The Role of the Physician in Family Planning*

HOWARD C. TAYLOR, JR.

New York, New York

In the last few years the topic of this lecture, "The Role of the Physician in Family Planning," has been a popular one, so well worked over that another talk promises at first little but what is repetitious.

The most discussed aspect of the subject is indeed the individual physician's duty to his individual patient, and this I shall largely avoid, believing that enough has been said for the present. Beyond this aspect, there are, it seems to me, important and at times amusing considerations of what the physician's contribution has been to the ideas current today about family planning and what the collective role of the medical profession should be in the solution of present problems.

The Physician's Contribution to Current Philosophy of Family Planning

To examine the physician's role in the development of ideas about family planning, it is first necessary to note why birth control has seemed to various peoples at various times to be what might be called "a good thing." I would suggest that there are three main reasons, which at various times have varied in relative importance. These three are personal freedom, individual health, and economic well being. Each has its significant subdivisions.

Personal Freedom

In this context the right to sexual experience without the responsibility of offspring, was doubtless the first and continues to be a most frequent motivation. Assessment of it may be couched in terms of vigorous reprobation or the loftiest obligations. The early history of contraception gives repeated examples, Egyptian, Greek, Roman, Medieval, of means prescribed by the physician for the favored who could afford his services. Casanova had his own advice to give. Examples, with a more idealistic justification, are evident in our days when some educators and psychologists debate whether the use of contraception should be prescribed for "mature adults" (whatever they are) in preparation for marriage, and communist doctrine in many countries permits abortion on simple request because it is thought the woman should have the right to decide whether or not she should go through with her pregnancy.

The physician's role in the provision of birth control instruction or materials, for the indication of personal liberty, has been in general that of an agent of society, and not that of leader or expert. Other institutions do assume prerogatives in these respects. The Church has traditionally opposed birth control in many of its forms and, should it ever change its teaching, the right of personal freedom to enjoy the pleasures of irresponsible sexual experience will surely be the last to be accepted. The State too may take a strong part, and in some of the more advanced countries today, notably some with relatively low birth rates, contraception is officially disapproved of. Under these circumstances most physicians, docilely and perhaps properly, accept the situation. In France l'Ordre National des Médecins, apparently with some governmental prompting, has agreeably voted that contraception is not a medical problem.*

Individual Health

On the relation of the woman's own health to her childbearing, however, the physician has a clear interest and is, at least with respect to major illness, the expert. In the years before cesarean section he advised against pregnancy —often by necessity against marriage—for women with contracted pelves and has continued to give similar advice in the presence of heart disease, tuberculosis, and other serious illnesses.

Yet with respect to the less definable conditions of ill health, chronic fatigue, anemia, nervous exhaustion, the physician waited for the lead of the laity, especially of women such as Margaret Sanger, who were the real innovators. With the principle once established, however, that health in this relationship must be broadly conceived of, most physicians, especially perhaps obstetricians, picked up the idea and quickly expanded it. The precept of child spacing, although its advantages remained statistically dif-

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* A position which seems to have been changed somewhat since the delivery of this address.

ficult to prove, was generally adopted. To this was added still less definable extensions of the health indication, such as the need for a period of psychological adjustment to marriage before the further adjustments to parenthood and the physical stress of economic deficiency as reasons for a delay in conception. The indications encompassed by these several situations make it possible, for the so-minded physician, to give birth control advice, on some theory of health benefit, to all married and indeed perhaps all about-to-be-married persons.

Economics

Although a relationship between the number of people and the food supply was clearly formulated by Malthus, an amateur economist, well over a hundred years ago, general realization of the practical nature of the problem had to wait till the mid-twentieth century. By that time the full effects of public health and medical measures had eliminated the natural, if tragic, means of control of population through early death, and the always high birth rates were free to produce the geometric rates of increase that Malthus had predicted. The happy phrase, "Population Explosion" was coined by some genius and the public, the physician included, began to wake up to what was going on.

Birth control now became "a good thing," not simply for individual but for collective reasons. A new group of advocates took the center of the stage, but again the physician appeared to play a minor part. The major arguments were now presented by demographers and economists and in a little different sense, by the conservationists.

To the layman the demographer is an analyzer of census figures who, with the aid of certain calculations best known to himself, acquires some of the attributes of a prophet. Knowing the number of people in a country and the annual birth and death rates he can estimate what the population will be at any future date provided the factors remain the same. Refinements have of course been added, based on assumptions of predictable changes in death rates and possible changes in birth rates. Errors have doubtless been made, as in the pre-war prediction that the population of the U.S.A. would level off at perhaps 160,000,000, a figure that we have long since passed. Yet in general the demographers' predictions are proving to be correct and the fact of an exploding population is so widely accepted that an overcrowded world is the vision which most informed persons hold of the future. The demographer has been the Paul Revere warning us of what is coming.

The situation has best been defined, and revealed as more complicated by the economist who has documented the obvious fact that the standard of living is not simply related to the absolute number of people, but to a quotient in which the numerator is represented by the productive capacity of the nation and the denominator by those who must be fed. A further important point is made, namely that an increase in population is not necessarily dangerous, provided that there is an adequate and simultaneous increase in production and capital accumulation. Tragically, of course, it is now the nations in which production is lowest and development is slowest that have the most rapid rates of population increase. While the demographers' data are frightening, those of the economists are often disheartening if not paralyzing.

Of all the ideological sources of concern with population, that of the conservationist is often the most appealing. The conservationist is himself a most attractive person. He loves the outdoors, the undammed rivers, the wild animals of the African plains and indeed his fellow man. He has as a rule enjoyed these things himself and has a sincere wish that all mankind should share these pleasures with him. He is apt to forget perhaps that camp sites in Yosemite Park are overcrowded, more because of increased wages and paid vacations than because of absolute population increases. In general, however, his views are correct. A planet overcrowded with human beings will limit the individual's opportunity to experience the fulness of life and will doom forever many other animals for whom space on the planet was apparently intended.

The current interest in birth control is, therefore one concerned particularly with the collective effects of overpopulation for the present and still more for the future. It stems from ideas of the demographer and economist, given poignancy by the thoughts of the conservationist. To this motivation for the practice of birth control the physician with his concern chiefly for the individual has been able to contribute little.

Role of the Physician in the Practical Execution of Programs

To say that the physician has had little to do with the recognition of the problem of overpopulation is not, however, to say that he may have little to do with its solution. Indeed, I believe that, when the stage of practical application of the program is reached, the physician and his colleague in public health are the key figures. It is, however, necessary to look again at the work of various professional workers to see how each is involved in the planning and execution of national family planning programs. You will have to try to forgive some fairly reckless generalizations.

In any new country or region untouched by these ideas, the demographer will usually be the

first to recognize the problem and to estimate its magnitude. Alone, he may not be listened to, but the economist will arrive shortly and define the problem in terms of budgets impressive to government planners. He in particular has the ear of high officials and those able to make population a considered factor in national policy. The public health ministry is next called in and, after that, perhaps the physician.

The work of the doctor of public health and the doctor of medicine is closely related and many of their duties are interchangeable. Indeed the fields of work of the two professions often overlap, but the required duties of each vary in different countries. These variations are particularly evident in the field of maternity care and, therefore, I believe in the field of family planning.

In the rural areas of most of the developing countries of the world there are almost no physicians. Women are delivered at home, by midwife or by some experienced but untrained woman such as the *dai* of India. Scattered sparsely through the lands of Africa, South America, and Asia are Maternal Child Health (MCH) clinics. These are usually under the supervision of the "Ministry of Public Health." The few physicians of the country are mostly in the cities where they have private practices much as we do here. In this situation, then, the public health agencies are all important, not only for obstetrics, but for family planning as well.

As countries become developed the situation with respect to obstetrics gradually changes. Hospitals are constructed and obstetrics moves from the home to the delivery room. As it does this, the physician-obstetrician assumes responsibility for antepartum care and parturition, while health departments retire a little, maintaining the rights of inspection and statistical review, but with little immediate contact with patients or their attendants. These points are of primary importance in deciding by whom and under what circumstances family planning programs will be implemented.

Once it is clear that the practical problem of giving family planning instruction is in the hands of the health departments or the physician, one may ask how the program may best be set up. The remainder of this lecture will concern itself with the proposition that pregnancy, preferably the first one, offers the ideal opportunity to provide education and the immediate postpartum weeks the most effective occasion for practical instruction and final decision by the patient. If this be true the physician must certainly assume a leading role.

Predictable Advantages of a Maternity Service Integrated Family Planning Program

The advantages which may be expected from a family planning program, closely related to the maternity services, may be classed under five headings. These are a) physiological; b) organizational; c) psychological and educational; d) opportunities afforded for systematic application; e) social and political acceptability.

Physiological Advantages of Adoption of Contraception in Postpartum Period

A tendency seems to exist simply to count the number of persons who receive contraceptive advice as if each individual, without regard to her age, parity, or to the time which has elapsed since her previous pregnancy, were of equal statistical significance in the effects on population. Only a little consideration of physiologic principles is needed, however, for it to become clear that contraceptive advice given shortly after parturition will be more effective, in preventing conception, than advice which is offered at some later date.

Women who seek birth control advice months or years after their last parturition have obviously, by one means or another, managed to avoid pregnancy during the interval. They may have been separated from their husbands, the marriage may be relatively infertile, or some form of birth control may have been practiced. Such late introduction of birth control may represent simply the substitution of some attractive new method of birth control, for an unsatisfactory, but no less effective method already being practiced. The percentage of cases in which such delayed advice prevents a conception, which would otherwise have occurred, may be very small indeed.

The most effective time to give birth control advice from a lifetime, biological standpoint, is obviously in a premarital consultation. Next in order of effectiveness, still speaking from the standpoint of predictable statistical returns, is certainly the birth control advice offered after the first pregnancy. After each successive pregnancy, the relative effectiveness of instruction given to a group of women continually diminishes, as a greater and greater percentage of patients will already have received some sort of advice after or between previous pregnancies.

The relationship between the elapsed time after parturition before birth control is instituted and the chance of conception has been worked out by Tietze and previously published in an article by the speaker (Taylor, 1966). In table 1 it is assumed that no contraception is being used and further that there is a small incidence of new infertility appearing after any delivery. The table is constructed on the basis of months after the first menstrual period and not after the date of delivery. The first menstrual period, assumed in general to follow the first ovulation, of course varies with the period of lactation. Certain obser-

TABLE 1
Relative Effectiveness of Beginning Contraception at Various Months After First Postpartum Period

Months after first postpartum MP	% pregnant at end of month	Pregnancy potential at beginning of month
0	4.8	.321
1	18.7	.315
2	37.6	.292
3	53.0	.247
4	61.9	.190
5	67.5	.147
6	71.3	.117
7	74.2	.098
8	76.4	.086
9	78.3	.079
10	79.8	.073
11	81.2	.069
12	82.5	.066

vations, however, permit approximate rules for recalculating the table's figures as months after delivery (Tietze, 1961). The essential lesson to be learned from table 1 is that in the absence of contraception, about a half of the women will have conceived within three months following the first postpartum menstrual period and about four-fifths within one year.

One returns therefore to the original proposition of this section, namely that if contraception has not been taught premaritally, instruction should be given soon after delivery, and particularly soon after the birth of the first child. If contraception is not adopted by the delivered woman, she will soon conceive again. If she delays for months or years, and conception does not occur, the later acceptance of birth control practices may have little statistical significance.

Organizational Opportunities of an Integration with Maternity Services

In many countries there is already a highly developed service for maternal care, and in essentially all there are maternity services in some stage of development. These services are staffed by the types of individuals, physicians, nurses, midwives, social service workers, whose education and experience qualify them to take over the work of family planning. There are furthermore institutional facilities, clinic rooms, examining tables and instruments, habits of thought and personal interrelationships, which require little except some degree of expansion and some increase in motivation, to make them efficient centers for family planning programs.

The techniques of the newer methods of conception control, the prescription of the pill, the introduction of an I.U.D., even the explanation of the intricacies of the safe period, are those consistent with the principles and practices of the physician and his nursing and midwife associates. To set up a parallel, but separate staff, for giving family planning advice, as is sometimes attempted, must result in delay and a costly duplication of facilities and salaries.

Psychological and Educational Advantages of a Maternity-Service Integrated Family Planning Program

The period of pregnancy and the puerperium also seem to offer the ideal occasion, from a psychological standpoint, for the giving of advice on family planning. The subject is clearly of greatest relevance. If the patient has conceived soon after her marriage or with only a short interval following a prior pregnancy, she will be particularly anxious to learn how another pregnancy may be delayed. While these thoughts are occurring to her, she finds herself under the care of persons for whom she has respect. The physician, or his midwife or nurse associate, has already been accepted as a guide and protector to assure a safe delivery and his words will be accorded a high degree of authority.

Besides these points of individual psychological receptivity, pregnancy is a time when group instruction can be easily organized, as has been demonstrated by the so-called "mother's classes," which have been so effective in the promotion of maternal welfare. These classes will continue to be the source of encouragement about the outcome of the present pregnancy, but should in addition raise questions and provide answers for the future.

A further advantage to the education afforded by the period of pregnancy is that it may be repeated during each similar experience. It is perhaps necessary if there is to be an effective limitation of an ultimate family size that the principle of child spacing be learned, accepted and practiced after the first child.

Opportunity for Systematic Application to a Community

The association of family planning programs with pregnancy and parturition could provide the basis for a systematic coverage of an entire community or region with its assurance that every woman does in fact receive family planning advice. In countries with a developed maternity service, an organization is practically ready to provide such universal education

in matters pertaining to reproduction. The women of these countries, during their first pregnancies, all come under the supervision of the obstetrical hospital or a related institution. An educational system, based on the maternity services, could be easily developed in which the young primigravidas would matriculate with the regularity of children entering primary schools.

In much of the world of course maternity services are incomplete. In these countries, special, if not all, efforts should also be directed toward the pregnant or recently delivered woman. A "case of pregnancy" and even more the presence of a newborn child is highly detectable by health visitors and social workers. Once found, the pregnant or puerperal woman should be induced to come to district health centers or to attend some traveling clinic for family planning advice. She is still the person most likely to conceive again and at the same time most receptive to advice.

Birth registration, which is nonexistent or very incomplete in most developing countries, would be made possible by the development of the organization for maternity care. Such a birth registration would also provide a means of assuring that education in planned parenthood was almost universal. A birth certificate, for example, might contain a section to be checked by the attendant to show that birth control advice had been given. This would provide a needed discipline for the obstetrical attendants. It is noteworthy that a similar system has proved most successful in enforcing other routine procedures in pregnancy, such as the serological tests for syphilis.

Social and Political Acceptability

Finally, the association of family planning with maternal health would relate the still somewhat controversial enterprise of birth control with an endeavor to which mankind gives his unreserved approval. The introduction of family planning as a part of maternity services would make it more acceptable to the individual and the community, but also perhaps to those international agencies which now hesitate to support projects which are avowedly and exclusively for the purpose of population control.

Recent Experiences in the United States

From these general propositions with respect to the advantages and methods of integration of family planning programs, one may turn to the possibilities which exist in various countries for the development of such an organization. It is useful to begin with comments on the situation in the countries which already have a highly developed system for maternity care, and I shall refer to some recent history in New York City, which is indeed representative of what is occurring in many of our great cities.

Until seven or eight years ago, although the private practitioner of obstetrics was giving advice to his own patients, and privately operated planned parenthood clinics had been opened in most communities, there were few family planning clinics in the hospitals themselves.

The great change, now apparent, was doubtless impending by the mid-fifties, although even those working in the cause of family planning were caught somewhat unaware by the speed with which it is finally being achieved. In 1958 the principle was accepted in the New York City Hospital system that the giving of birth control advice was a part of good medical practice and could not be interfered with by the municipal authorities. With the establishment of the right of the physician to give birth control advice, there was a slow expansion of birth control services in the hospitals.

In 1964 a new impulse to the spread of family planning clinics in hospitals was given by a study and report of the New York Academy of Medicine (1966) which offered a new definition of the medical indications for contraceptive services. In this report it was recommended that *health* should be defined, as it had been by the World Health Organization, to mean not simply the absence of disease, but a state of physical, mental, and social well-being. With this definition, and with support by the New York City Departments of Health and Welfare, the hospitals of the city have rapidly expanded their family planning services. Similar developments of family planning services within the maternity hospitals are evidently occurring in most of America's large cities.

Two maternity services will serve as examples of the success which may be expected even in the early days of a family planning clinic operated in conjunction with a maternity service. One of these services was that of the Sloane Hospital and the other that of the Harlem Hospital, now affiliated with the University.

A birth control clinic was started at the Sloane Hospital in 1926, and operated unobtrusively and on a small scale for the next thirty years. At first it gave service only for strictly medical indications and then gradually began to accept patients who themselves requested advice. No effort was made during this period, however, to advise patients to attend the clinic and during the decade between 1951 and 1960, an average of 275 new patients were seen in the clinic annually, representing about 9.0% of the patients delivered on the ward service (Hall, 1965; 1966).

The establishment in 1963 of an organized system for informing the ward patients of the availability to

them of family planning services transformed this situation within a few months. From April 1, 1963 to March 31, 1965, there were 2,330 insertions of an intrauterine device. In addition some other types of birth control were selected for another group of patients. The 2,147 ward patients who were fitted with an intrauterine device, represent about 40% of all the ward patients delivered during that period. This experience is evidently being repeated across the country, both in the clinics formally reporting to the Collaborative Project Office (Tietze, 1965) and the vastly more numerous ones about which one hears only by word of mouth.

In the experience at the Harlem Hospital, initial preference was given to the intrauterine device because of its "simplicity, economy of professional services and of cost of supplies," the relatively small number of revisits required, and what Swartz (Swartz et al., 1967) calls the "once-a-patient" motivation. In the first seven months, in two three-hour clinics, 610 insertions of the I.U.D. were made. In the next year, 1965, there were 1,943 new registrations in the birth control clinic. The rapid rise in attendance at postpartum birth control clinics, as soon as their presence is made known, is testimony to the unfilled need which has existed.

Special Problems in Adaptation of Maternity Services for Family Planning Programs Throughout the World

In parts of the world where the problem is most urgent, however, one cannot speak of what is being done, but rather of what might be done. If, however, it is indeed correct that pregnancy offers an unrivaled opportunity for education and that the postpartum period is the critical one for decision and action, then the status of the maternity services throughout the world becomes a crucial point for examination.

TABLE 2
Place and Supervision of Delivery in Various Cities

City	Hospital or Nursing Home	Supervised Domicilliary Delivery	Unsupervised Home Delivery
Osaka	86.7%	13.2%	0.05%
Seoul	11.0	12.0	77.0
Taipei	28.2	70.8	1.0
Hong Kong	98.7	1.3	0.0
Manila	77.2	22.7*	
Singapore	69.1	30.2	0.6
Madras City	53.4	39.6	6.0
Delhi	35.2	47.3	17.5
Istanbul	86.6	13.4	0.0
Nairobi	50.0	10.0	40.0
London	53.7	46.3	0.0
Caracas	99.0	0.79	0.13
Buenos Aires (1948-52 av.)	76.9	23.1	0.0
Sydney	99.0	1.0	0.0

*Outside of hospitals. Degree of supervision unspecified.

In the projection of any general plan it is necessary that we should know two essential points, the place where women are delivered and the capabilities of the attendant who is in charge. With this knowledge in hand it would then be possible to consider what may be needed for the further development of maternity institutions, to make possible the organization of universal family planning services.

In any given country, indeed in any large region, one finds deliveries occurring in a variety of places and under the supervision of persons of varying experience. No country has fully perfected its system. In spite of the obvious mixture of systems of maternity care which exists in most countries, one can nevertheless recognize a rough order of descending contact between the woman and the potential sources of information. These may be designated as follows:

1. Hospital deliveries by physician or qualified midwife.
2. Home deliveries by physician or qualified midwife.
3. Home deliveries by unqualified person but with some antepartum contact with a trained person or an organized clinic.
4. Home deliveries without qualified supervision during pregnancy or at delivery.

1. *Hospital deliveries by physician or midwife.* When the delivery takes place in a hospital, an immediate opportunity is offered for all types of education and instruction, including that for family planning. There are, however, great differences among maternity hospitals with respect to physical facilities, the availability of space, the convictions of the medical staff and the attitude of the state and city authorities. In too many places, of course, the professional staff is already greatly overworked and one occasionally hears the self-defeating argument that "we are so busy delivering babies we have no time to teach birth control."

A very superficial and incomplete survey, made by letter a year ago, indicated that in the great cities throughout the world, a surprisingly large percentage of women are delivered in hospitals or maternity homes. In the United States, Canada, Australia and much of Europe, the majority of women living in cities go to hospitals to have their babies. What is surpris-

ing is that this trend seems also to have developed in the countries of other continents (table 2). Thus one finds that the percentage of deliveries in hospitals or nursing homes is for Caracas, Venezuela, 99%; for Hong Kong, 98%; for Manila, 77.2%; for Singapore, 69.1%; for Madras City, 53.4%; for Nairobi in Kenya, 50%. In terms of annual deliveries, the largest maternity hospitals are no longer those of Europe and North America, but exist in such cities as Caracas and Singapore, where one or two institutions may provide the obstetrical care for a whole great city. Where these situations exist, a rational and efficient system of family planning promises to be fairly easy to institute.

TABLE 3
Place and Supervision of Delivery in Various Countries or States

Country	Hospital or Nursing Home	Supervised Domicilliary Delivery	No Trained Attendant
Japan	66.2%	32.5%	1.3%
Korea	3.0	3.0	94.0
Taiwan	14.1	51.8	34.1
Philippines	16.7	83.2*	
Madras State	16.5	33.2	50.4
Turkey	15.3	8.1	76.6
Kenya	15.0	15.0	70.0
United Kingdom	49.1	48.8	2.1
Venezuela	88.4	8.3	33.3
Argentina	45.0	45.0	10.0
New South Wales	99.5	0.5	0.0

*Outside of hospitals. Degree of supervision unspecified.

2. *Home deliveries by physician or qualified midwife.* A home delivery service, with a well trained group of midwives and a highly organized system of central supervision, has proved itself to be highly successful in providing low maternal and perinatal mortality rates. Under these conditions, there should be relatively little difficulty in providing in addition family planning information, except that the responsibility for such a program will be distributed among many individual attendants.

Home delivery services are not always, however, of a high degree of excellence and as the standards of training and of supervision diminish, the possibilities of developing an inclusive birth control system become more difficult. Probably under such situations, it would be necessary to have some central clinic to which women following their delivery at home would be instructed to go for their family planning advice. The characteristics of this system grade imperceptibly into the next one to be described, as the qualifications of the attendants diminish.

3. *Home deliveries by unqualified person but with some antepartum visits to an organized clinic.* In many places in the world, especially in rural areas, the first step toward the provision of maternity care is the development of maternal and child health clinics. The first building for these clinics consists only of several relatively bare rooms, an office, a dispensary, and possibly a ward with three or four beds for the desperately ill patients.

With an enormous burden of potential work to be done, the small staff must struggle chiefly with the most serious and most urgent problems. Uncomplicated deliveries on the clinic premises are clearly impossible. In some areas, however, one or two antepartum clinic visits are encouraged to eliminate some of the possible major complications and those visits provide an initial, though tenuous opportunity, for family planning instruction. At a slightly later stage, a midwife or a home visitor may be attached to the maternal child health center and be of invaluable assistance in increasing communication between the clinic and the women of the community. These brief contacts, when the expectant mother is being checked in the antepartum clinic or when the midwife calls to see her at home, provide a precious opportunity to explain the importance of child spacing and to urge a return to an established postpartum clinic for fuller instruction.

4. *Home deliveries without qualified supervision during pregnancy or at delivery.* When, however, one looks at the statistics of many of the great developing countries, with data which include the large rural populations, one often finds that half of all deliveries take place quite without trained attendants (table 3). This situation prevails in many of the Indian states, in Pakistan, in many of the countries of the middle east, and of course in Africa. Beside the regions in which the lack of any trained supervision characterizes the majority of all deliveries, there are countless smaller sections in other countries in which the same situation exists. It is this group of women, out of contact with any trained obstetrical authority, which of course offers the most difficult of the world's population problems.

If the analysis presented in the earlier part of this article is correct, then the most promising approach to this problem is through the development of the maternity health services. This development can of course be achieved only by stages, but in its promotion there exists an opportunity for a major

effort that could claim the needed support from national and perhaps international resources.

General Comment

In summary, one can find many reasons for believing that family planning programs should in general be associated with maternity services and that educational efforts should be concentrated during the weeks of pregnancy and the puerperium. During these periods the women of an age and fertility most in need of family planning are easily detectable. They are for obvious reasons interested in the subject and most susceptible to advice. The staff needed for this work is already partly available among the physicians, nurses, midwives, and social workers connected with maternity services. The system promises to introduce birth control in an association with the approved, indeed revered, services to the mother and her child. Finally, this organization offers a means of systematic coverage of a population, in annual groups of predictable size and of repeating the educational experience as women repeat their pregnancies.

If, to emphasize a point, one may for a moment oversimplify, it is proposed that the solution of the world's population problem could best be reached through the institutionalization of obstetrics. This does not mean that every delivery must occur in a hospital, but at least that it will be conducted under expert care with a supervisory organization or hospital of reference in reserve.

In many countries maternity services are completely organized to care for all women but in most of these countries the birth rate is already at a safe level.

The hospitalization of obstetrical care is also proceeding, in the great cities of the developing countries, with surprising rapidity. The trend toward a hospitalized obstetrics will probably continue, since, if for no other reason, it is probably the cheapest way to provide supervised care to women living under inadequate housing conditions.

One comes finally to the great rural regions where a half of the world's population lives. Here one is dealing with vast areas out of range of modern medicine, shut off by inadequate transportation and communication, intellectually inaccessible because of a high degree of illiteracy and the conservatism of all people living under these circumstances. The problem is how these people may be reached.

One method would be the gradual but direct spread of birth control information through the school teachers, the village elders, the visiting health inspectors, and possibly by the religious leaders. Radios may be set up in public squares. Mobile units may travel from town to town, holding meetings and demonstrations, offering supplies and advice. These methods are of value, but can they be regarded as more than a slow, somewhat haphazard and perhaps ineffective expedient? The alternative plan would be to work toward a more universal system of providing family planning instruction through the development everywhere of a modern organization for maternity care.

The problem of overpopulation is prodigious in its dimensions and we are probably trying to solve it by disproportionately small expenditures. Funds provided to aid the developing countries for other purposes are often relatively enormous, and perhaps a greater part of these funds should be applied to the solution of the particular problem which is such a factor in making the aid necessary.

The question may indeed be asked whether the propositions offered in this address do in fact lead inevitably to the conclusion that the institutionalization of maternal care is a prerequisite to a successful world program of population control. The question is a fair one and should be most critically examined. But if the answer is in the affirmative, let us proceed toward the objective of modern supervised obstetrical care for all women as rapidly as possible.

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