# PIONEERS, MAVERICKS and MISSIONARIES

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I take special pleasure in being with you to participate in celebrating the 25th birthday of the Department of Population Dynamics. It is truly one of a kind in bringing together within an academic department--basic scientists, social scientists, and family planning professionals.

Paul Harper's dream, now reaching maturity at 25 years, has proven its validity and relevance many times over. It has succeeded within a single department in building an effective bridge from "bench to bush" (as some have inelegantly phrased it) and as this effort has succeeded, it has been catalytic in bringing excellence and relevance to both the research and the educational missions. I have always felt that this is precisely what should and must characterize a high quality school of public health.

I find it inconceivable (if you'll pardon the use of that word) that a department of population dynamics should not exist in every school of public health--and for a very simple reason. Essentially, every problem on our public health agenda--indeed, our national agenda and our international agenda--has, as a fundamental variable and driving force, issues of fertility, of population size, of sexuality--and those issues extend from environmental contamination to inner city strife and poverty to issues of international security and, indeed, to our most recent concerns about the burgeoning numbers of new and emerging microbial infections. As Don Coffey elegantly presented today, the problems are major, the problems are urgent and, we, mankind, defer action on these problems at our own peril. One can scarcely advance a stronger justification than this for a programmatic department.

But one asks, if this is so, why we aren't celebrating the 75th, rather than the 25th anniversary of the department. The fact is that, until surprisingly recently, population issues and family planning programs were not high on either national or international agendas. When I say recently, what is that in time? My sense is that for many, especially the younger generation, events more than 20 to 25 years ago tend to be consigned to a vague and often ill-remembered past history, or even pre-history, and the present is accepted as though it were the natural order. For family planning and population, I believe it is critical that we recall a past not so many years ago--when the sale and distribution of contraceptives were forbidden, when abortion was illegal and when population growth was of no concern. There are a few, as you know, who even now would like to see those days return. Tonight, I should like to focus on a few vignettes from the past to remind us of where we have been and why today we have a

Department of Population Dynamics. And then I would like to offer some provocative thoughts with respect to the future.

Let me begin in 1926. And as I look about the room, there are a fair number who are here tonight who were witness to that year. The grand, new building of the School of Hygiene was dedicated that year. Some ten years had passed since Margaret Sanger had opened the first birth control clinic in the United States, in New York City--a clinic to provide advice on contraception and to dispense diaphragms and condoms. She and her staff were promptly jailed for 30 days. Why? Because there were Congressionally enacted statutes, called the Comstock Laws, which prohibited use of the United States mails for distribution of information about contraception and contraceptive supplies. Additionally, some states prohibited physicians from instructing patients about contraception.

In 1926, a group of 16 prominent Baltimoreans decided to open a birth control clinic. Included were Raymond Pearl and Dean William Howell from Hygiene and Whitridge Williams from the Department of Obstetrics. State officials assured them that they would not interfere with its operation but inevitably the clinic would have to violate the federal Comstock Laws if they were to procure contraceptive supplies. This they decided to risk. The meetings were held in the Dean's office in the School of Hygiene. I would note, cheerfully, that a rebellious spirit pervaded that office even then. They proposed first to undertake a five-year study to evaluate contraceptive methods. They asked the hospital to make space available. The trustees refused. The School of Hygiene was proposed as an alternate location but University trustees vetoed the proposal. Eventually, the clinic was opened in a rowhouse on North Broadway. It was run by Dr. Bessie Moses, an obstetrician from Hopkins, with Raymond Pearl as statistician.

Was it needed? Contraception as a subject was then generally ignored by medical schools and was not mentioned in medical textbooks. When the new clinic opened it was the only one in Baltimore. Raymond Pearl compiled information about the first 1150 patients, seen between 1927 and 1932. Most women had learned about possible contraceptive methods from family and neighbors. A surprisingly large number avoided intercourse during the five days immediately before and after their menstrual periods in the belief that this was when they were most likely to become pregnant. This, of course, was precisely the opposite of fact. The 1150 women reported a total of 1000 abortions at some time previously--undoubtedly far fewer than occurred because, of course, abortion was illegal. Many had had as many as 10-15 abortions and one woman reported 25--all but one self-induced. The average client had been married 11 years; she had experienced, on average, 5.6 pregnancies and had delivered five children. Who were the women clients? It was noted that all who attended the clinic were married or soon to be married; somewhat less than 20% were African-American, roughly the same proportion as Baltimore residents; the occupations of the husbands were primarily skilled or semi-skilled labor with perhaps a third unemployed. Bear in mind, we are not talking about

the statistics from some third world country. Nor are we talking about either a very rich or a very poor clientele. This was Baltimore circa 1930 and my mother was potentially one of those clients!

After the studies were completed, the clinic continued and, in due time, became what is today Planned Parenthood of Maryland.

Believe it or not the last remnants of the Comstock Laws did not die until a 1964 Supreme Court decision. As recently as August 1961, the Chicago Post Office seized a shipment of Alan Guttmacher's Complete Book of Birth Control which was intended for distribution through retail book outlets. It was finally released on the condition that it contain a specific statement, "This publication was prepared under medical auspices for the use of persons 21 years of age or older, or married, who are seeking information on the advice of a physician or to meet a specific need."

At the School, the first courses in family planning commenced in 1952--the instructor was Bessie Moses, then well into her 25th year as Director of the Baltimore Birth Control Clinic. But in the United States and indeed on the world scene, interest in population issues languished through the 1940s and 50s. The American Medical Association in 1937 had endorsed birth control for therapeutic reasons but not until 1964 did it declare contraception a matter of "responsible medical practice". The American Public Health Association did not weigh in on the issue until 1959 at which time it endorsed birth control as an integral part of health programs. The World Health Organization, under pressure from both Catholic and Communist countries, had no family planning program at all. Internationally, there were no family planning programs except in Japan and a commitment, at least on paper, in India.

A notable change occurred in 1959 as prominent citizens and influential national advisers, William Draper and John D. Rockefeller III among others, called attention to the "population explosion" and its likely negative impact on third world growth, and LIFE magazine devoted an entire special issue to world population growth. The Catholic bishops issued a paper stating that "the promotion of artificial birth control is a morally, humanly, psychologically and politically disastrous approach to the population problem. (The bishops) will not support any public assistance, either at home or abroad, to promote artificial birth prevention, abortion or sterilization, whether through direct aid or by means of international organizations." The subject of family planning became a political issue and never again receded from the public agenda although nearly a decade was to elapse before major programs were under way internationally.

1959 was likewise a notable year for family planning at Hopkins. That year, the Population Council responded to a request from President Ayub Khan of Pakistan to help develop a national family planning program. They sent to Pakistan Paul Harper and a senior staff person from the Population Council. A plan was elaborated and approved

for what became one of the first family planning programs in the developing world. Over the succeeding 12 years, Hygiene faculty collaborated with colleagues in West Pakistan, and faculty from the University of California dealt with what was then East Pakistan. Thus, the School began its mission as a training site for family planning programs.

Global interest in family planning accelerated rapidly in the latter part of the 1960s. In 1960, there were only two countries with a population policy of any sort and one country (Sweden) giving technical assistance--about $2 million in all. United States assistance began in 1966. By 1970, more than 25 countries were involved and the budget had increased from $2 million to $125 million.

Meanwhile, the Department of Population Dynamics proved increasingly to be a magnet for the training of national and international leadership for programs from around the world. What had begun as a modest investment of time and effort clearly demanded a more substantial commitment of faculty. The Ford Foundation agreed and offered a large grant conditioned upon NIH providing matching funds. And so the youngest and most unique of all Hopkins departments came into being--and a program which others were later to emulate.

Meanwhile, in Pakistan, Ismail Sirageldin organized and carried out the first nation-wide survey to measure fertility and the effect of family planning on fertility rates. This was the forerunner of what would become the world fertility surveys which have subsequently been conducted globally.

Interestingly, the launch and development of the global program of smallpox eradication corresponded almost precisely in time with the rapid expansion of family planning programs. Very soon the United States became the dominant figure in the family planning effort and successive presidents--Johnson, Nixon, Ford and Carter--actively supported ever larger investments in the program. They were joined in their support by former presidents Eisenhower and Truman who agreed to be honorary presidents of Planned Parenthood. This is only to remind you that the Reagan administration's policies authored by the so-called economist Julian Simon, must politely be described as a bizarre aberration. Some have suggested that asking Simon for advice on population was akin to asking Nikita Kruschev to write a critique of the free enterprise system.

At the outset, both the smallpox and family planning programs discovered that execution of their programs required community outreach; for family planning, a most effective approach was for women health visitors to go from house to house to interest and to persuade; much like Avon or Fuller Brush salespeople did in an earlier era in this country. For smallpox, we discovered that a team working with local residents in their villages could readily vaccinate 90%. However, if vaccination was offered only at health centers, regardless of publicity, only 60% were vaccinated. So quite suddenly, we had two different groups of people visiting the different villages in many countries. This

precipitated probably the longest-running, silliest and most convoluted series of policy debates I ever witnessed at WHO. It illustrates the menace of the bureaucratic ivory tower. There was, and regrettably still is, a highly committed group who are adamant that it is disruptive and confusing to villagers to have different health staff visit at different times. As they see it, if anyone at all is to visit houses, it should be only one multi-purpose health worker with responsibility to provide family planning information, vaccinate against smallpox, teach better sanitation, take malaria blood smears if someone has a fever and do such other tasks as might be decided. They expect this remarkable array of tasks to be completed by the government's poorly paid, scarcely literate health care workers who are unaccustomed to either strenuous work or supervision. It was a classic pipe dream. But in most instances, the day was finally won when I would explain that at my home I had one person deliver my newspaper, another the mail, someone else picked up the garbage and another person read the electric meter--and the last thing I wanted to see was just one multi-purpose worker doing all those tasks.

The concern for community involvement in both programs and an evident dissatisfaction with traditional health education methods found a wondrously sympathetic echo in Phyllis Piotrow's Population Information Program which moved to Hopkins to become a part of the Department and grew in both size and scope to become the renowned "Center for Communication Programs". One story bears telling. One of its earlier proposals was to develop and market a popular song for Mexican teenagers advising basically that sex can wait. A highly skeptical Dean sighed audibly when he heard this idea, said that this sounded to him like too many old and tired health education approaches and counseled against it. The thought also crossed his mind as to what a larger world might think when the School of Hygiene was billed as the producer of popular songs. Phyllis argued; the Dean said, "your call but monitor it" (thinking to himself that that would quickly bury any further ideas of this sort). The rest is history; the song went to the top of the hit parade in Mexico and remained there for months; it subsequently migrated throughout Latin America. Next was a proposal to try to repeat this success in the Philippines. The prescient Dean offered his usual good advice: "You've been enormously successful once--don't push your luck." Well, they tried. This effort was even more spectacularly successful--this time tied in with family planning clinics and they were swamped. This marked the debut of a new young singer Lea Salanga--later, better known for her lead role in Miss Saigon. That former Dean stopped advising and has since happily observed from the sidelines as this part of Hopkins turns out songs, soap operas, all manner of thoughtful and imaginative literature, T-shirts and who knows what else, primarily in the interests of family planning but now also for many other health initiatives as well. Thispproach, sensitive to what influences society today, uses clever marketing and merchandising, and meticulous evaluation. It represents a very new but most important cutting edge for all of public health.

The overall success of the department obviously reflects a dedicated and talented faculty. The department's chairs have been no less exceptional--Paul Harper, Jack Kantner and Henry Mosley. Henry deserves special mention, as having been chair twice

over and for 17 of the 25 years. Before serving his first term as Chair, he had spent six years in Bangladesh where he was the first full-time epidemiologist at the Center for Diarrheal Disease Research in Bangladesh. One of his notable achievements was the establishment of the Matlab Population Laboratory--a rural Bengali population of nearly 300,000 persons for whom meticulous records have been maintained for over 30 years with respect to vital statistics and illness. It is the only such population group in the developing world for which detailed records are available and the data have proved invaluable.

Henry and his colleagues have made a thoroughly persuasive case for family planning, if for no other reason than as a health measure--specifically documenting that when births are adequately spaced, when children are born to women who are neither too young nor too old and when the size of families is constrained, childhood mortality rates plummet. The result is fewer children, healthier children.

As we have noted, the beginning of this department coincided precisely with the beginning of family planning programs throughout the world--just 25 years ago; scarcely time, it would seem, to witness much change. Those who trained here and the faculty who served have played key roles in these events. The success of family planning programs is best measured by fertility rates, ie., the average number of children which a woman will bear in her lifetime. In Latin America in 1960, the number was 6.0--in 1993, the number is 3.0--precisely half. And in all developing countries, the rates have fallen from 6.1 to 3.6. Fewer children, healthier children.

You should know as well that after birth, deaths among these children have likewise fallen precipitously as a result of supplemental feedings of Al Sommer's magical vitamin A; that diarrhea deaths have likewise decreased dramatically as a result of children receiving oral rehydration fluid, a product which Johns Hopkins staff played a major role in developing; and that three million children each year are no longer dying from measles, polio, whooping cough and tetanus because of the children's vaccine program in which so many here at the School have played important roles. These events likewise date from less than 25 years ago.

Richard Ross, as you know, served as Dean of the Medical School throughout the time I served as Dean at Hygiene. One day, in a thoughtful, reflective mood, he said to me: "You know, I suspect you at Hygiene are responsible in a year for saving more lives than have been saved at the Johns Hopkins Hospital in its entire history." Yes, I said, by several times, I suspect.

Truly, the changes which have occurred over the past 25 years with respect to fertility, infant mortality and disease reduction are unparalleled in history. It would be comforting if we could bask in these achievements and look to an incremental better future. This, we must not do.

True, fertility rates are declining but populations continue to grow in virtually every country. If population growth were dispersed evenly across countries, the ever larger numbers might be able to be accommodated, albeit with difficulty. But the growth is not dispersed. It is increasingly concentrated in urban areas while at the same time, the population in many rural areas is actually shrinking. Urban areas are growing explosively--and that term I use advisedly--with crowded slums, inadequate water and sewage disposal, malnutrition, minimal health care, grinding poverty, increasing violence and for most, no future whatsoever. The magnitude of the problems can simply not be appreciated absent a visit. And the problems are growing exponentially, not arithmetically. The time is late.

The potential grows for anarchy, for the establishment and spread of any number of new and emergent infections, for mass migration of populations. However much some might wish that these were not our problems, the fact is that travel and communication being what they are, disaster areas soon become everyone's problems. I'm afraid I see far too little today being said about the urbanization crisis.

The 1960s and 1970s were peopled by missionaries, mavericks and pioneers who took the population issues seriously, who argued, educated and led a crusade. It was a bipartisan effort which involved persons from business, industry, government, the professions. Where are these people today? Certainly, there are the Fred Sais, there are some few in government, a scattered few in academia. But, the environment I see can be characterized largely as a vast gray, passive bureaucracy--in this country often somewhat intimidated by so-called right-to-lifers. And, make no mistake about it, a significant proportion of the pro-life movement is <u>not</u> simply anti-abortion; it visualizes a day when contraception is no longer available and we can return to the halcyon days of the 1930s.

We need today a reawakened effort and we need the very best to lead that effort: I believe we need to promote, as a matter of urgency, a three-part program:

1) To rapidly and greatly expand access to family planning services so that all who want such services can avail themselves of them. If this were done, as Fred Sai has noted, fertility rates in developing countries would decrease by at least 30%.
2) To develop as an urgent matter, fertility control drugs or devices which would be under the control of the woman--a once-each-month pill, for example, or a vaccine.
3) To expand programs which provide for the education of women and for women's rights. It is all too clear that where dad no longer has his finger on the trigger, fertility rates fall rapidly to more acceptable, healthful levels.

Above all, the population problem needs to be addressed not as an academic exercise or a piece of bureaucratic planning. A sense of urgency and concern is needed. I seldom see this today as I once saw it during the 1970s. Nehru offered an interesting

observation with which I will close: "Planning would be meaningless unless behind the plan there was a passion--passion with a tinge of anger at delays, anger at anybody not doing his part, anger at not achieving where achievement is possible." The next 25 years needs a greatly heightened passion and anger than I now perceive to be present--and a new group of pioneers, mavericks and missionaries.