Population and Sustainability Network

Population Increase: A Universal Threat? What is the Role of Europe?
13 October 2005 5:00-9:00 London School of Hygiene and Tropical Medicine

Keynote address:

Why the Silence on Population?

Martha M. Campbell, Ph.D.
School of Public Health
University of California, Berkeley

It is a pleasure to be here with you this evening, participating in the first annual meeting of the Population and Sustainability Network. The issue I will talk about tonight is always delicate. It has all but disappeared from the media, and even discussion about why this subject has fallen off the table is considered by some groups to be only marginally acceptable. The subject is population growth, which I see as an important factor among others that have impact on the environment. Population is the multiplier of everything we do wrong.

The population-environment connection has become a taboo subject. Many young people on university campuses, including Berkeley, have been taught over the past decade that the connection between population growth and environment is not an acceptable subject for discussion. In many circles it is politically incorrect to say that slowing population growth will help to make it possible to preserve the environment for future generations.

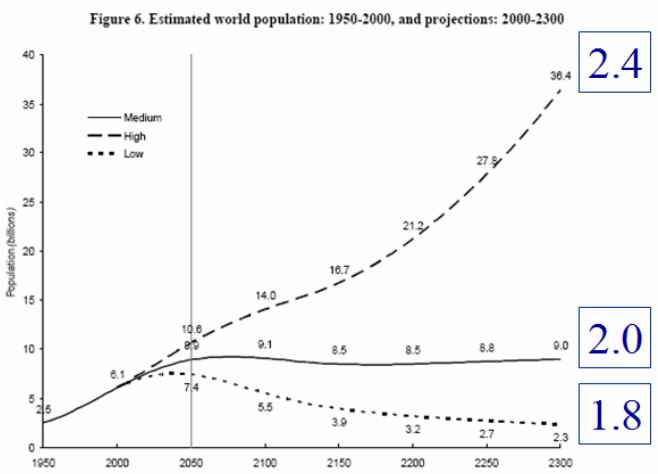
At the Scripps Institution of Oceanography in San Diego I have learned that the countries whose scientists are involved in the Intergovernmental Panel on Climate Change have made a tacit agreement not to talk about the population factor because it is "too sensitive". Think about this … the panel is composed only of scientists, who are purposely avoiding discussion of a significant factor in their principal subject. What has been happening? I will try to answer this question.

A progression...

1 billion	1800	200,000? years
2 billion	1930	130 years
3 billion	1960	30 years
4 billion	1975	15 years
5 billion	1987	12 years
6 billion	1999	12 years

First I will back up and review the population "explosion" as it occurred between 1800 and 2000. We had a billion people on this planet in 1800 and it took only another 130 years to reach two billion; and then we reached three billion in 30 years, four billion in 15 years, five billion in 12 years and six billion people in another 12 years after that. The reason for this rapid growth was not because people were having more babies, but because more children survived, with improved nutrition, better water, new ideas of hygiene and vaccines – it was a triumph of human success. In short, what occurred during this period as the principal driver

of population growth was the arrival of new and welcome technologies and information, and I stress this point because it will come up again later.



Recently the United Nations Population Division, which produces most of projections we occasionally see in the news, constructed its longest-ever world population projection carried out to the year 2300. They had never tried this before. Obviously a projection is an if-then scenario, and we cannot know with any certainty what is actually going to happen. But they were able to calculate what would happen under a carefully chosen set of assumptions. In their medium level of projection (the medium level is the only one ever mentioned in the public media), they calculated that the world's population is likely to reach and stabilize at about 9 billion people. The lower level projection would take the world's population size down to 2.3 billion people, and under the high projection the population would grow to 36.4 billion people. But the most interesting thing about this projection is the number of babies per mother that it takes to get there. The assumption for reaching the medium projection of 9 billion is that the total fertility rate (TFR) will be 2.0 in 2050. The TFR is a calculation of the average number of babies a woman will have during her fertile life. The low projection assumes the TFR will be 1.8, and the high projection assumes the TFR will be 2.4. Note that these two fertility rates are only four tenths and two tenths of a child on average away from the medium level. The high population reached by women having only 2.4 children on average works powerfully, like compound interest over an extended time.

The populations of many developing countries are growing rapidly, all expanding at a rate of at least 1.8% per year (most have TFR > 4), which implies a doubling time of about 40 years. There are some very small countries here, and all of them are poor countries. It is now recognized that a country cannot get out of poverty until its average family size decreases. Pakistan and Philippines are here as countries with many problems both around population and the environment. In Niger's current famine, I have not seen in New York Times any mention of the fact that this country's families have an average of seven children, and the population is poised to double in 18 years. I did see a question about why they are having so many babies. I will get into this later. To us it is obvious that these mothers are not choosing to have these many babies. India is growing by a net million every 19.5 days. Last year they were growing by a million every 20.5 days. These are a proud people and justifiably so. We all know that India is very divided between the poor and the rich people. Unfortunately, the level of nutrition available to the poor has not changed over the last 15 or 20 years.

I am often in meetings where people argue that it is consumption, not population, that causes environmental decline. To a large extent and in many places they are right, but population is still an important factor. I have searched for good examples of where population growth is the primary driver of environmental problems. The Nile is an excellent

case in point. Western consumption of resources has nothing to do with the Nile situation. The Blue Nile starts in Ethiopia's Lake Tana and flows up into Sudan. The White Nile comes out of Uganda and meets the Blue Nile in Khartoum. The merged Nile flows up through Egypt and into the Mediterranean. Today the Nile is nearly used up by the time it reaches the Mediterranean because of the water that is drawn out to support the populations in these countries. These are rapidly growing countries and their governments are aware of the water situation. Here is the problem: between now and 2050, the populations of these countries combined are projected to double. But there is no other Nile, and nothing will make this life-giving water resource larger. Population growth is the primary driving factor in the depletion of the waters of the Nile. Also, in all of these countries dependent on the Nile it is relatively hard to get family planning. I will return to this point later.

In 1900, Ethiopia had 5 million people. By the year 2000, its population was 69.5 million. The Ethiopian government is very concerned about this, worried about how they are ever going to get out of poverty. This rapid population growth has decimated Ethiopia's forests and changed its climate.

The world's scientific academies in 1993 pointed out that if we don't change our pace of population growth and patterns of consumption, we may not be able to stop irreversible degradation of the natural environment on this planet. Our question is, why has there been silence about population after this powerful statement?

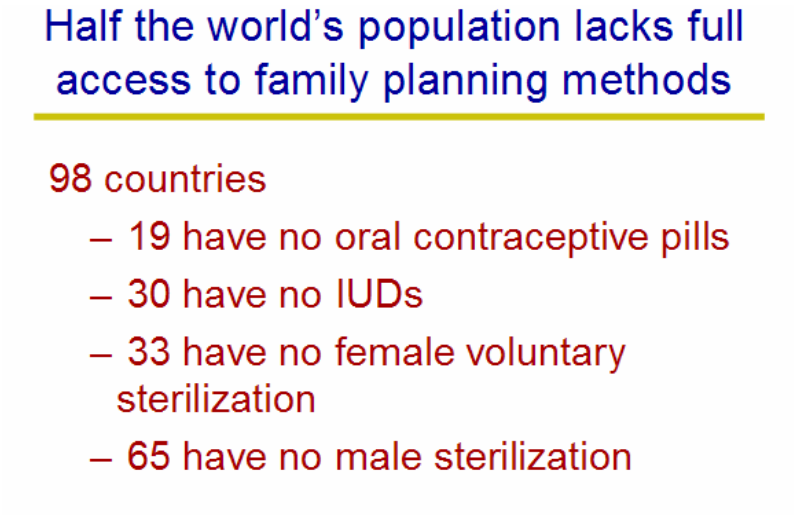
This silence has two main causes. The first has been policy change, and the second has been the persistence of demographic theory that does not fit the biology of human reproduction. On the policy side, the 1994 United Nations International Conference on Population and Development (ICPD, or "Cairo") was the turning point in making population disappear off the table. This disappearance was considered by many advocates to be a resounding success. I attended this conference, and I know I speak words of heresy when I say that what came out of Cairo was more of a problem in terms of population than it was meant to be. Cairo had unintended consequences that have been most unfortunate. The conference planners sought to bring attention to women's broader needs, which are very important and a legitimate concern worldwide. Poor women are marginalised in many developing countries. They do most of the work, they have few rights, own little of the property, are not treated as economic equals with their husbands, and they are often treated badly.

Unfortunately the carefully developed strategy for drawing attention to women's needs at Cairo was to reduce attention to population. In 1992, two large private foundations in the United States supported an effort to assemble women's groups from around the world to pool their efforts and agree on the main points for the conference. Out of this tightly coordinated effort came important changes in language. First, all family planning programs were suddenly referred to as "population control", which became a purely derogatory term, as it remains today. This is an insult to all the people who diligently set up family planning associations all around the world since the 1950s. These decades of effort had begun in the hands of relatively rich women who already enjoyed the privilege of being able to manage their family size and who knew that the poor women around them did not have this option.

Second, the Cairo efforts shifted discussion from family planning to the broader concept of reproductive health. A survey has now shown that this shift to the newly preferred term reproductive health drew away the attention of Congresses and Parliaments from population and the need for family planning, because "reproductive health" is not well defined and not a compelling concept. It is certainly not a term marketable to anyone, particularly males, outside the field. Third, discussion of population growth became politically incorrect, the

term Malthusian became a derogatory term, and anyone thinking about matters demographic were suspect. When I joined the Packard Foundation in summer of 1994 to head its population program, one of the leaders in the women's movement asked me, "What is your program going to be like? Will you be demographic, or are you in favour of giving women choices?" This question almost blew me away. In the foundation we were keenly interested in slowing population growth by giving women choices.

A recent article by Laurie Ashford at the Population Reference Bureau described the common belief by the women's groups at the Cairo conference that if you enhance individual's health and rights, you will ultimately lower fertility and thus slow population growth. At the time of Cairo I studied the many papers and articles that made this claim, and found that the references supporting it went in circles, backed up by nothing more than political assertions. A problem with the "ultimately" portion of this widespread belief was that the time factor became immaterial. However, the year in which a country like Nigeria reaches replacement level fertility of 2.1 children on average will make a radical difference in the country's ultimate size: whether it reaches 200 million or 500 million people.



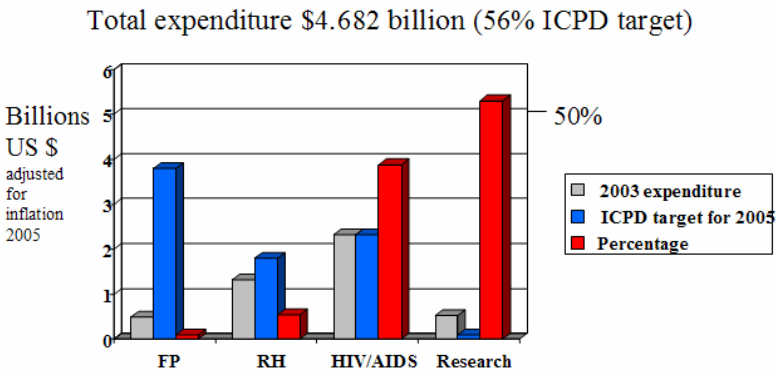
Ross, J. 1995, "The question of access", Studies in Family Planning 26: 241-242

…and more barriers…

- Religions constrain providers
- Mothers-in-law are in charge.
- Young brides lack power.
- Unmarried young females are excluded from services.
- Outlets are unreachable.
- Medical rules make getting contraception difficult.
- Absence of correct information
- Government services are poor.
- Advertising isn't allowed.
- Prices are too high.
- Paramedicals are not activated.
- EC using existing birth control pills: Most women don't know this.
- Preference for sons

Cairo's fear of family planning was that it would require getting people to change their minds from wanting a big family to wanting a small one, and this implied inappropriate persuasion, or even coercion. The women's groups building this strategy had what we know is the wrong theory. In addition, they failed to give adequate attention to the very large and well documented unmet need for family planning around the world. At least 120 million couples on this planet do not want to have a pregnancy now and yet are not using modern contraception. From our research, in most cases it is simply very hard for poor people to obtain fertility regulation methods. While the technologies and information that saved people's lives during the population explosion were not controversial and widely welcomed, the technologies and information that are required for women to have control over whether and when to have another child are widely considered controversial, and too often they are much too hard to obtain. Having assembled evidence of the wide range of barriers – legal, financial, regulatory, and medical, in addition to the better understood social barriers – in many low-resource settings it is amazing to us that there are any women at all who find a way to use contraception.

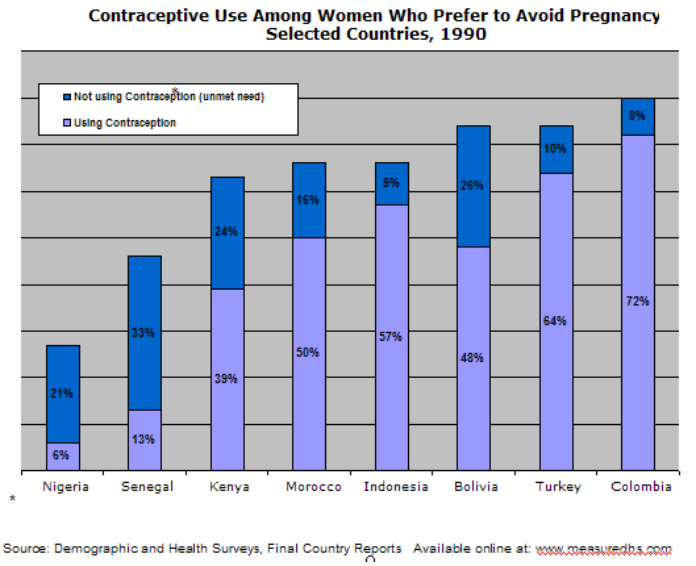
ICPD Targets and Actual Donor Expenditures.



Largely as a result of Cairo, its language of reproductive health and the silence on population that it spurred, the public and politicians lost interest in population, and the family planning aid budgets plummeted. Even though the foreign aid allocations for family planning budgets were already small compared to most other aid allocations, they were shifted to other subjects. New data from Dr. Joseph Speidel at the University of California, San Francisco, shows that the support for international family planning is only 13% (10% when adjusted for inflation) of the dollars projected for family planning at the time of Cairo. Support for contraceptive commodities has declined and there are frequent stockouts of pills, condoms

and injectable contraceptives that are needed to enable women to have the choice whether or when to have a child.

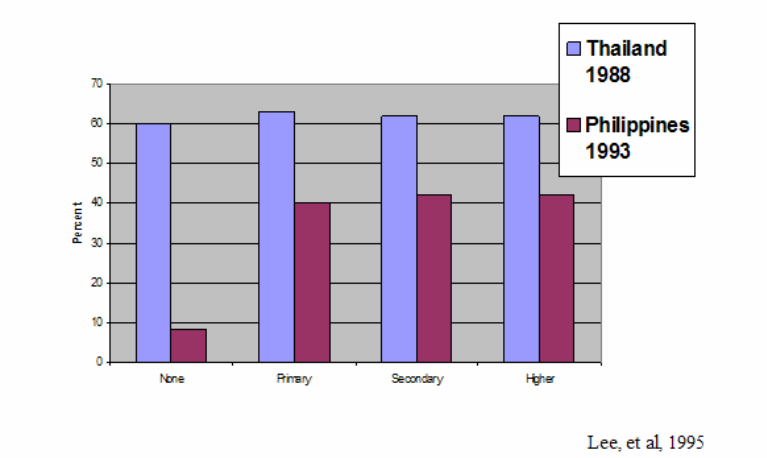
There is an interesting contrast between population and consumption issues. There is a stunningly large unmet need for family planning, which means that population growth rates *are* amenable to change. You don't need to ask people to change their minds at all, you need only to make family planning easier to obtain. Consumption is the opposite: There is no unmet need for consuming less, and therefore reducing consumption it is painfully difficult to achieve.



On the theory side, the dominant paradigm in understanding the human fertility decline has helped to write population off the public agenda, out of public discussion and generally out of sight. It is the persistent "demand-side" model of fertility, which proposes that couples around the world have always wanted many children, and that the only way they change their minds is when something happens in their societies. The assumption is that when this change occurs, somehow couples find a way to achieve their smaller family size.

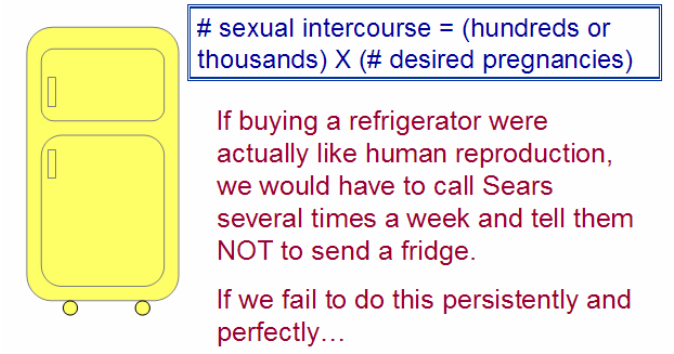
But what are the external societal changes that cause this shift in couples thinking? You often hear that when people, or women, are educated, they will have smaller families. Many economists and demographers have spent decades searching for the principal factor that causes this change to occur. It was John Cleland, of this graduate school, in fact, and who has shown that each of these factors – wealth, education, urbanization, and employment opportunities – have been disqualified as the drivers of fertility decline. Cleland has demonstrated, for example, that while there is large difference in rates of contraceptive use between uneducated and educated women in countries such as the Philippines where family planning is difficult to obtain, in countries where family planning is made easy to get, such as Thailand, there is virtually no difference in levels of contraceptive use between women of different levels of education. Cleland has constructed these kinds of comparisons among countries for all of the factors usually credited for fertility decline. Nevertheless, many people still believe in the demand-side theory, and most demographers, often trained first as economists, still tend to hold onto it tenaciously.

Contraceptive use, by level of education



Our own observations in the field do not fit the model about people changing their minds based on external change. Instead, we find that there are many barriers to fertility regulation, and the mere absence of these barriers drives fertility decline. In the School of Public Health at Berkeley we have undertaken a large research project to demonstrate the power of the barriers to inhibit family planning in developing countries. In fact, to go farther, we have looked at 170 countries and we cannot find a single one that has achieved a small average family size where women do not have widespread access to safe abortion.

The Refrigerator Model of Fertility



I must introduce to you our Refrigerator Model of Fertility, which we constructed to demonstrate to our students at Berkeley what is wrong with the commonly held theory that making a decision about family size will cause a decline in family size to take place. Our analogy involves an American size refrigerator because it is a big family investment and it takes up lots of room in the home.

The demand-side theory of fertility decline involves the mistaken assumption that decision-making about family size is like buying a major appliance. If we want to buy a refrigerator, we can call Sears and order a fridge. The problem with this comparison is that human couples worldwide have sexual intercourse hundreds or even thousands of times more often than the number of pregnancies they desire. This means that, turning this picture around, if buying a refrigerator were actually like human reproduction, we would have to call Sears several times a week and tell them NOT to send a fridge. We would have to do this persistently and perfectly. If something is wrong with our phone, or if we can't afford one, or if we are put on hold, or if in a moment passion we forget to call Sears, there are

consequences. A few months later the doorbell rings and another refrigerator is delivered. And after a few more months, another one arrives. And another.

The missing factor in the traditional, demand-oriented model is coital frequency. Because couples all around the world have frequent sex, it is necessary to use technologies to separate sex from procreation, to prevent pregnancy persistently and perfectly week after week, year after year. If you are poor, this is very hard to do. The moral of this allegory is that in the absence of modern contraceptive methods used consistently and perfectly, it is extremely difficult to control family size. We are demonstrating that the dominant demographic model does not fit the biology of human reproduction.

"Ease of access" model of fertility decline

- No need for societal change for couples to reach a new decision
- Women have a natural comfort with not bearing the maximum number of children.
- Childbirth is a dangerous process.
- An implicit cost-benefit assessment
- Normal consumer behavior

This model appears to fit every country's situation.

The one factor that we find consistently in all instances of fertility decline across all countries is the ease with which women can obtain fertility regulation technologies, along with correct information about their use. We are taking the bold step of positing that the ease of access to technologies and information influences fertility decline more than any external societal condition or change. Fertility decline is the result of not coercion nor persuasion, but freedom.

Under our "ease of access" model of fertility decline, there is no need for any societal change to spur a couple's new decision. We assume that women worldwide have a natural comfort with not bearing the maximum number of children. After all, childbirth is a dangerous process, and maternal mortality is very high in nearly all of the developing countries. There is good evidence, which we are assembling, that women do an implicit cost-benefit assessment, comparing the costs (including perceived dangers or other punishments) of using contraception against the cost of having another baby, and very often, because of rampant misinformation, they perceive having another child as safer than using contraception. When women have correct information, they welcome the arrival of any option to use fertility regulation methods – family planning or safe abortion. The shift in their own thinking about these options is entirely consistent with well documented normal consumer behaviour, which we have investigated with the Berkeley's Haas School of Business. Many things we have now in our consumer lives – from photocopy machines to garage door openers and television remote controls – we did not want until they showed up as real, available options. We find that women's decision-making processes around the use of family planning, and around having a smaller family, are similar.

Child survival is heavily influenced by the availability and use of family planning. There is now excellent evidence that in a developing country, low resource setting, a baby born 36

months after her older sibling has three times the odds of survival as a baby born only 18 months after her older sibling.

Putting it all together, investment in making family planning easier to obtain meets human needs, saves the lives of children, and slows population growth at the same time. Family planning helps to preserve our environmental resources for future generations, and it provides a ray of hope for escape from poverty. This is a win-win opportunity for women, families and communities.

With this new understanding, now we can end the silence on population – compassionately.

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