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infor consent is obtained and no alternative treatme
availa e.

5. A national body should consider all proposals for human
therapy and ensure the application of agreed national guide
Early trials should be monitored by a central body.

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Medical Research Council, Box 6713, S-113 85 Stockholm, Sweden.

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Round the World

From our Correspondents

Nigeria

A WELL-MEANING BUT CONTROVERSIAL POPULATION POLICY

Nigeria has formally adopted a population policy to protect t
health of its mothers and children through measures to li
population growth. The announcement came from Prince B
Ajibola, the Attorney General and Minister of Justice, who not
that "the prevailing cultures, religions and traditions make it
onerous task but it is a task that must be done". The curre
population of Nigeria is not exactly known and genera
extrapolations are made from the 1963 census figures. Populati
Bureau International, an American based census bureau, h
estimated the population to be 108·6 million. The Wor
Development Report for 1987 puts the growth rate at 3·4%—one
the highest in the world—and, according to a United Nation
demographic estimate, by the year 2025 Nigeria will become the 4t
most populous nation in the world with 338 million people, comin
only after China, India, and the USSR. The infant mortality ra
has fallen from 187 per 1000 in 1960 to 90; the adult death rate ha
dropped from 27 per 1000 to 13; and life expectancy has risen fro
37 to 54 years. There have therefore been strong warnings fro
population agencies for Nigeria to decrease the rate of population
growth through vigorous family planning programmes, "otherwise
the future generation of Nigerians would not have enough food,
housing, education, health services and jobs".

The goals of the National Population Policy are to improve the
standards of living and the quality of life of the people; to promote
their health and welfare especially through preventing premature
death and illness among high-risk groups of mothers and children;
to achieve lower population growth rates through reduction of
birth rates by voluntary fertility regulation methods that are
compatible with the attainment of economic and social goals of the
nation; and to achieve a more even distribution of population
between urban and rural areas. As regards mothers and children,
the goals are to reduce the proportion of women who get married
before the age of 18 years by 50% by 1995 and by 80% by the year
2000; to achieve birth spacing of a minimum of 2 or more years in at
least 50% of fertile married women by 1995 and in 80% by the year
2000; to reduce pregnancies of mothers below 18 years and above 35
years of age by 50% by 1995 and by 80% by the year 2000; to reduce
the proportion of women bearing more than four children by 50%
by 1995 and 80% by the year 2000; to extend the coverage of family
planning services to 50% of women of childbearing age by 1995 and
80% by year 2000; to direct a substantial proportion of the family
planning programme in terms of family life, education, and family
planning service at all adult males by the year 2000; to reduce the
number of children a woman is likely to have during her lifetime,
now over six, to four by the year 2000; and to reduce the rate of
population growth to 2·5% by 1995 and 2% by the year 2000.

The population policy has attracted criticism from a wide
spectrum of the people. This is partly because little was done in the
way of public enlightenment before the announcement. Christian
and Muslim organisations, as expected, are opposing the policy and
the spread of modern family planning methods. One aspect that has
been criticised by many women and women's groups is the proposal
to limit the number of children per woman to four. This is said to
provide men with a licence for marital irresponsibility, and to
threaten marital stability. If the number of children per woman is
limited to four, they argue, the men will go out and marry more
wives. Some people are opposed to any population policy. In
Nigeria, as in other African countries, children are highly prized and
any measures to limit their numbers are regarded as unnatural. In
rural and urban areas the people do discreetly use some traditional
birth spacing methods. So far modern family planning services have
been available only in a few urban centres and people are often
suspicious of them. The pressure for introduction of modern
methods of contraception seems to come more from international
donor agencies, who regard them as a basic development tool, than
from African countries themselves, who, in view of their complex
cultures and their poverty, see the best hope for economic and social
development in a "new international economic order" (as stipulated
in the Alma-Ata declaration).

During the recent National Immunisation Campaign
(vaccination for childhood diseases and tetanus toxoid for pregnant
women), in some villages the women escaped and hid in the bushes
thinking that they were going to be given injections to stop them
having children. The population policy needs to be properly
elucidated and communicated. Its goals—to improve the standard
of living and quality of life of the people and to protect the health of
the mothers and children, particularly in the rural areas—are
excellent, but a diverse package of integrated activities,
programmes, and services is required for such fundamental
changes.

United States

SMOKING IN PUBLIC PLACES

MANY years ago my aunt sat down in a London cinema and her umbrella was set on fire by the cigarette of the man in the next seat. That could not happen in the States since smoking has long been forbidden in theatres and cinemas for reasons of fire-safety. But now, armed with growing evidence that inhaling other people's smoke is not only unpleasant but also dangerous, antismoking activists have managed to achieve wider restrictions on smoking in public places.

In 1975, Minnesota was the first State to restrict smoking to designated areas. Now most States have at least some restriction: Virginia and the Carolinas, where tobacco is a major industry, are among those that do not. California has banned all smoking on public transport. On April 7, New York City banned smoking in most public indoor places—an exception being the Philip Morris office building. A taxi-driver may not smoke in his own cab even if he has no passenger. A cartoon in *The New Yorker* showed people puffing away on rooftops. The Federal Government passed a law that became effective on April 23 banning smoking on all domestic flights of two hours or less—smokers may not light up until they leave the aircraft, even if the flight is delayed.

Private companies are also cooperating. Many restaurants voluntarily designate limited smoking areas, and a few prohibit it altogether. Northwest Airlines is banning smoking on all domestic flights after a heavy advertising campaign on television. The commercial, which shows passengers applauding when the smoking ban is announced, has infuriated the tobacco industry. One major manufacturer, R. J. R. Nabisco, not content with issuing news releases critical of Northwest Airlines' performance in such matters as flight delays and lost luggage, has cancelled its $84 million advertising contract for sweets and biscuits with Saatchi and Saatchi D. F. S. Compton, who made the commercial for Northwest Airlines. Walter Merryman, vice-president of the Tobacco Institute, promised further attacks on businesses that ban smoking. The airline reports that it is not concerned—in a poll 30% of its smoking customers said that they preferred the non-smoking section. *Newsweek* quotes one smoker as supporting the restrictions in the hope that they will help her cut down and perhaps even stop smoking. A poll conducted by a Massachusetts congressman found 75% in favour of the ban on smoking in air travel.

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PHASE I CLINICAL TRIAL OF A WORLD HEALTH ORGANISATION BIRTH CONTROL VACCINE

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Summary A birth control vaccine incorporating a synthetic peptide antigen representing the aminoacid sequence 109–145 of the C-terminal region of the β subunit of human chorionic gonadotropin (hCG-β) was submitted to a phase 1 clinical trial. Thirty surgically sterilised female volunteers, divided into five equal groups for different vaccine doses, received two intramuscular injections six weeks apart. Over a six-month follow-up there were no important adverse reactions, and potentially contraceptive levels of antibodies to hCG developed in all subjects. In the highest vaccine dose group, the results gave promise of a contraceptive effect of six months' duration.

Introduction

SINCE 1974, the Task Force on Birth Control Vaccines of the World Health Organisation (WHO) Special Programme of Research, Development and Research Training in Human Reproduction has promoted the development of a contraceptive vaccine directed against the pregnancy hormone human chorionic gonadotropin (hCG). There are several possible mechanisms by which such a vaccine might exert antifertility effects. One is the stimulation of antibodies that neutralise the luteotropic action of the target hormone/antigen. This would result in regression of the corpus luteum and disruption of the peri-implantation embryo, leading to an apparently normal menstruation. Another possible action is by a direct antibody-mediated or cell-mediated cytotoxic effect on the hCG-producing cells of the peri-implantation blastocyst.

Whatever the mode of action of such a vaccine, data in the marmoset[1] and the baboon[2] established the principle that immunity to hCG is capable of blocking fertility at an early stage of pregnancy with no discernible alterations in the menstrual cycle. This method, therefore, could be a highly acceptable birth control strategy in both developed and developing countries.[3,4]

To achieve specificity and to avoid the possibility of cross-reactive autoimmunity, particularly involving the β subunit of human luteinising hormone (hLH), the current vaccine was based on a synthetic oligopeptide corresponding to the aminoacid sequence 109–145 of the carboxy-terminal

