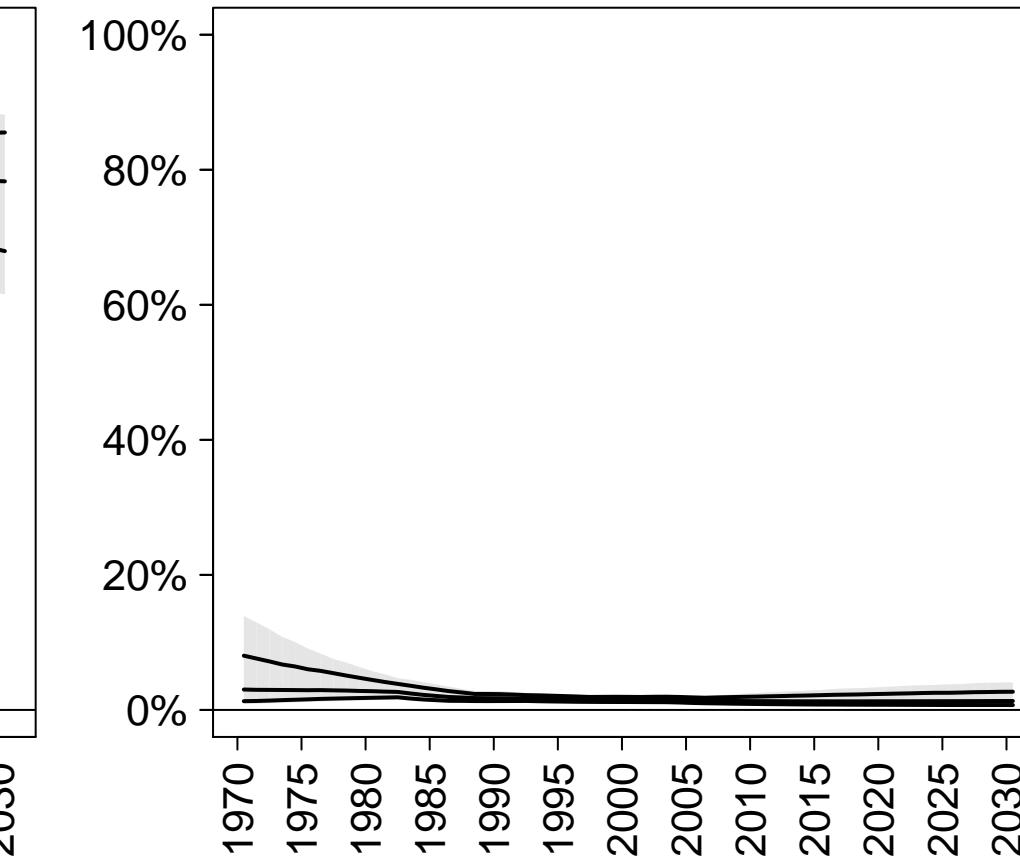
CP (any)



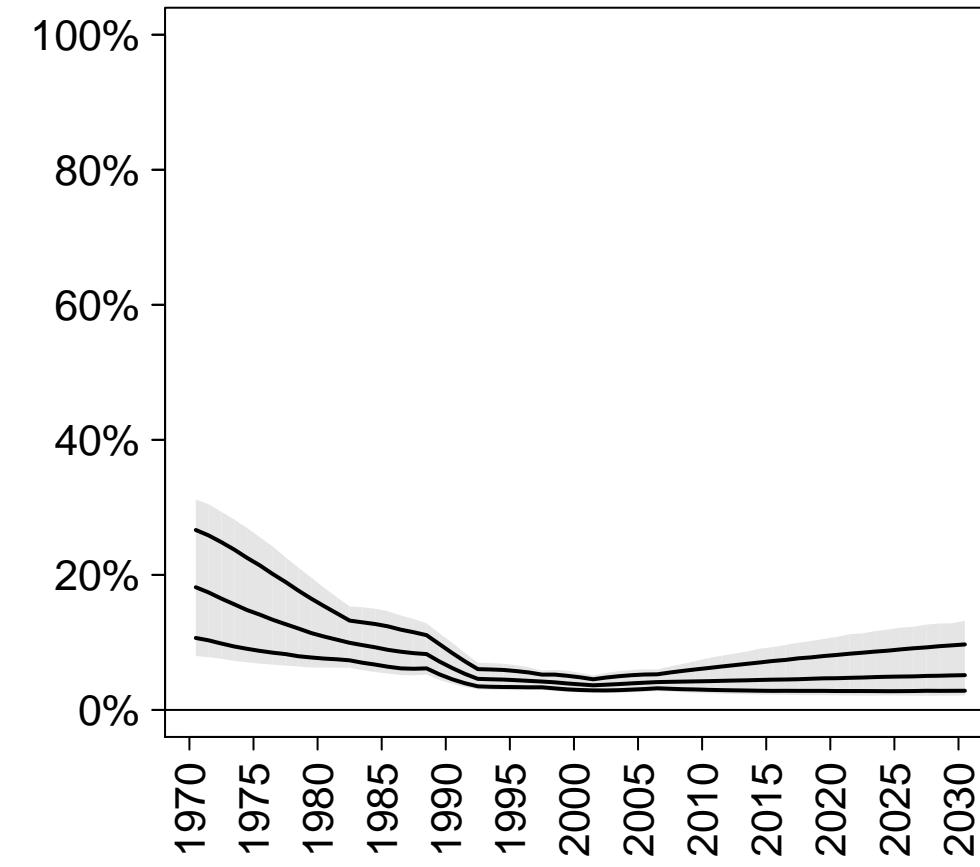
CP (modern)



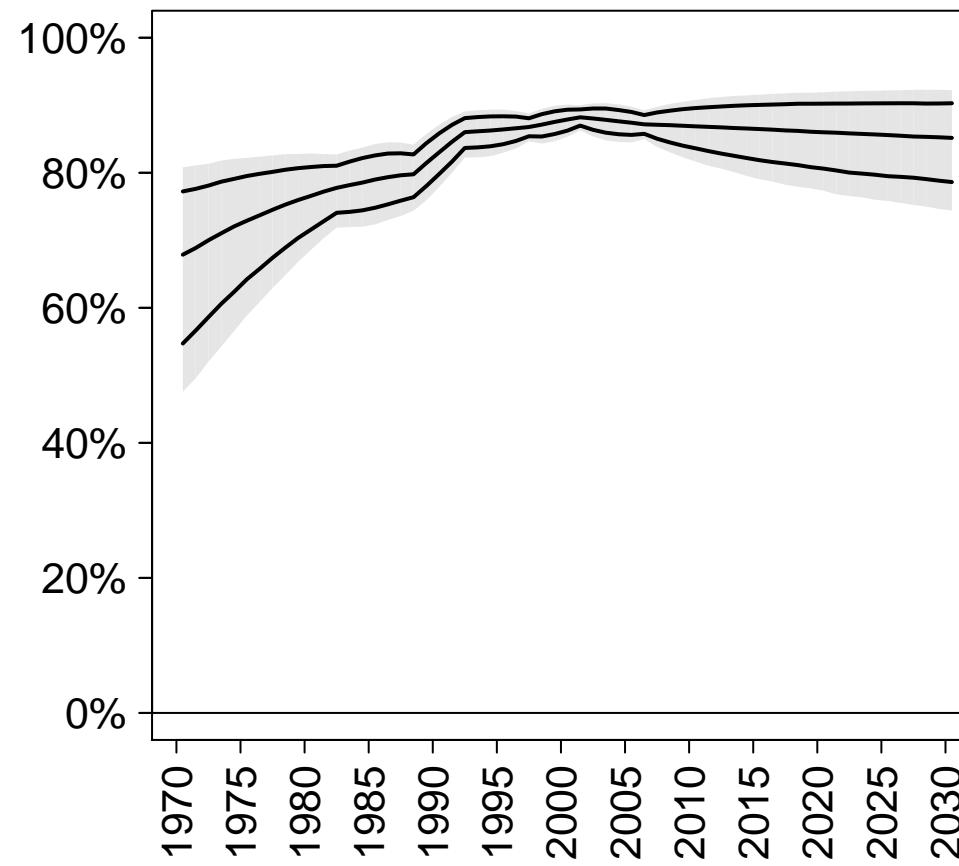
CP (traditional)



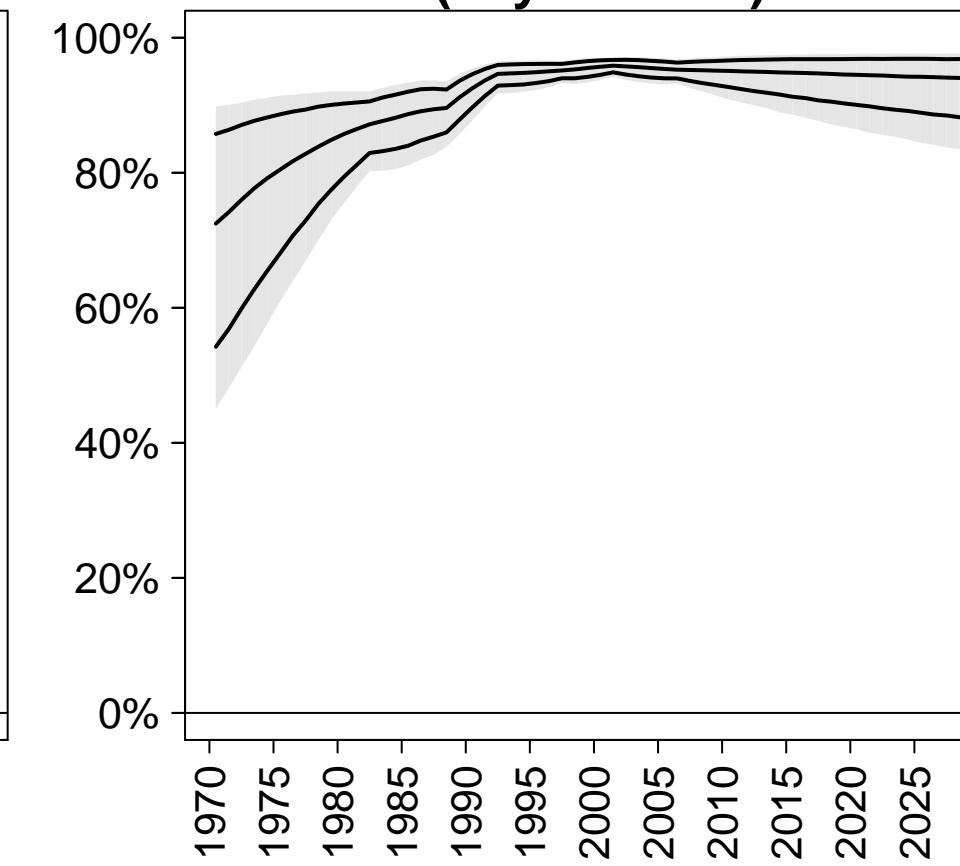
Unmet need



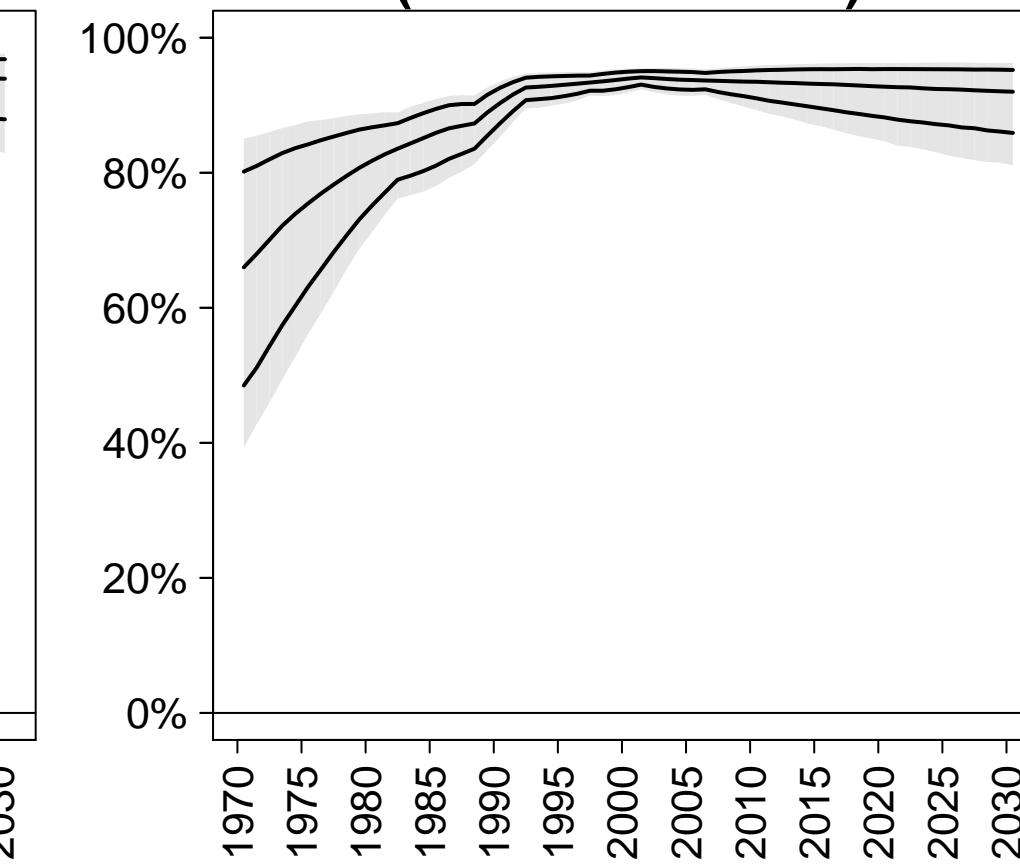
Total demand



**Demand satisfied
(any method)**

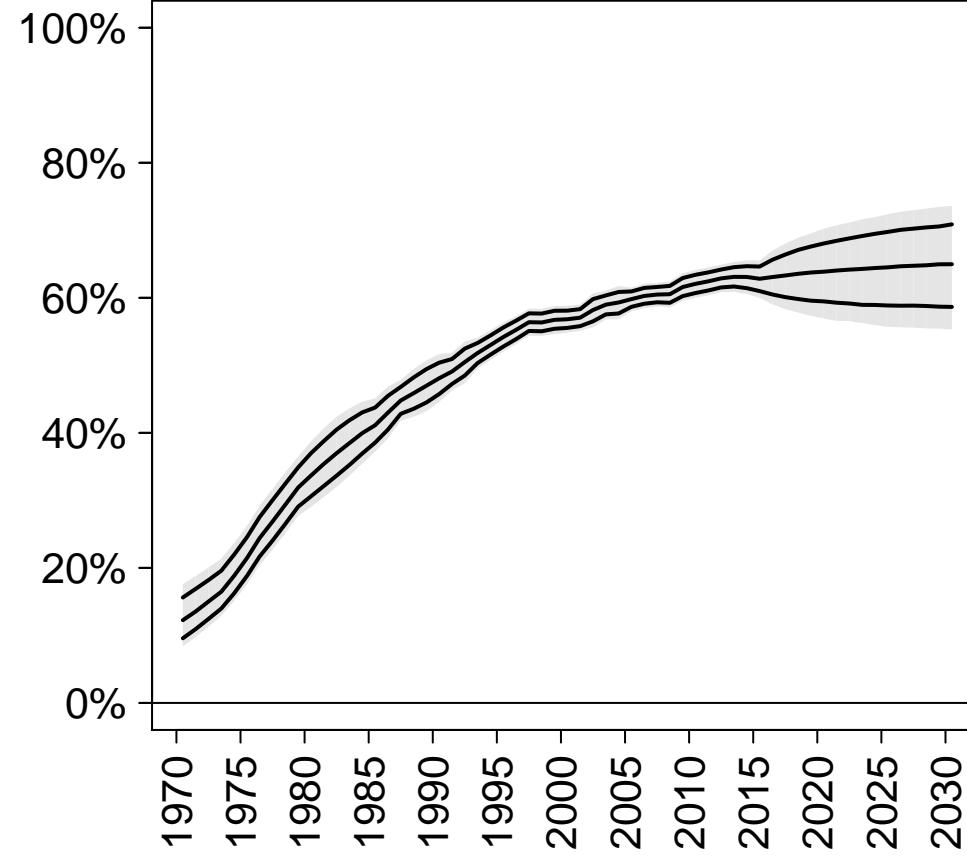


**Demand satisfied
(modern methods)**

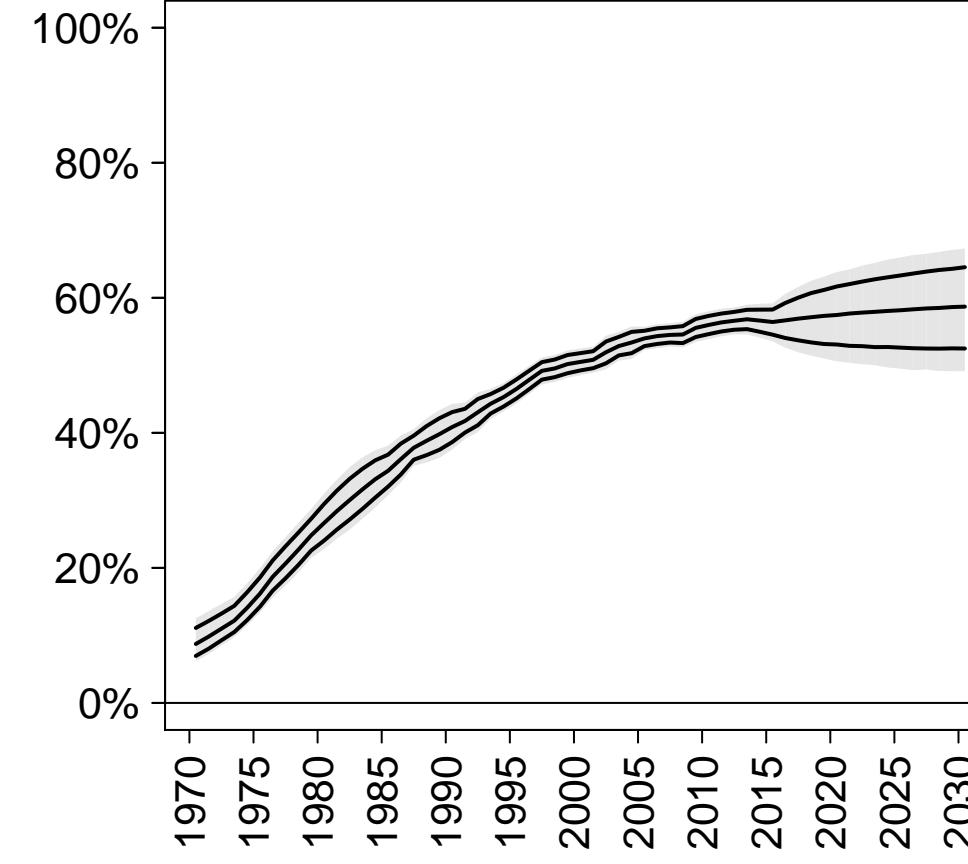


South-Eastern Asia

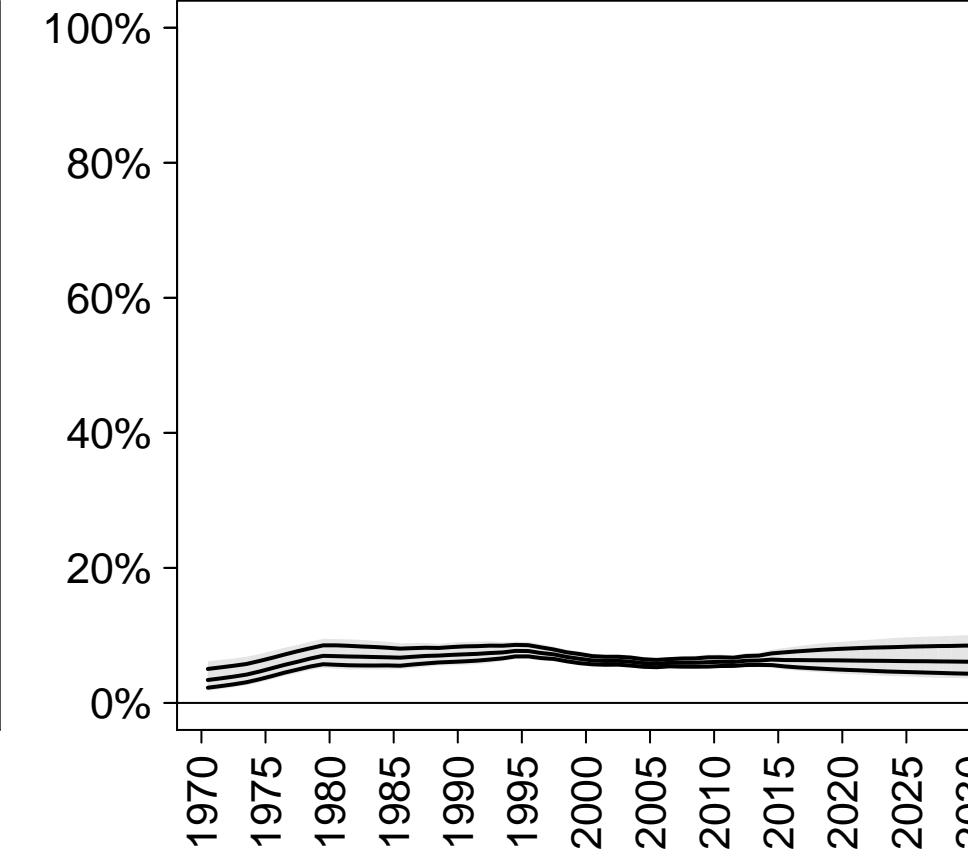
CP (any)



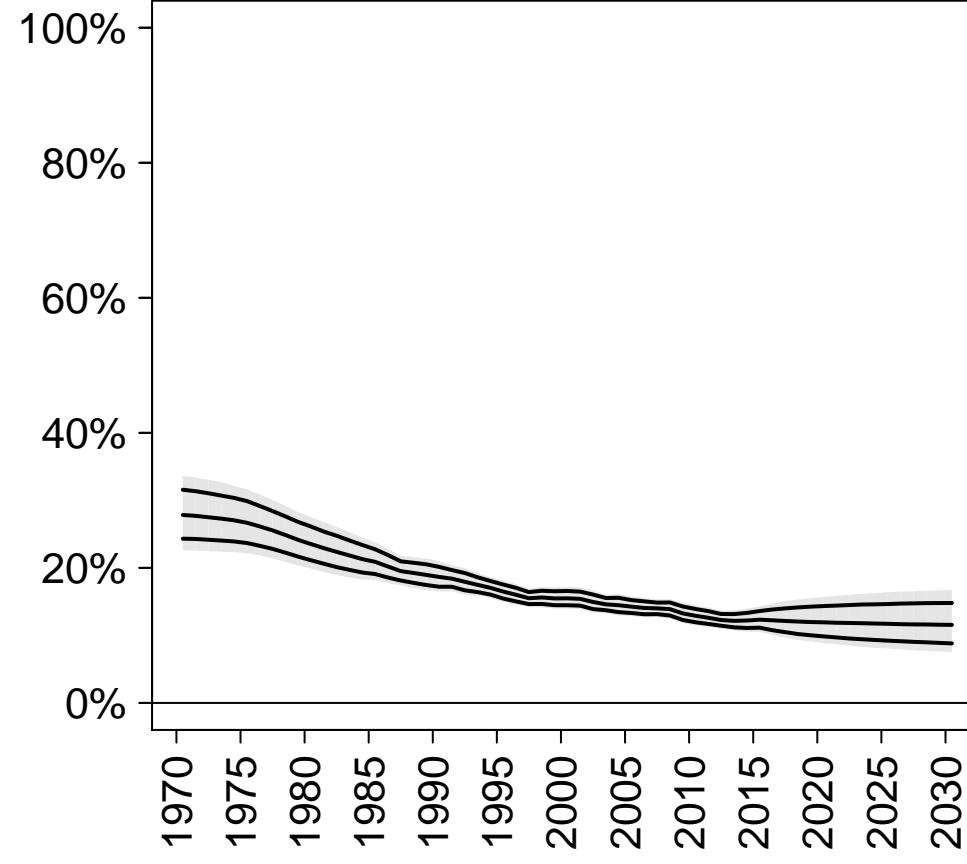
CP (modern)



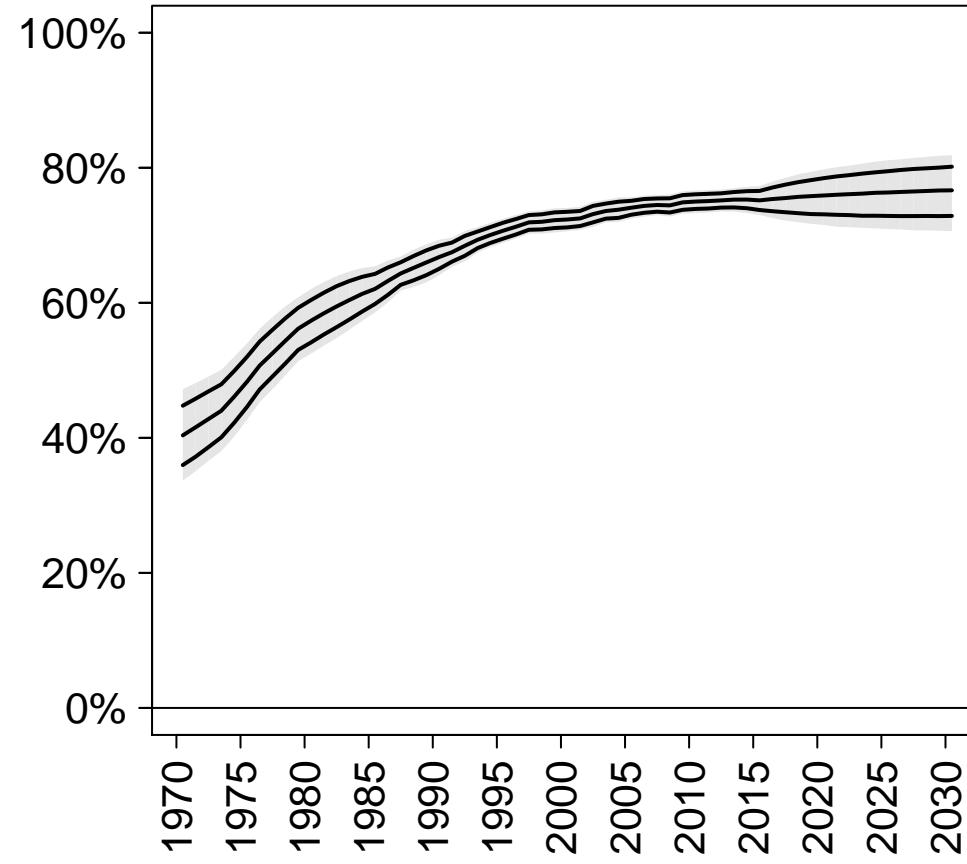
CP (traditional)



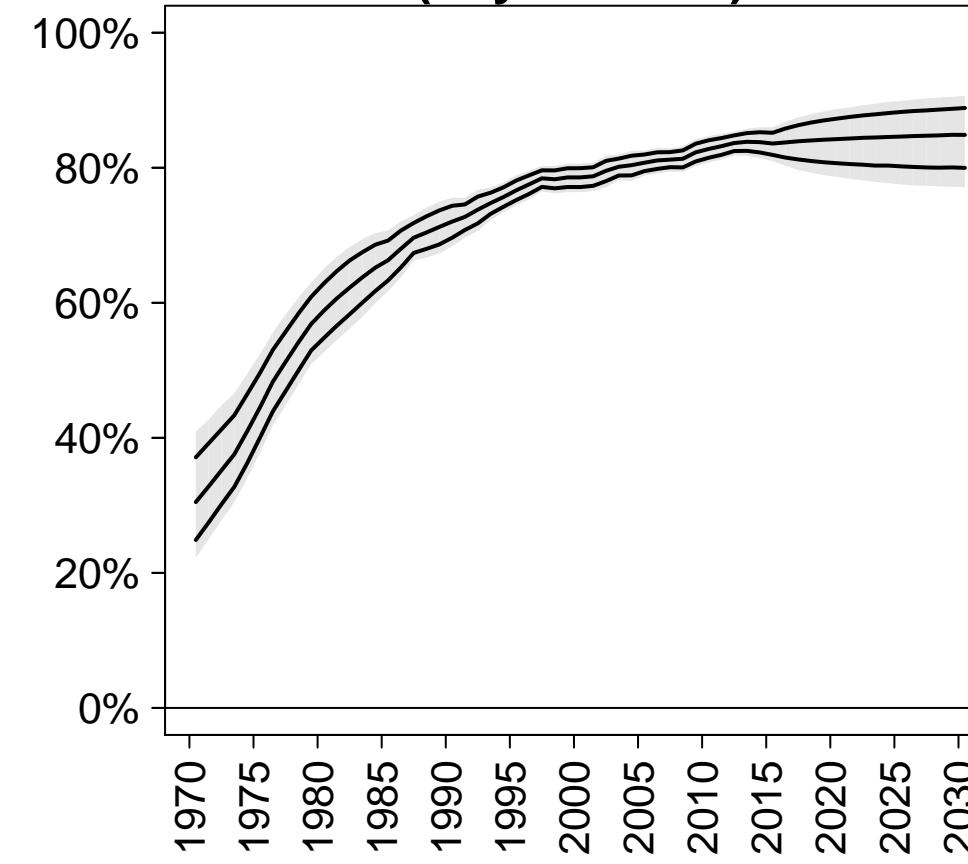
Unmet need



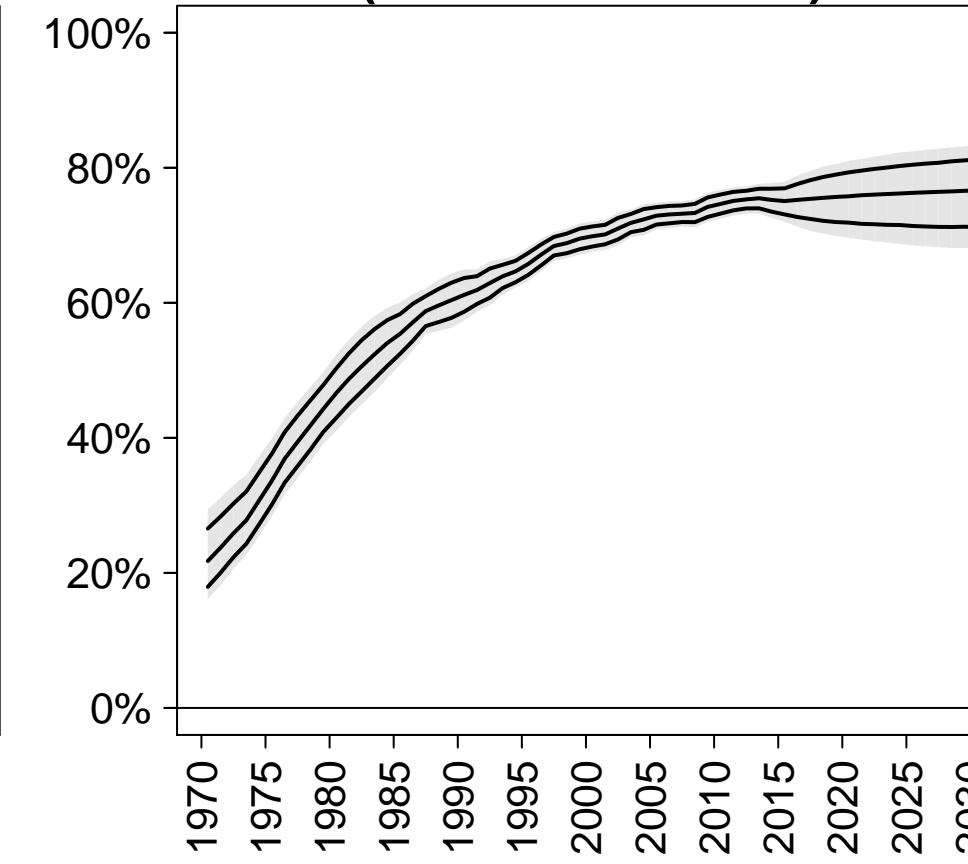
Total demand



**Demand satisfied
(any method)**

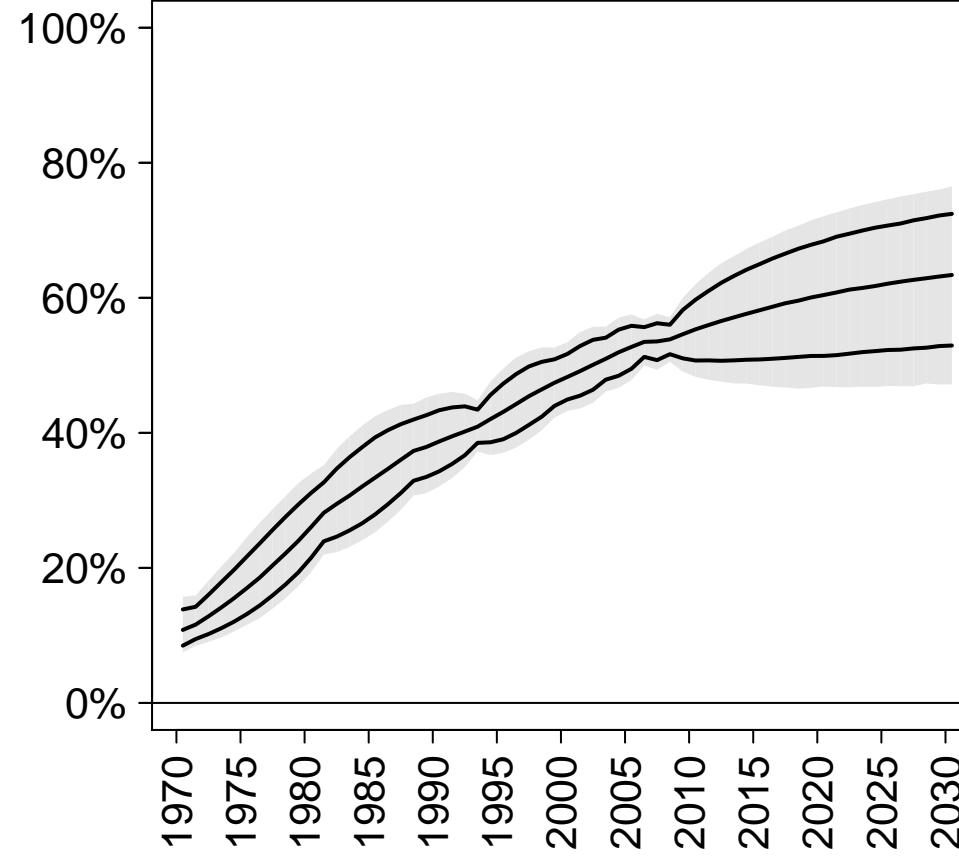


**Demand satisfied
(modern methods)**

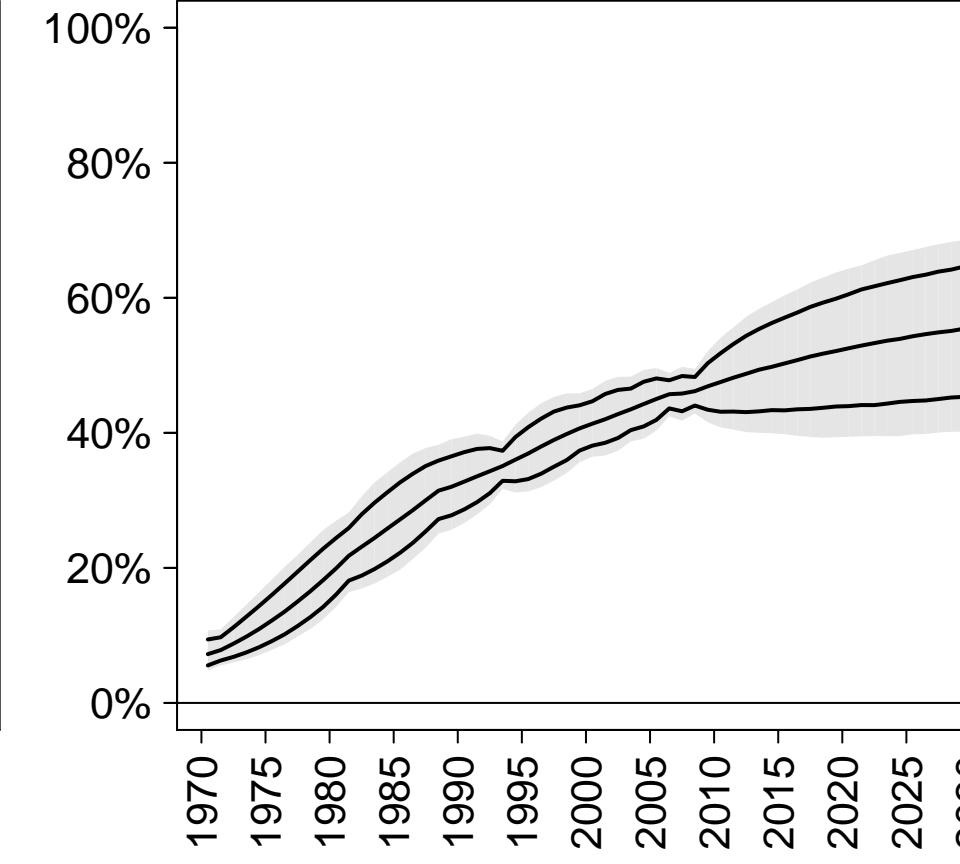


Southern Asia

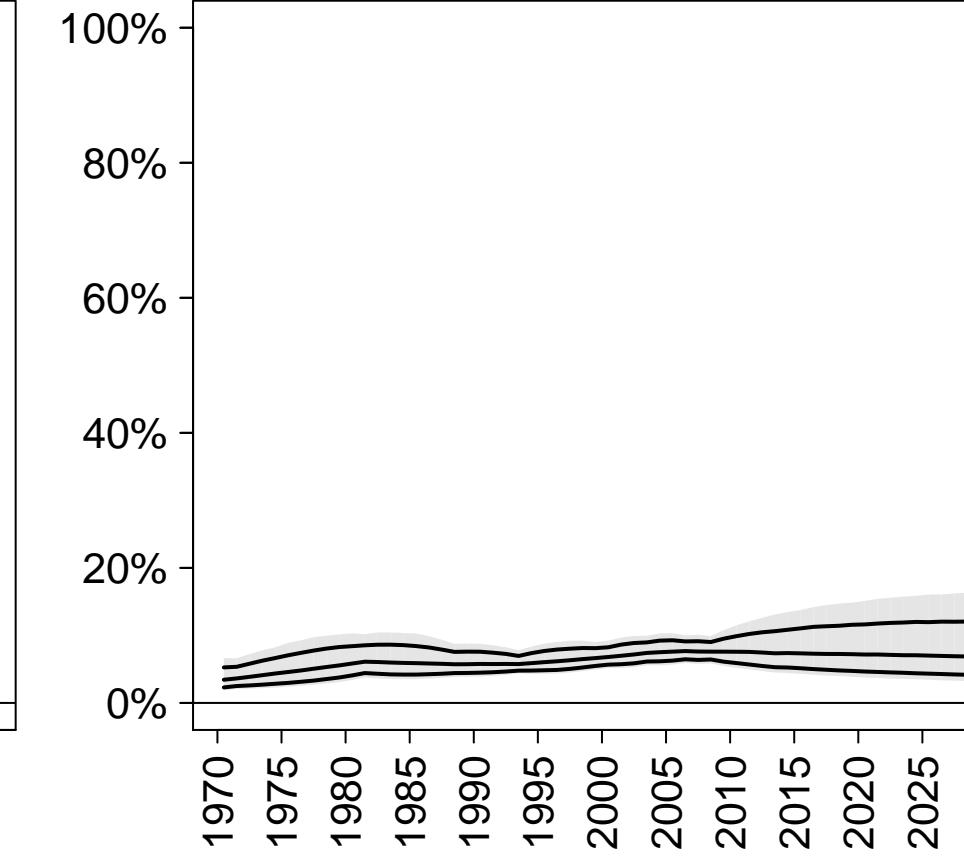
CP (any)



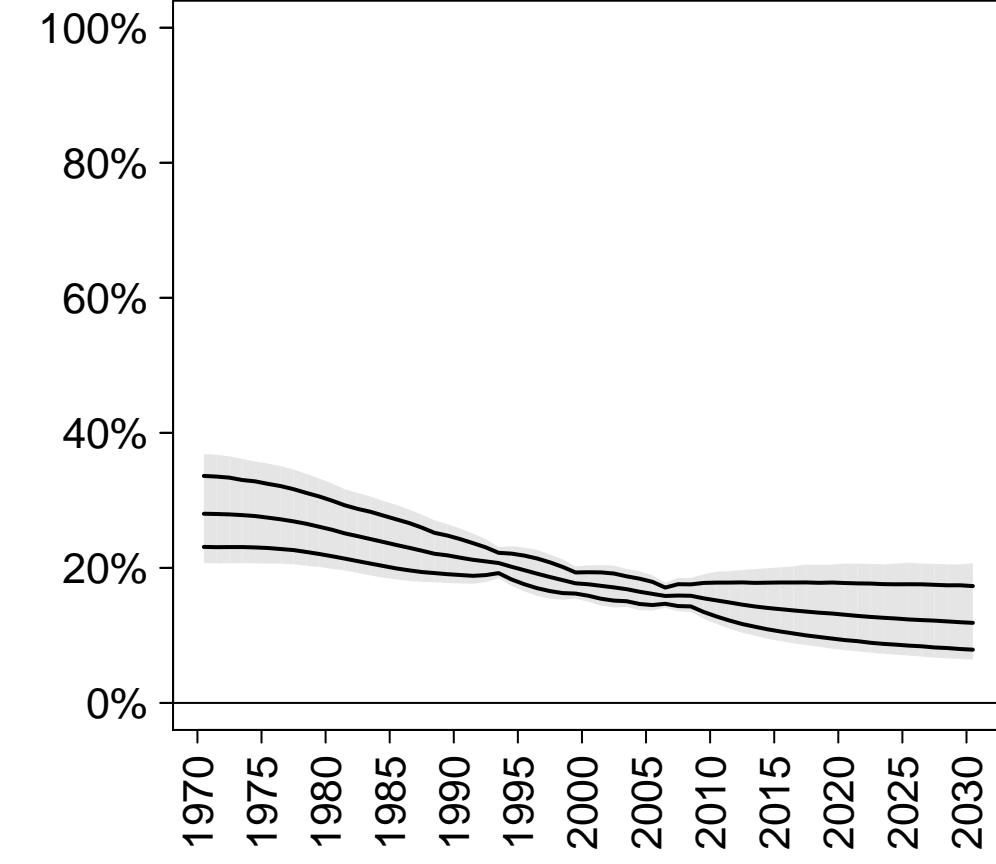
CP (modern)



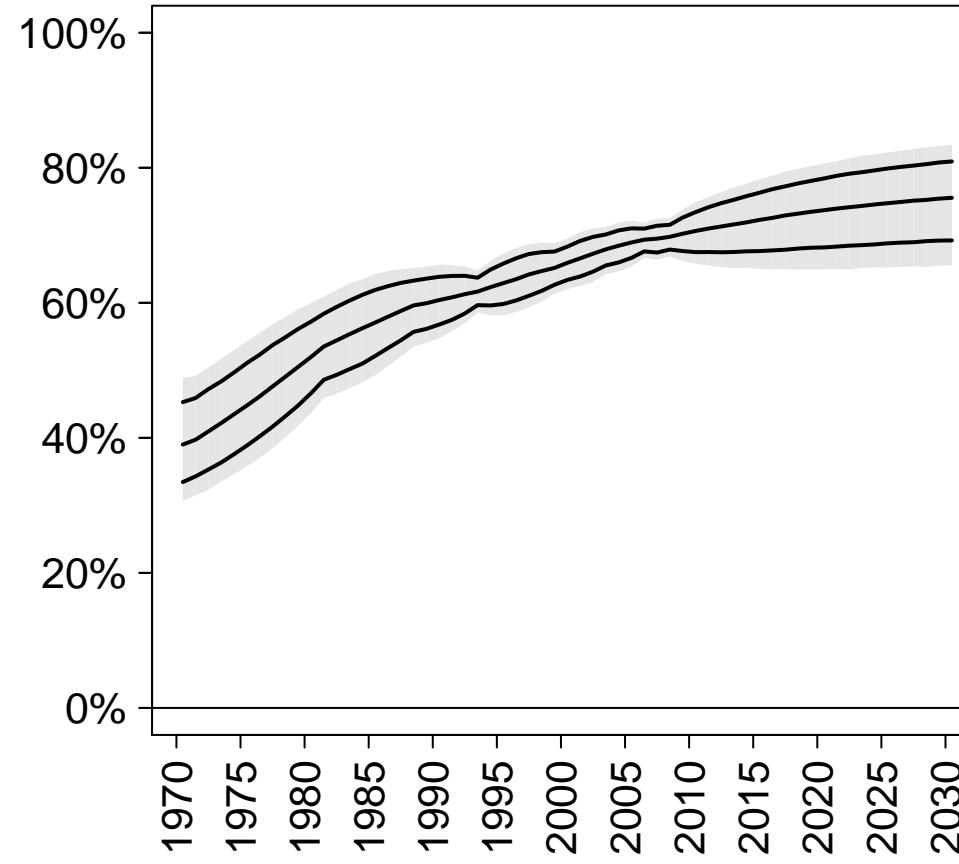
CP (traditional)



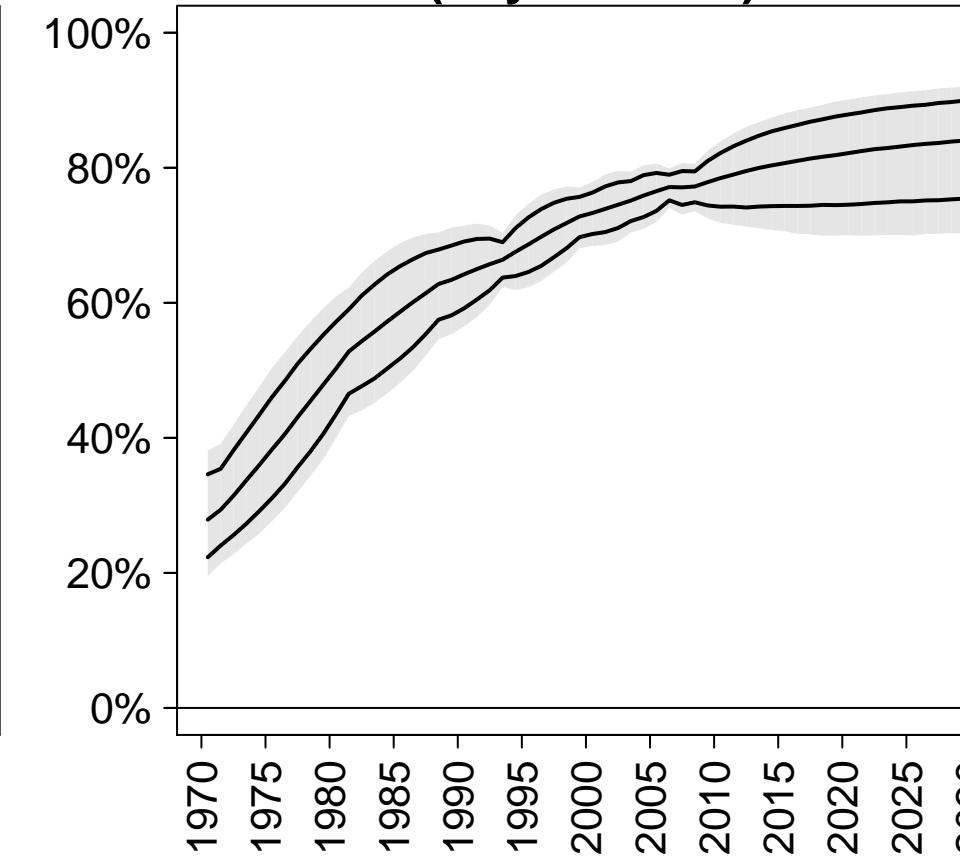
Unmet need



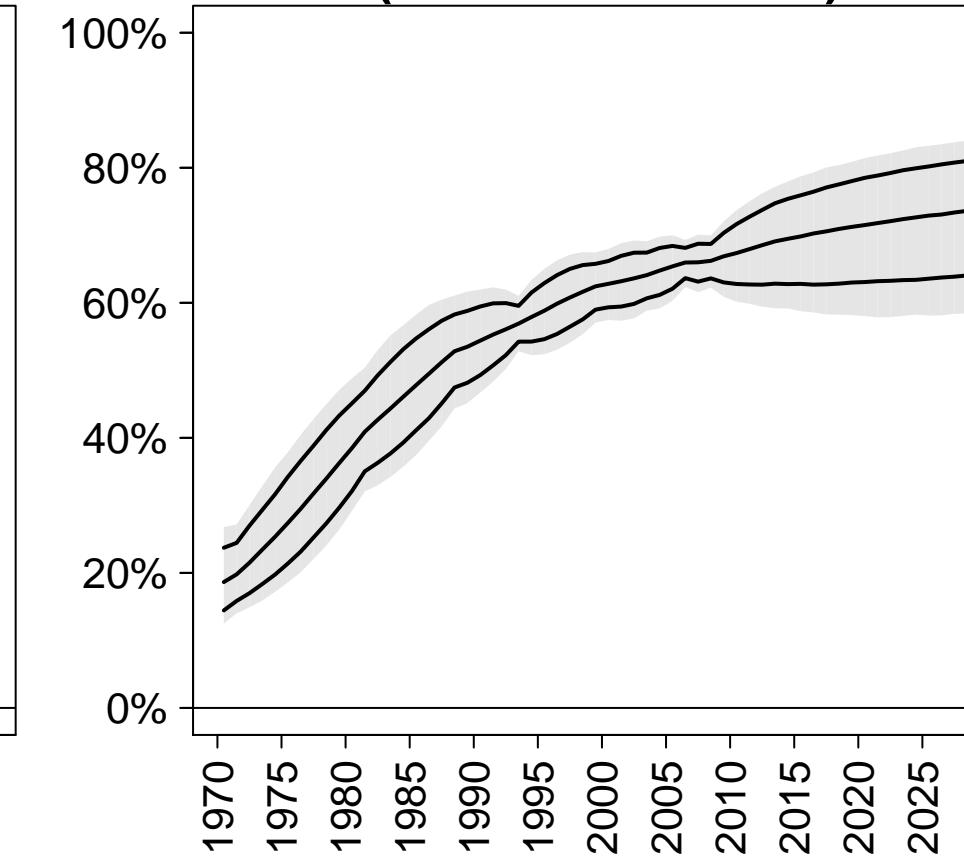
Total demand



**Demand satisfied
(any method)**

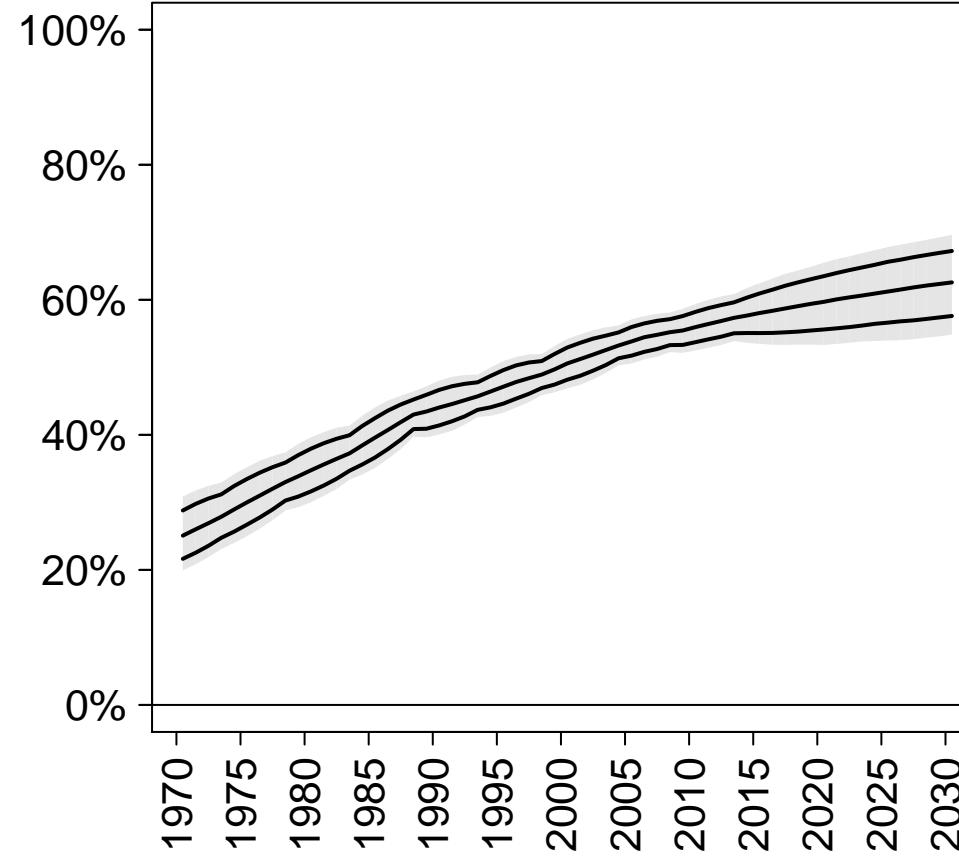


**Demand satisfied
(modern methods)**

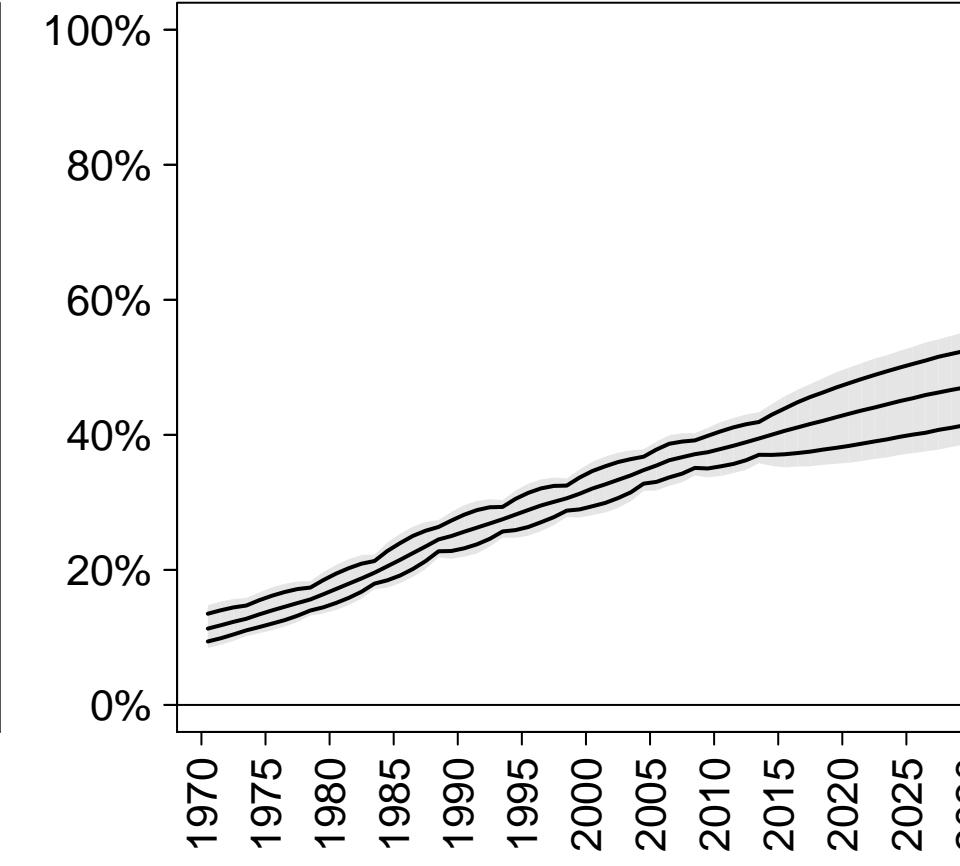


Western Asia

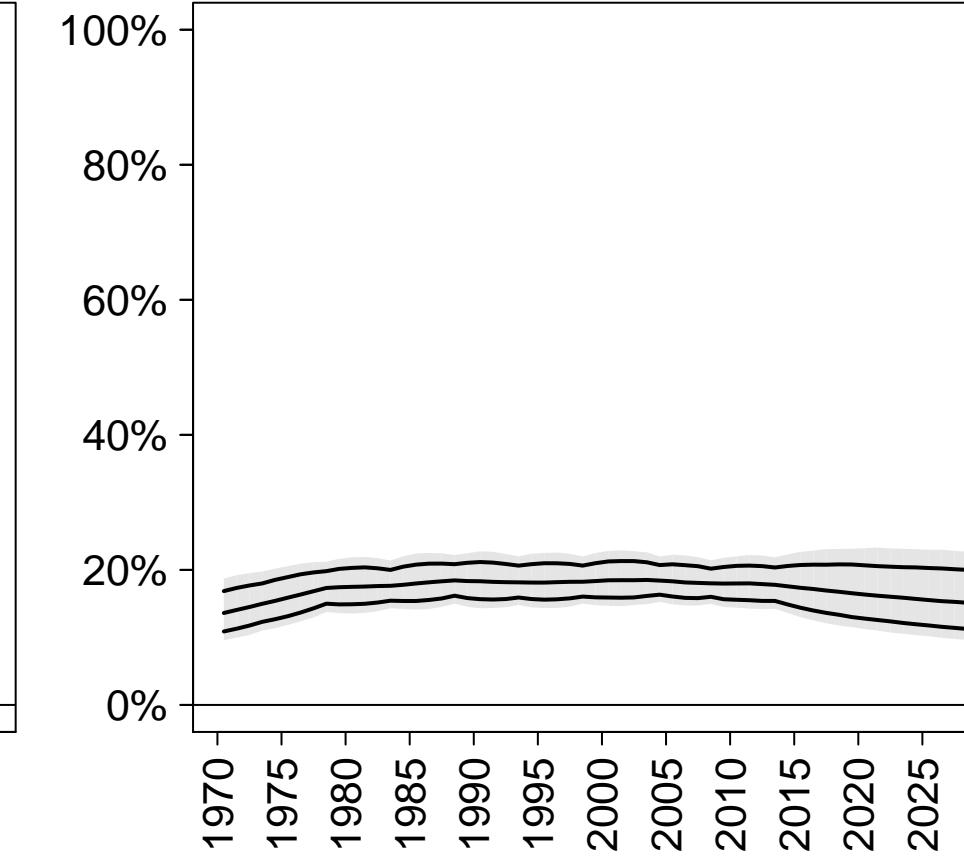
CP (any)



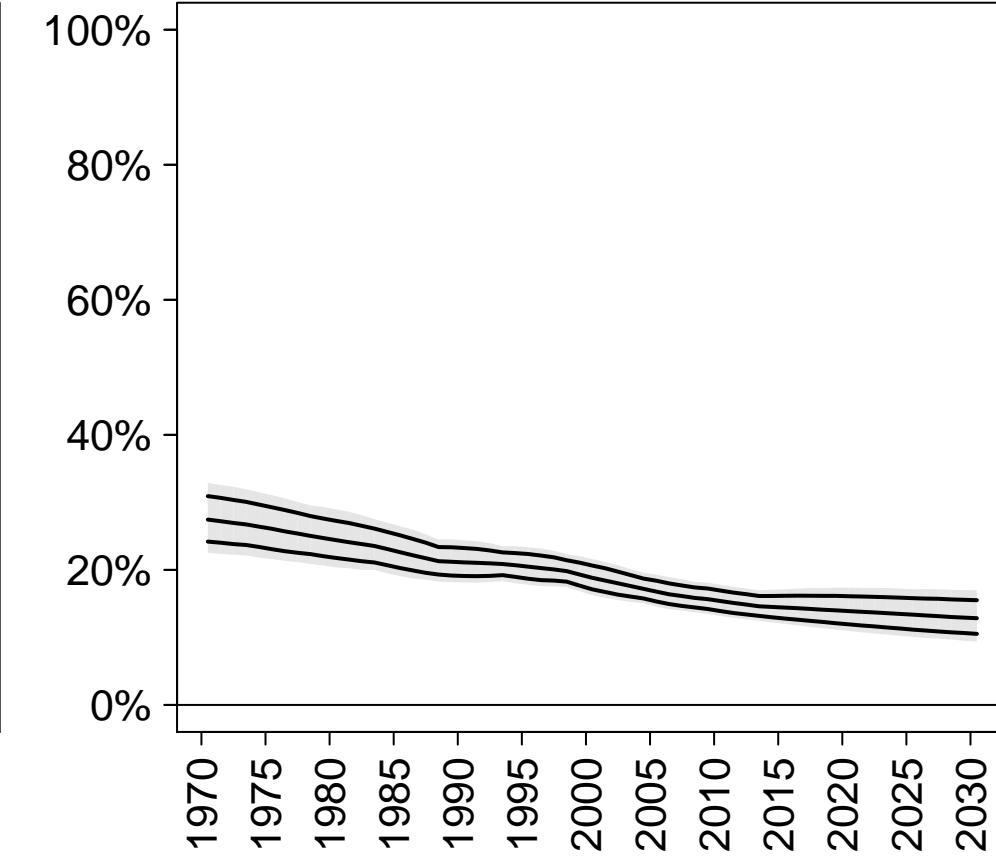
CP (modern)



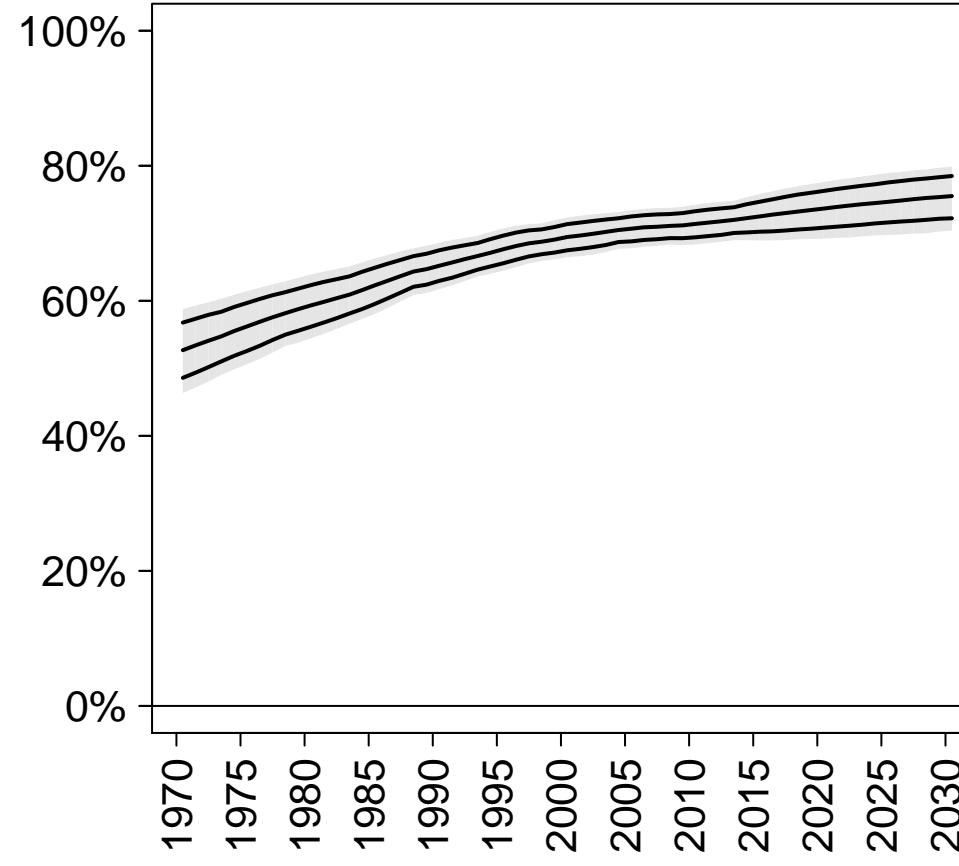
CP (traditional)



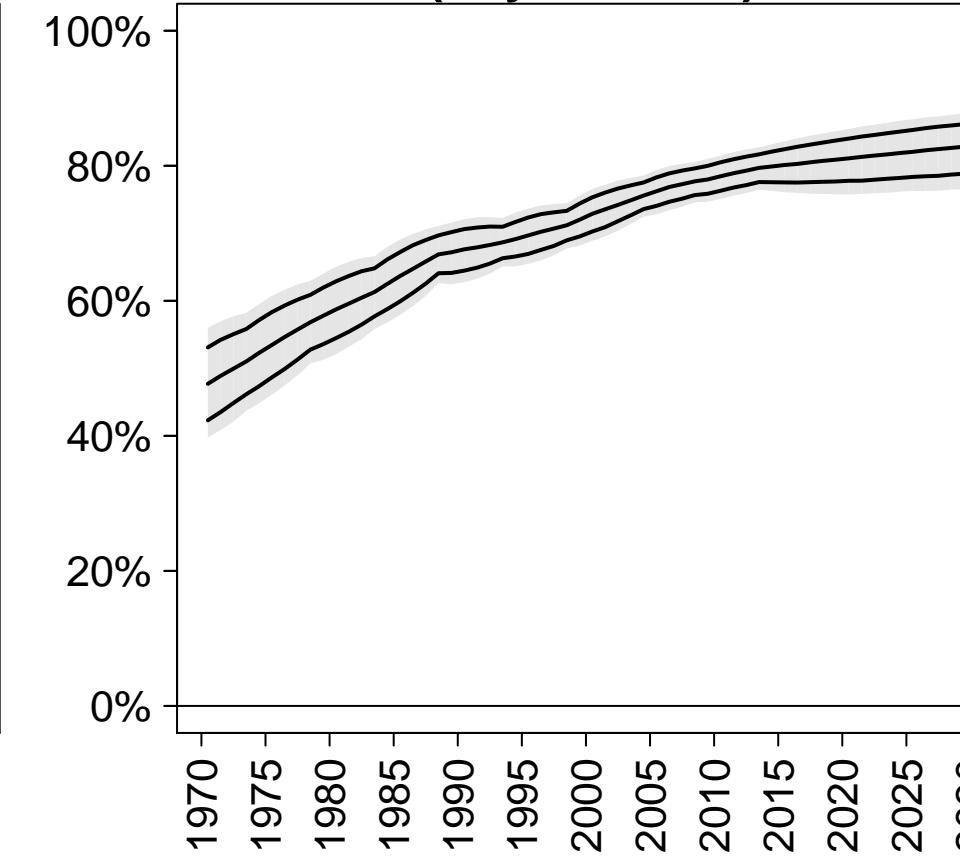
Unmet need



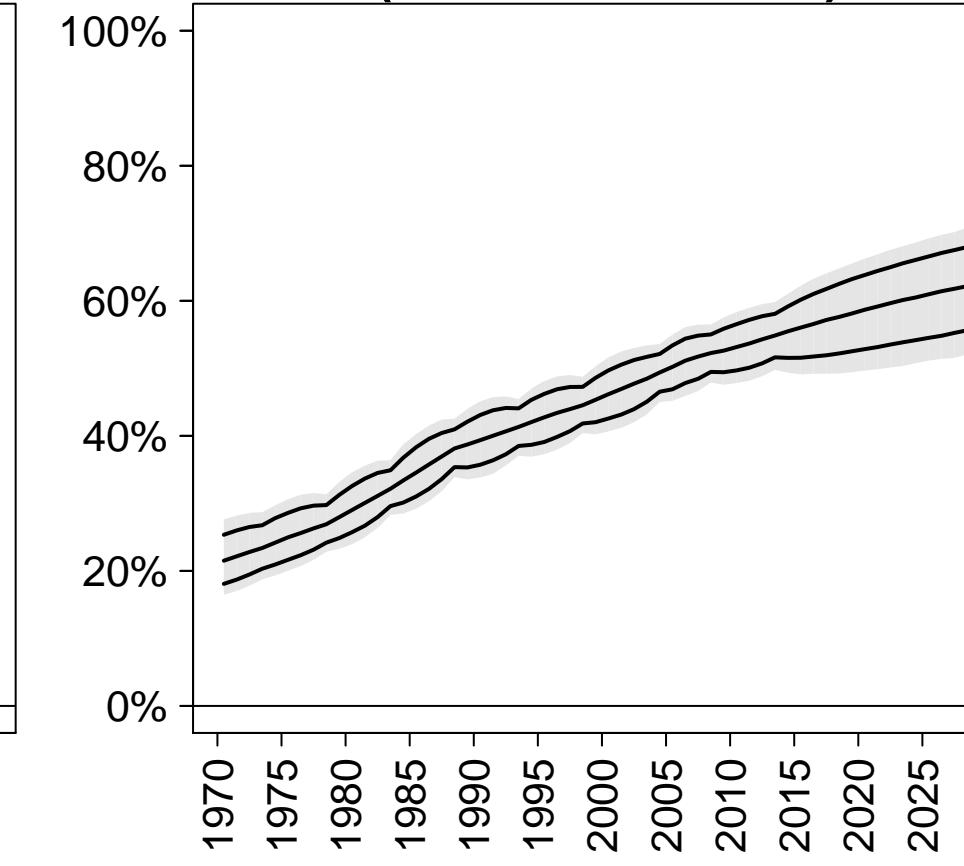
Total demand



**Demand satisfied
(any method)**

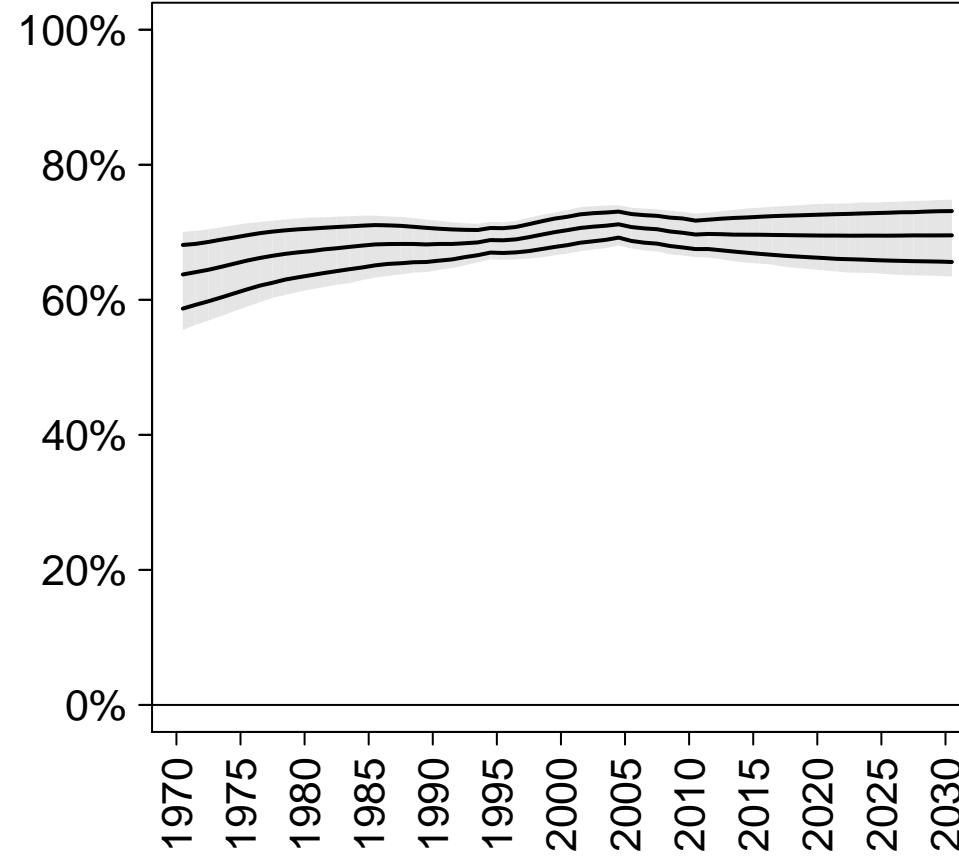


**Demand satisfied
(modern methods)**

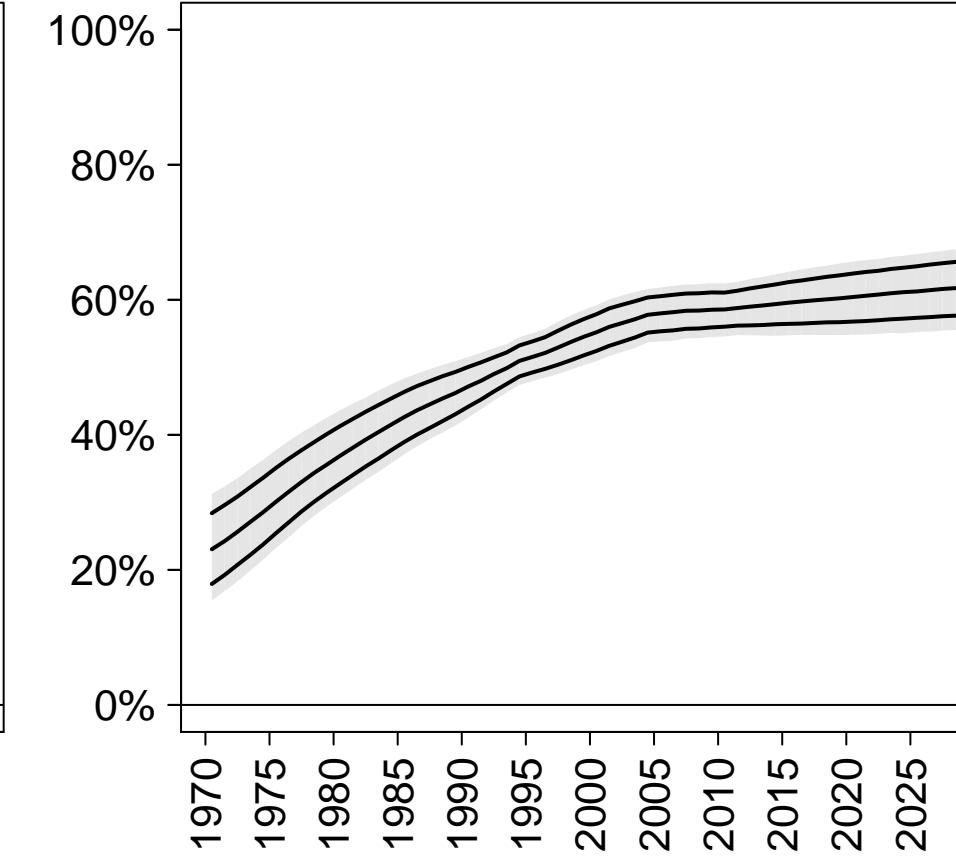


Europe

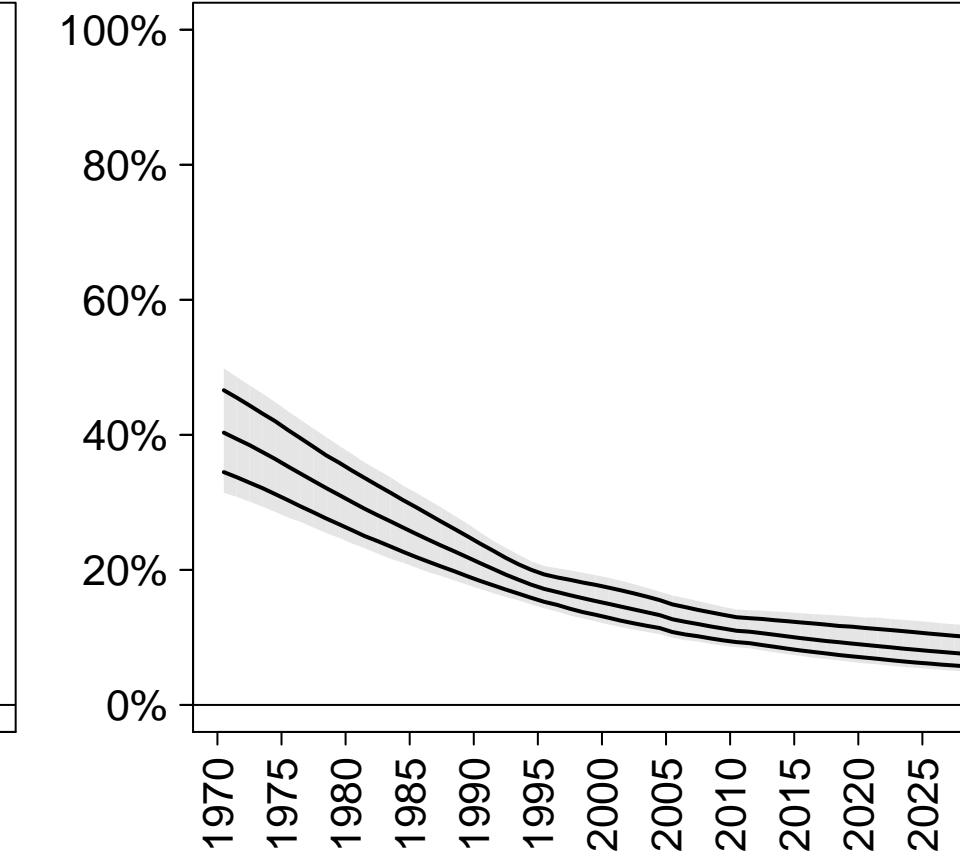
CP (any)



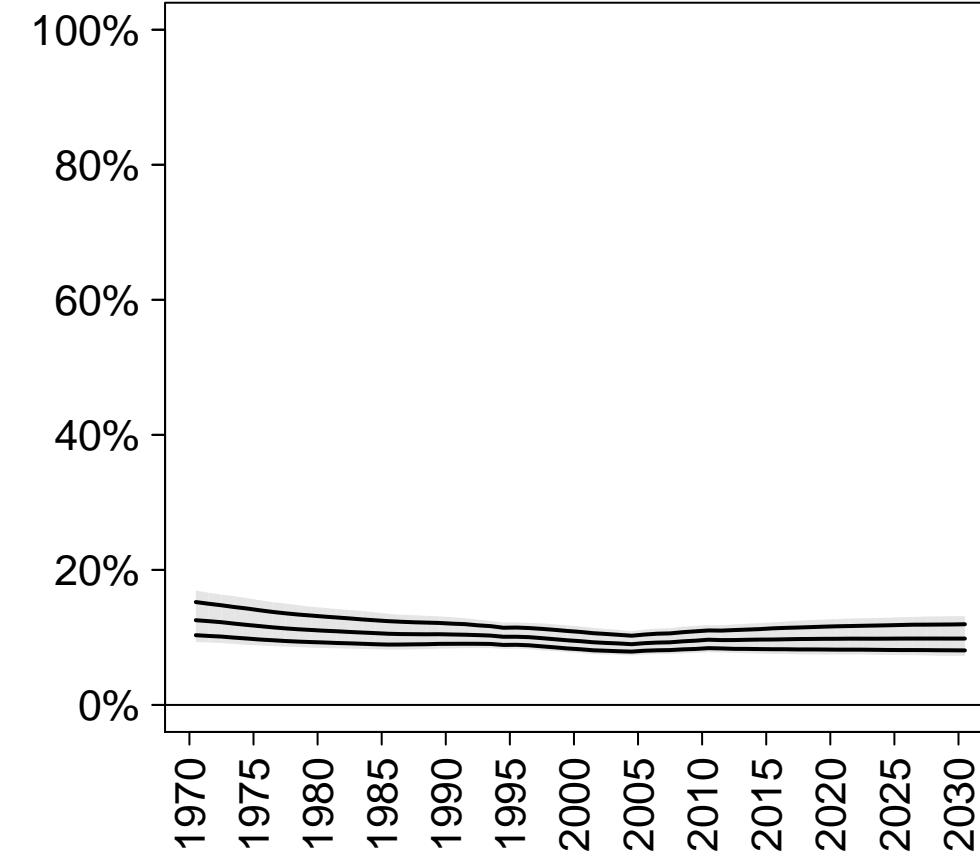
CP (modern)



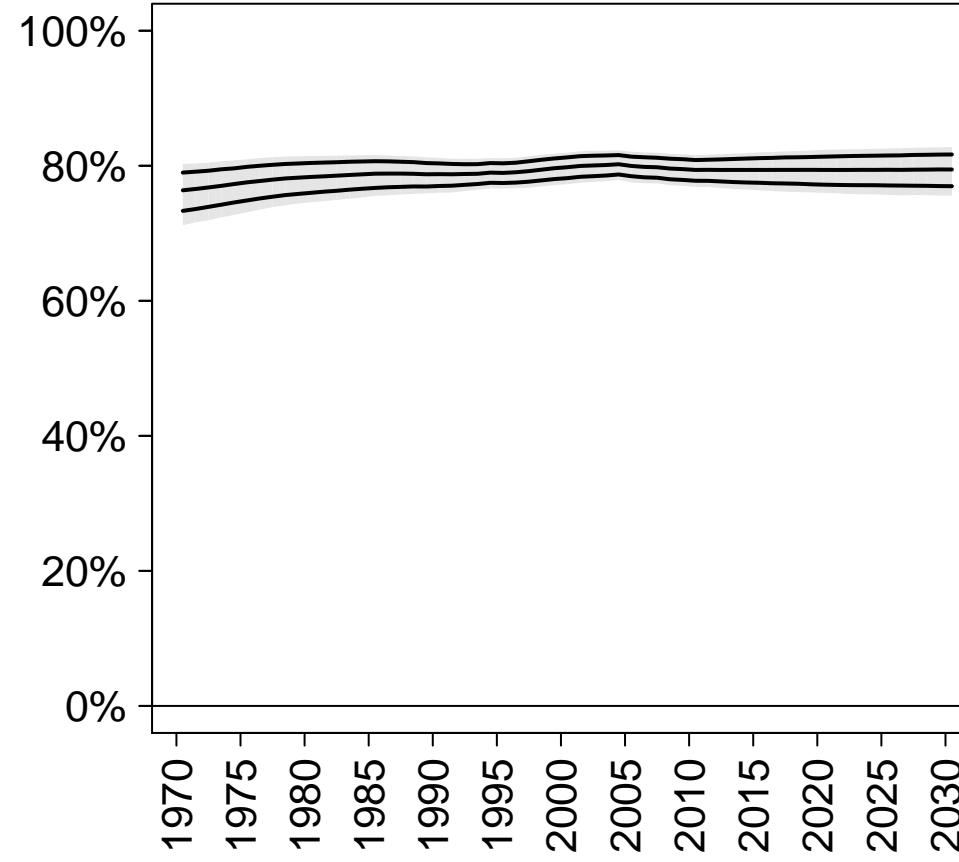
CP (traditional)



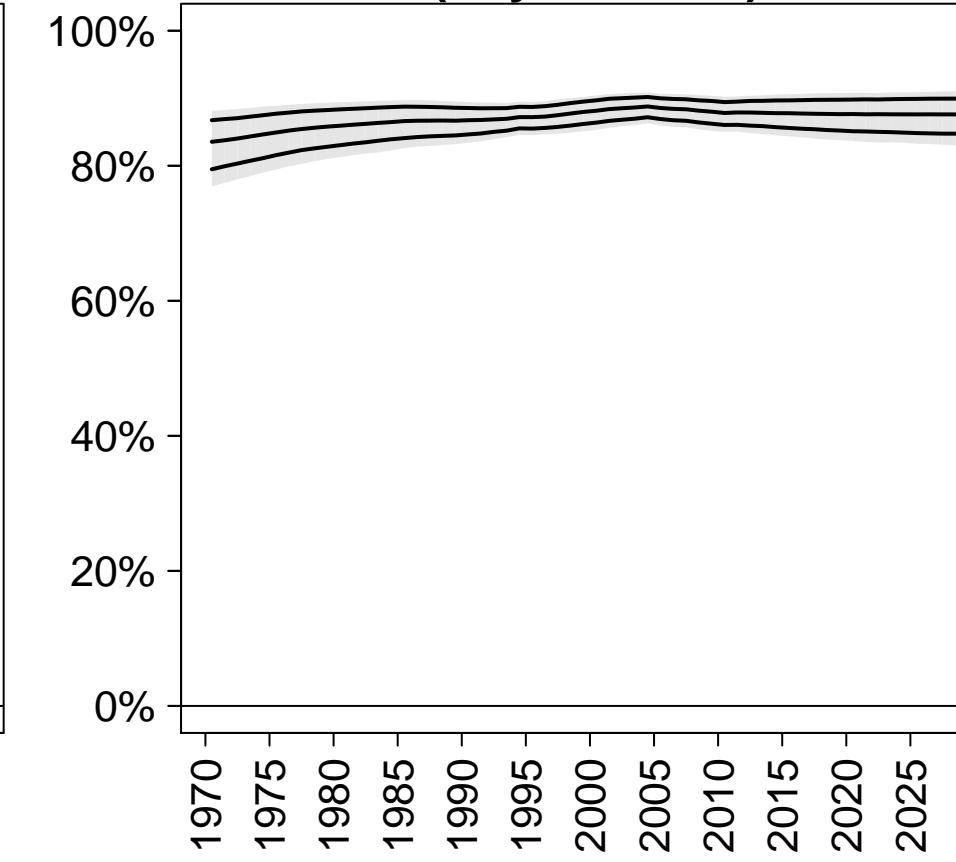
Unmet need



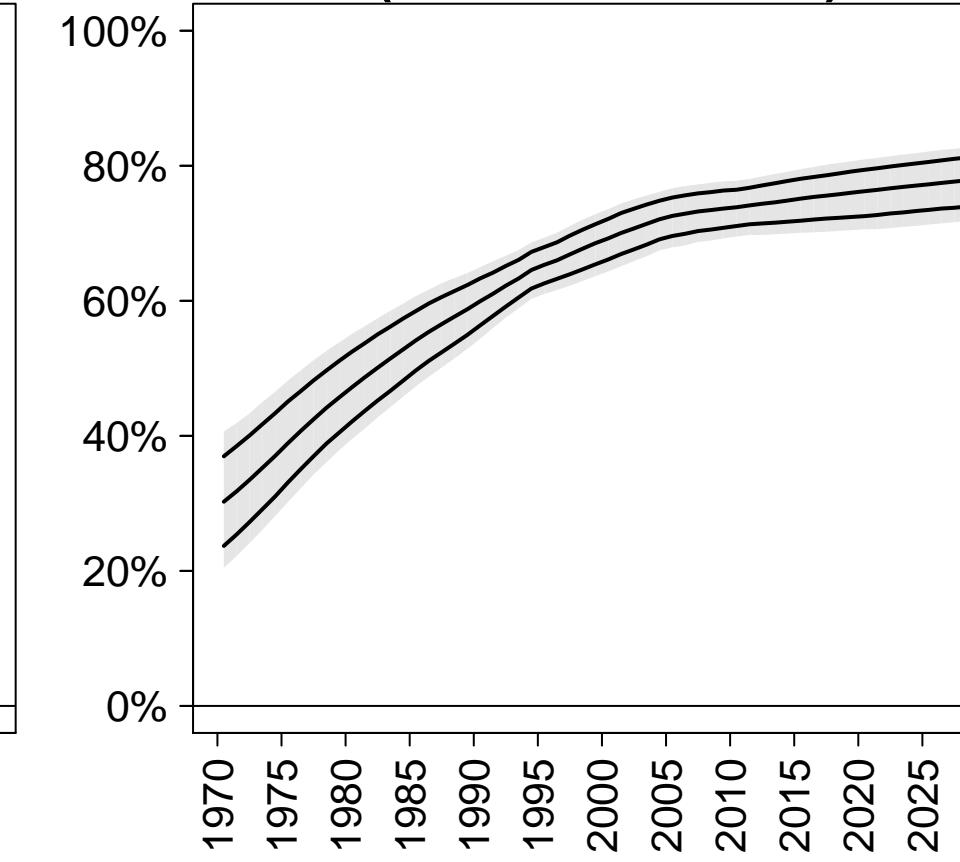
Total demand



**Demand satisfied
(any method)**

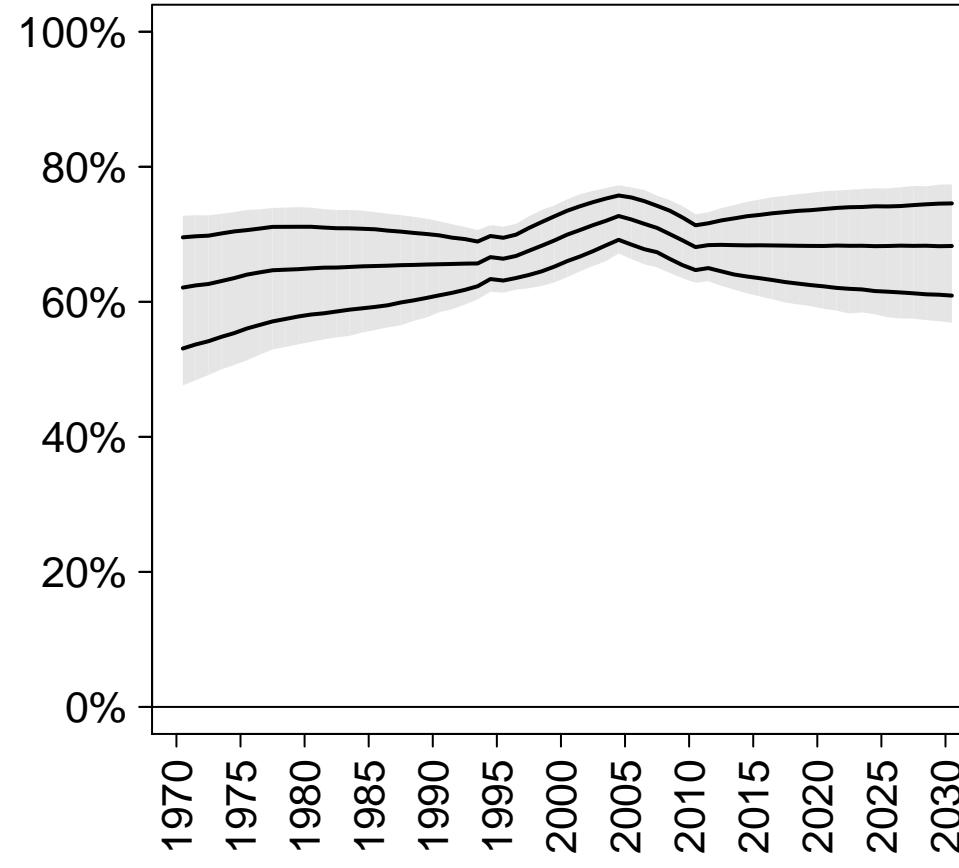


**Demand satisfied
(modern methods)**

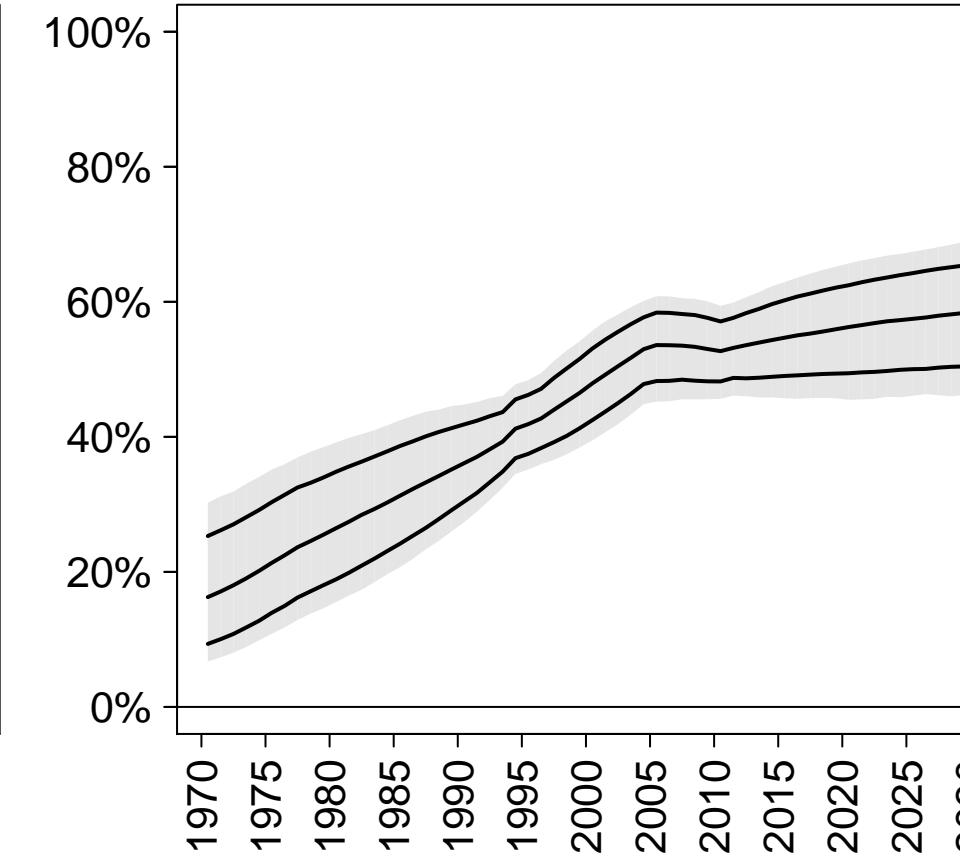


Eastern Europe

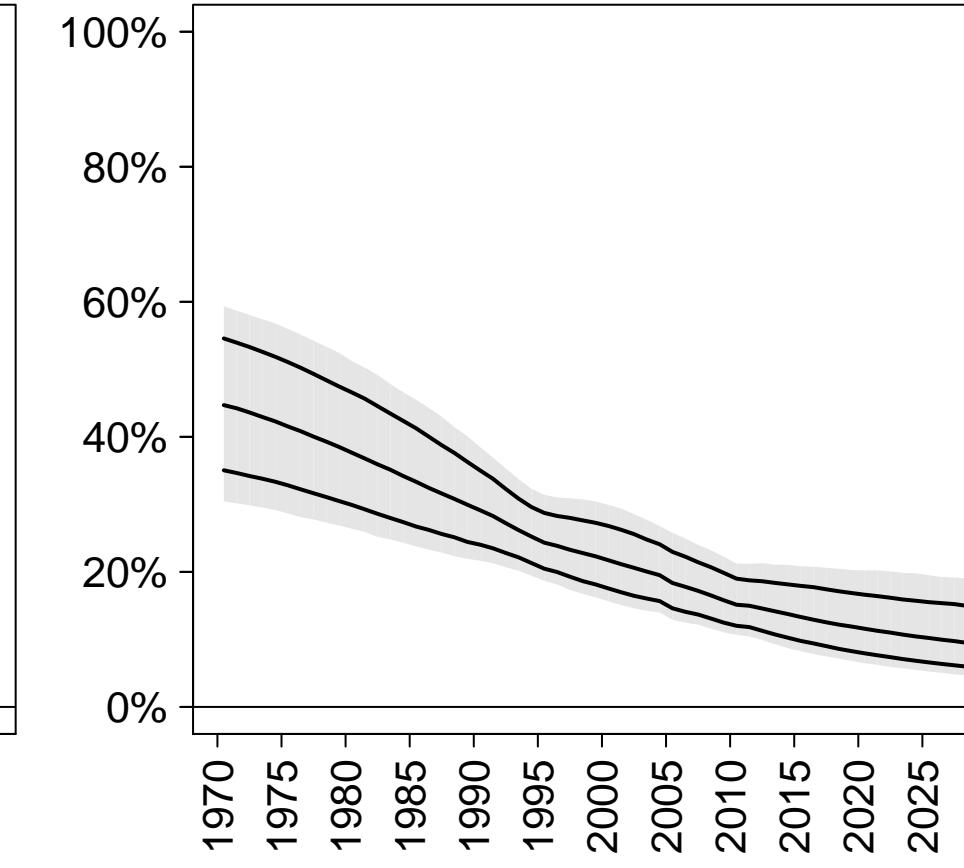
CP (any)



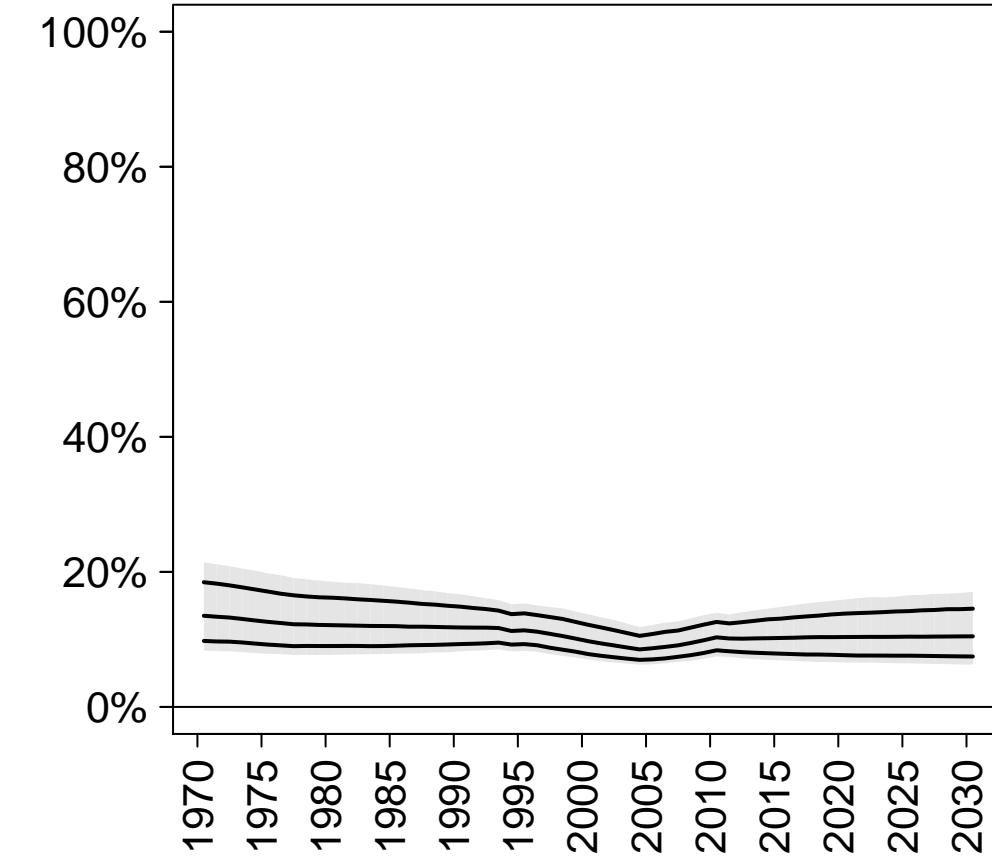
CP (modern)



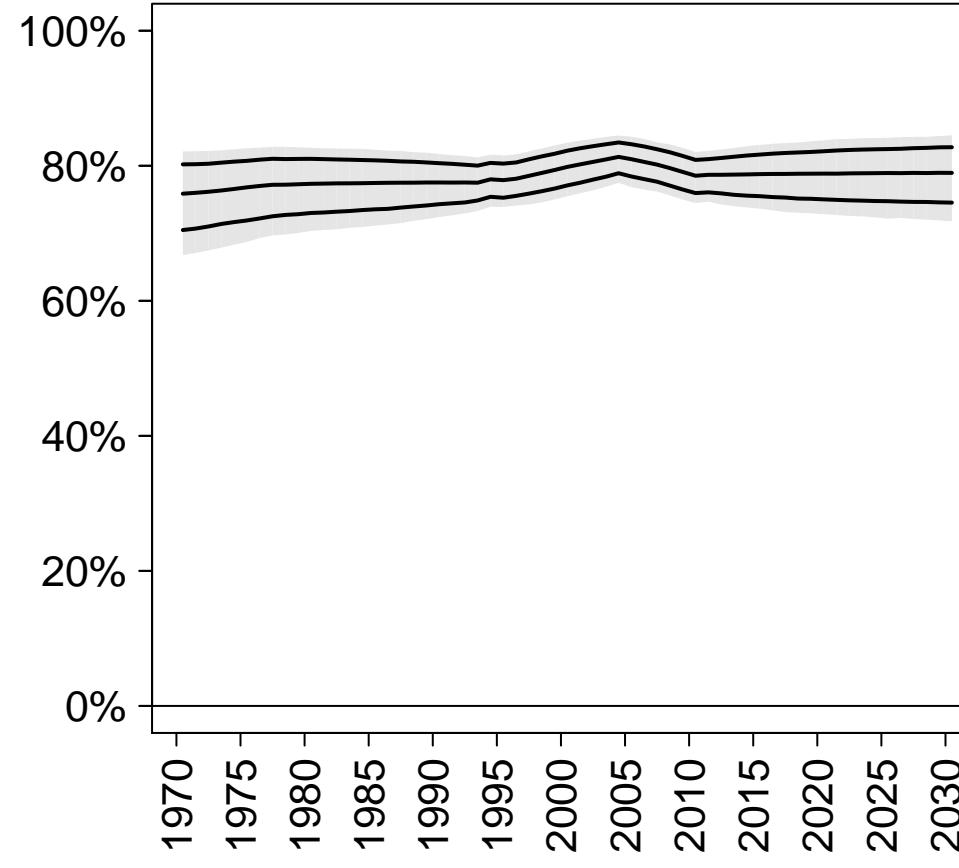
CP (traditional)



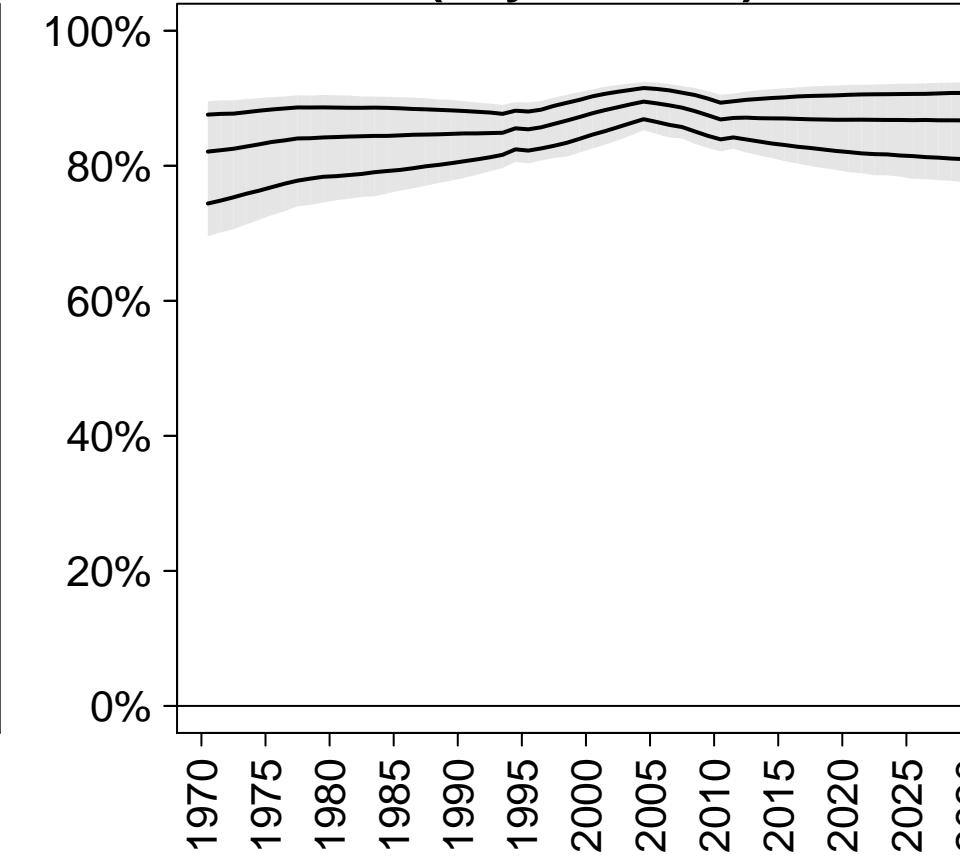
Unmet need



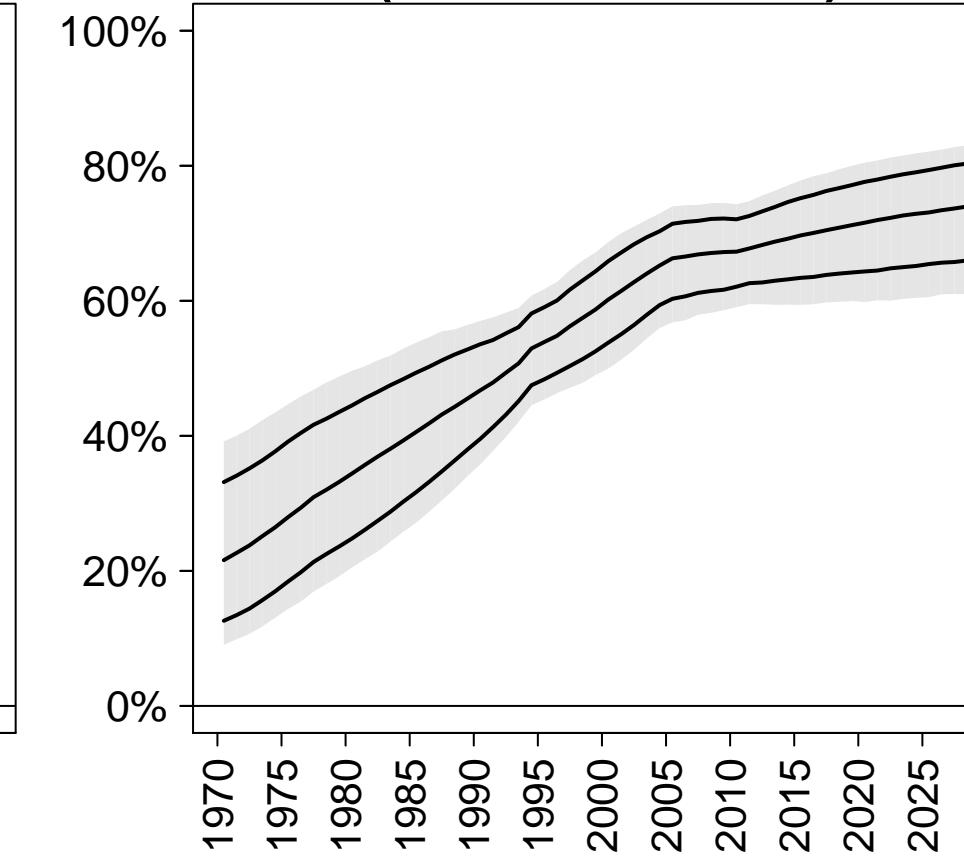
Total demand



**Demand satisfied
(any method)**

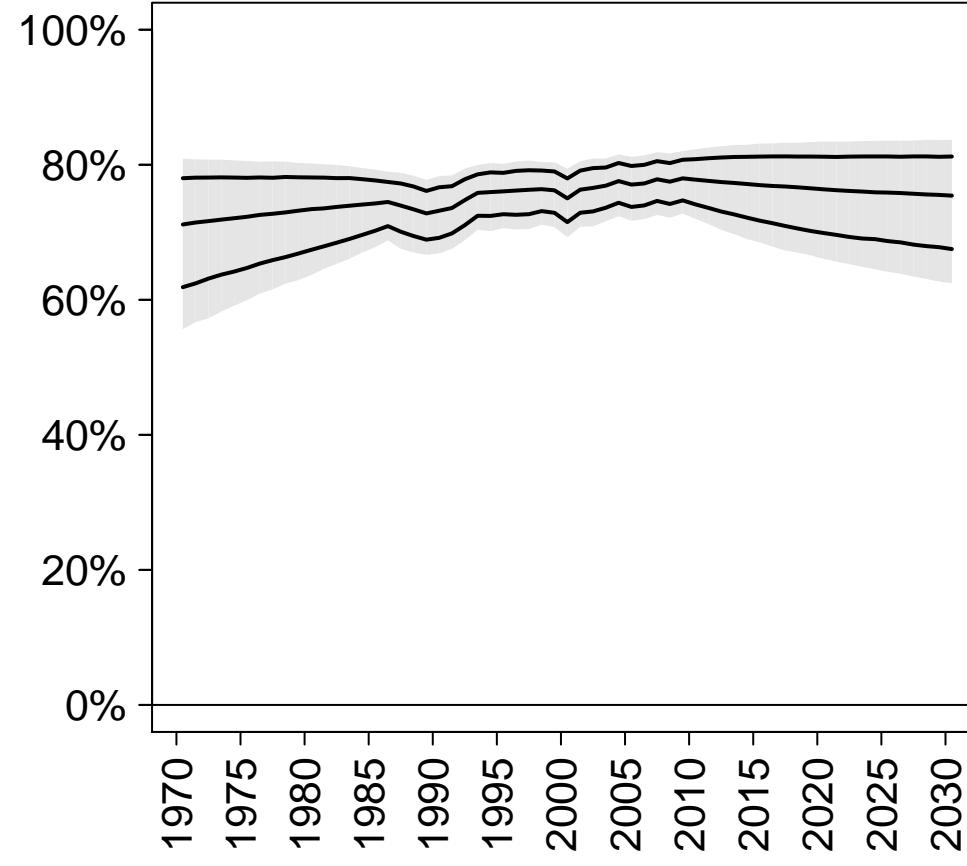


**Demand satisfied
(modern methods)**

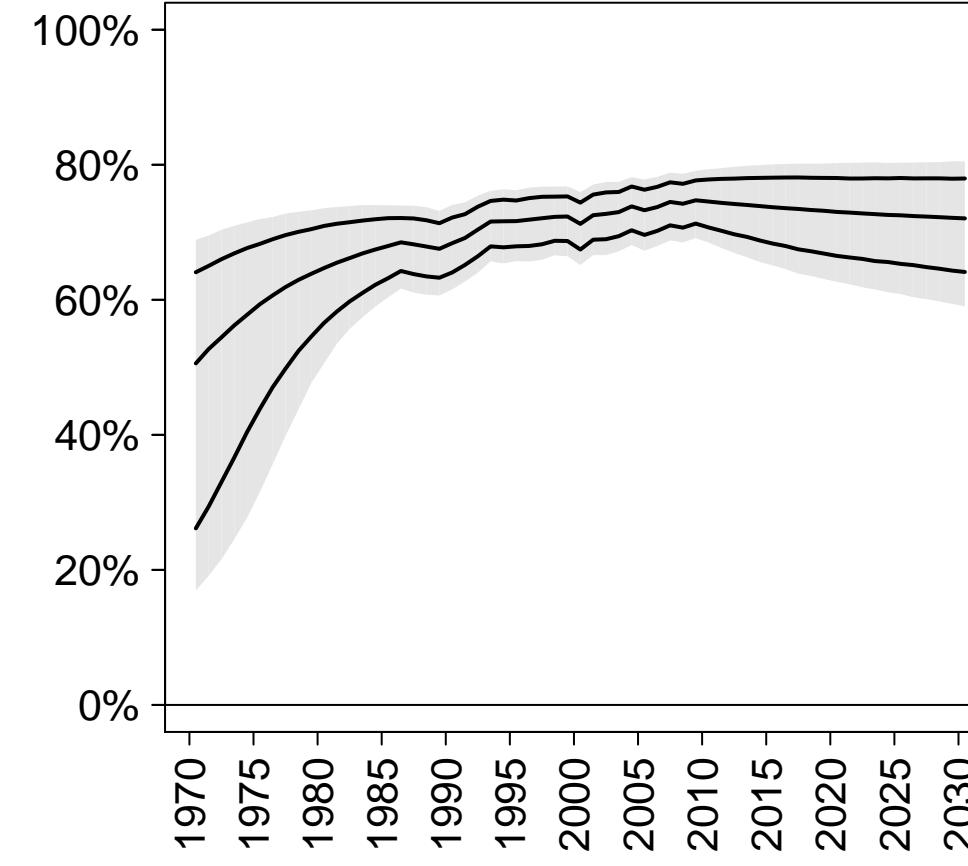


Northern Europe

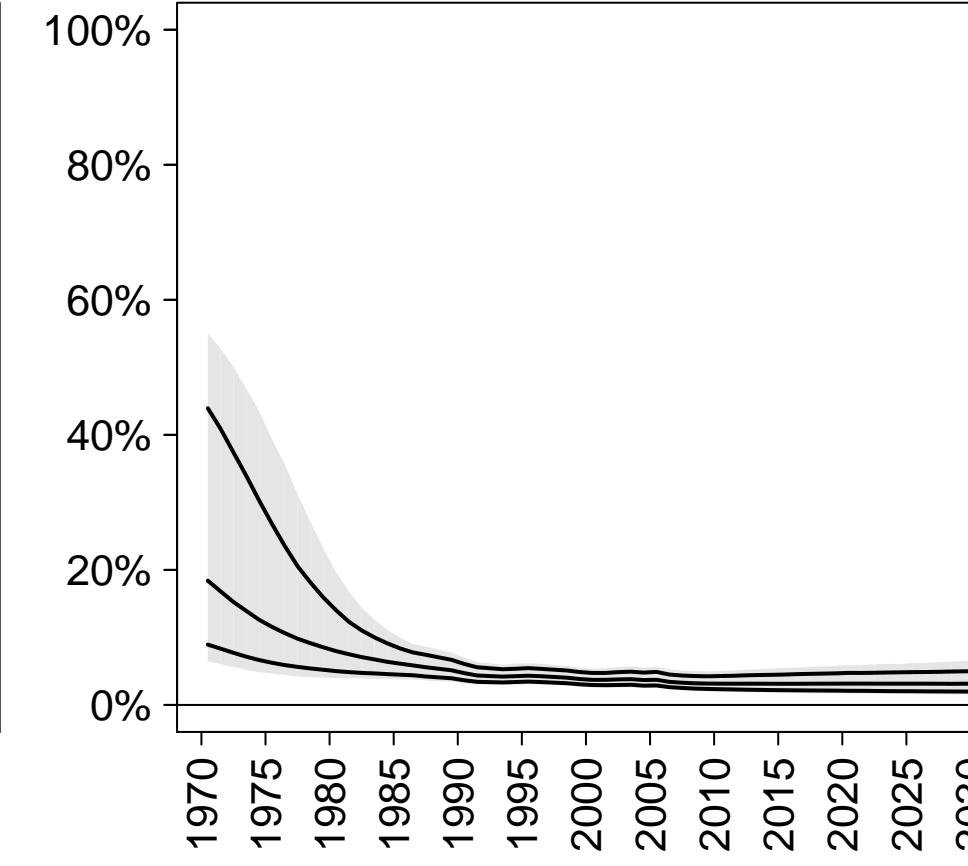
CP (any)



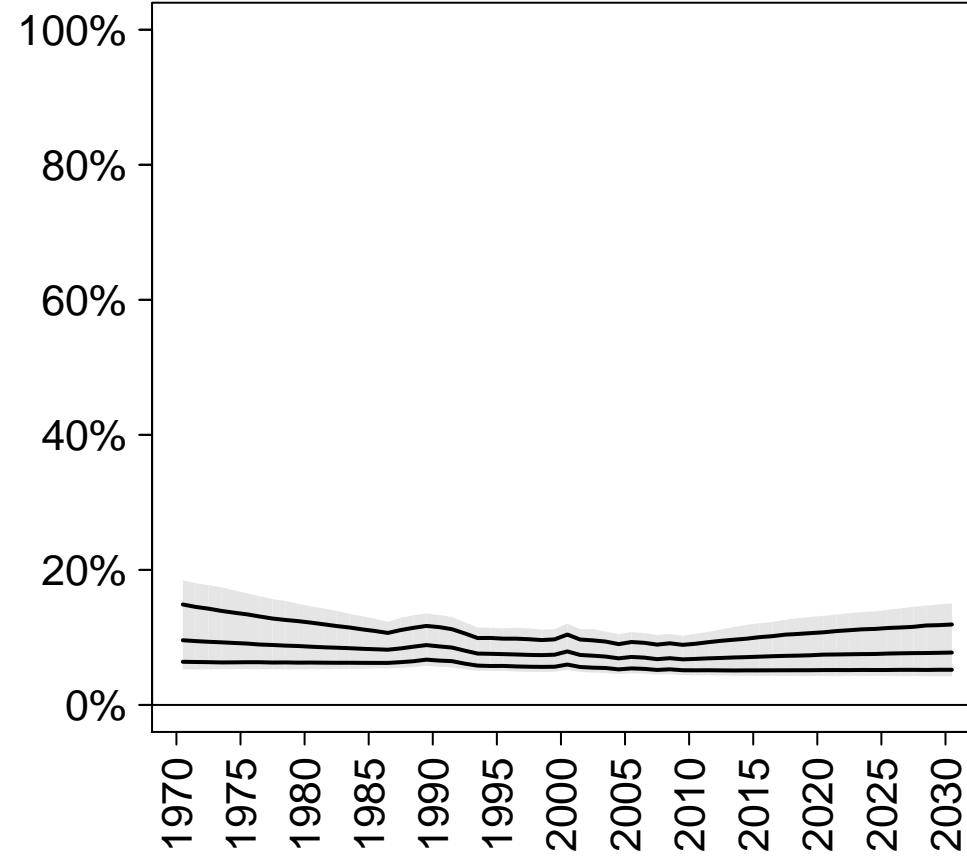
CP (modern)



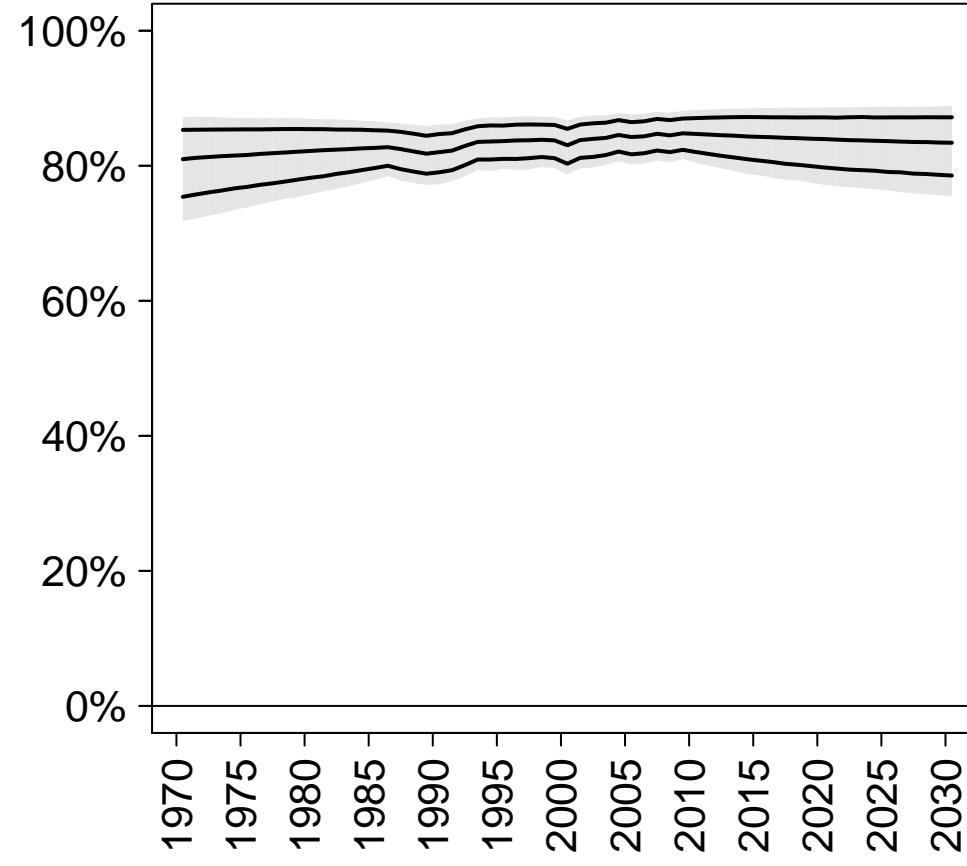
CP (traditional)



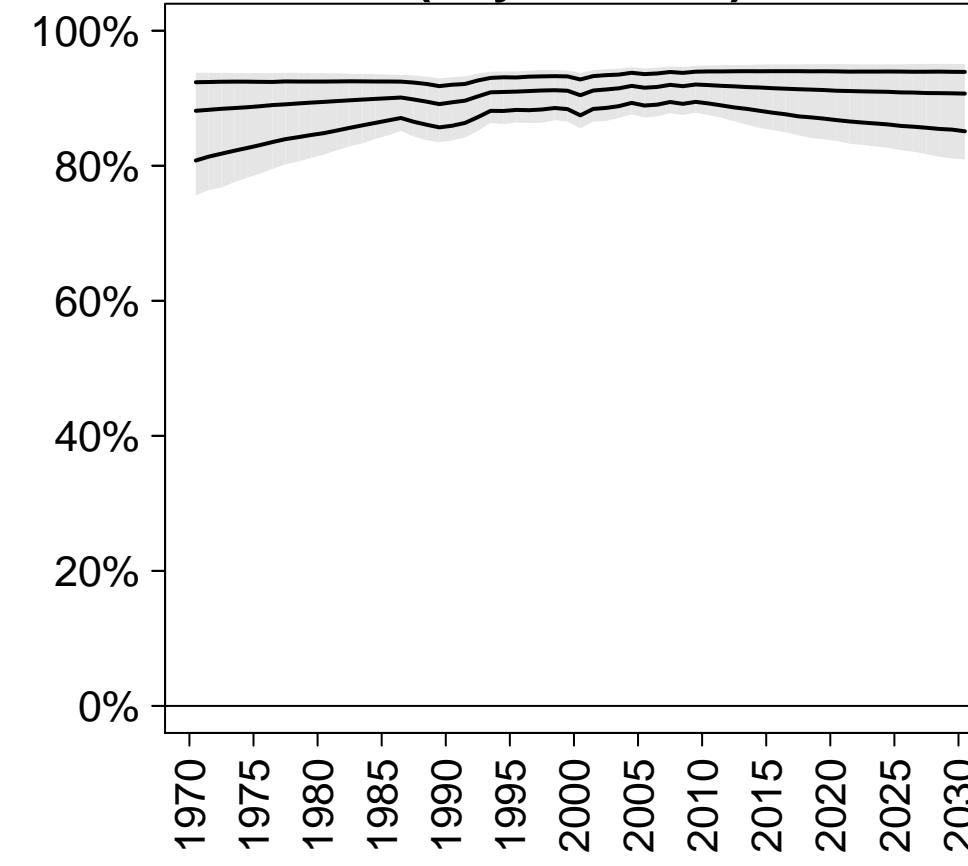
Unmet need



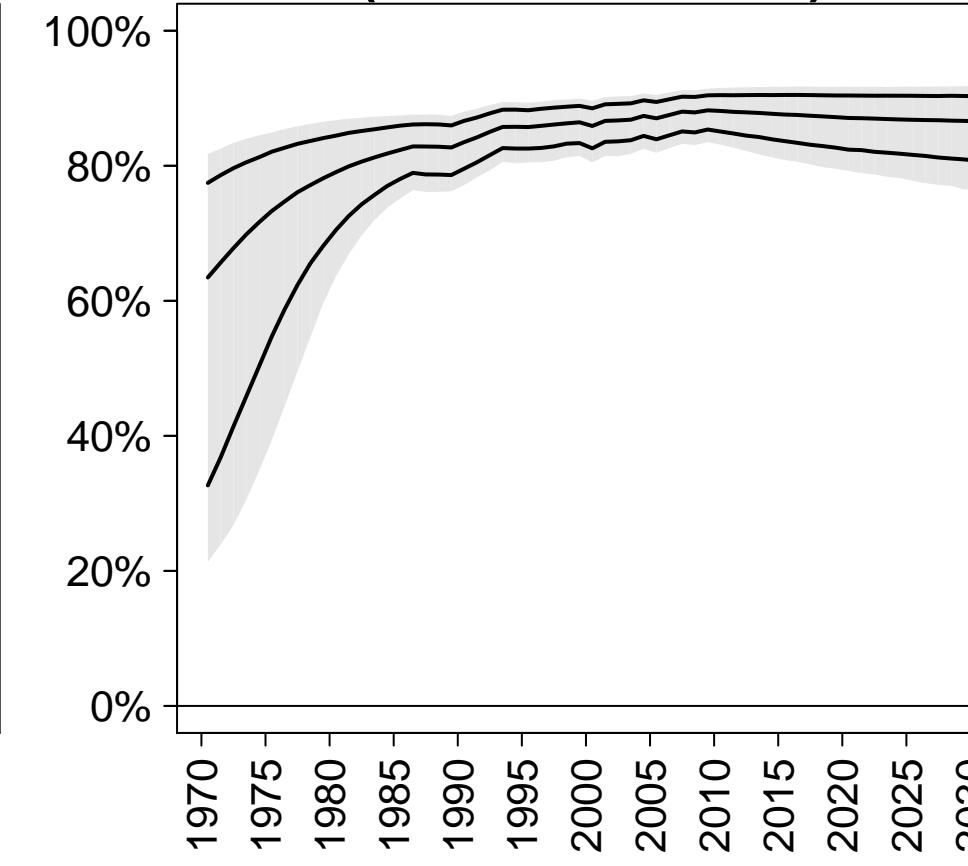
Total demand



**Demand satisfied
(any method)**

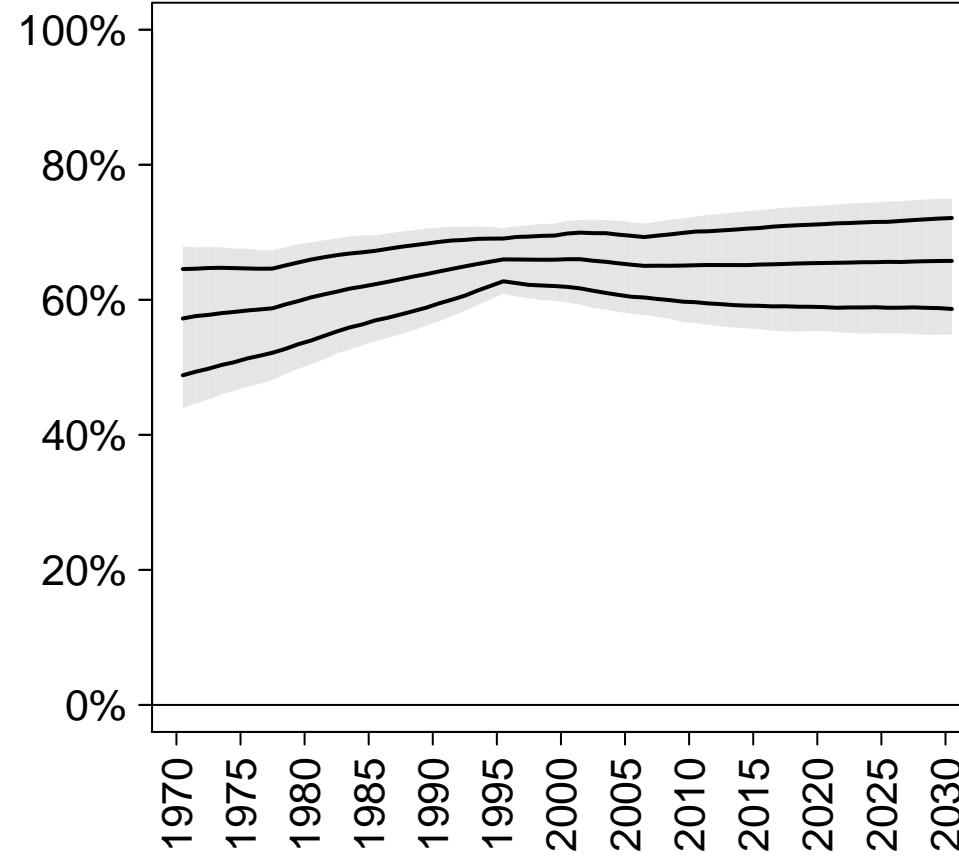


**Demand satisfied
(modern methods)**

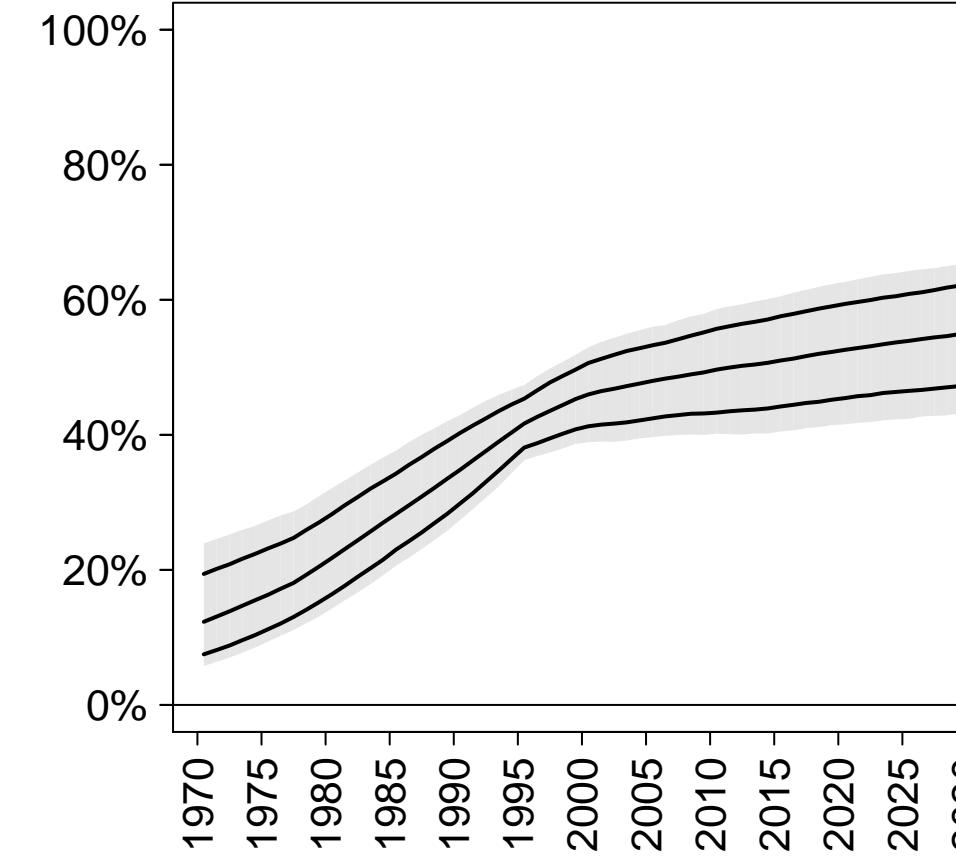


Southern Europe

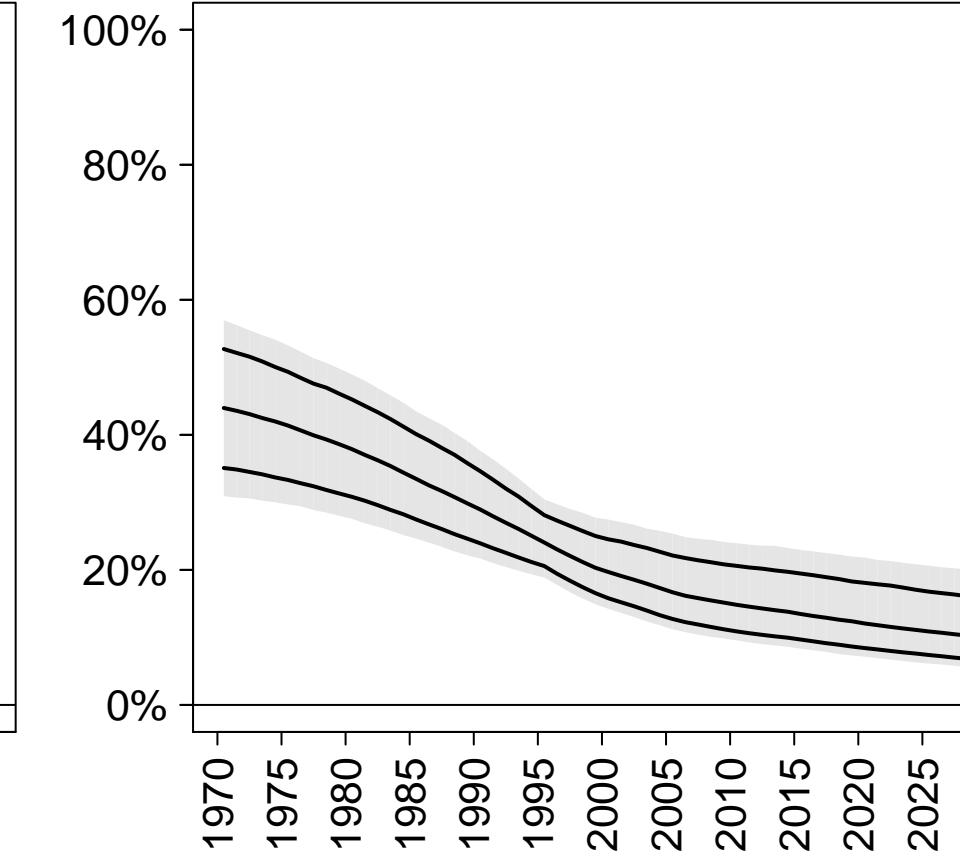
CP (any)



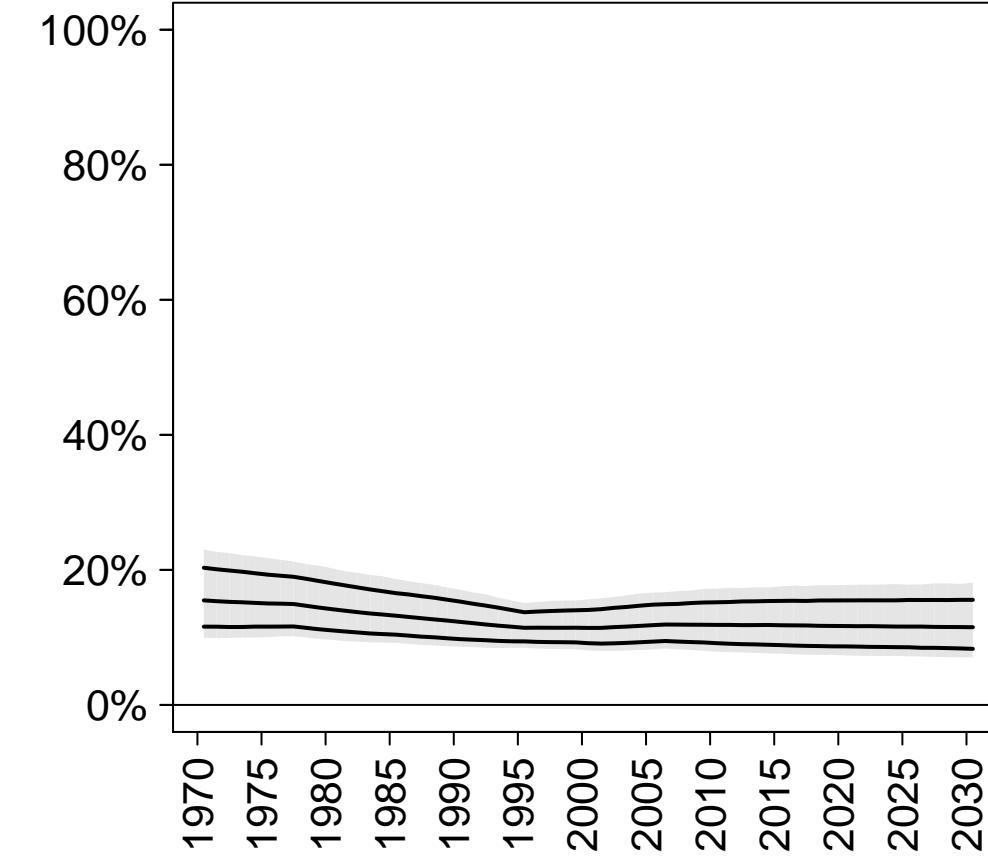
CP (modern)



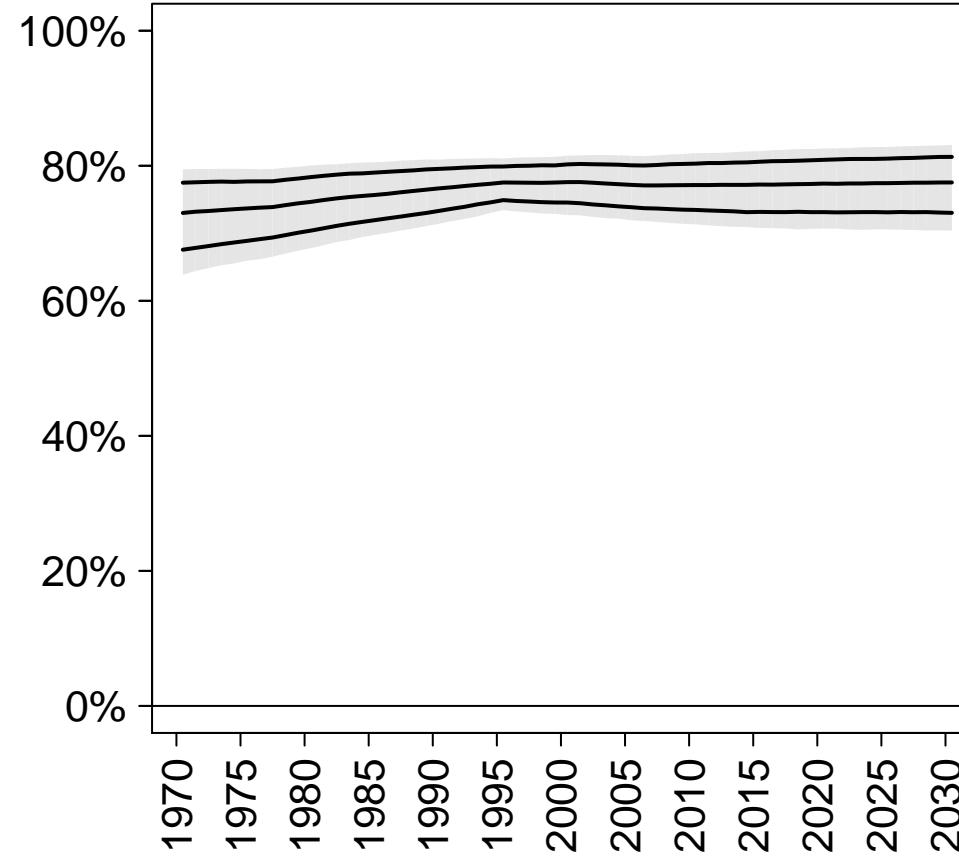
CP (traditional)



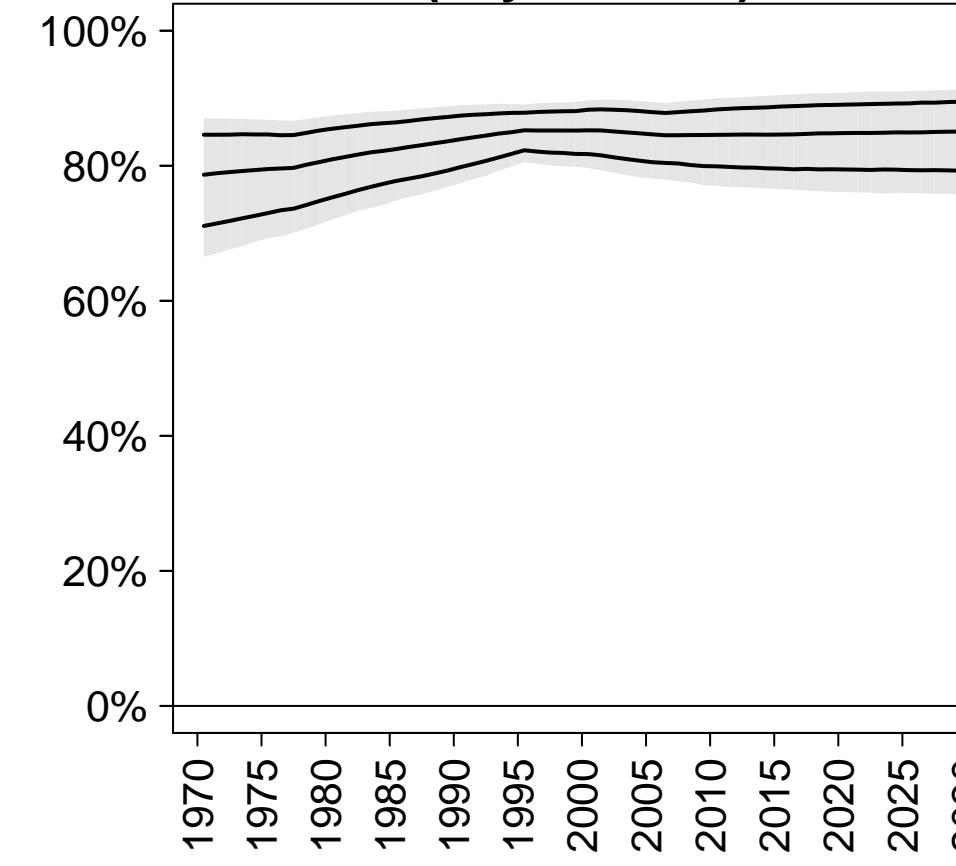
Unmet need



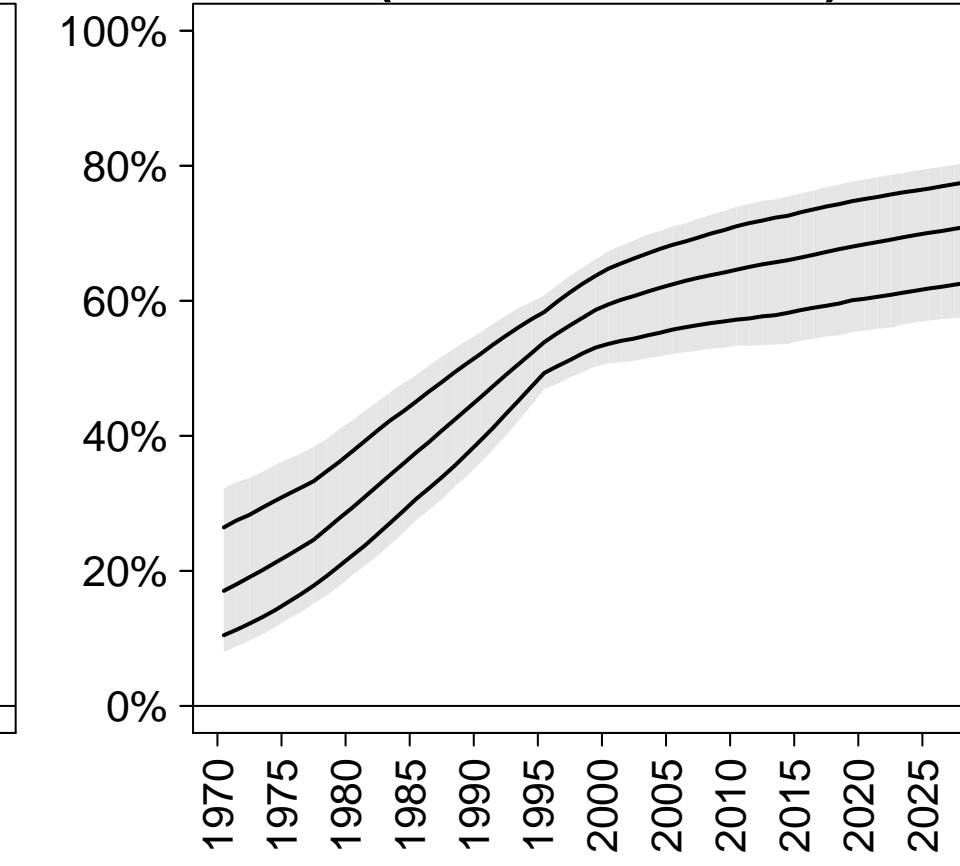
Total demand



**Demand satisfied
(any method)**

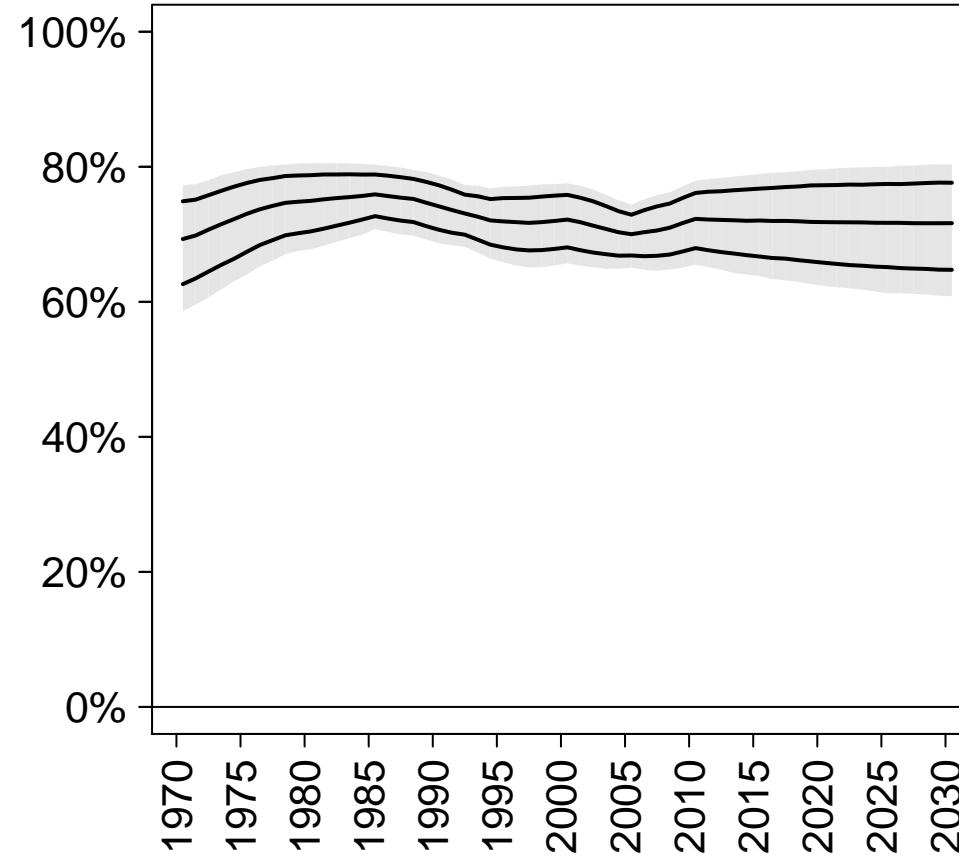


**Demand satisfied
(modern methods)**

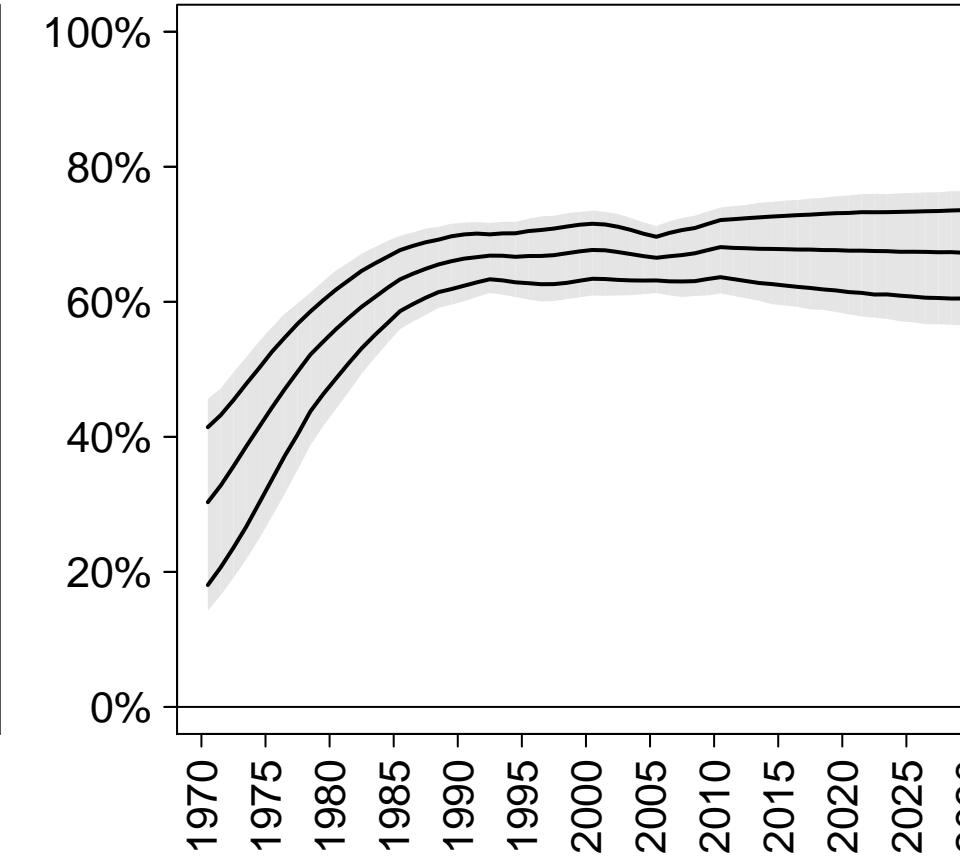


Western Europe

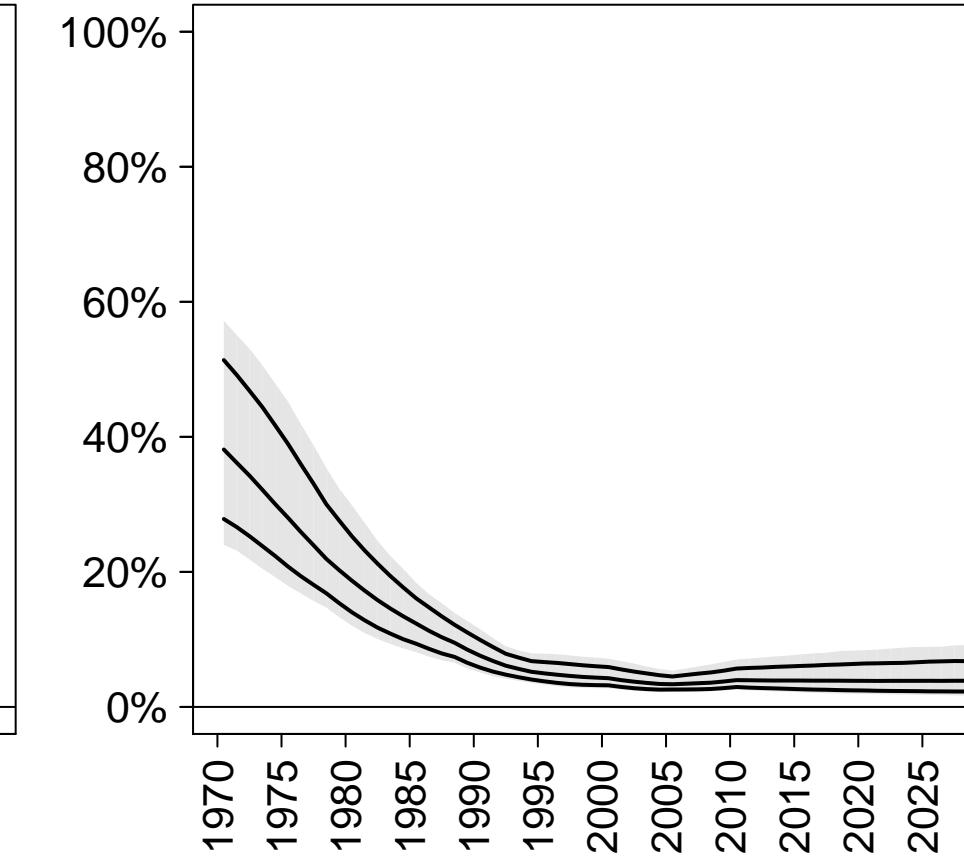
CP (any)



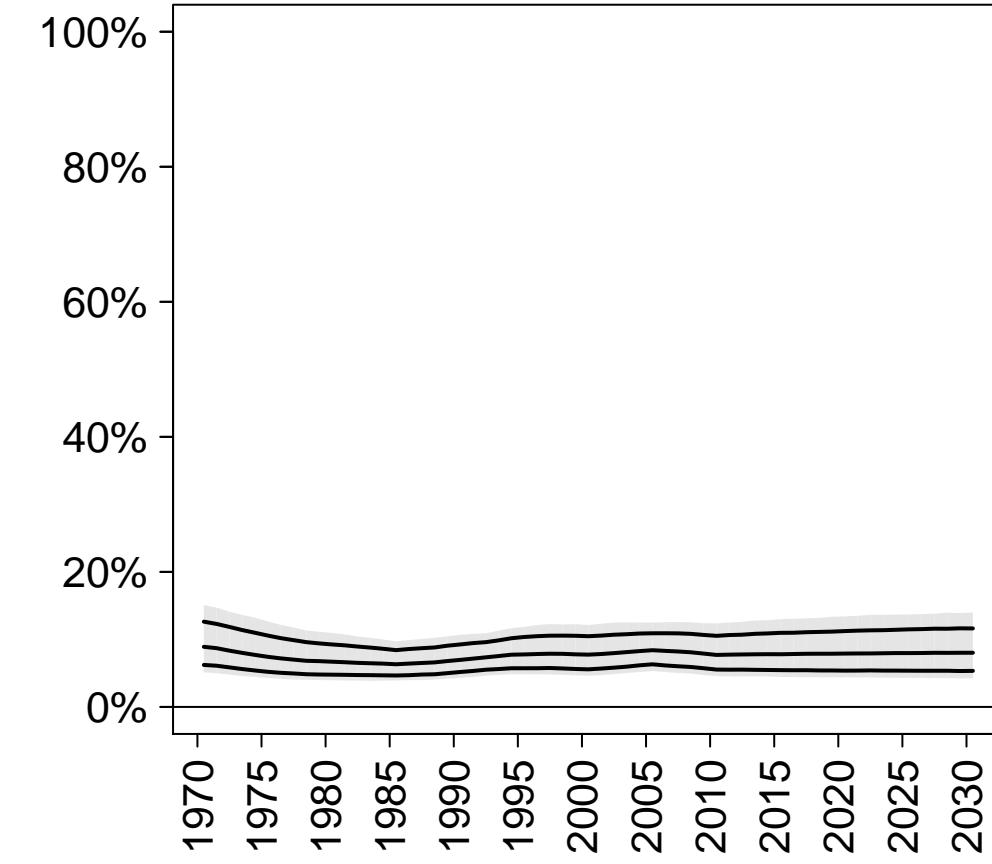
CP (modern)



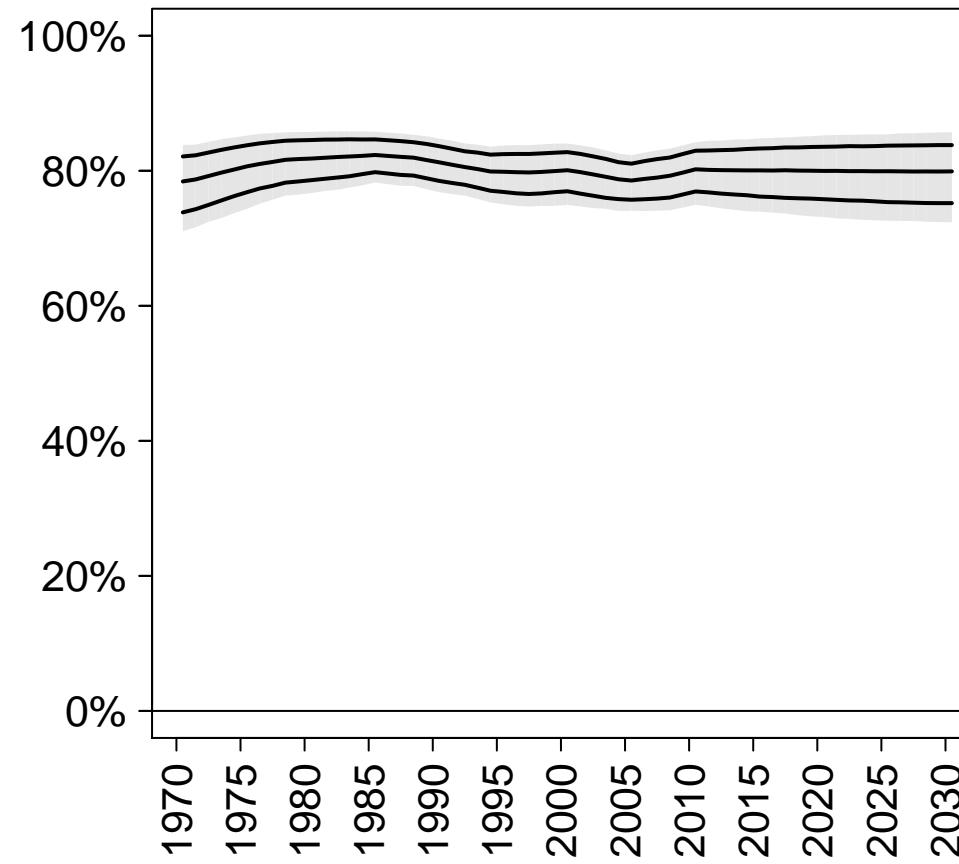
CP (traditional)



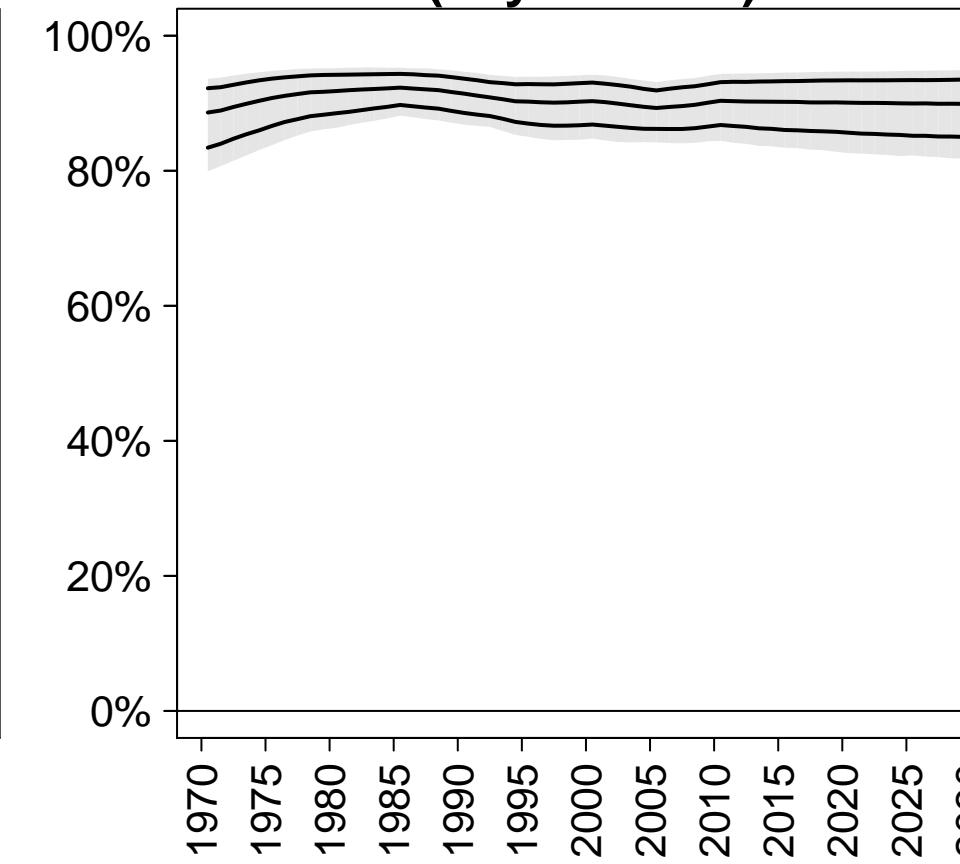
Unmet need



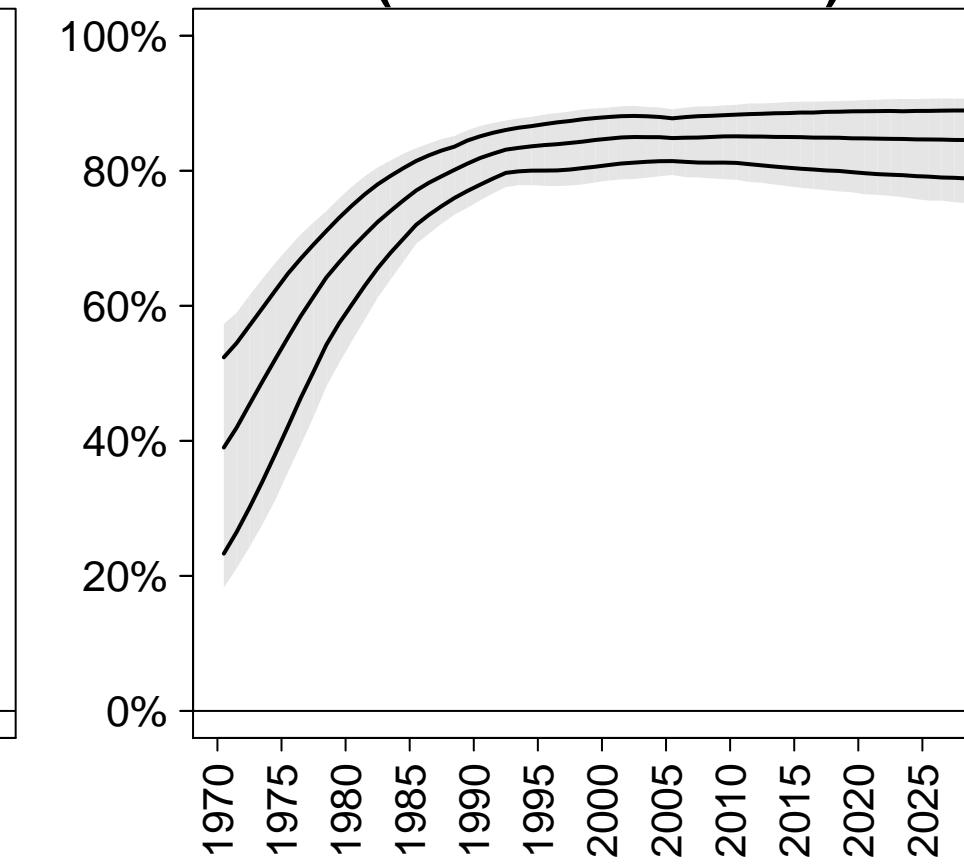
Total demand



**Demand satisfied
(any method)**

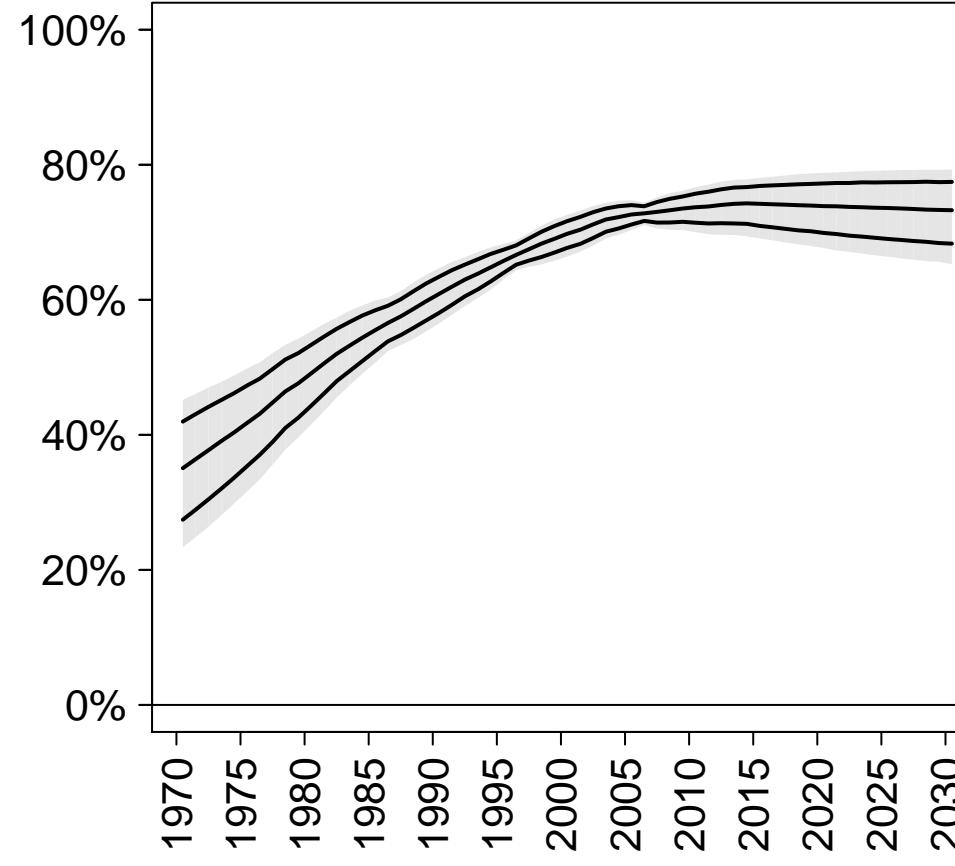


**Demand satisfied
(modern methods)**

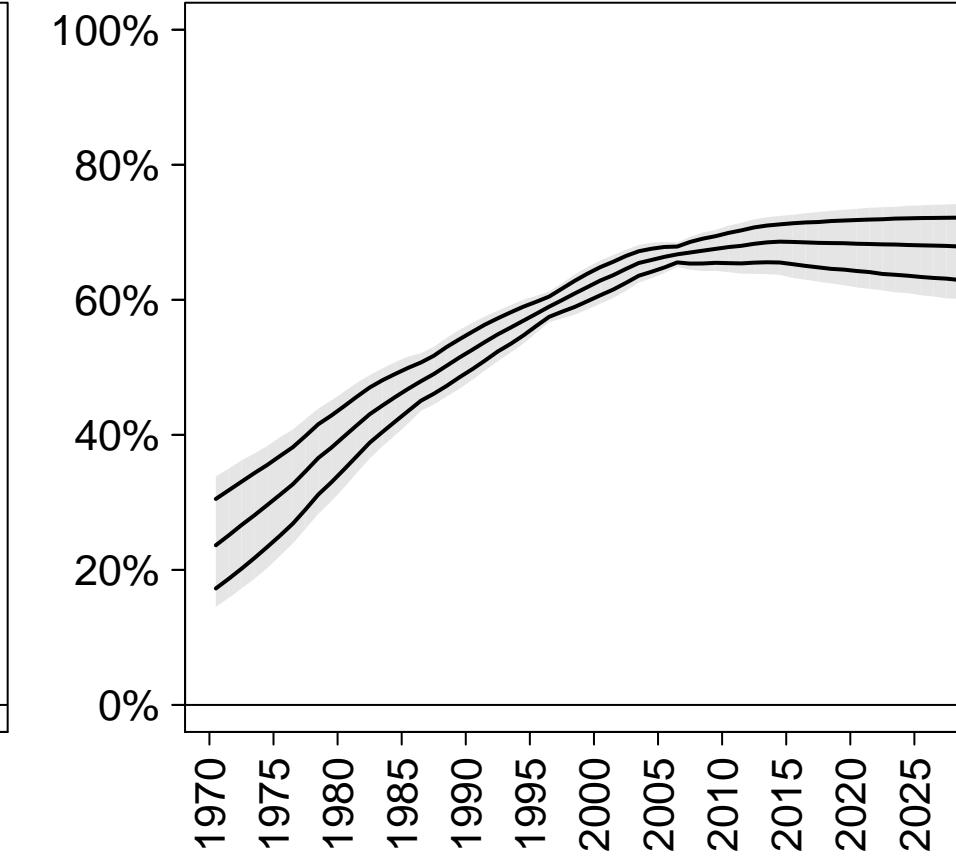


Latin America and the Caribbean

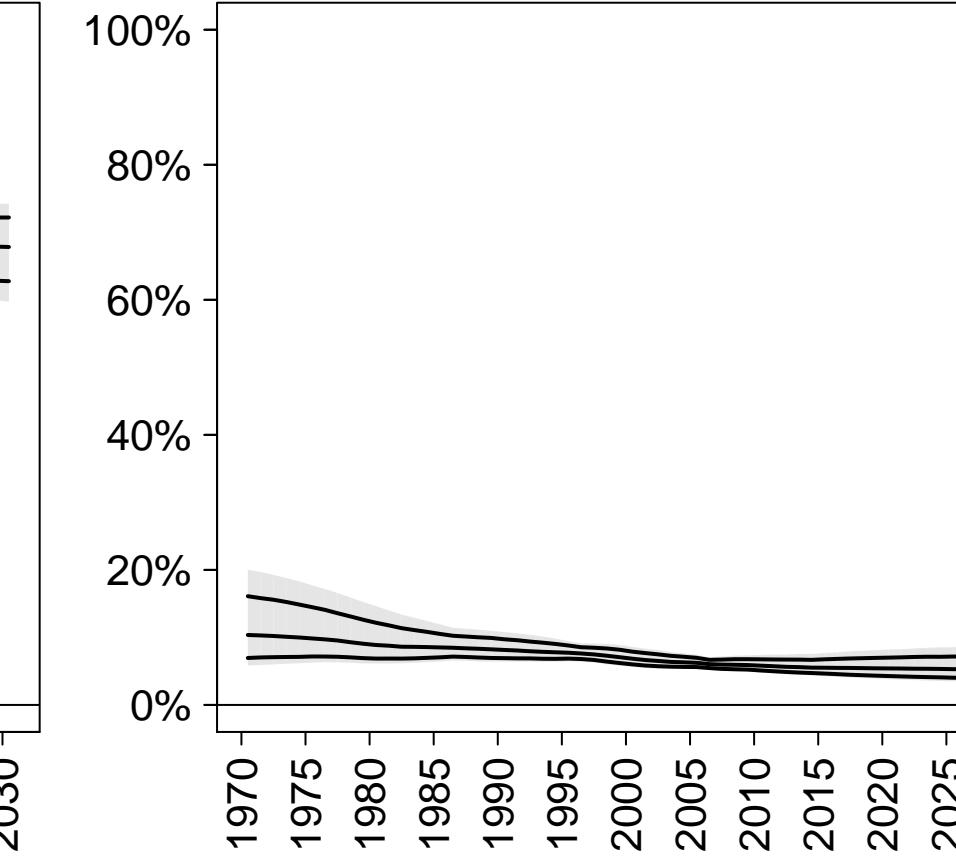
CP (any)



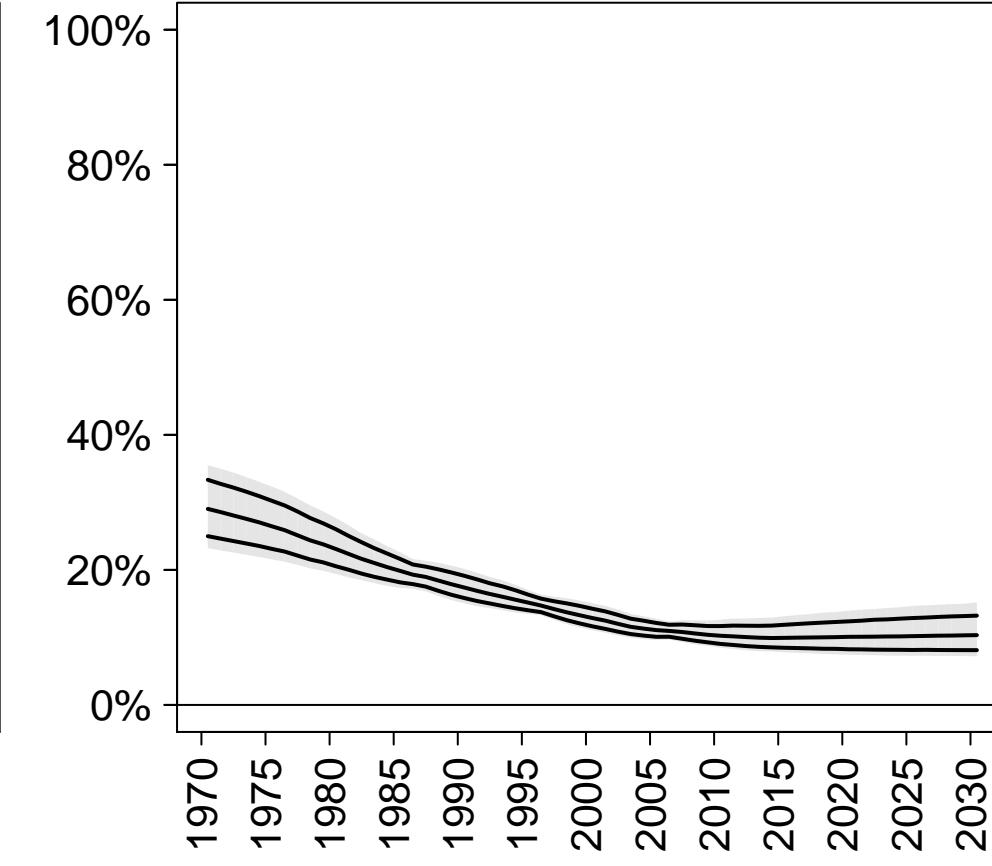
CP (modern)



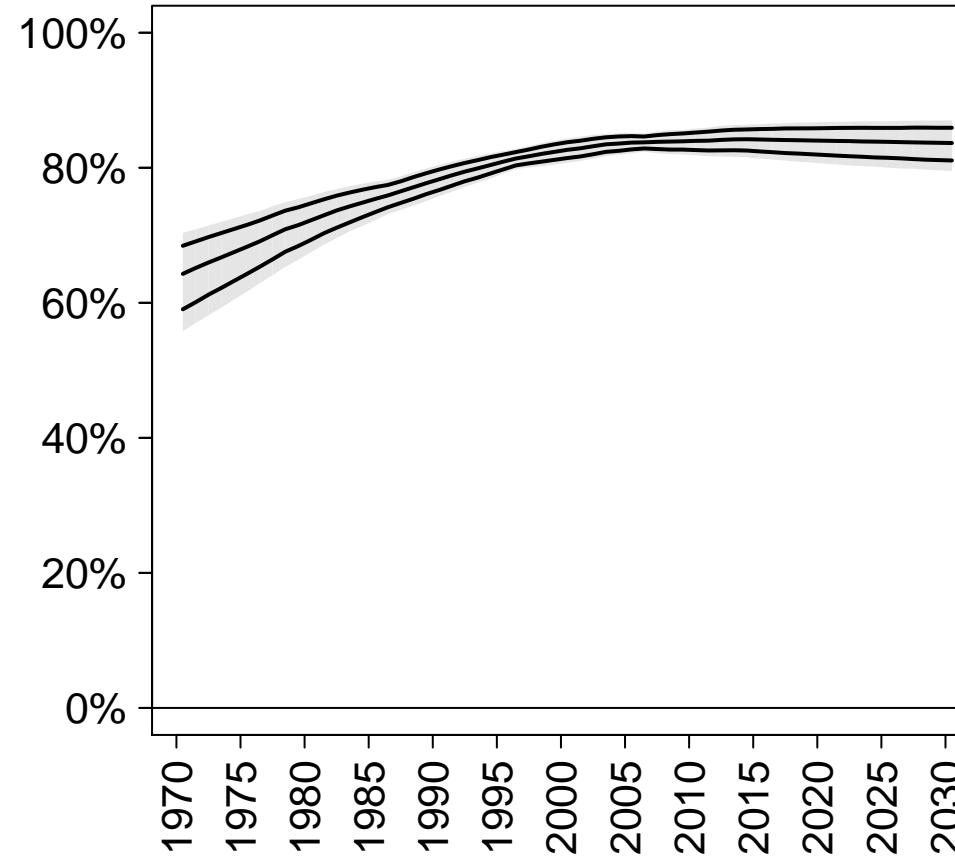
CP (traditional)



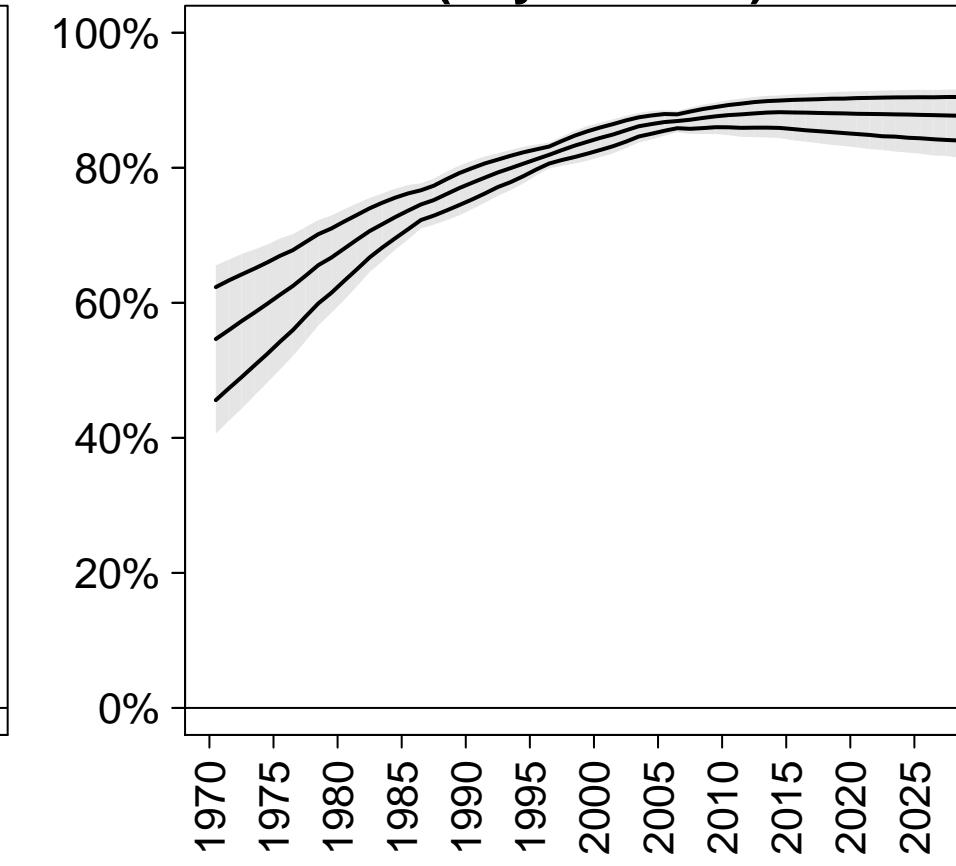
Unmet need



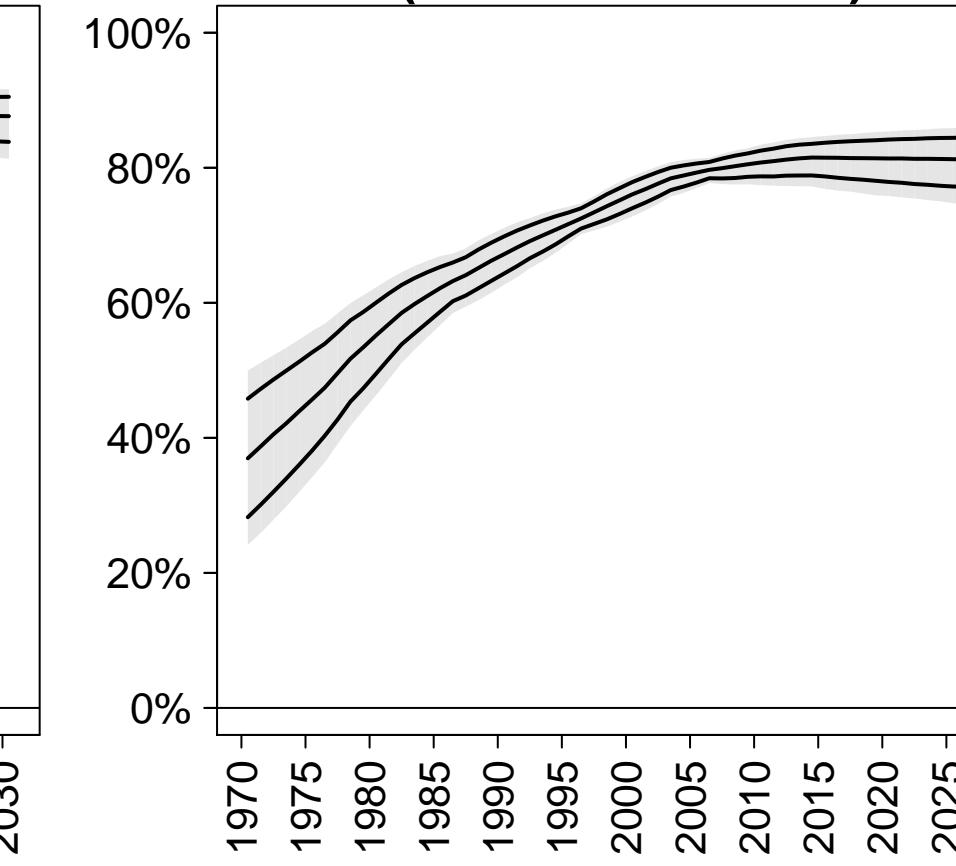
Total demand



**Demand satisfied
(any method)**

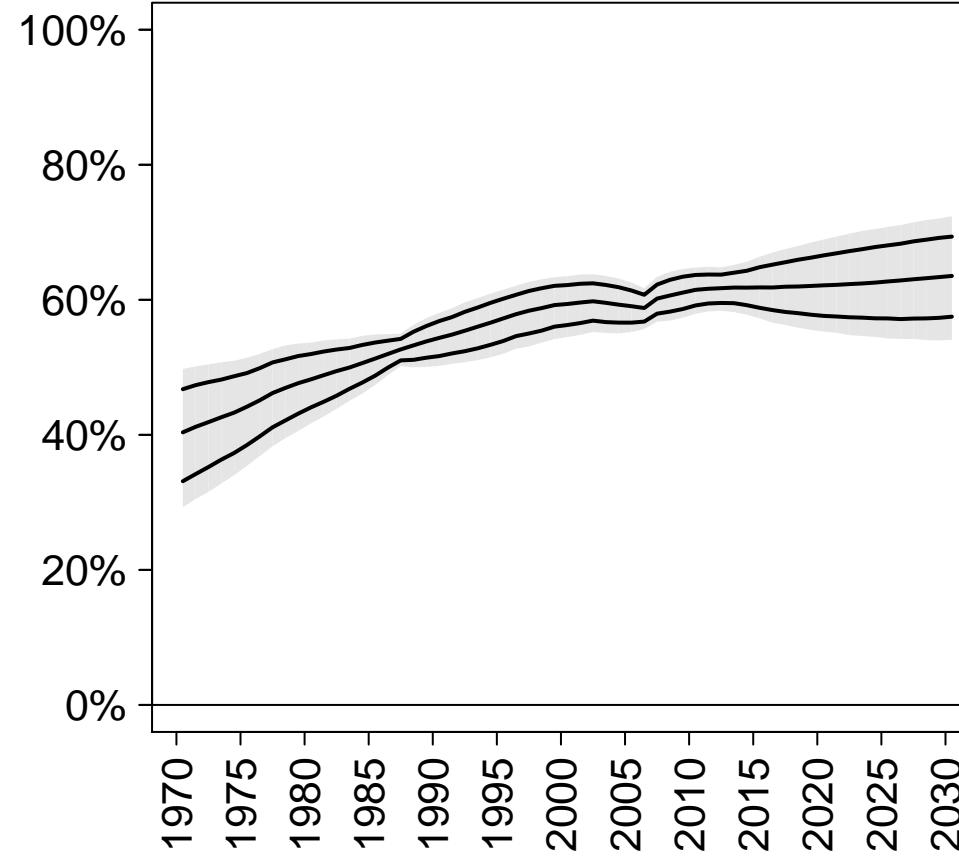


**Demand satisfied
(modern methods)**

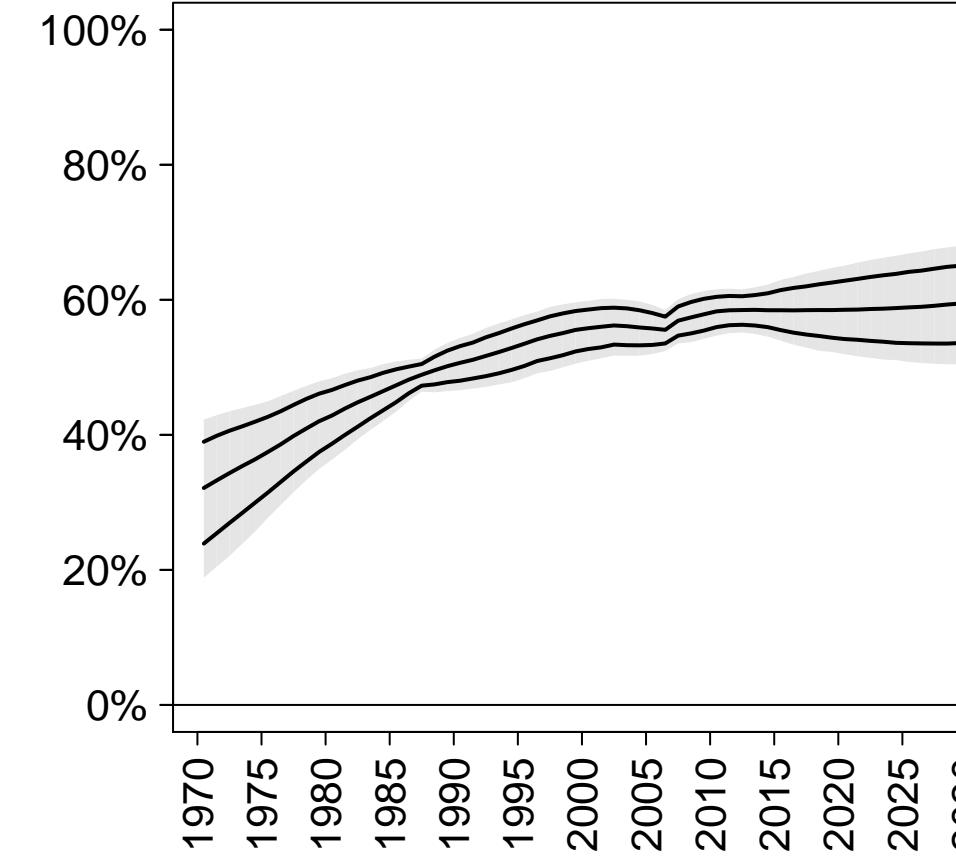


Caribbean

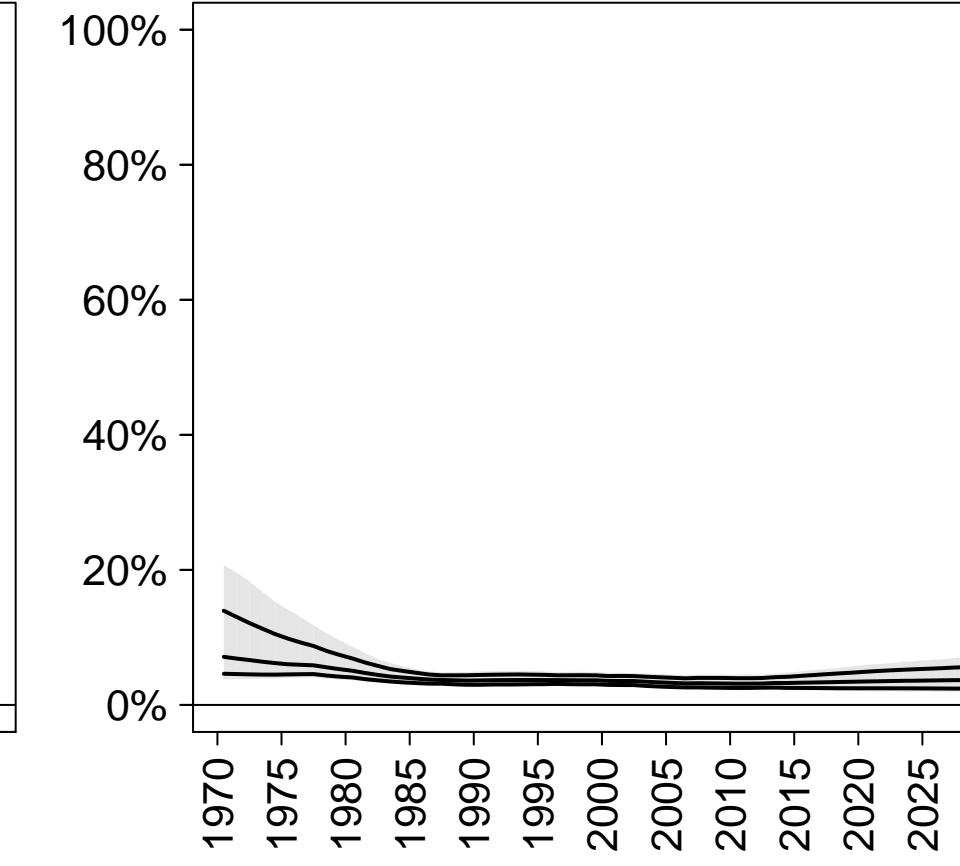
CP (any)



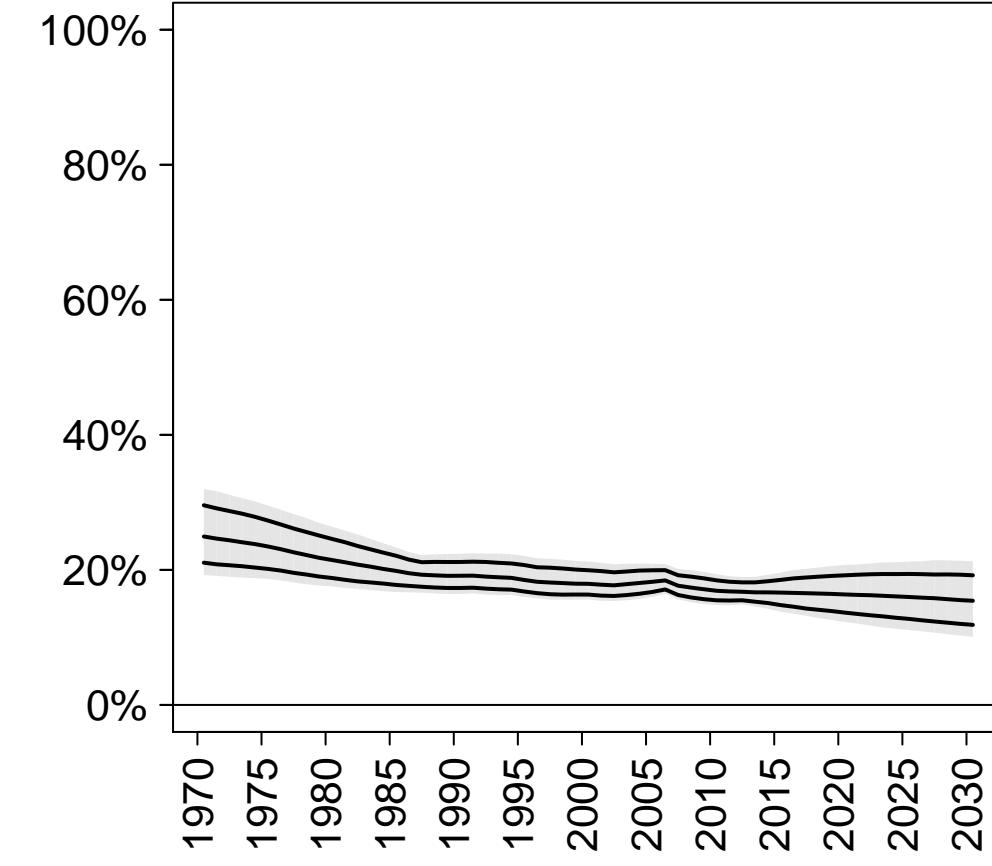
CP (modern)



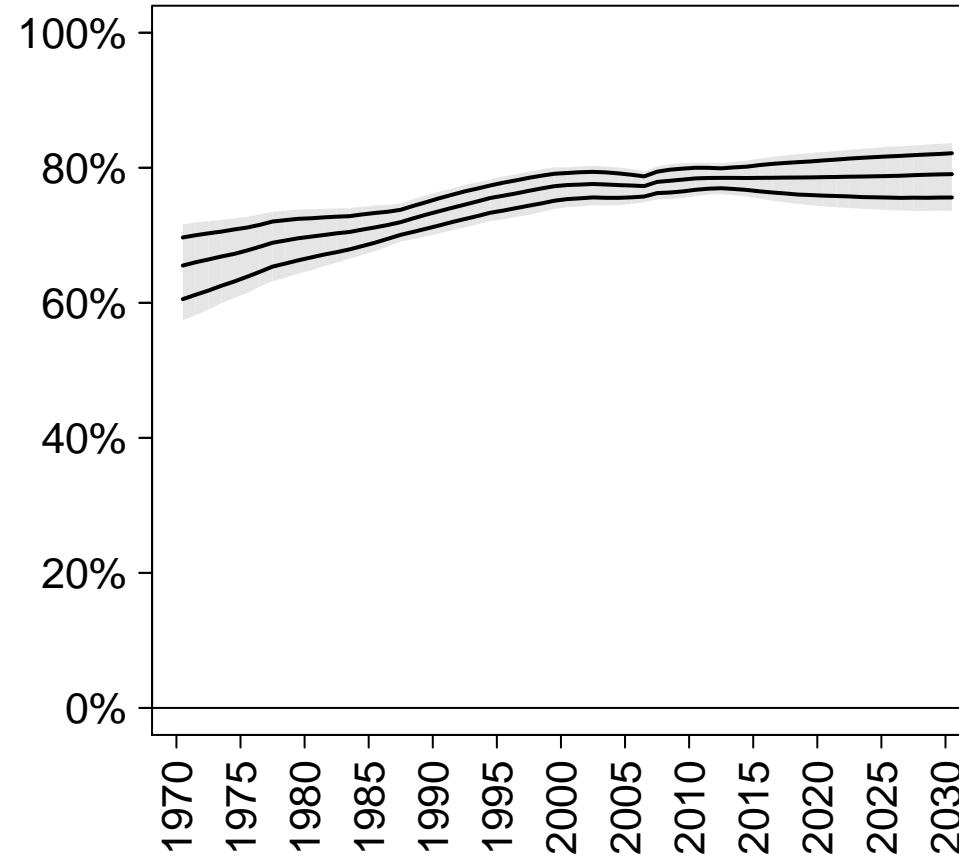
CP (traditional)



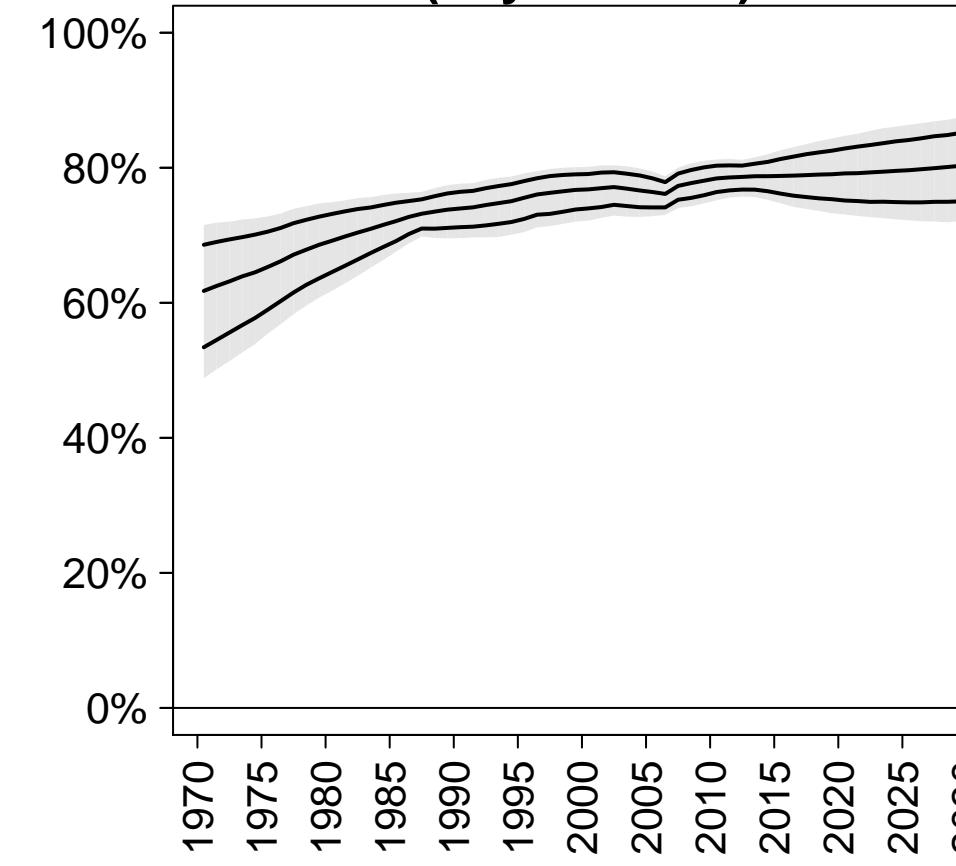
Unmet need



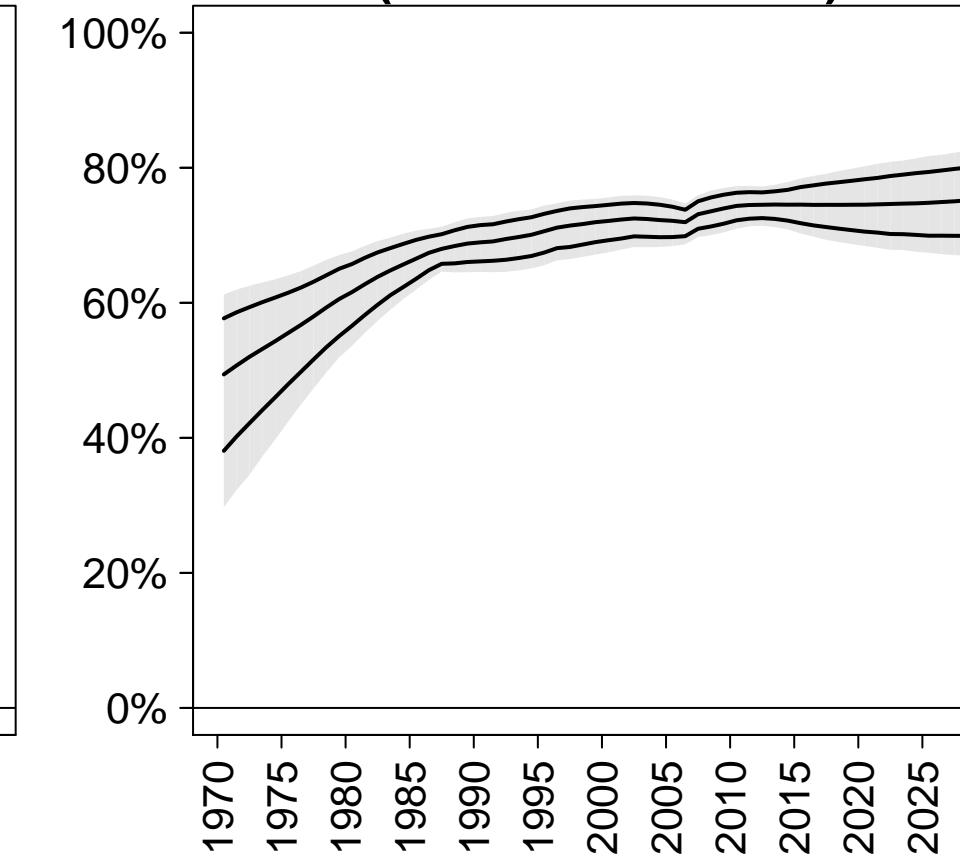
Total demand



**Demand satisfied
(any method)**

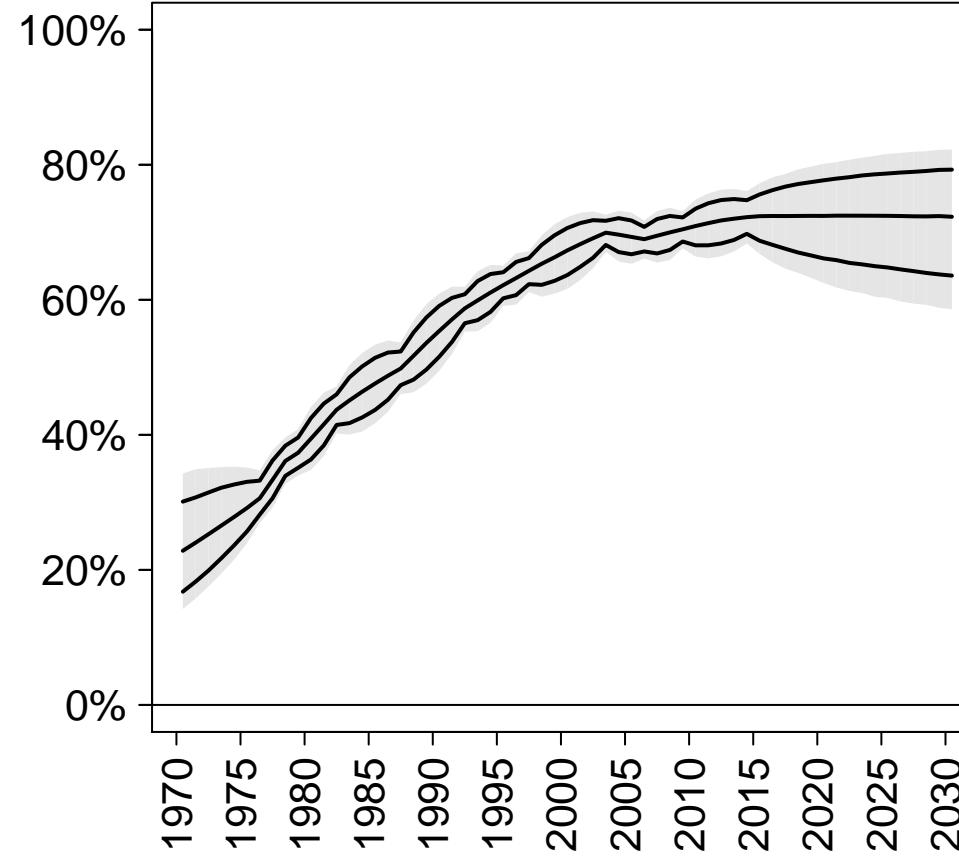


**Demand satisfied
(modern methods)**

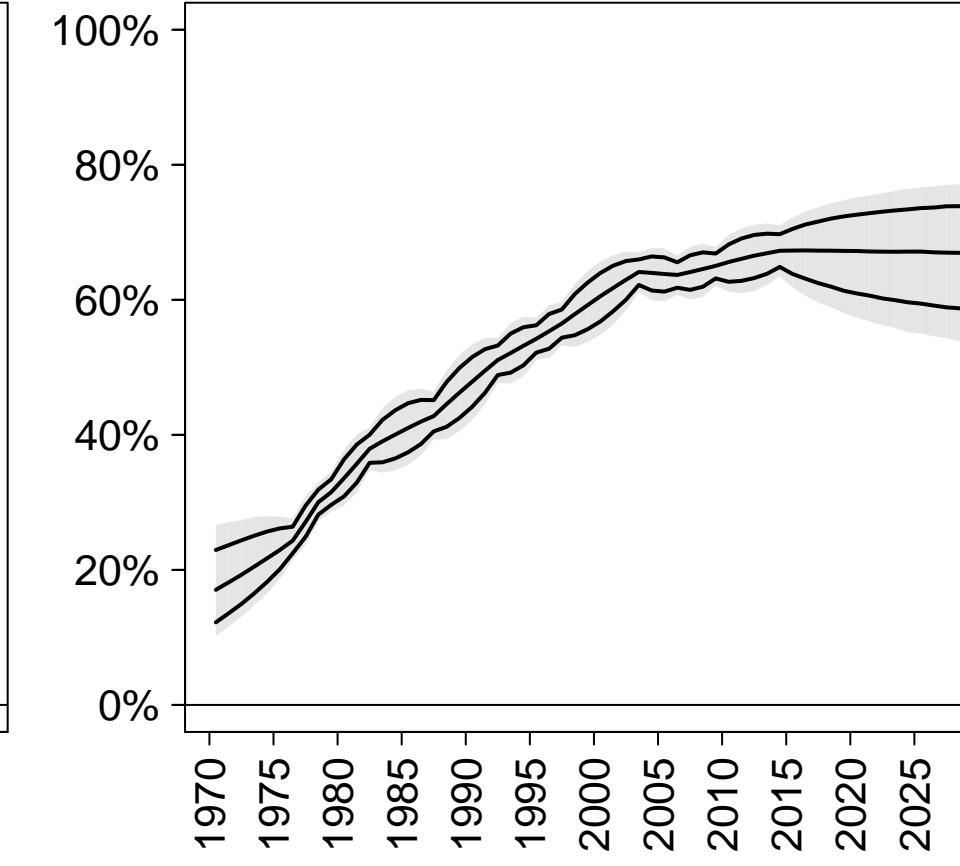


Central America

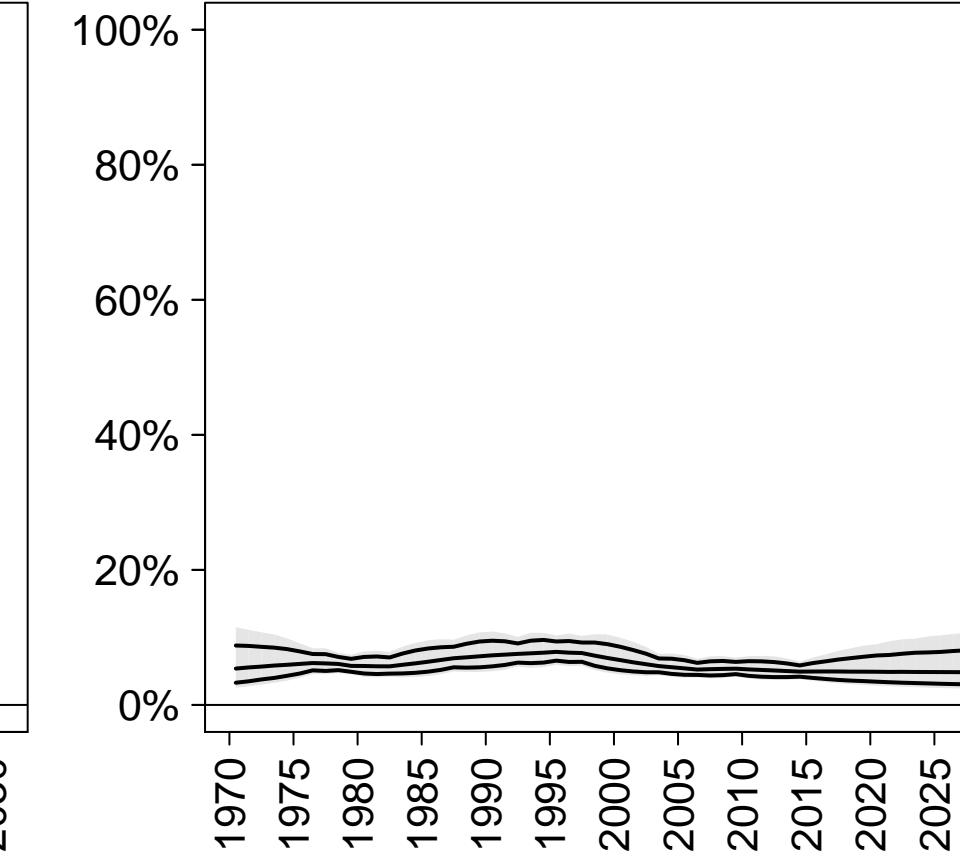
CP (any)



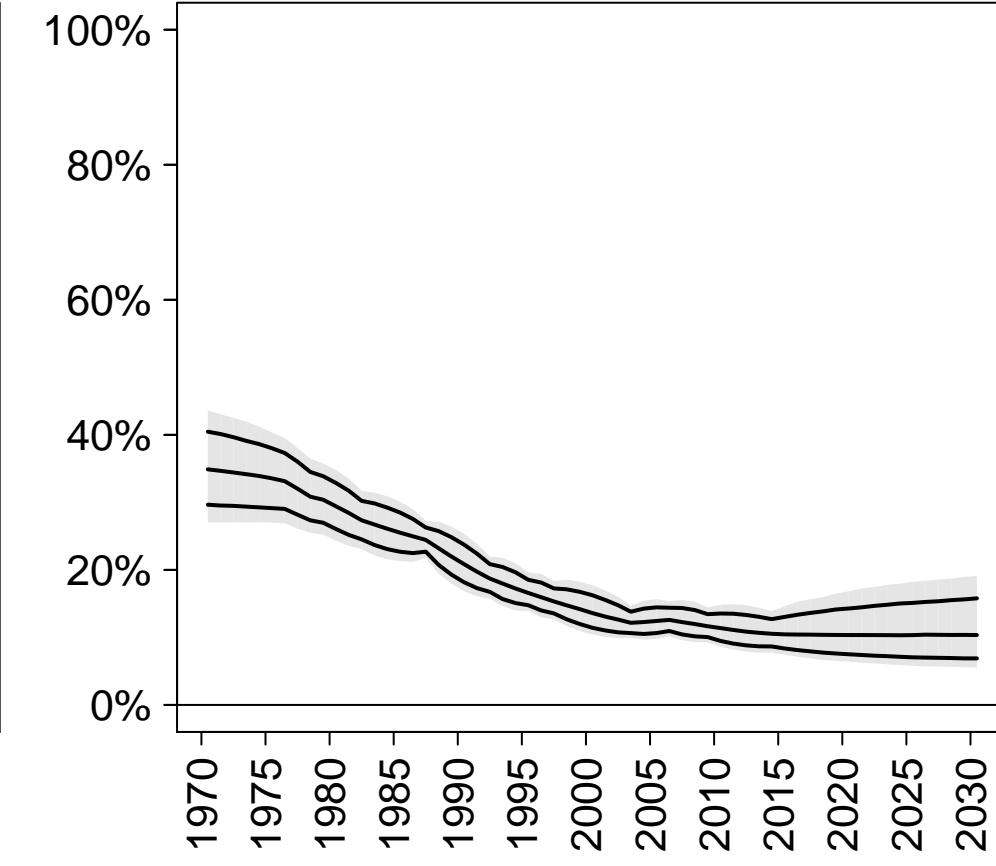
CP (modern)



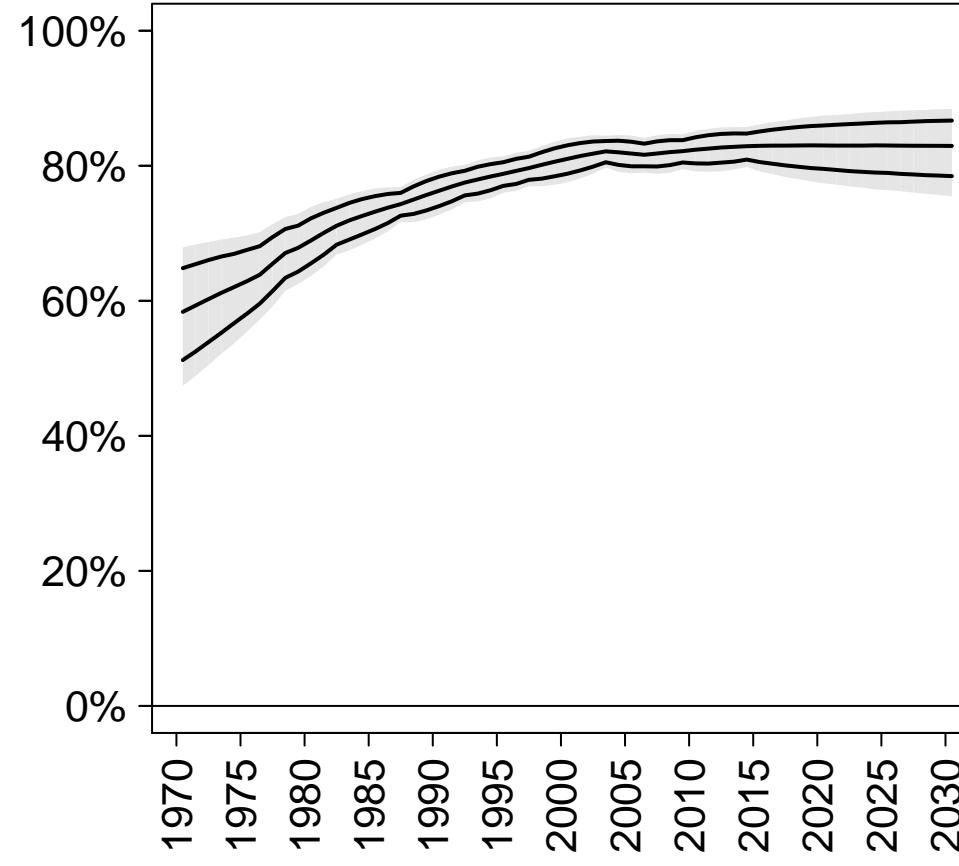
CP (traditional)



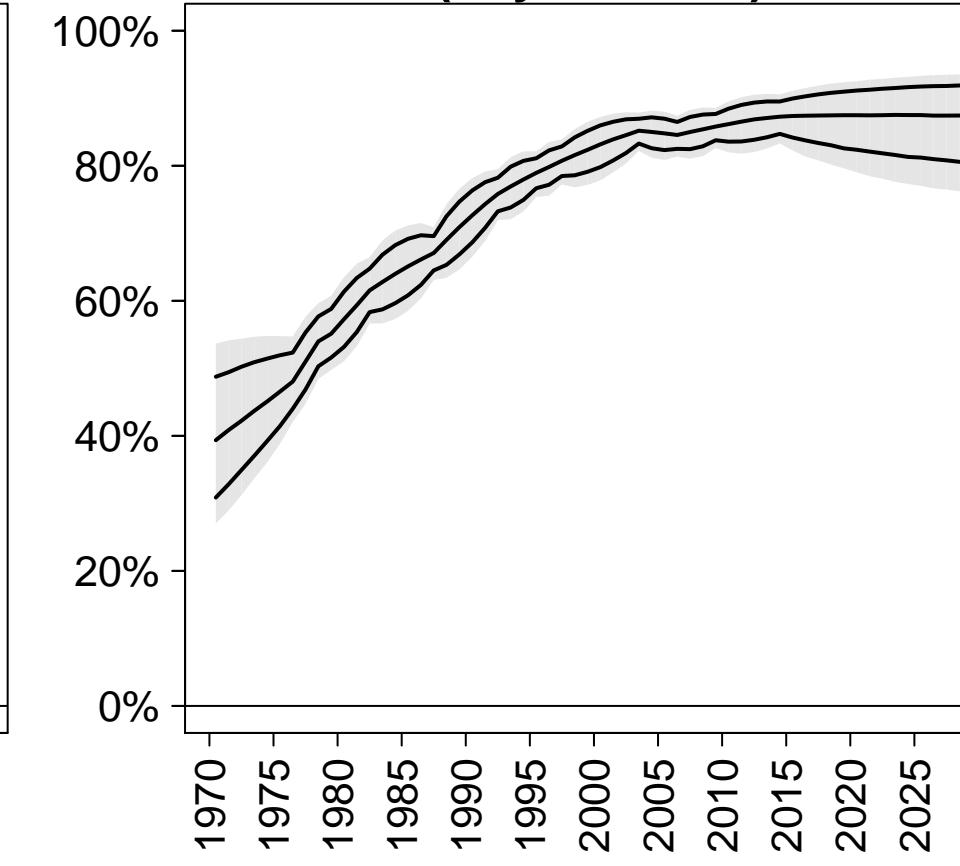
Unmet need



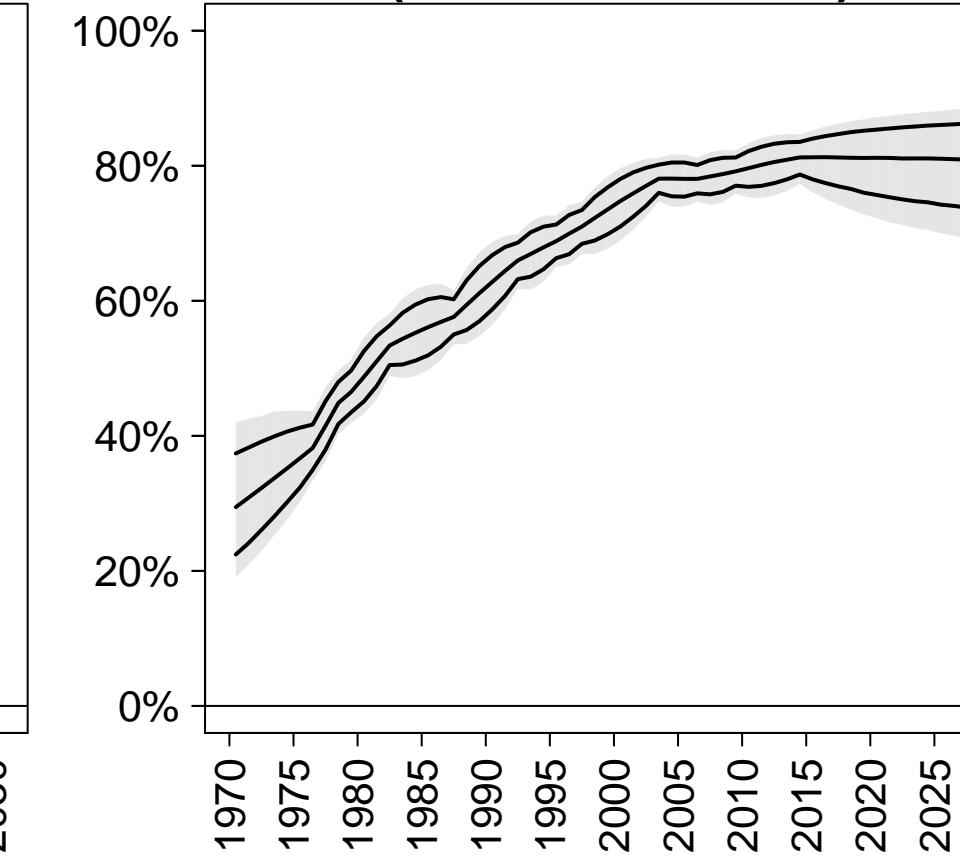
Total demand



**Demand satisfied
(any method)**

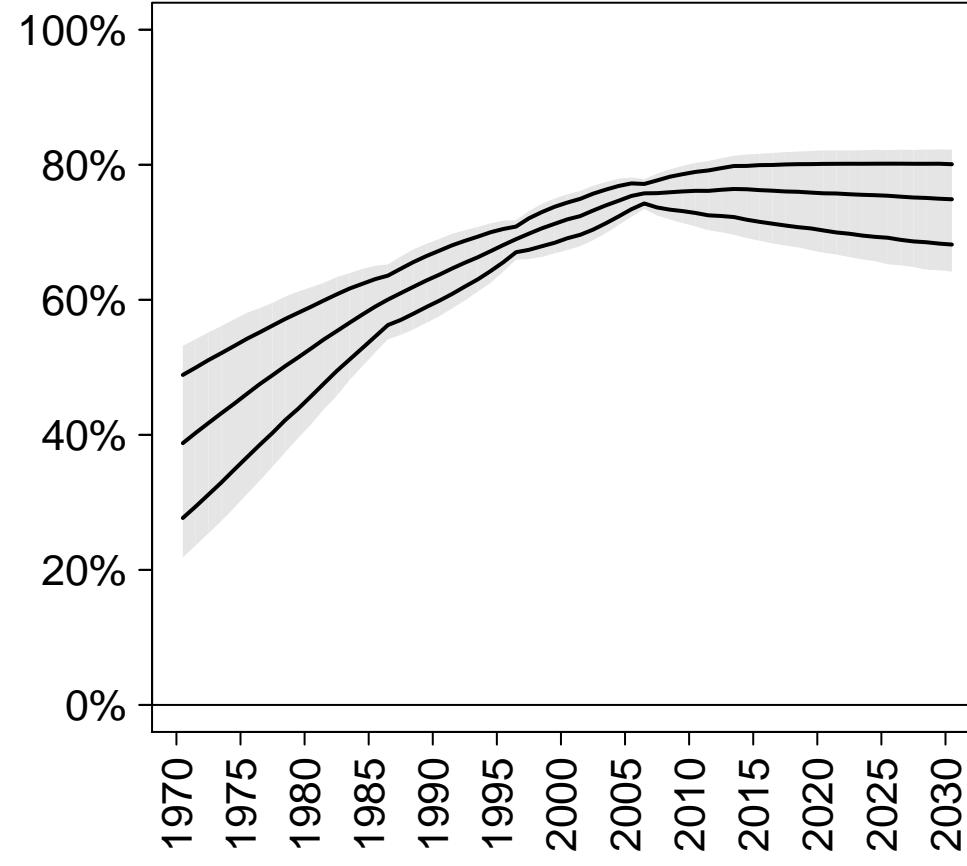


**Demand satisfied
(modern methods)**

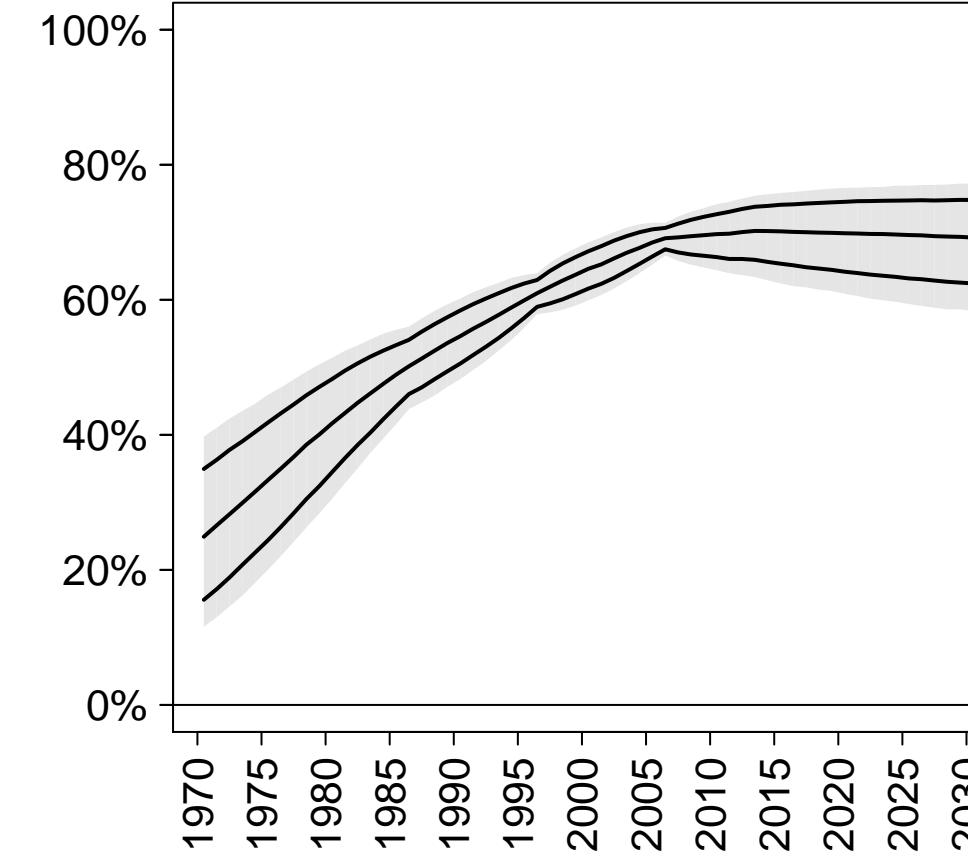


South America

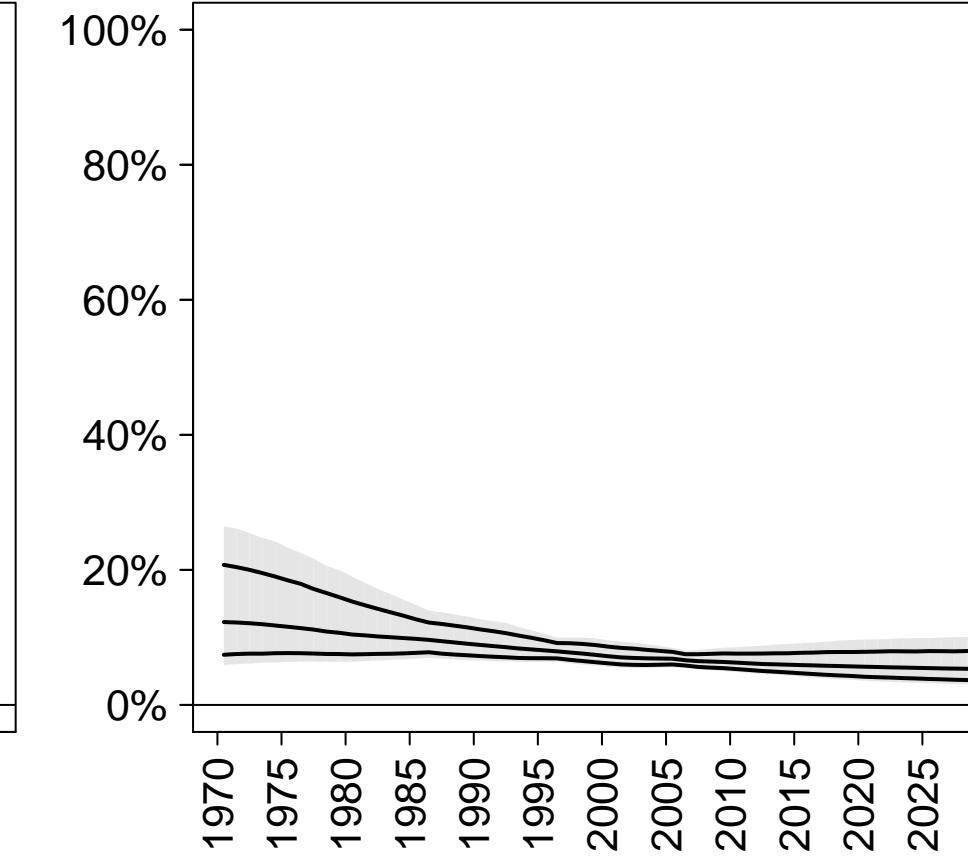
CP (any)



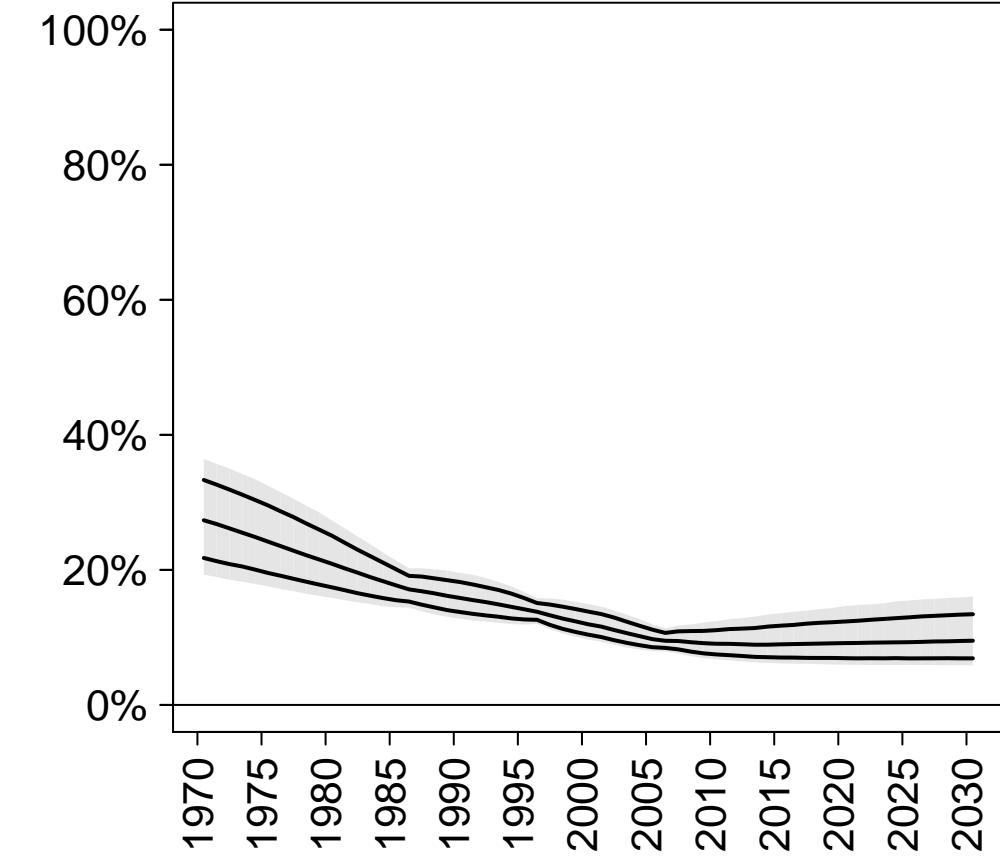
CP (modern)



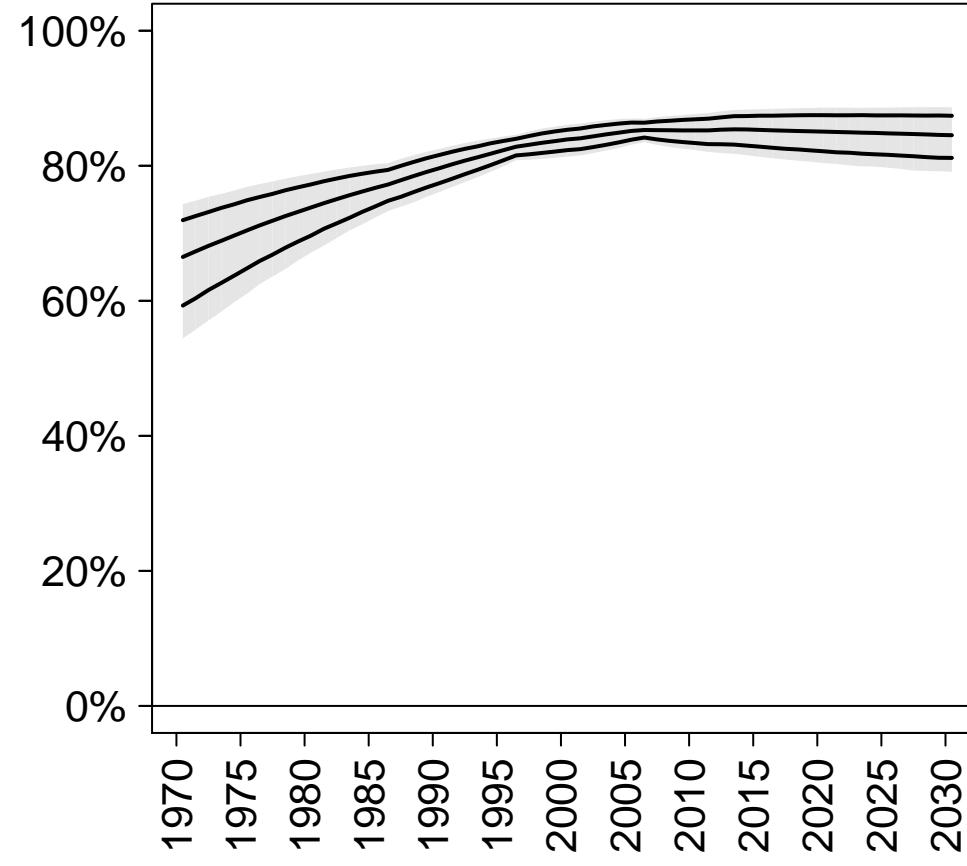
CP (traditional)



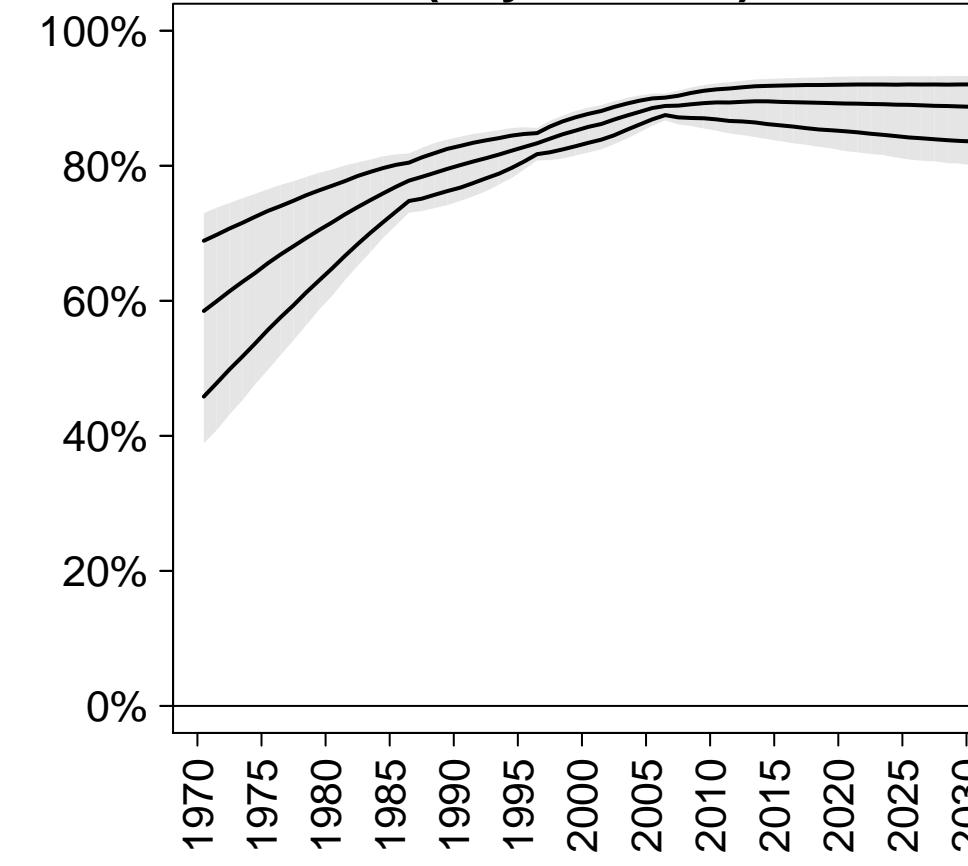
Unmet need



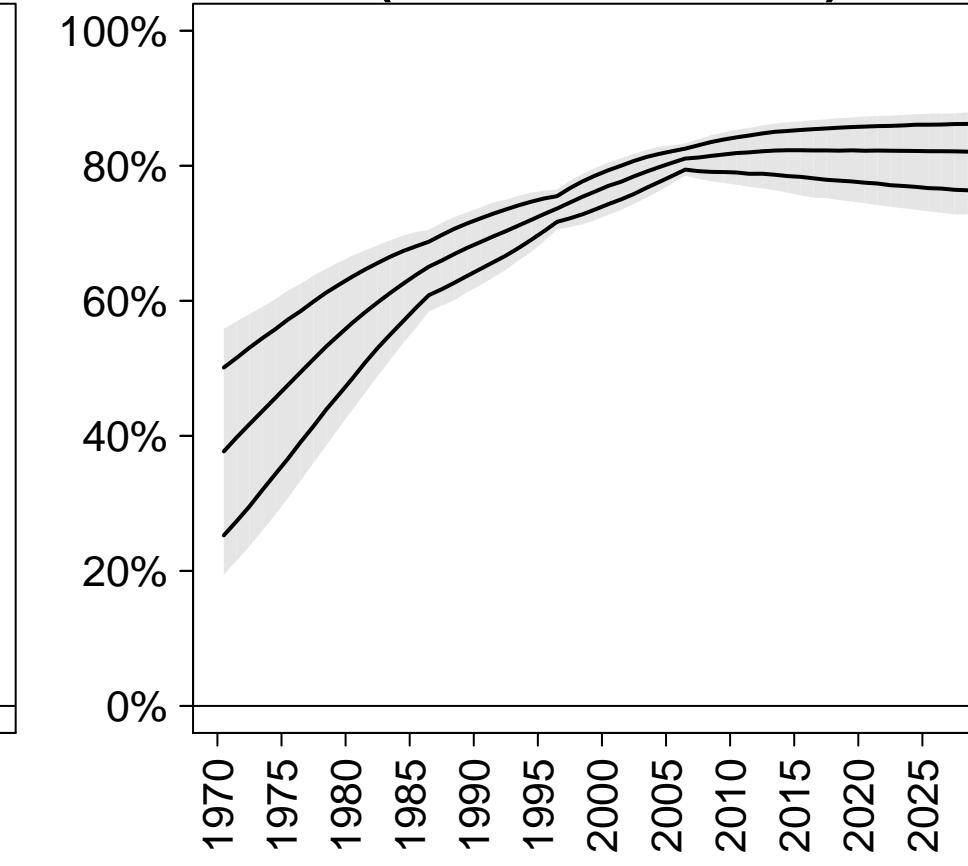
Total demand



**Demand satisfied
(any method)**

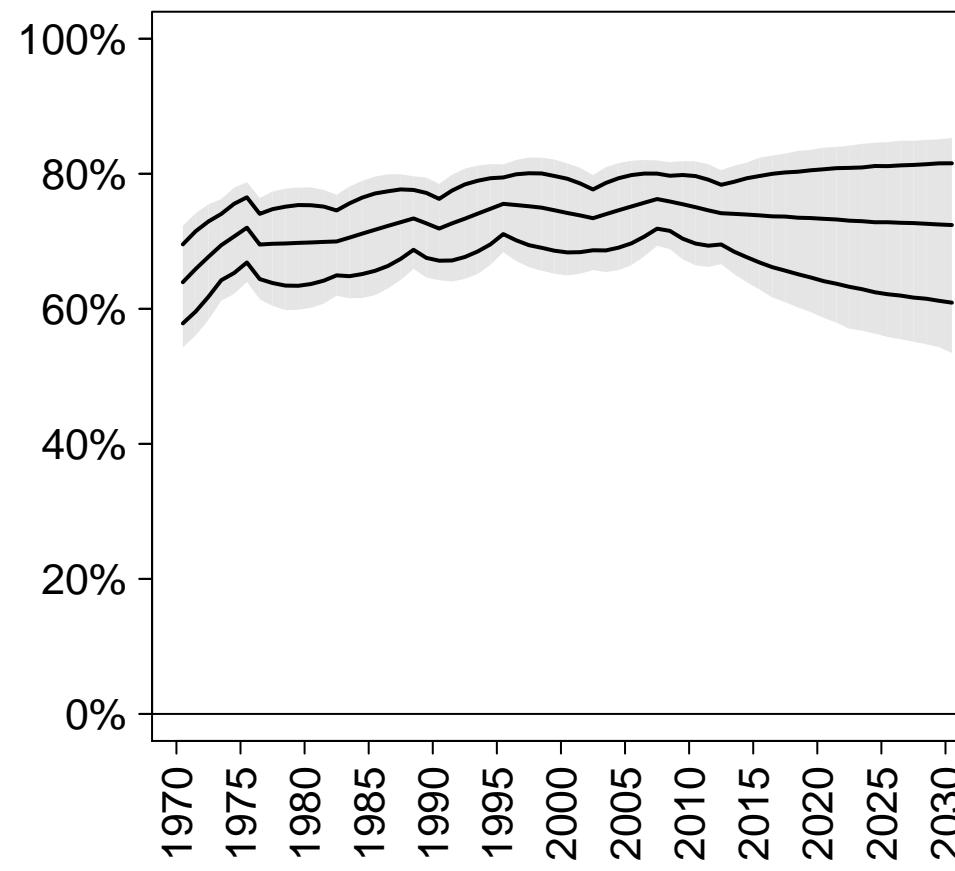


**Demand satisfied
(modern methods)**

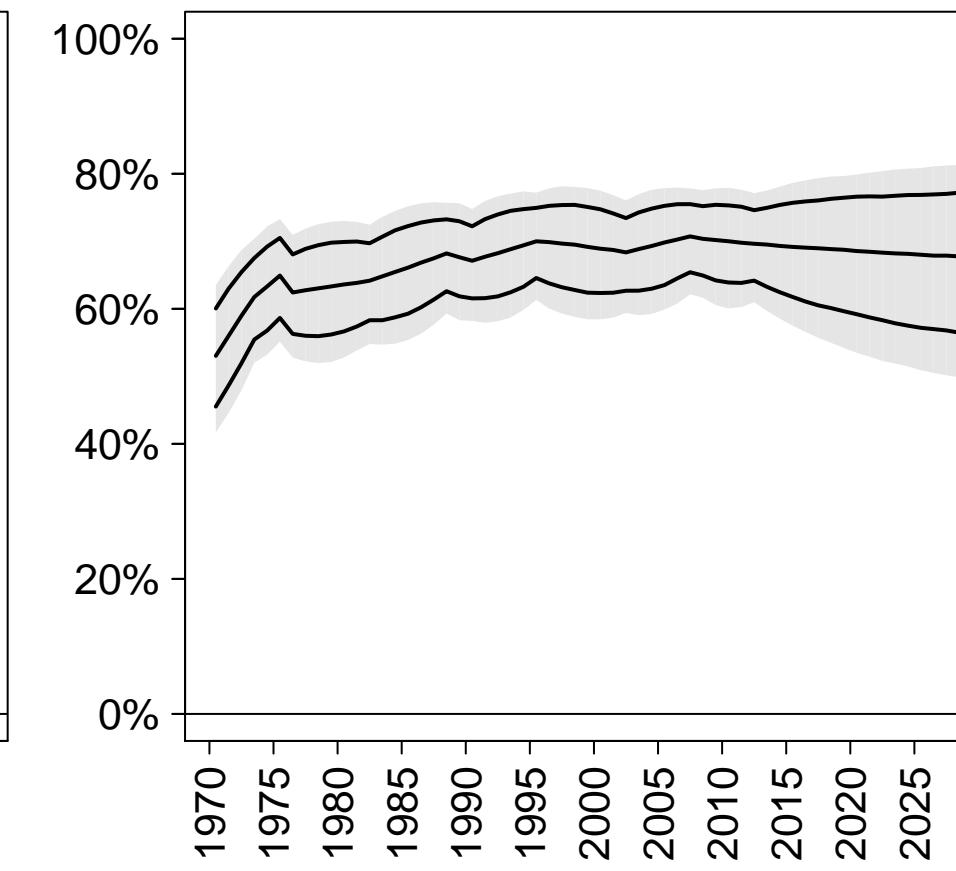


Northern America

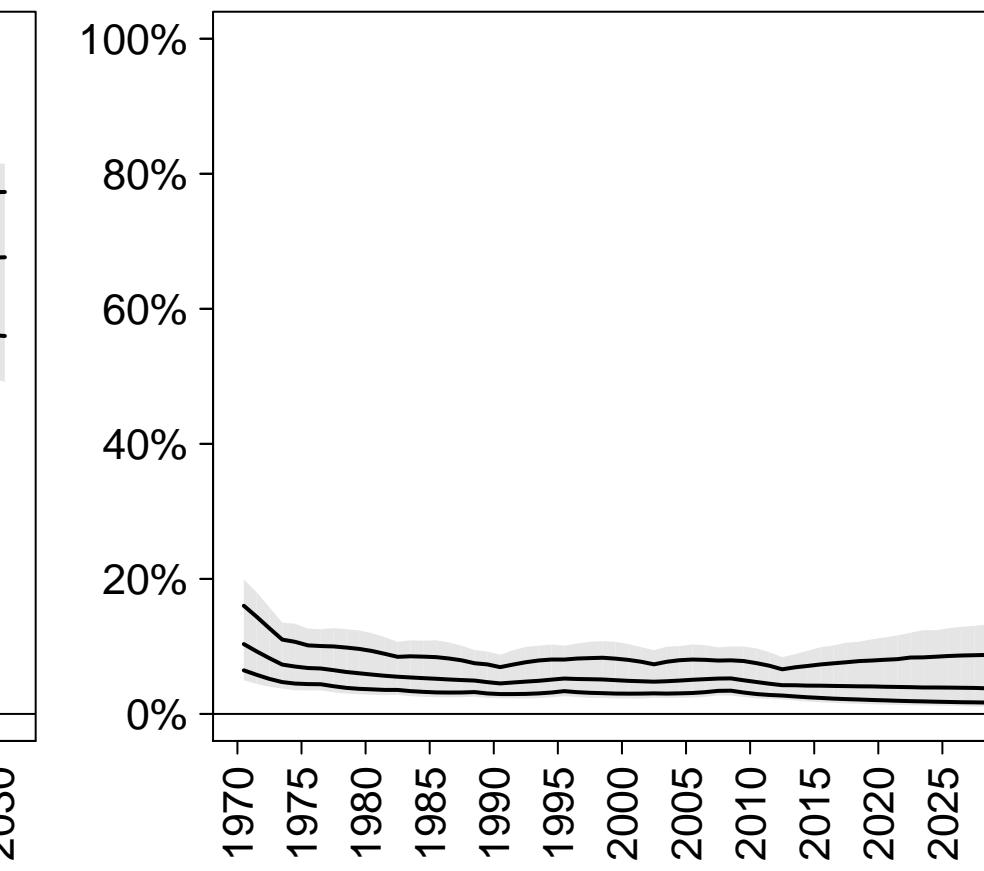
CP (any)



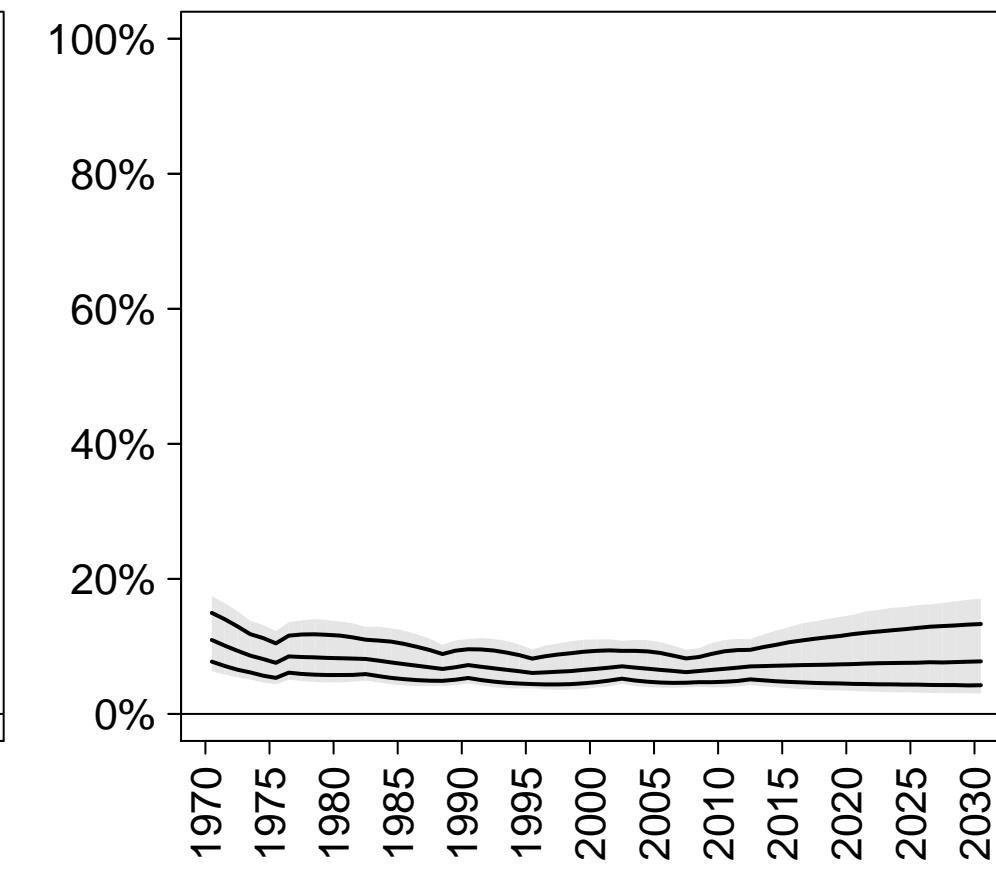
CP (modern)



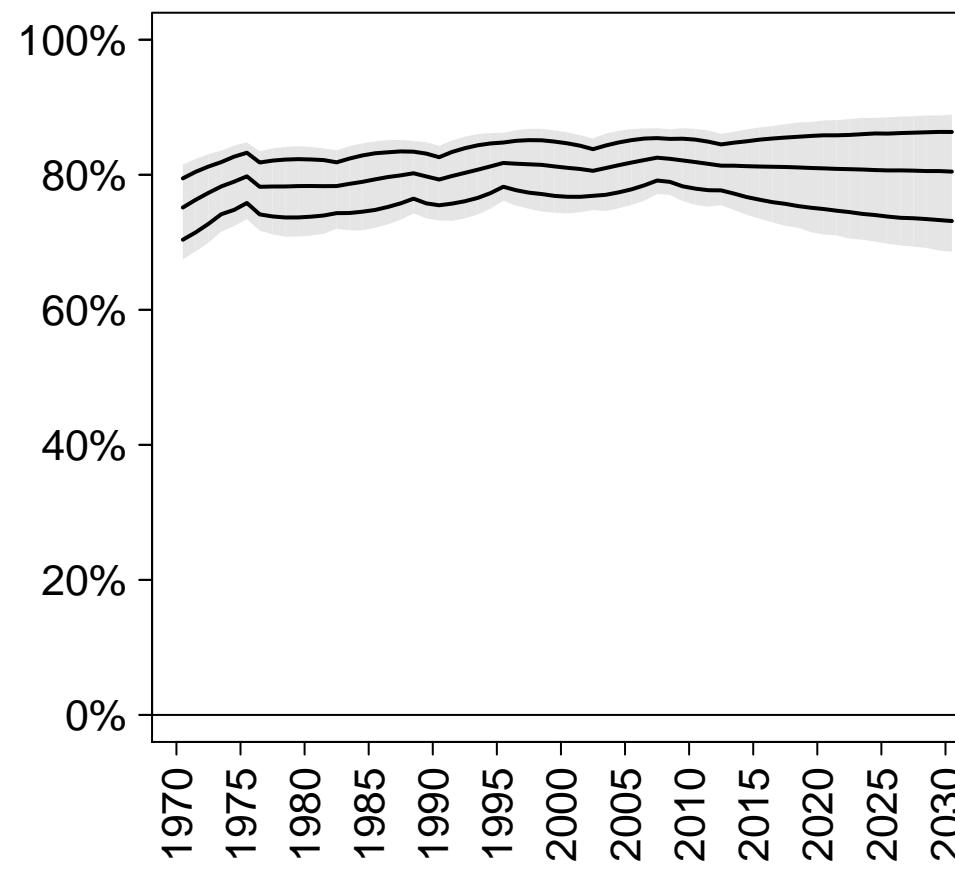
CP (traditional)



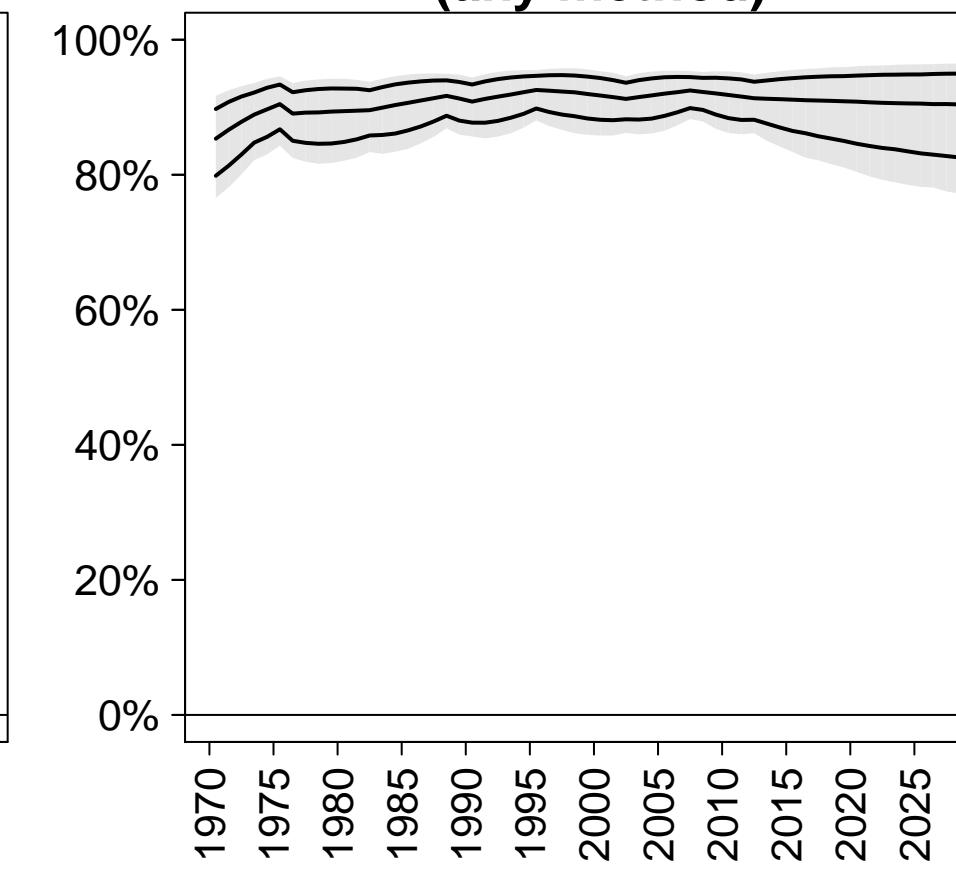
Unmet need



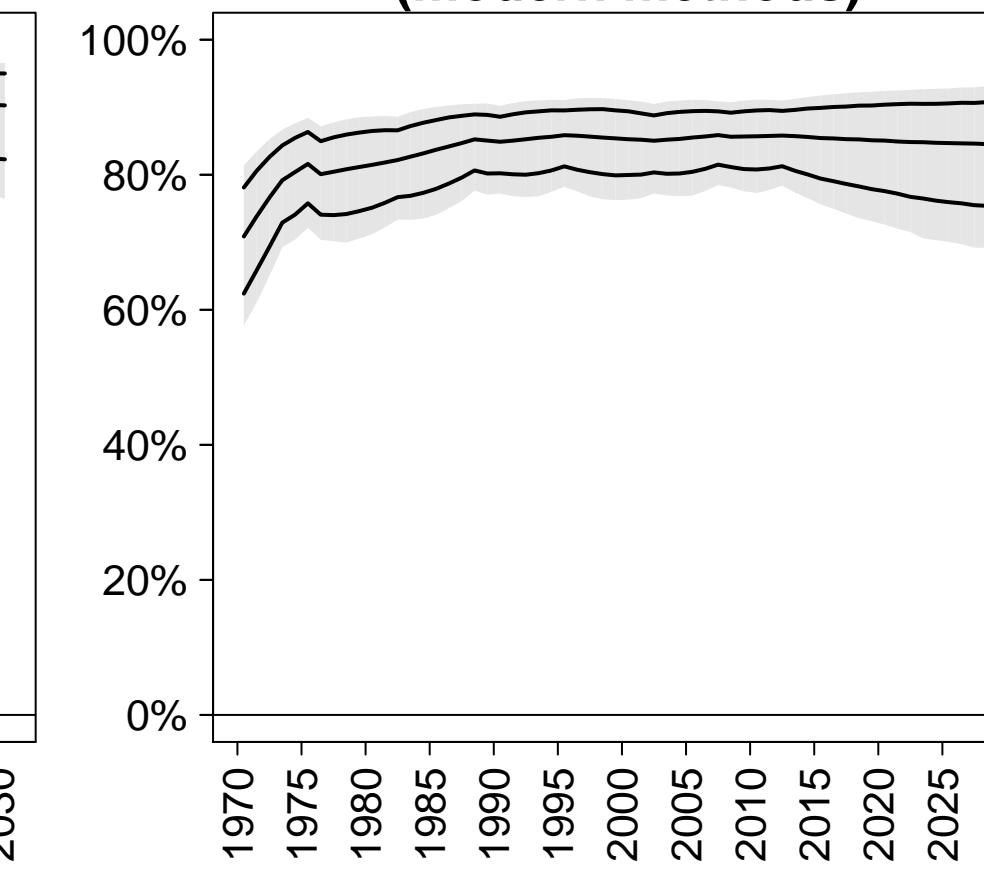
Total demand



**Demand satisfied
(any method)**

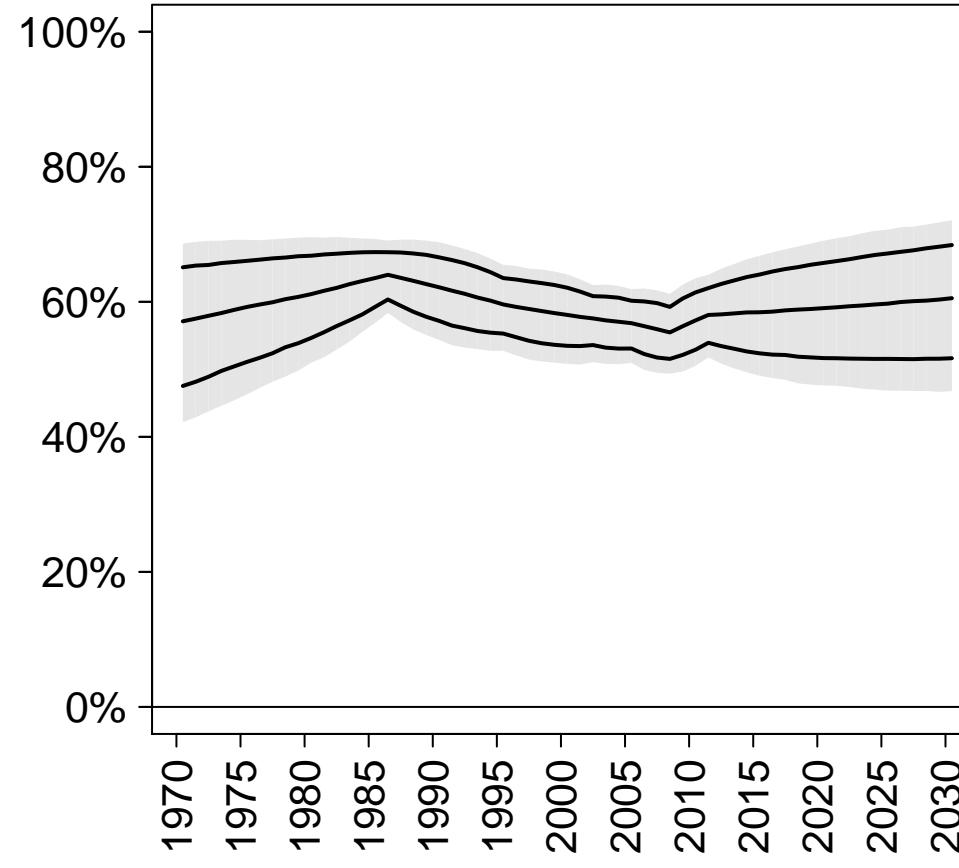


**Demand satisfied
(modern methods)**

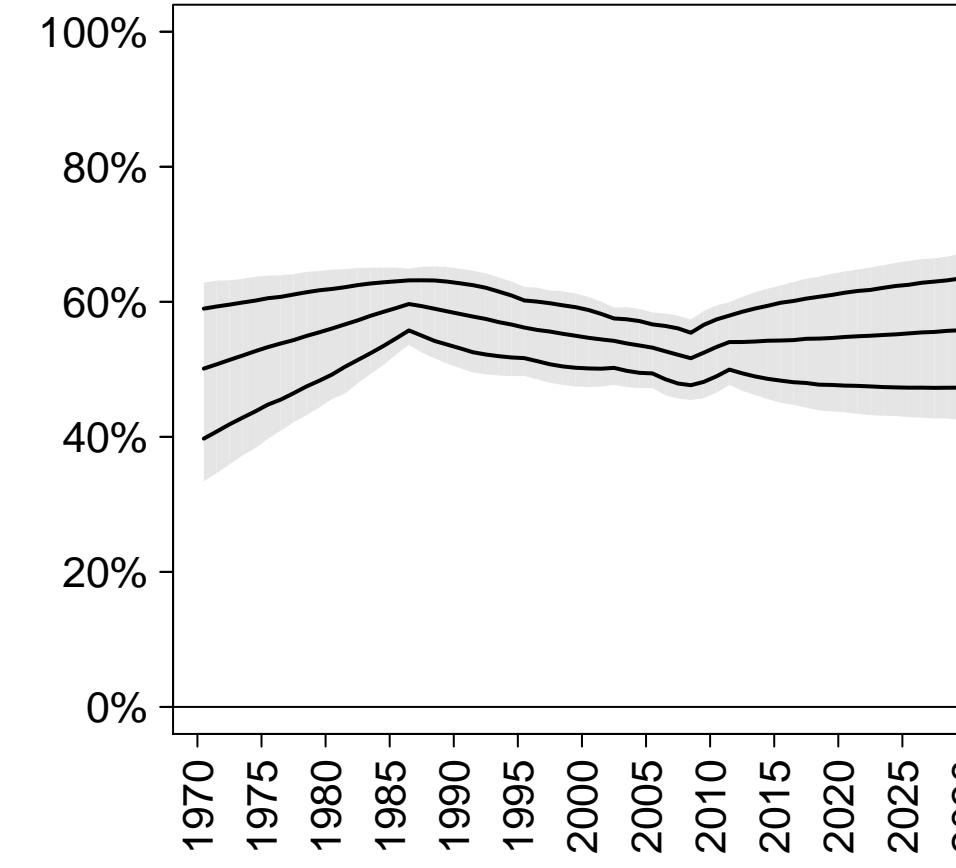


Oceania

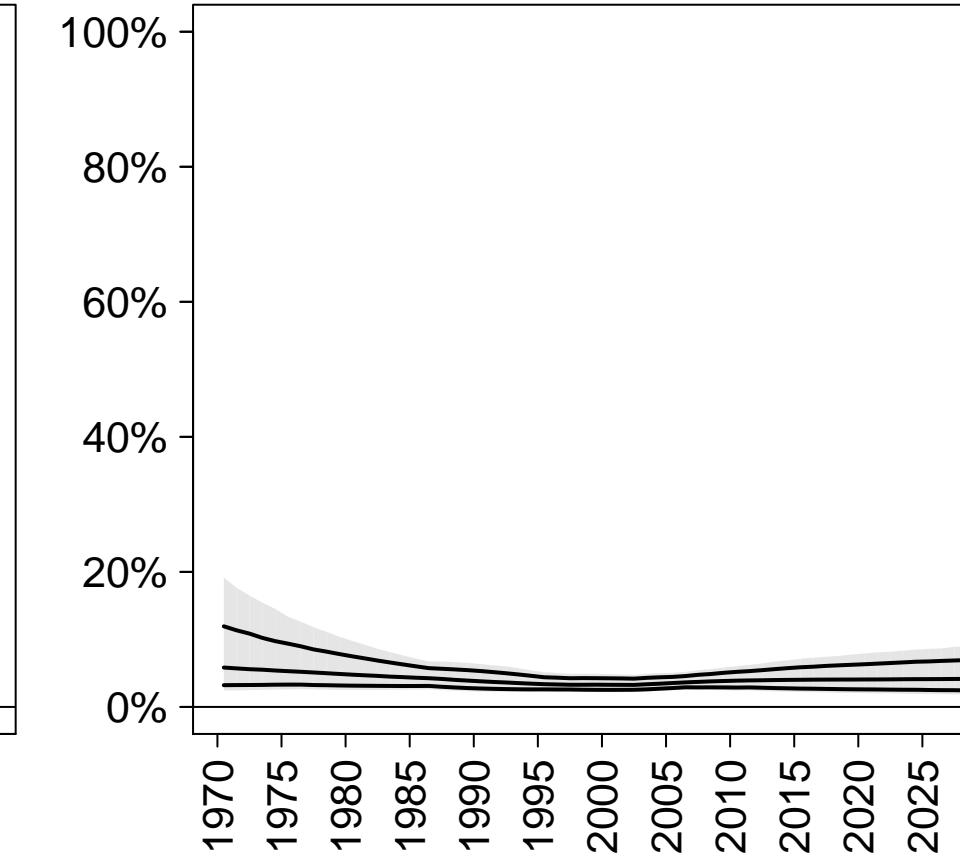
CP (any)



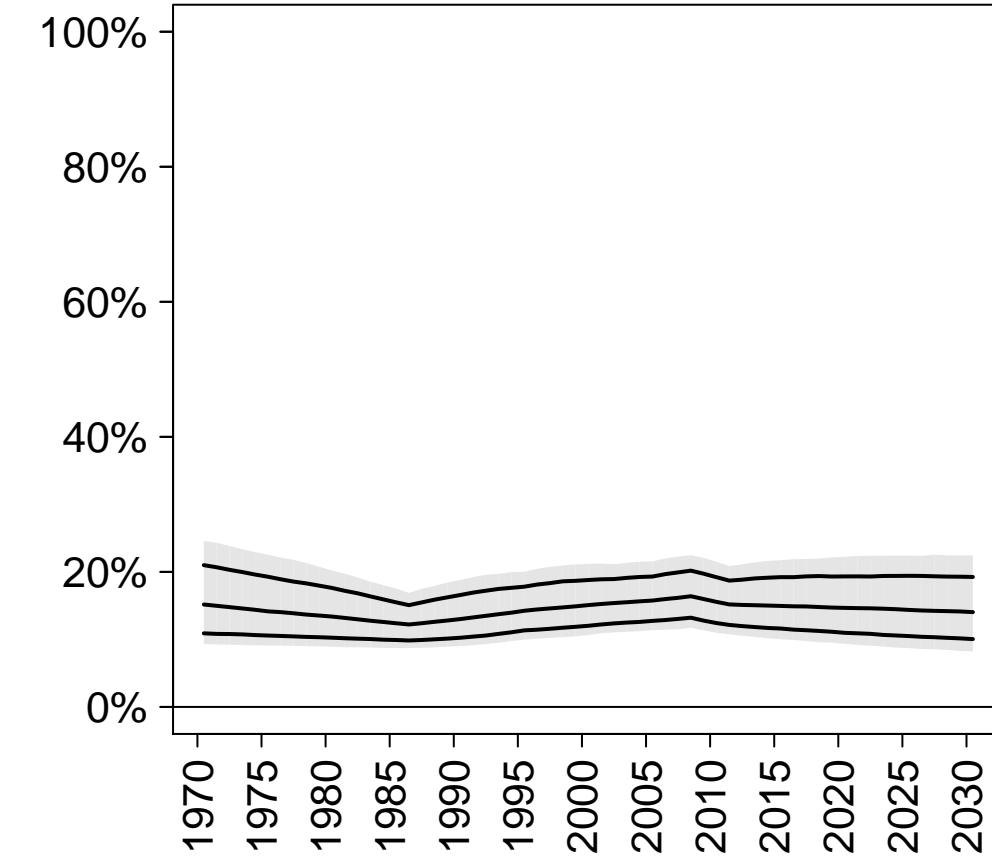
CP (modern)



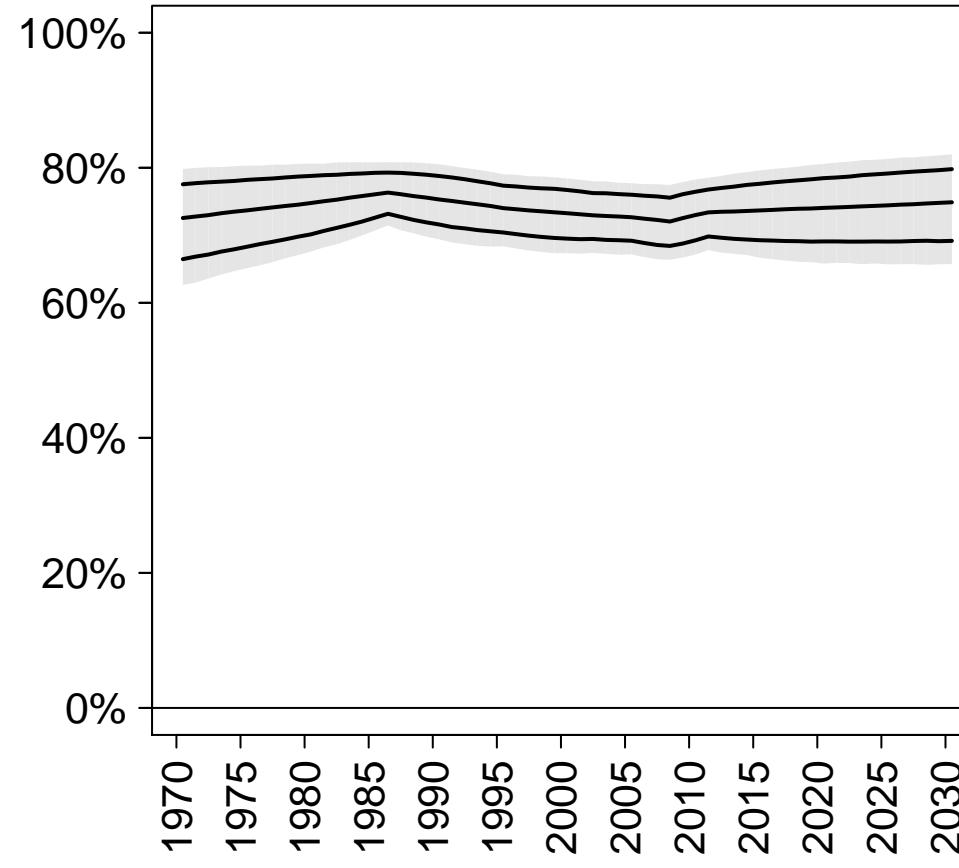
CP (traditional)



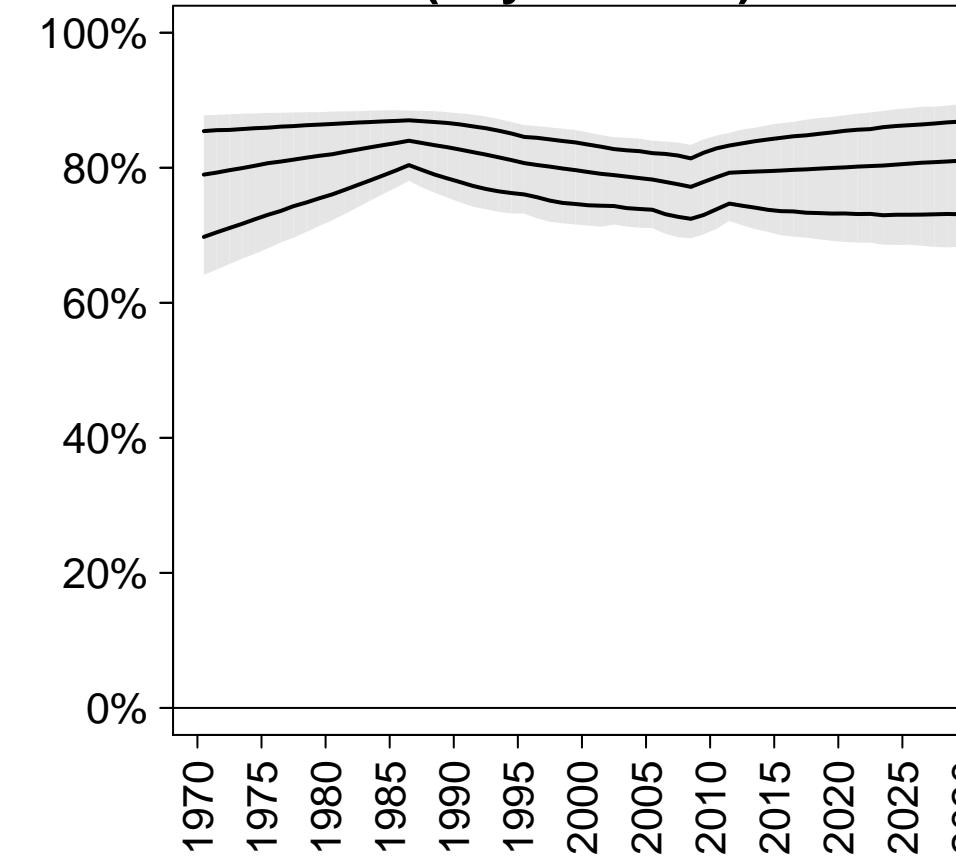
Unmet need



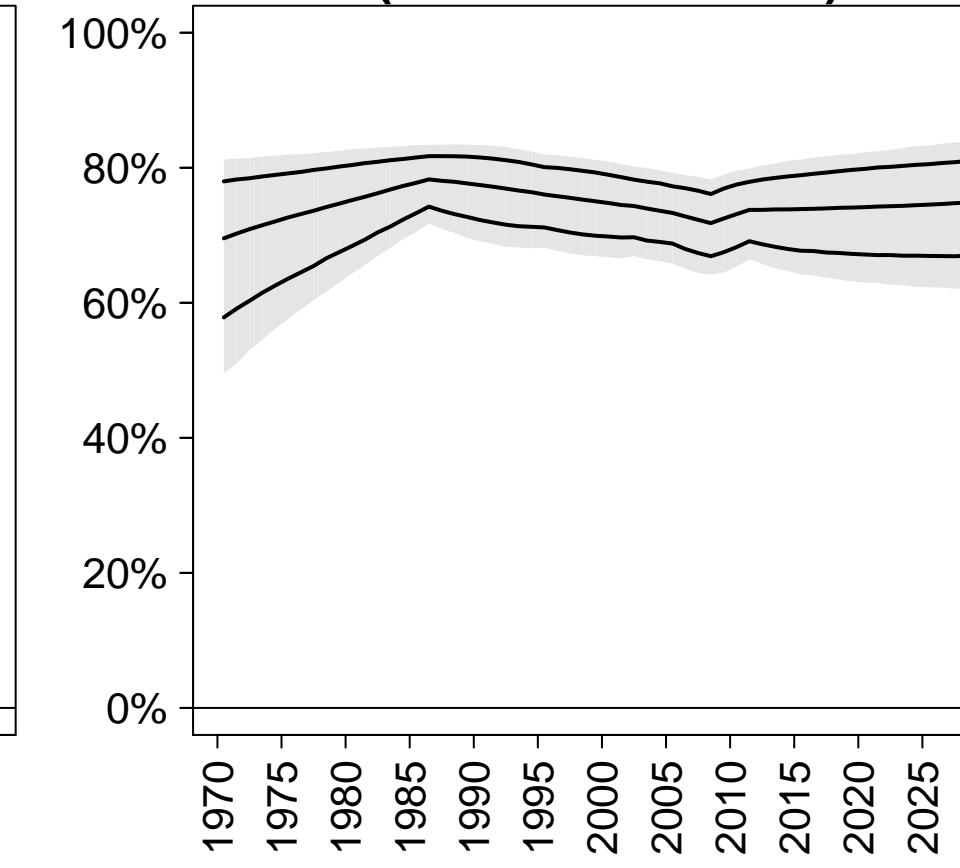
Total demand



**Demand satisfied
(any method)**

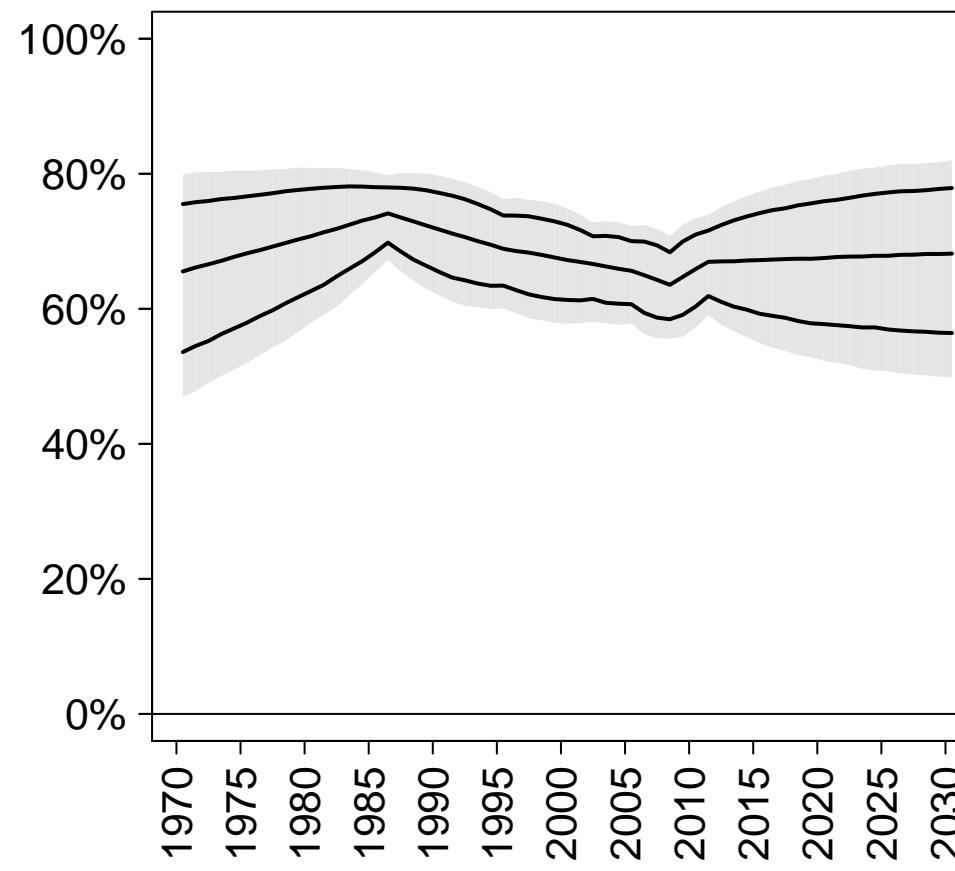


**Demand satisfied
(modern methods)**

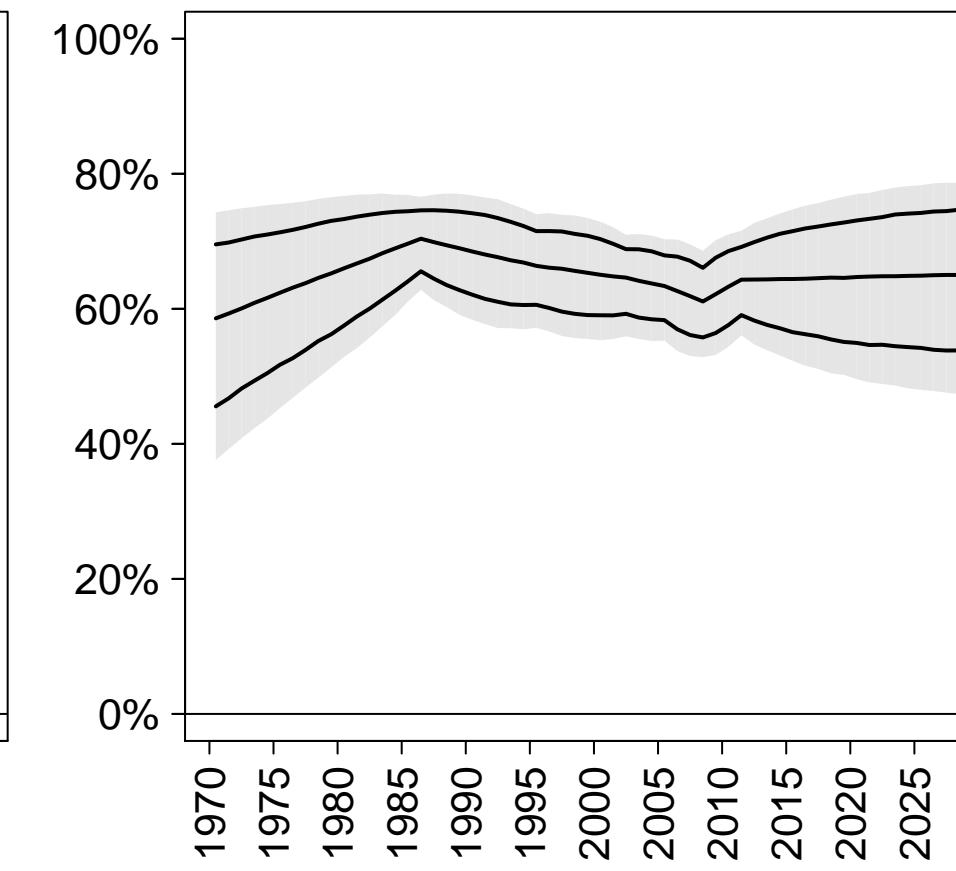


Australia and New Zealand

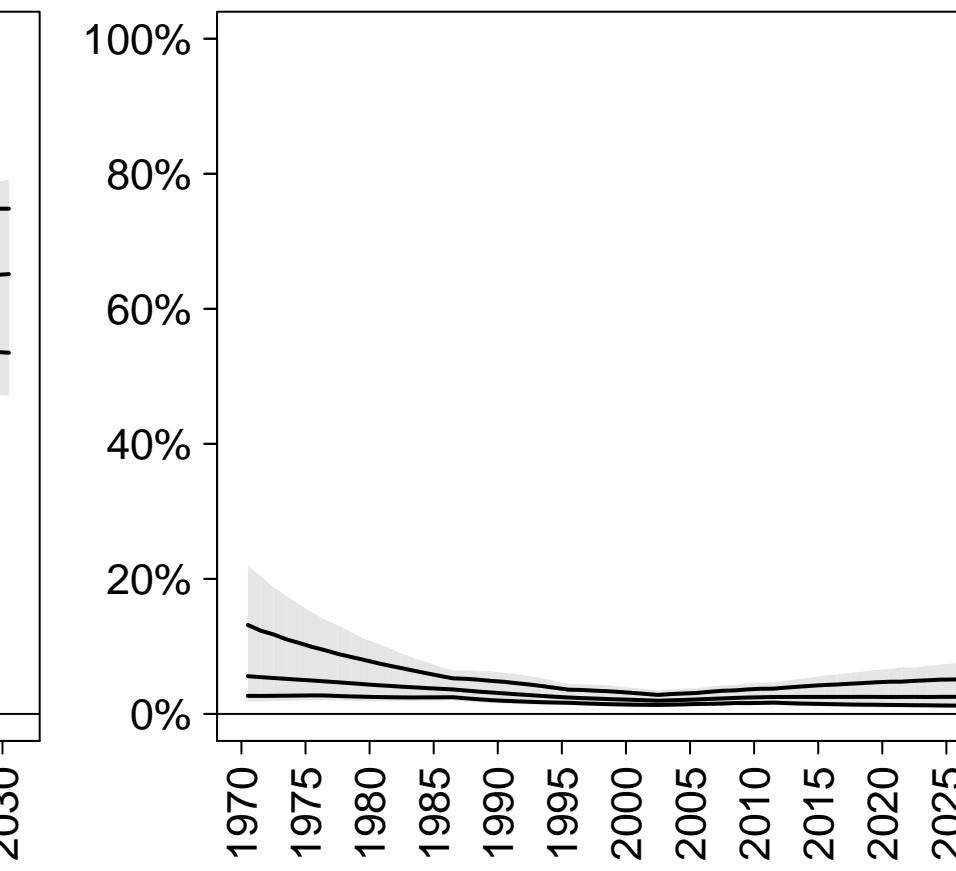
CP (any)



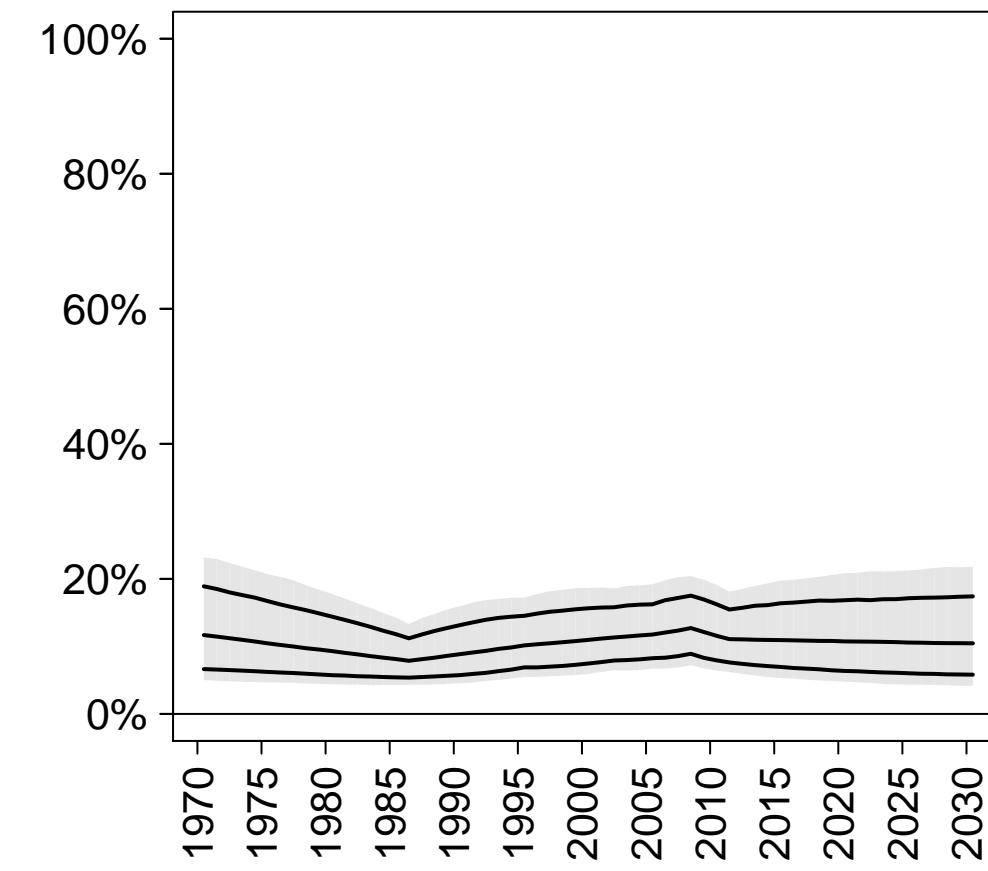
CP (modern)



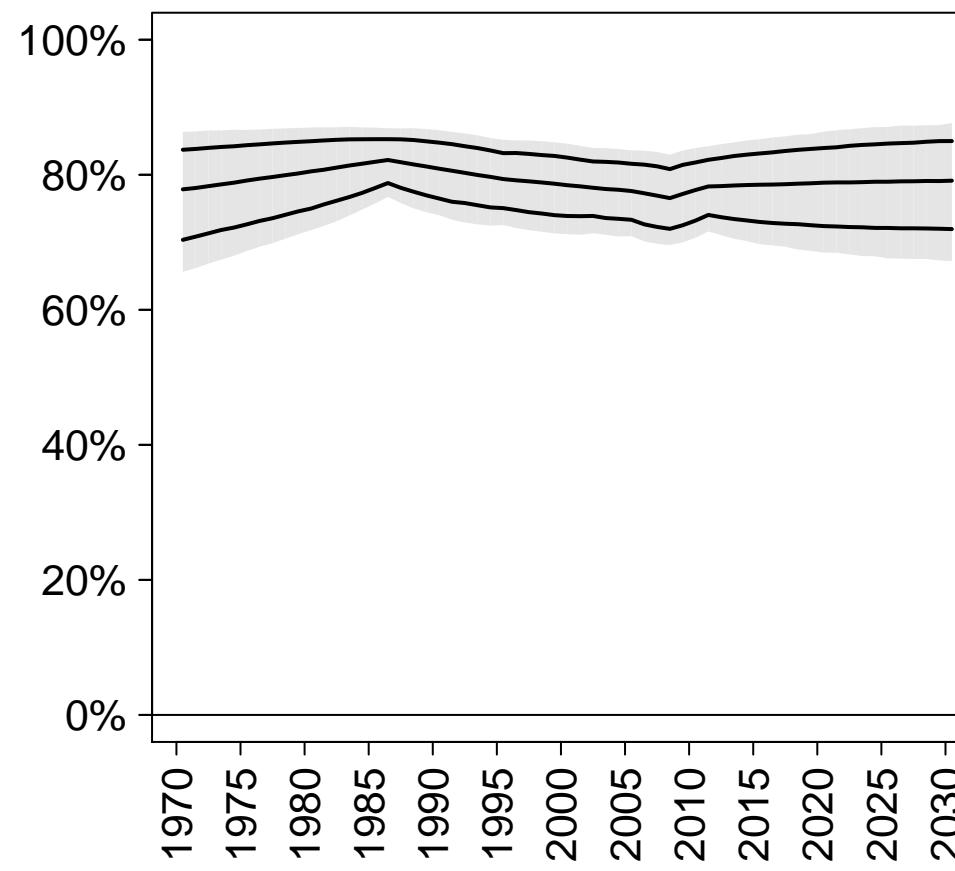
CP (traditional)



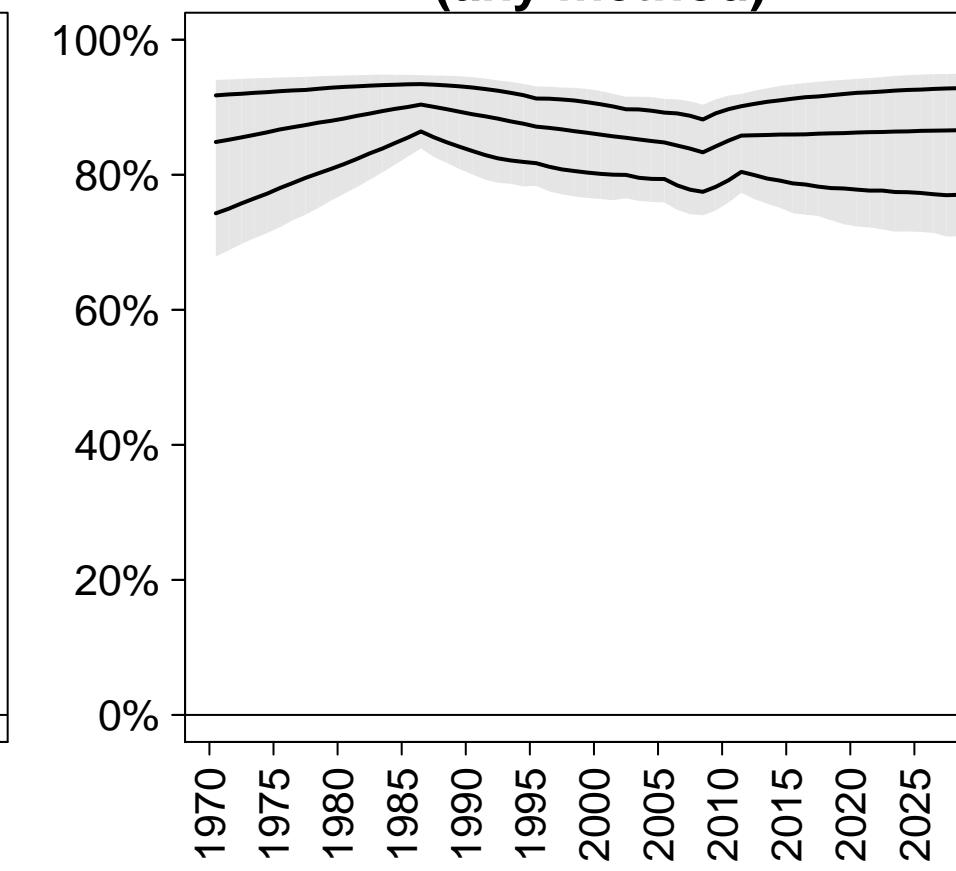
Unmet need



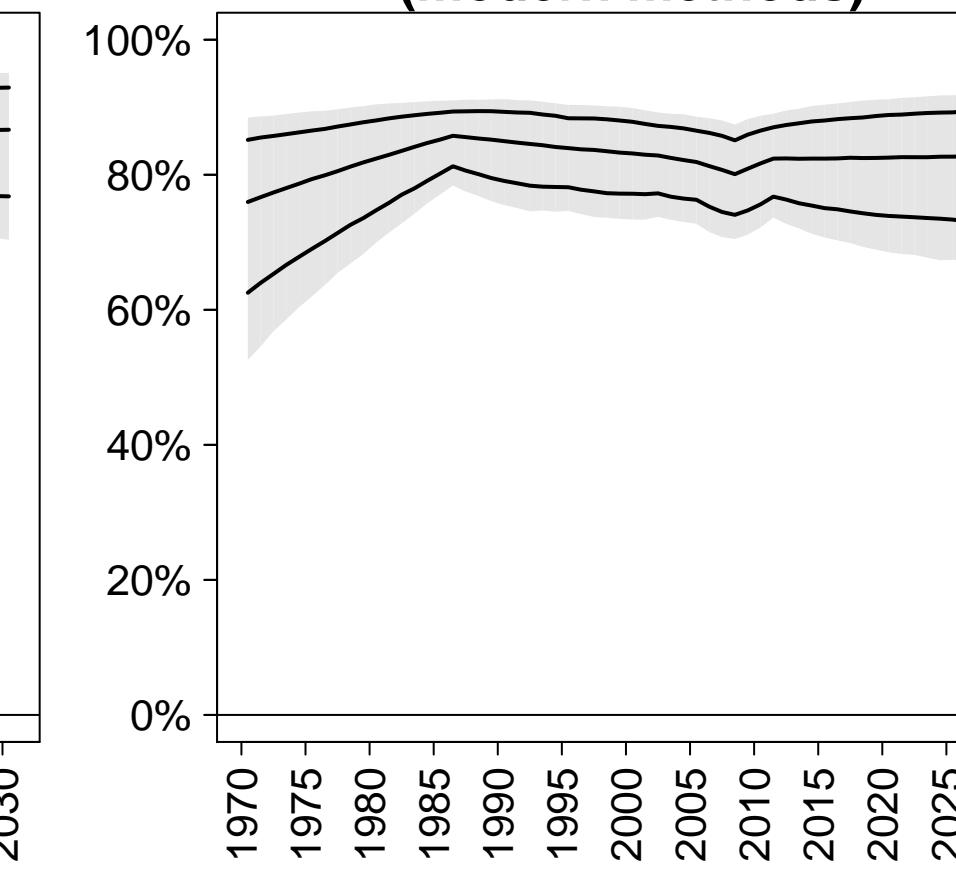
Total demand



**Demand satisfied
(any method)**

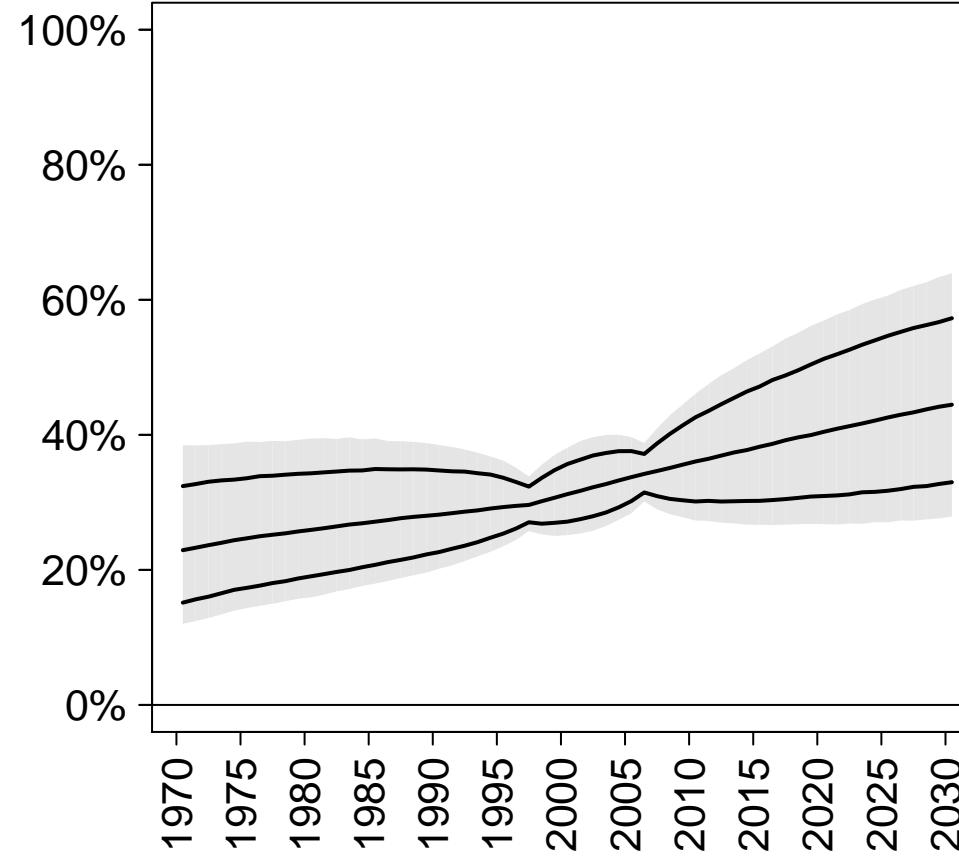


**Demand satisfied
(modern methods)**

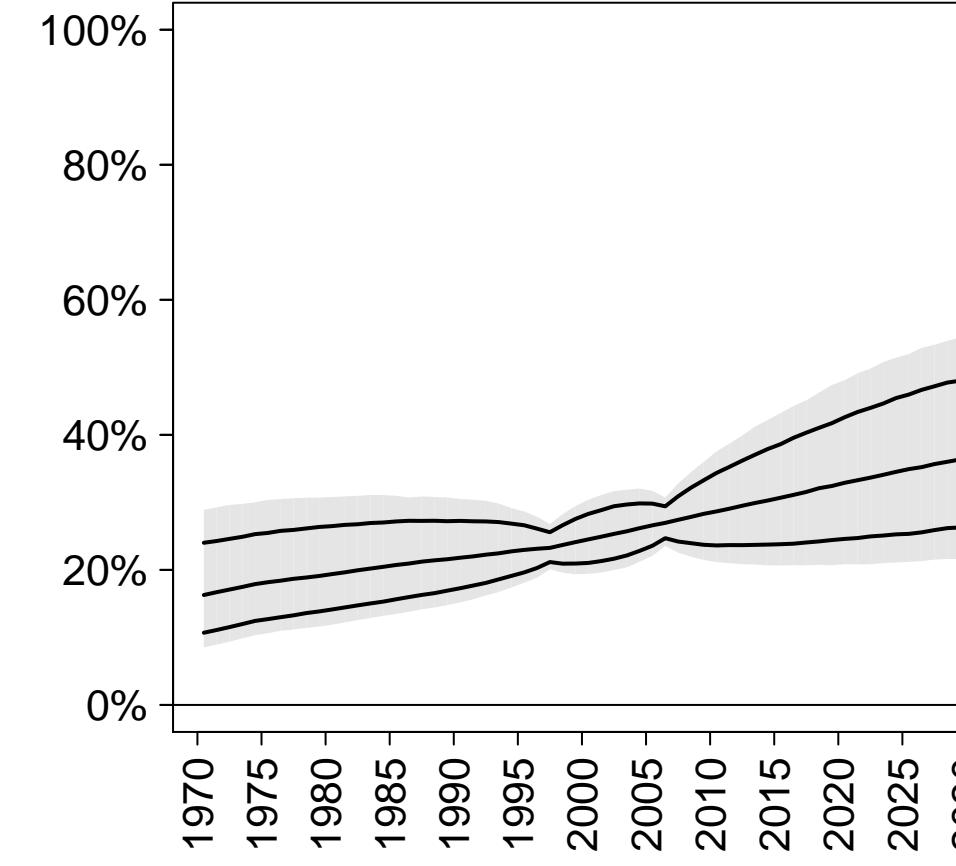


Mela–Micro–Polynesia

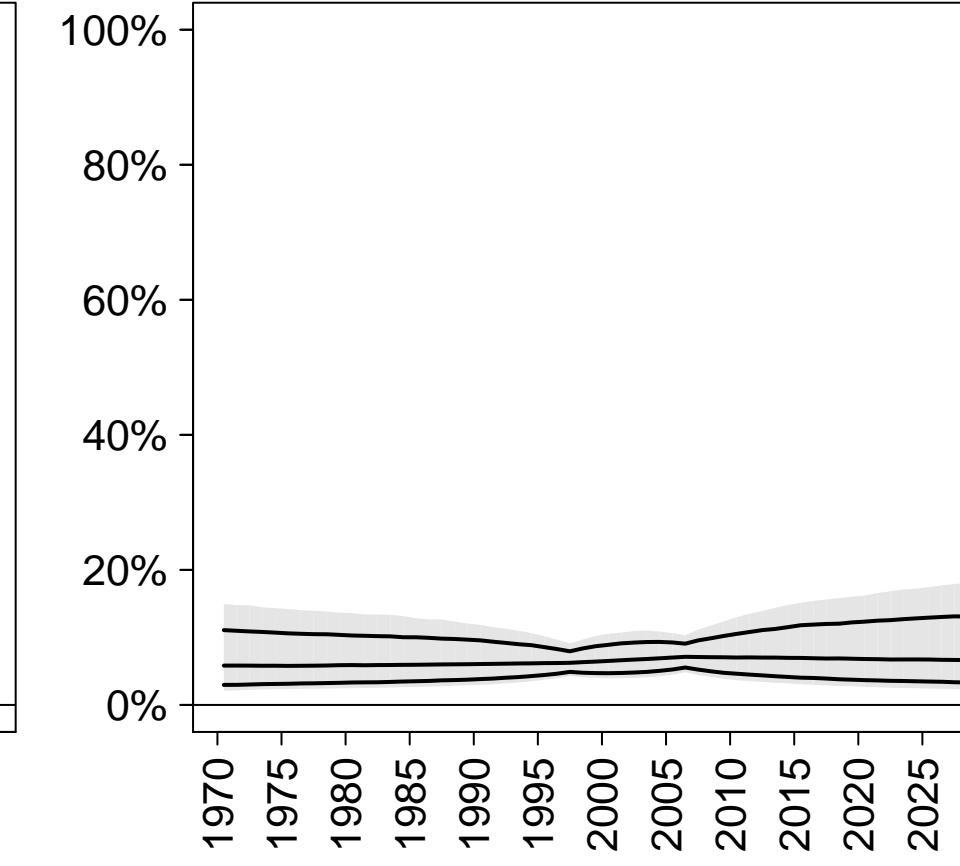
CP (any)



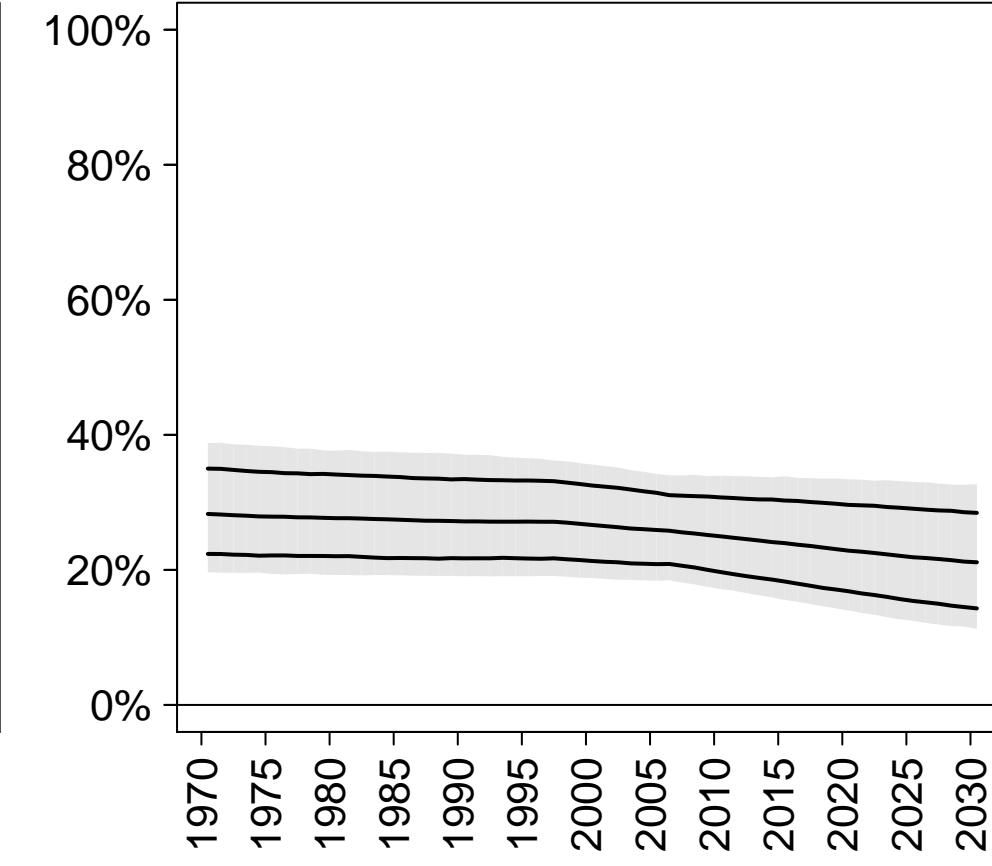
CP (modern)



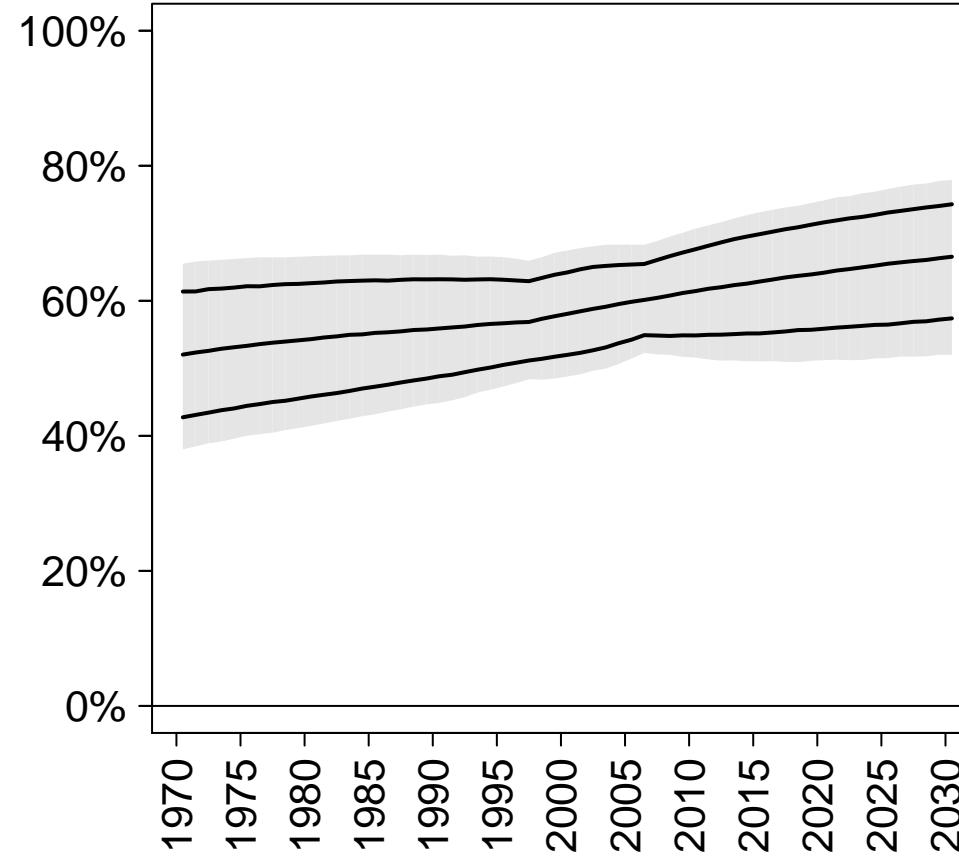
CP (traditional)



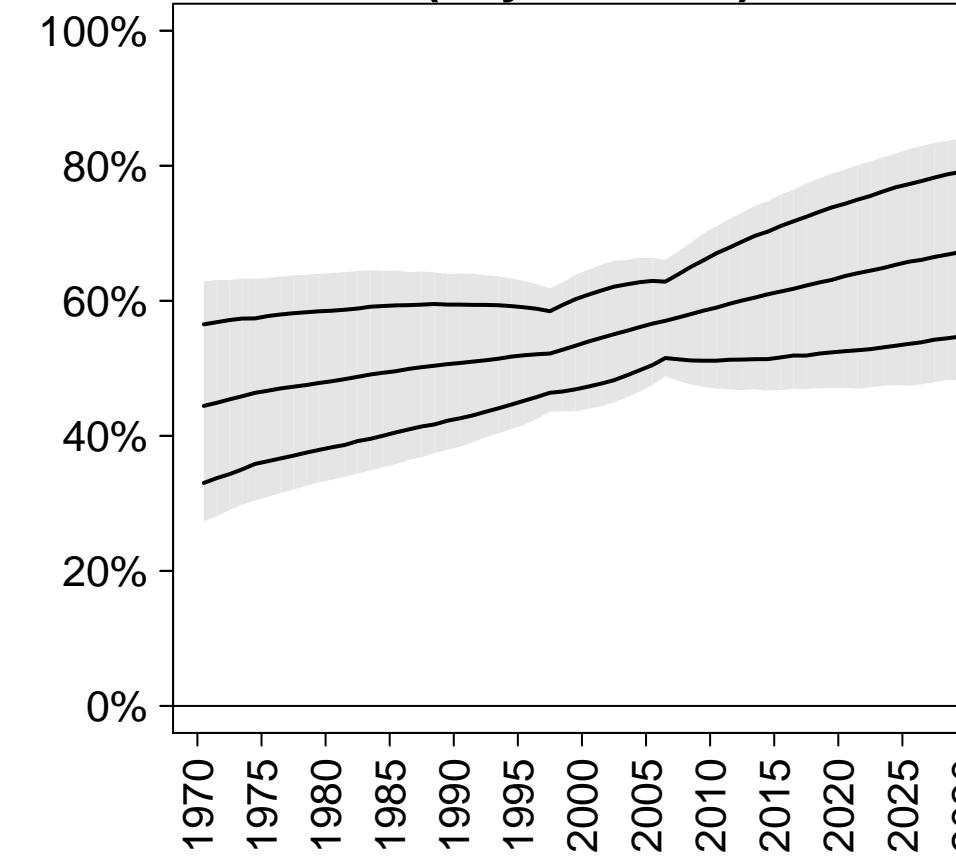
Unmet need



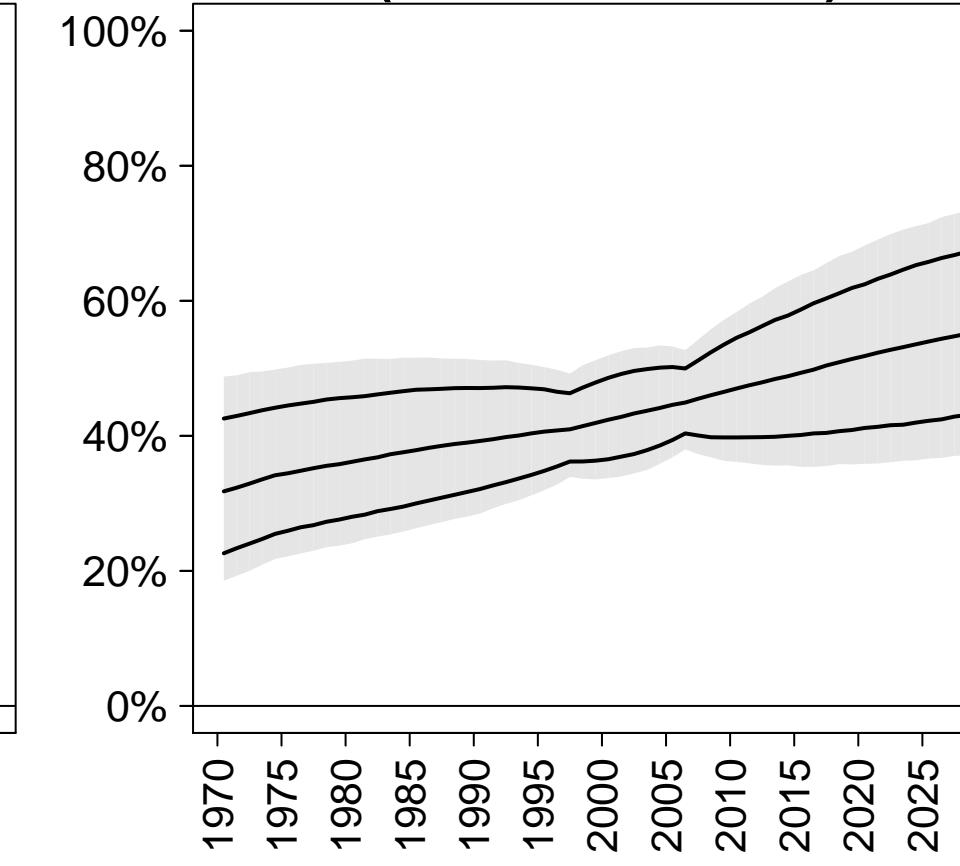
Total demand



**Demand satisfied
(any method)**

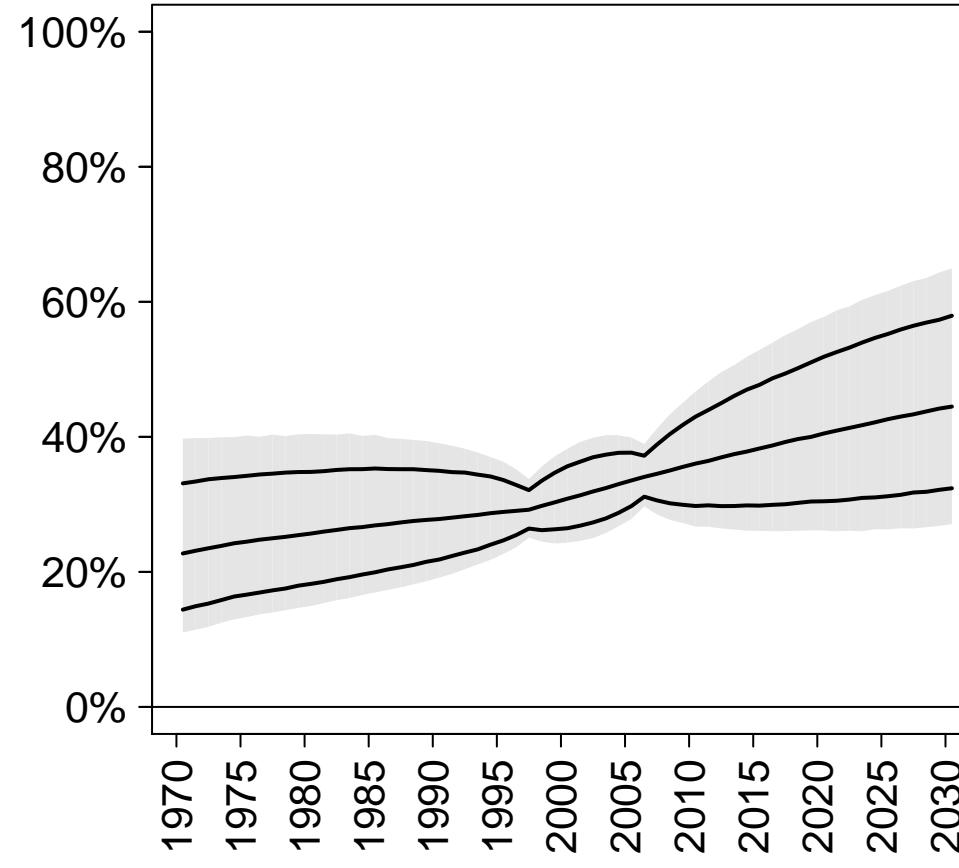


**Demand satisfied
(modern methods)**

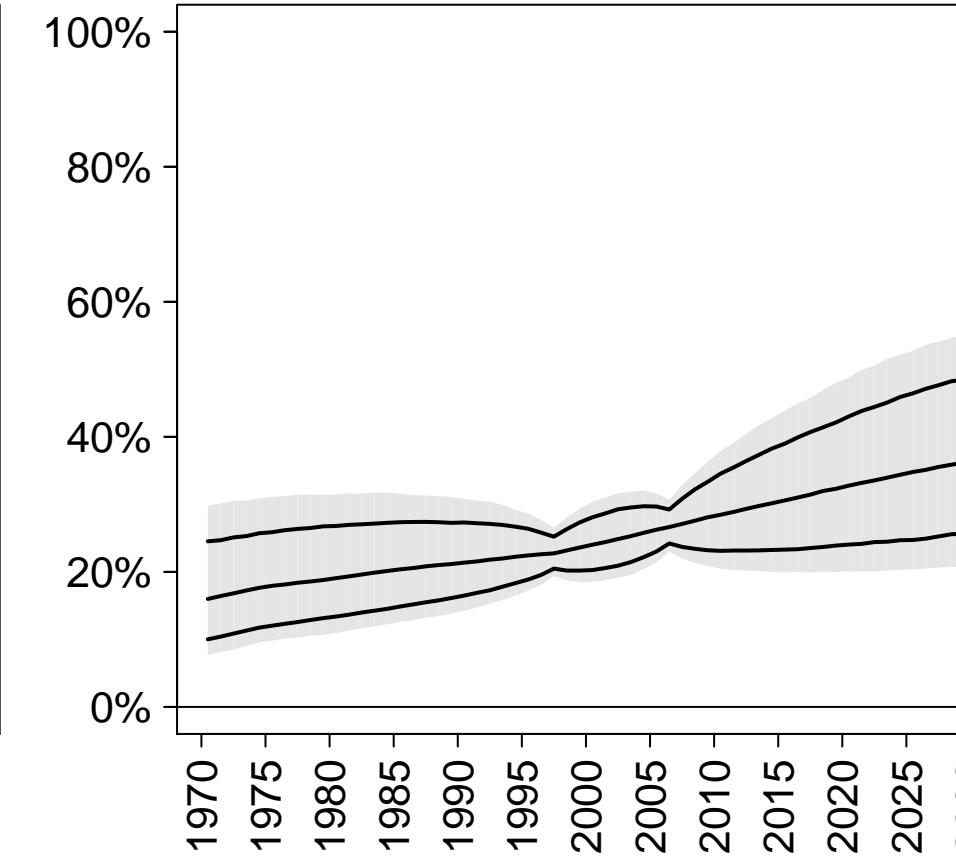


Melanesia

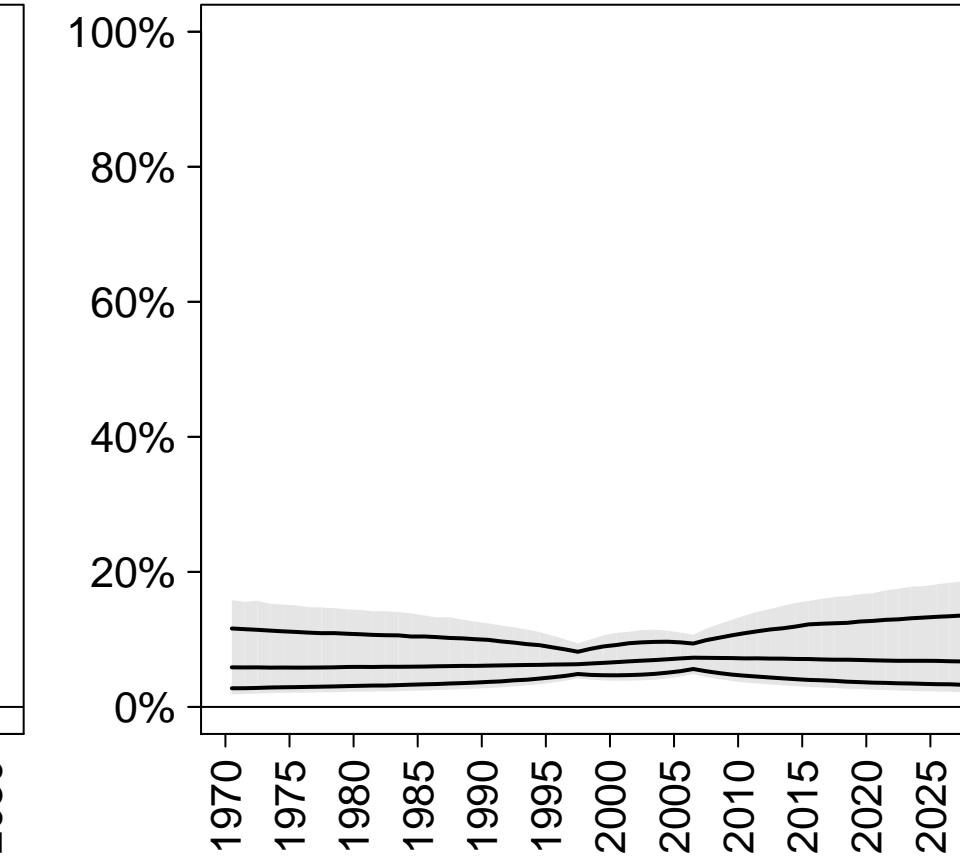
CP (any)



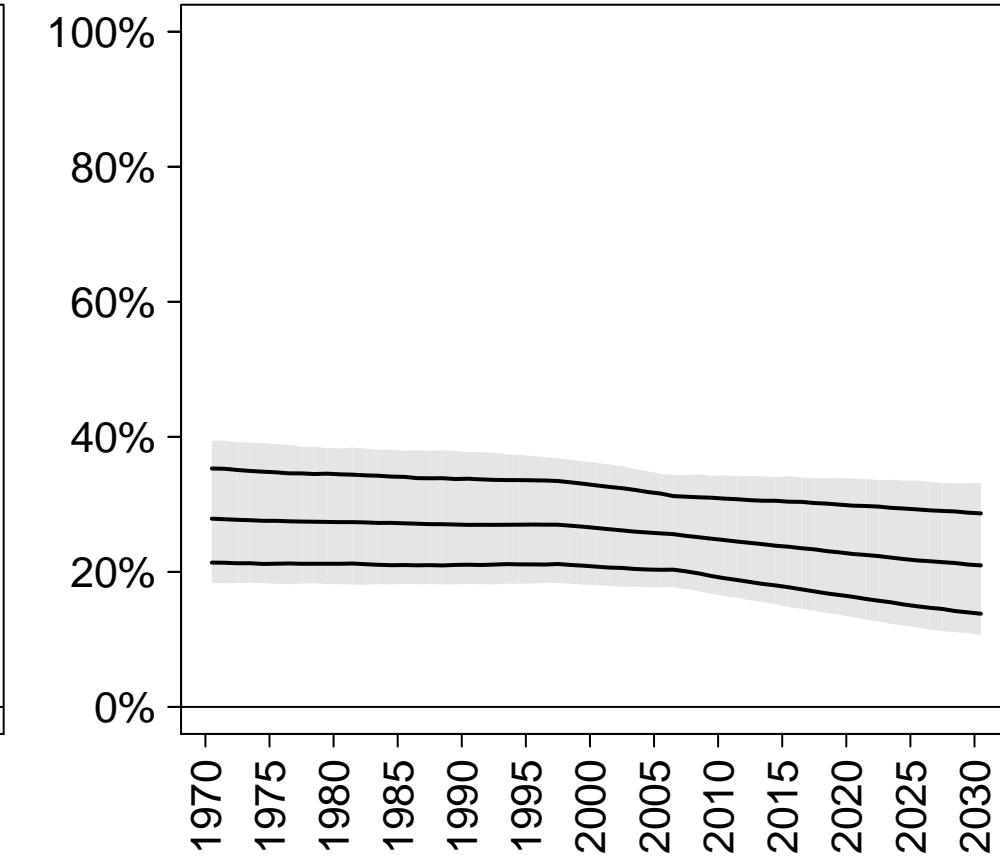
CP (modern)



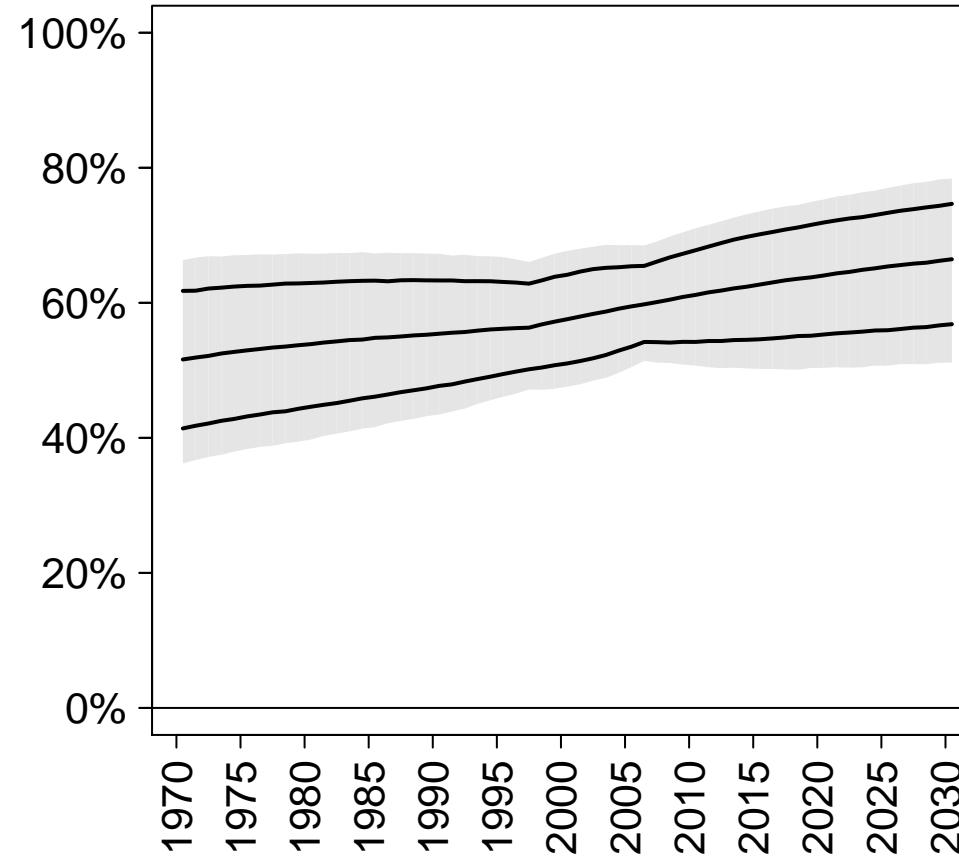
CP (traditional)



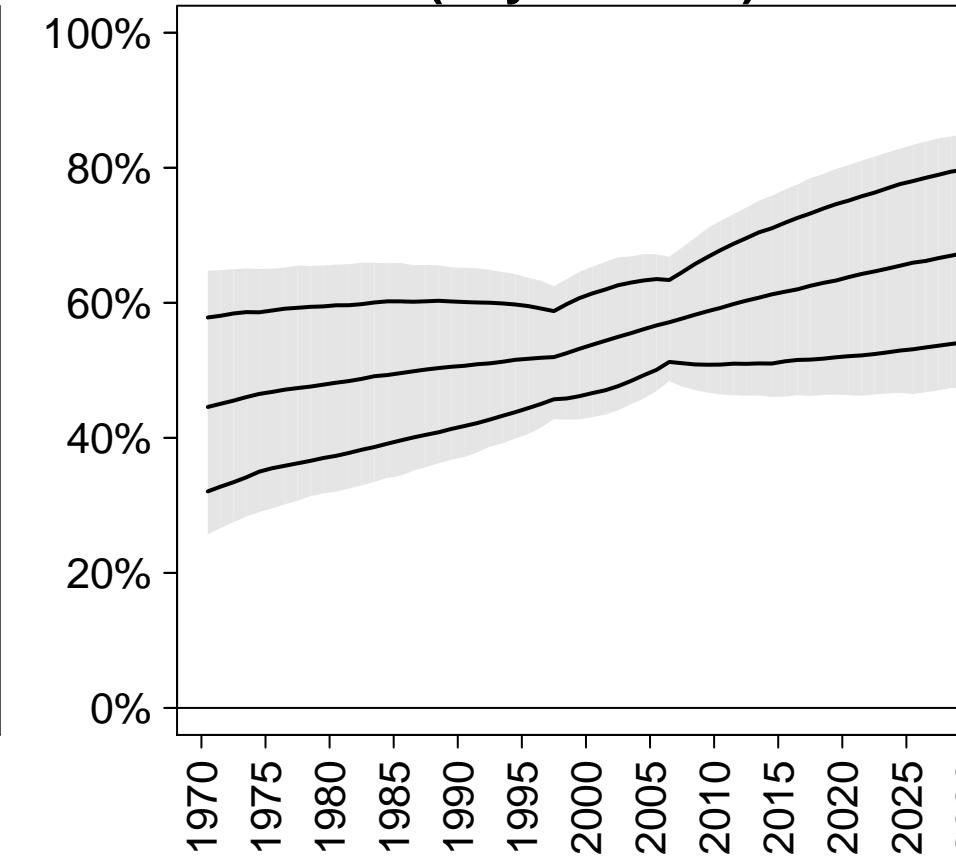
Unmet need



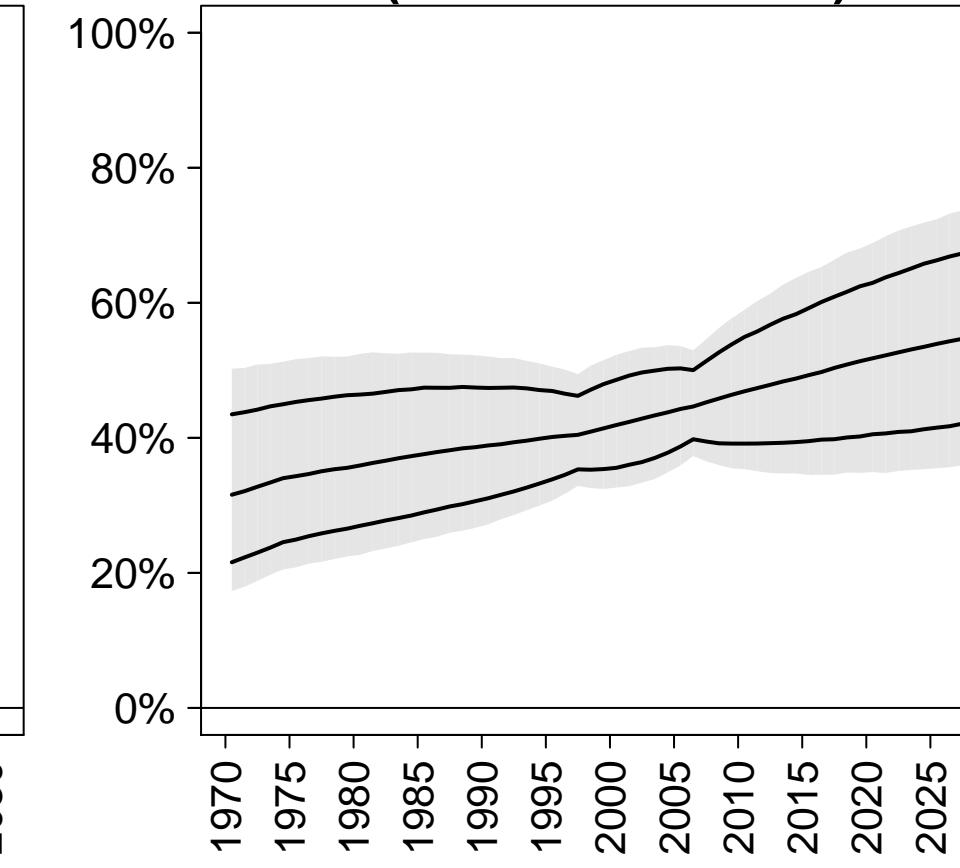
Total demand



**Demand satisfied
(any method)**

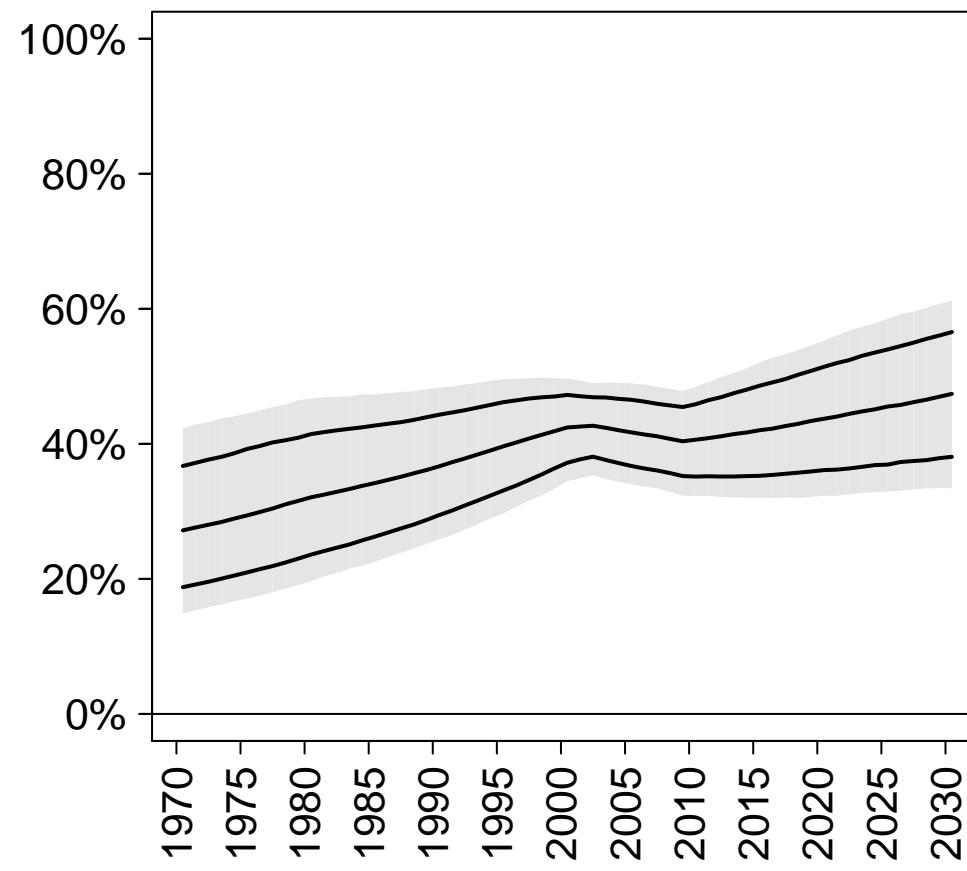


**Demand satisfied
(modern methods)**

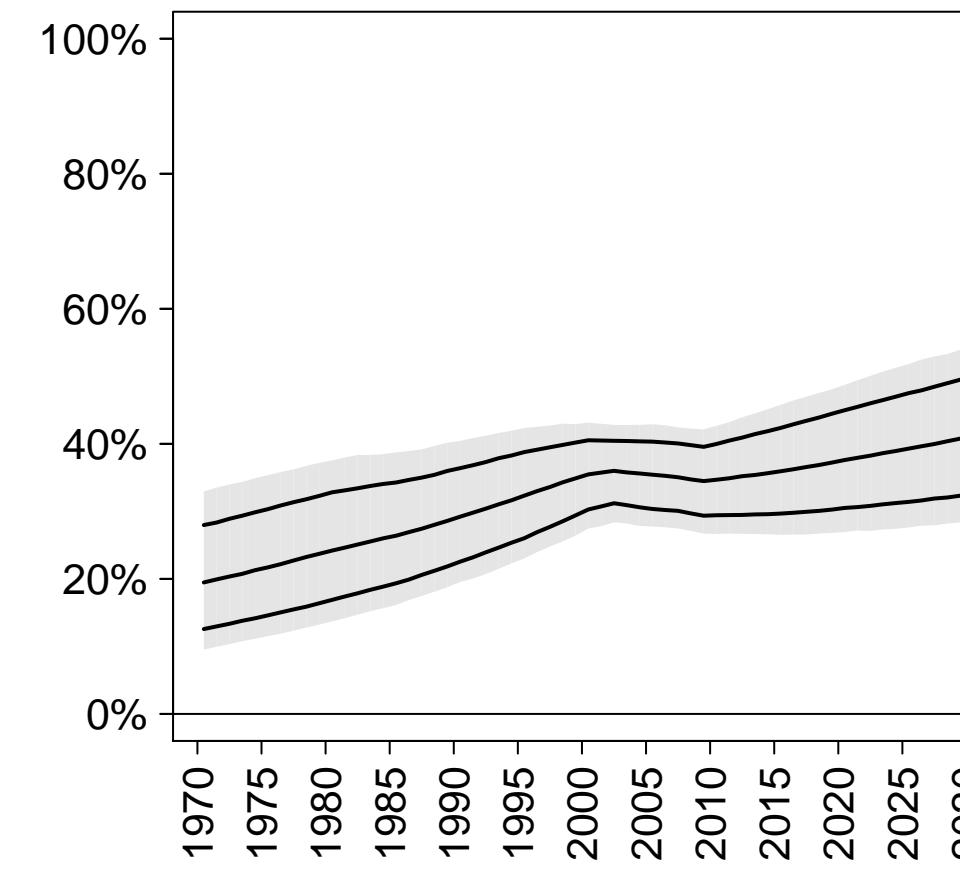


Micronesia

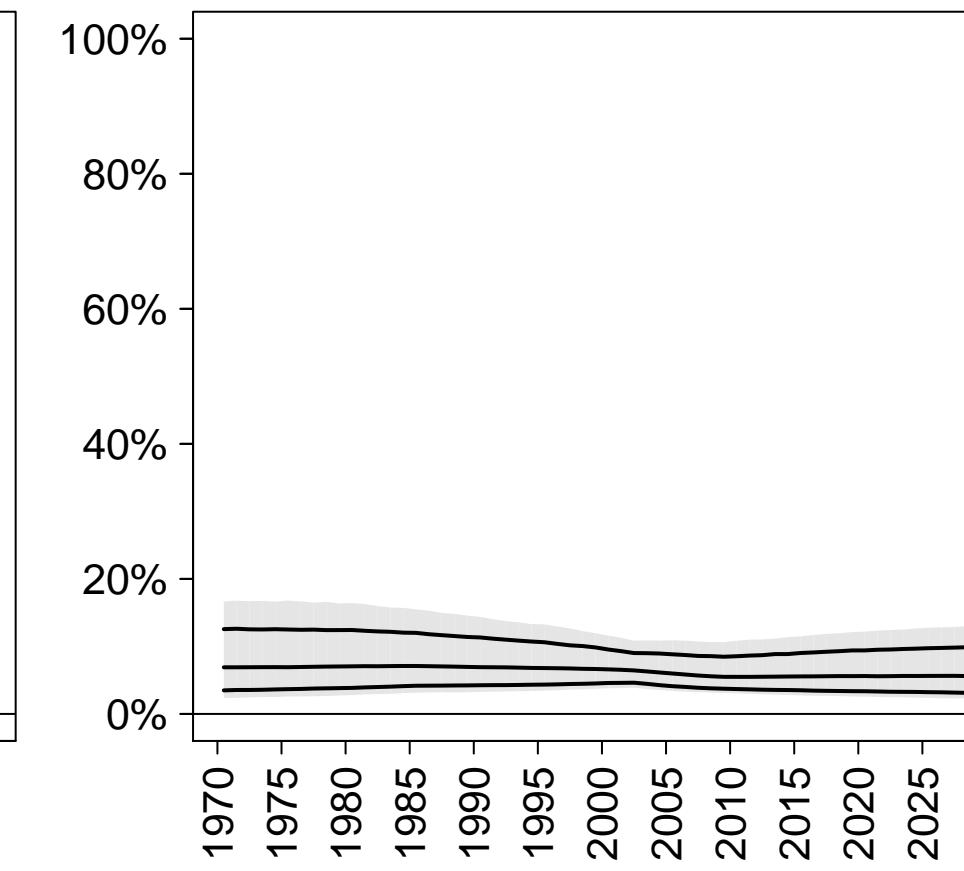
CP (any)



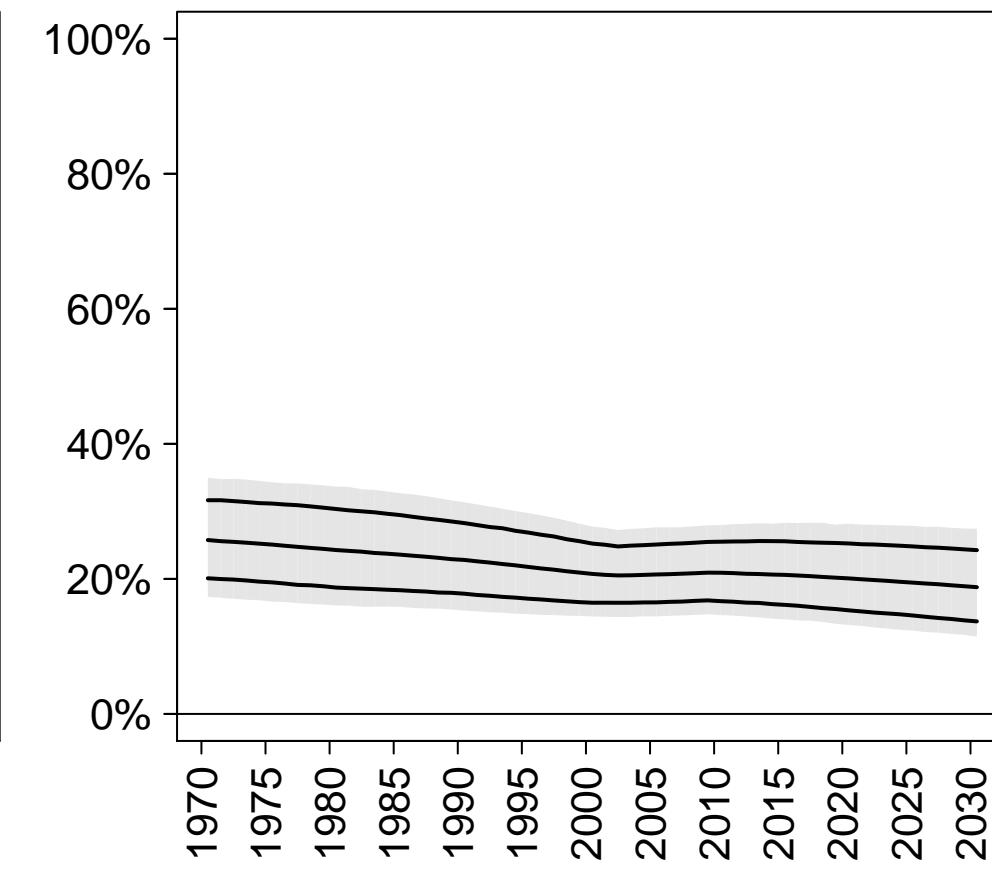
CP (modern)



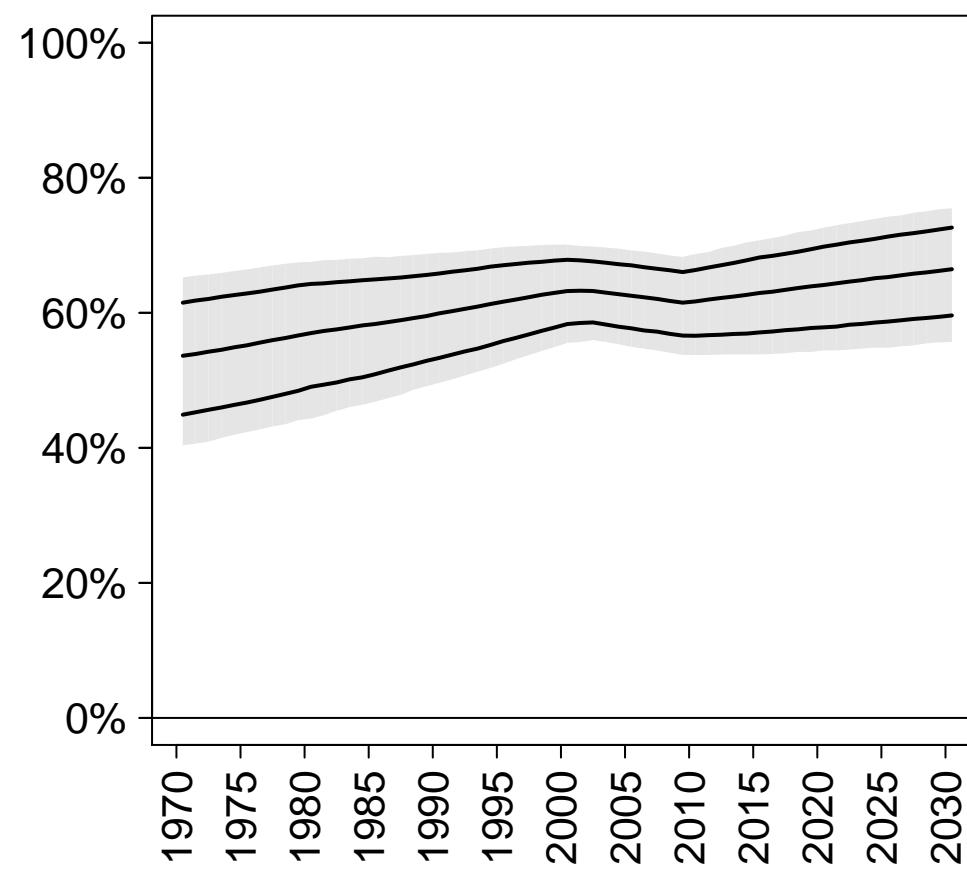
CP (traditional)



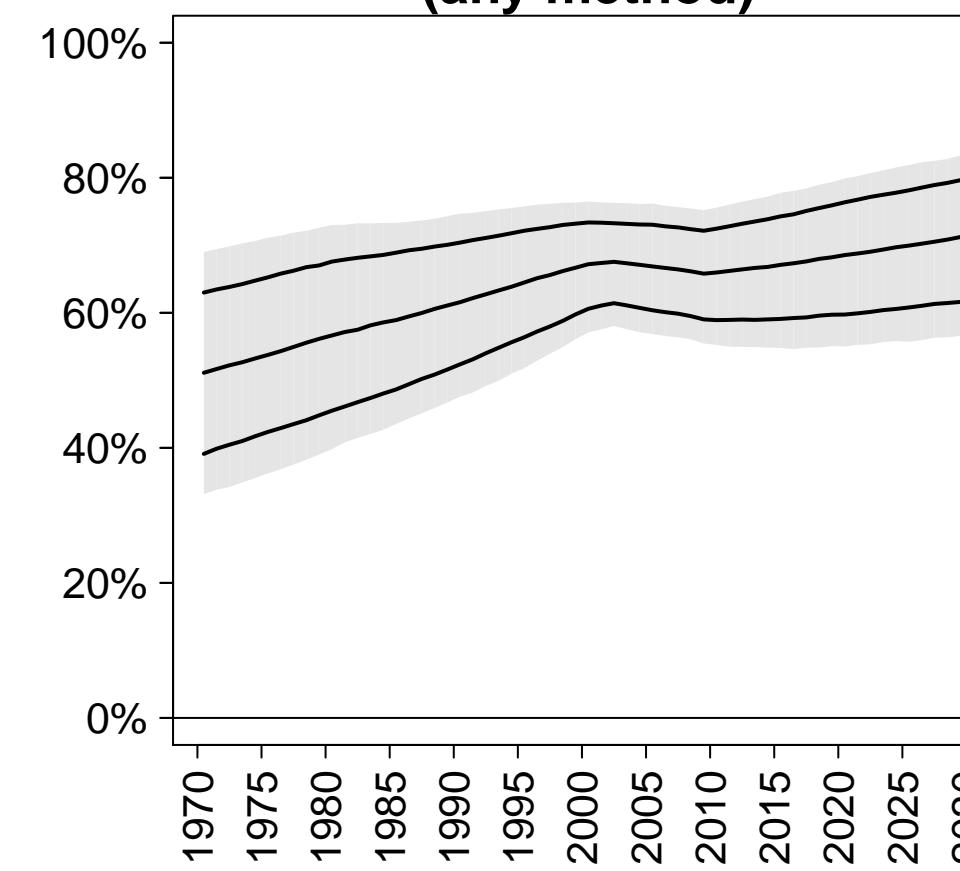
Unmet need



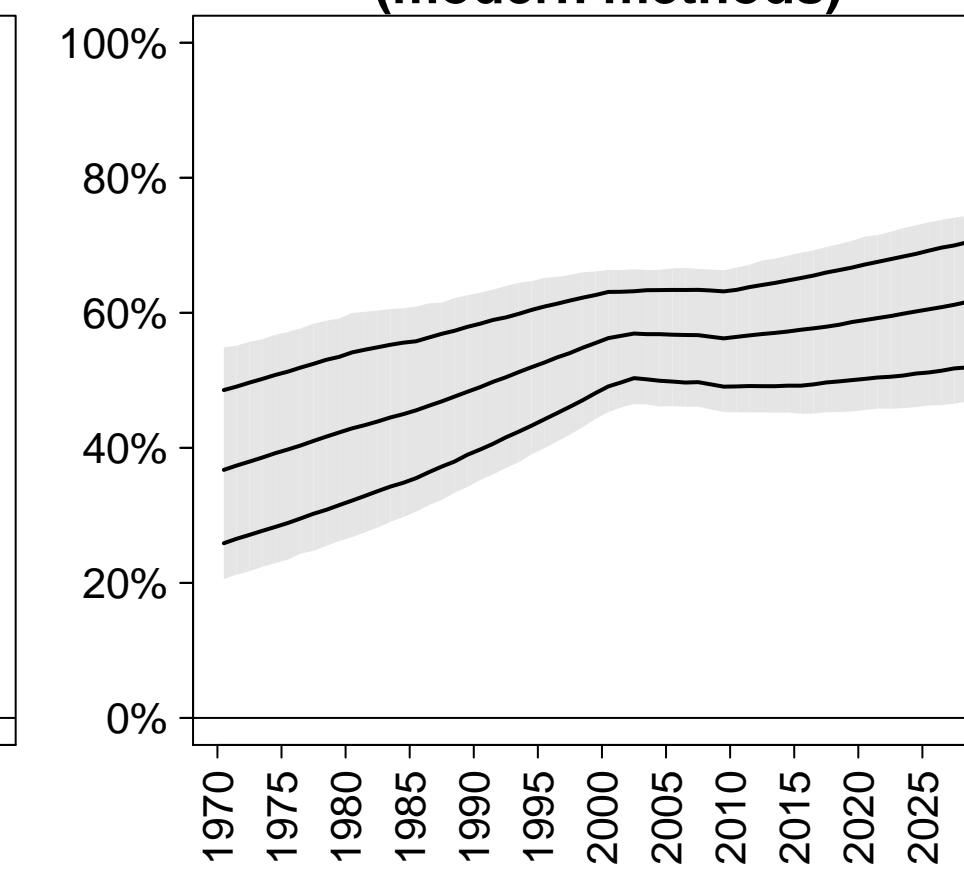
Total demand



**Demand satisfied
(any method)**

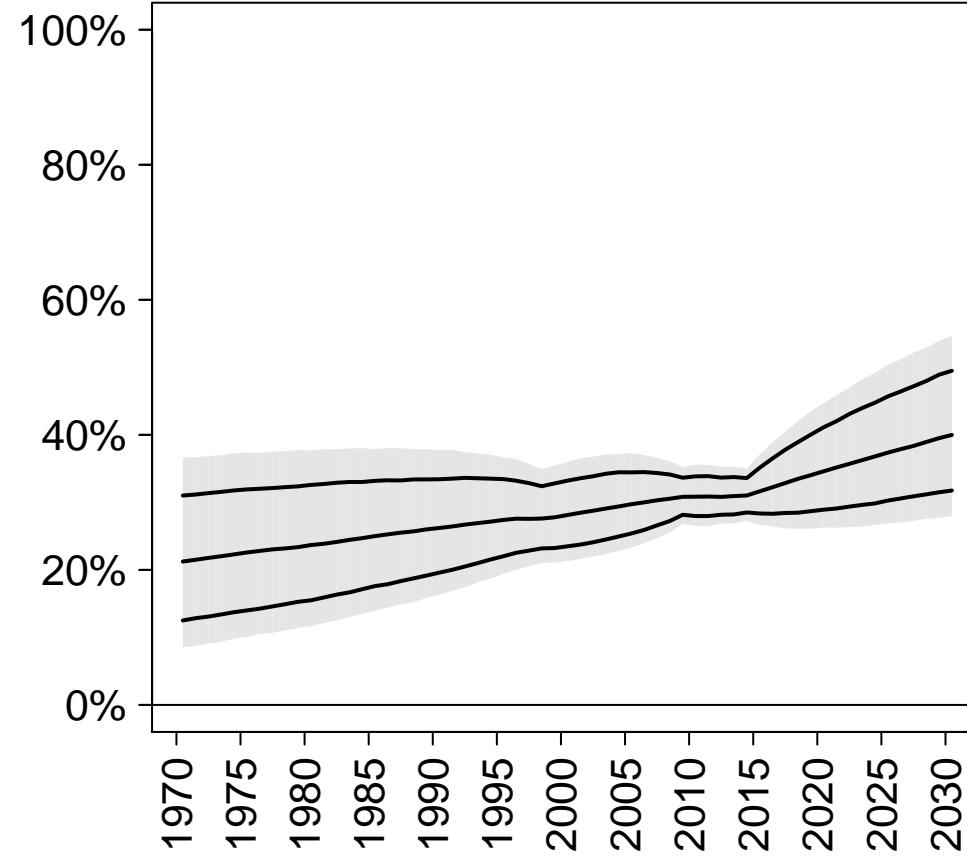


**Demand satisfied
(modern methods)**

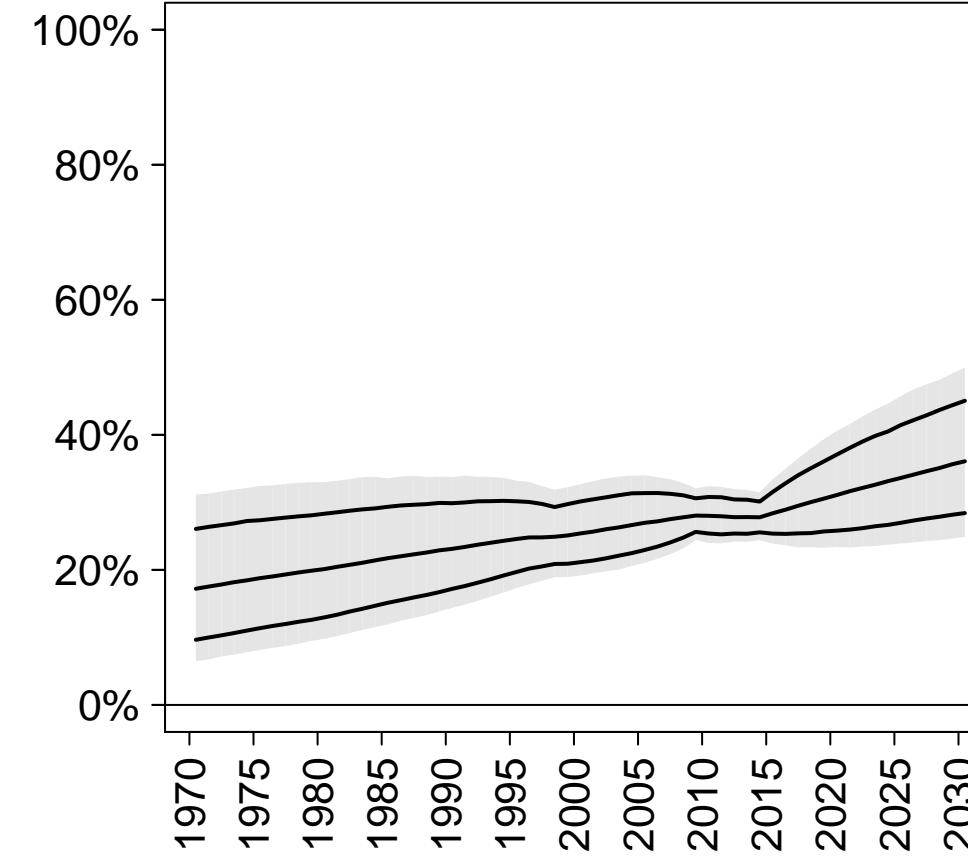


Polynesia

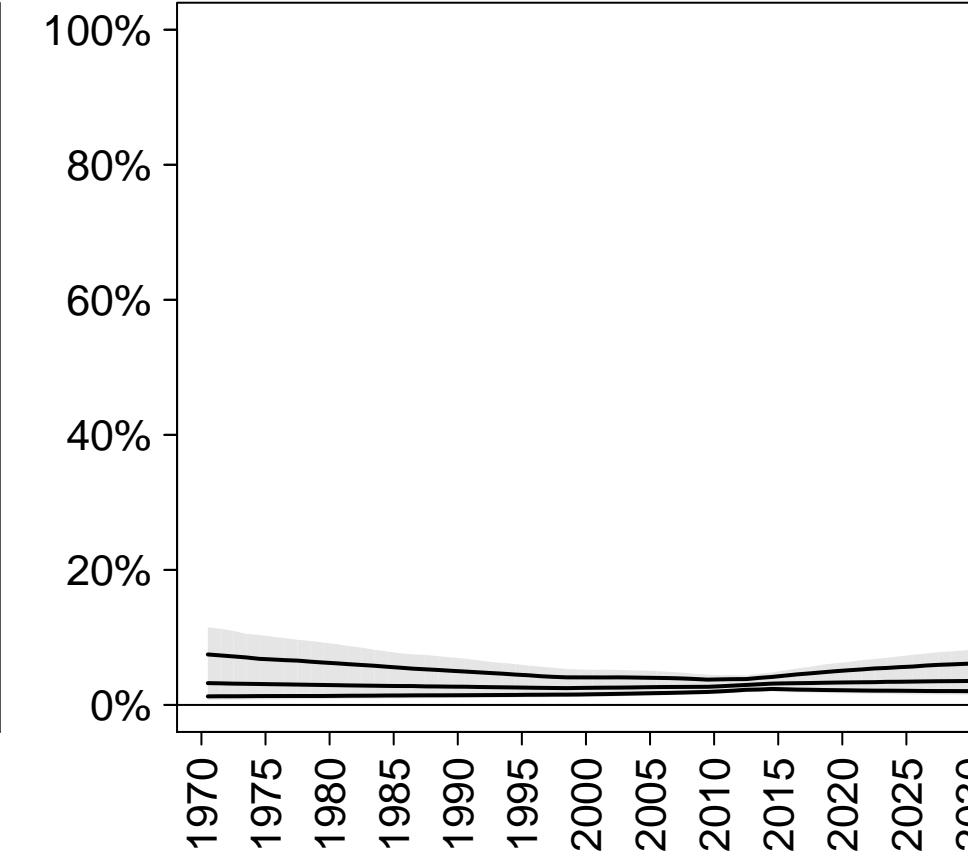
CP (any)



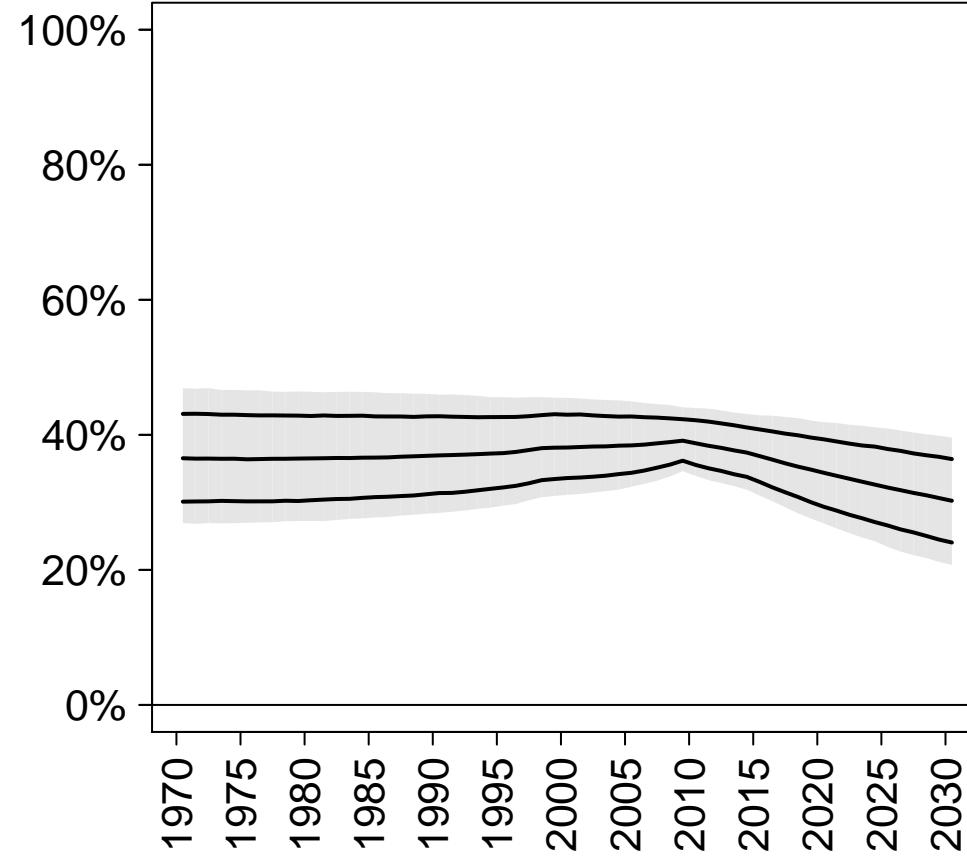
CP (modern)



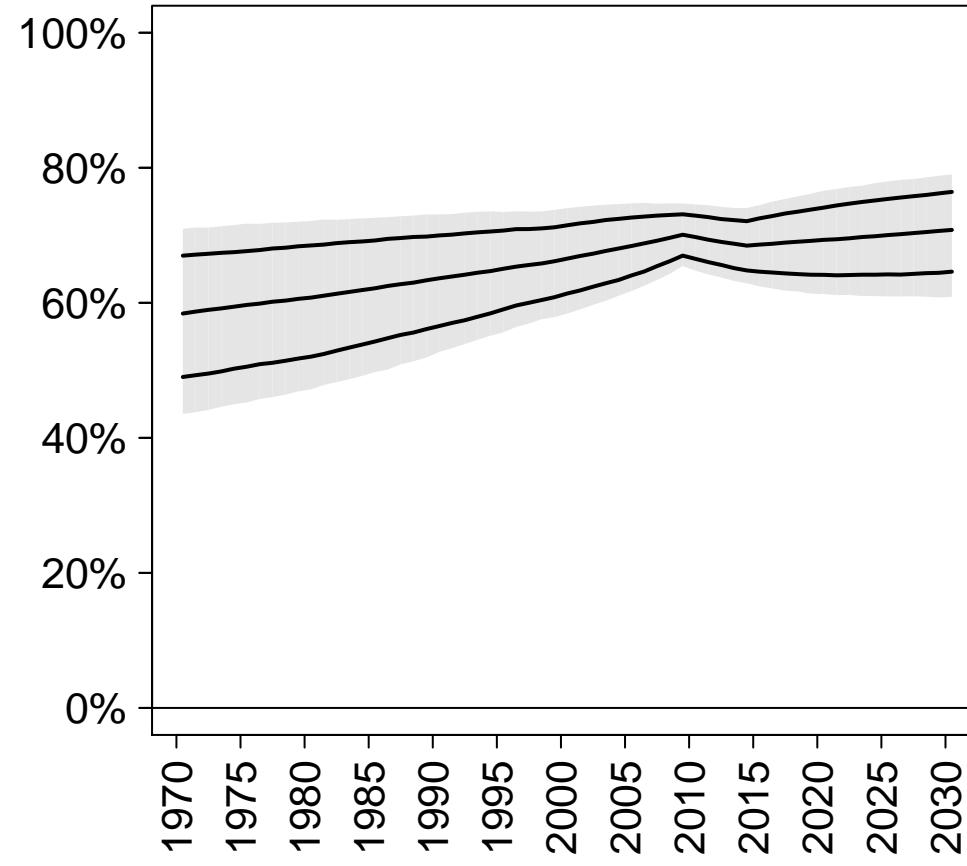
CP (traditional)



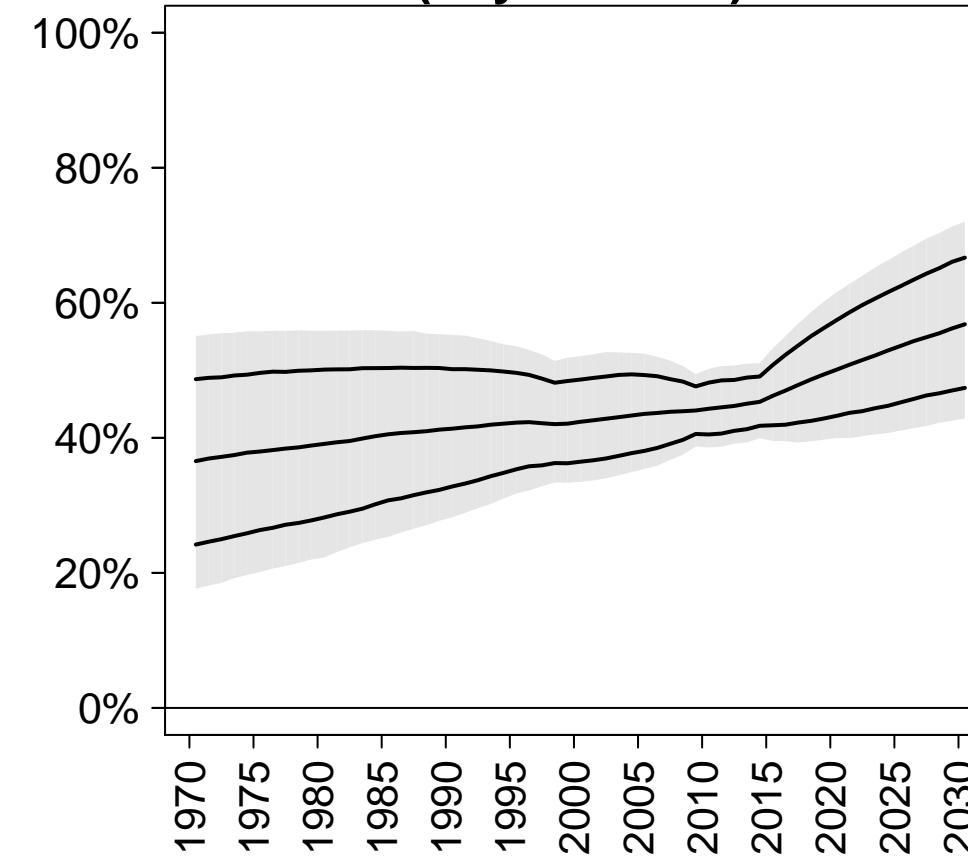
Unmet need



Total demand



**Demand satisfied
(any method)**



**Demand satisfied
(modern methods)**

