### World Population and Fertility Planning Technologies: The Next 20 Years

February 1982

NTIS order #PB82-200338

#### WORLD POPULATION



and
FERTILITY PLANNING
TECHNOLOGIES
THE NEXT 20 YEARS

CONGRESS OF THE UNITED STATES Office of Technology Assessment

#### Library of Congress Catalog Card Number 82-600516

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

## **Foreword**

By the year 2000, the world's population is projected to increase by between 1.5 billion and 2.1 billion people. About 92 percent of this rise will take place in the less developed countries (LDCs). Birth rates are falling in most of these countries, but because the largest generation of young people in history is reaching childbearing age, the annual increase in global numbers is expected to rise from 80 million this year to 95 million annually by 2000.

Rapid population growth in the last 20 years is a result of improvement in health and agriculture technologies. Increased options for fertility change have also resulted from advances in science and technology. Because its mission includes foresight on emerging issues related to science and technology, OTA determined in 1978 that an objective analysis was timely and appropriate in providing Congress with improved insight in this area. The topic was discussed with Members of Congress and letters endorsing the study were received from the House Committee on Foreign Affairs, the House Committee on Science and Technology, and the former Subcommittee on Child and Human Development of the Senate Labor and Human Resources Committee. Permission to undertake the study was granted by OTA's Technology Assessment Board in response to a request by the Director.

This report covers the status of current and projected technologies that affect fertility change. It presents current projections for population growth to 2000 and the implications of this growth; identifies the determinants of fertility change; reviews current reproductive research and contraceptive R&D; discusses the factors that influence the acceptance, distribution, and use of fertility planning technologies in LDCs; and examines past and current U.S. funding arrangements in support of population assistance requests from LDCs.

Issues and options developed for Congress include Federal support of contraceptive R&D; product liability and the contraceptive industry; effective patent life; export of non-FDA approved drugs; levels of funding for international population assistance; and distribution of population assistance funds.

The Office of Technology Assessment was assisted in the preparation of this study by an advisory panel of individuals representing a wide range of backgrounds, including demographic and family planning research, the pharmaceutical industry, health policy analysis, ethics and philosophy, and organizations holding differing views on current reproductive issues. Sixty-six reviewers drawn from universities, nongovernmental agencies, and the private sector provided helpful comments on draft reports.

The Office expresses sincere appreciation to each of these individuals. As with all OTA reports, however, their content is the responsibility of the Office and does not necessarily constitute the consensus or endorsement of the advisory panel or the Technology Assessment Board.

W JOHN H. GIBBONS

Director

# **World Population and Fertility Planning Technologies Advisory Panel**

Philip R. Lee, *Chairman*Health Policy Program, School of Medicine, University of California

Leona Baumgartner Abel's Hill, Chilmark, Mass.

Kenneth Boulding Institute of Behavioral Science University of Colorado

Wilbur J. Cohen LBJ School of Public Affairs University of Texas

Cyril Crocker Howard University School of Medicine

Arthur Dyck Harvard Divinity School

William N. Hubbard, Jr. The Upjohn Co.

Snehendu B. Kar School of Public Health University of California Nathan Keyfitz Harvard University Center for Population Studies

Marjory Mecklenburg\*
American Citizens Concerned
for Life

Deborah Oakley School of Nursing University of Michigan

Kenneth J. Ryan Boston Hospital for Women

Nafis Sadik United Nations Fund for Population Activities

Carol Tauer
Department of Philosophy
College of St. Catherine

Faye Wattleton
Planned Parenthood Federation
of America

Resigned as of February 1981 to assume position at the Department of Health and Human Stm'ices.

## **OTA Population Assessment Staff**

Joyce C. Lashof, Assistant Director, OTA, through November 1981 H. David Banta, Assistant Director, OTA, from December 1981 Health and Life Sciences Division

Gretchen S. Kolsrud, *Program Manager*Leslie Corsa, *Project Director through December 1980*Louise A. Williams, *Project Director from January 1981*Lawrence Milke, \* *Senior Analyst* 

Project Staff
Phyllis Avedon, \* Editor

Marya Breznay, Administrative Assistant
David Cantor, Analyst
Susan Clymer, Research Assistant

Emiline Ott, Senior Analyst through 1980

Major Contractors

John G. Stover and Jonathan T. Bye The Futures Group, Glastonbury, Corm. S. Bruce Schearer The Pormlation Council, New York

# **OTA Publishing Staff**

John C. Holmes, *Publishing Officer*John Bergling Kathie S. Boss Debra M. Datcher Joe Henson

"OT.A contract personnel,