The attached paper represents an addendum to the paper entitled "Summary Report of Domiciliary Midwifery Services in Countries and Territories in the Western Pacific Region" prepared by the Secretariat for the Technical Discussions, and distributed on 31 July 1955.
This paper deals with one aspect of the development of rural-health services, that of the approach of health workers to the people. Approach, in this context, means two things – that health workers understand the people in order to secure that the people understand the programme.

Clearly, some types of rural health work can succeed only to the extent that the understanding and cooperation of the people are won. A domiciliary midwifery project, for instance, would fail unless mothers decided to accept new services and to modify former customs. Other types of health work, however, appear at first glance to be successful whatever may be the cultural patterns of the people served and however little attention is paid to fashioning an effective approach. An example, which we will describe, is DDT-dusting to control louse-borne typhus.

In certain highland regions of Peru where louse-borne typhus is endemic, trained workers dust the natives at periodic intervals with a 10% concentration of DDT. In the course of anthropological field investigation, the author learned that many of those dusted have erroneous notions as to how typhus is transmitted, are unaware that infected body lice act as disease vectors, and hold mistaken ideas as to the objectives of DDT-dusting.

Yet why should one take native beliefs into account? Surely, the effectiveness of DDT against lice on an individual's body is not affected by the ideas in his mind. Hence, the approach to the people consists of little more than persuading them to stand still while a worker dusts them and their huts with DDT. Attempting neither to understand nor to alter the beliefs that people may hold, health workers manage adequately to fulfill their objectives.

But do they? In the course of the writer's survey, it was unexpectedly discovered that many of those dusted were systematically, if innocently, frustrating the campaign's purposes. Natives do not distinguish typhus from typhoid and believe that both are acquired mainly through exposure to excessive heat. They do not connect typhus with body lice; nor do they connect typhus with DDT.

They do, however, connect the body louse with DDT in their own way. Natives are not only infested with body lice but also plagued -- on their persons and in their huts -- by fleas, flies, mosquitoes, bedbugs, spiders, moths and mice. For many people, the louse rates second to the flea as most-hated pest; for others, he is third behind the spider. After being dusted with DDT, natives are grateful to personnel but for the wrong reasons. They are grateful for the temporary extermination of their universe of pests, among which the body louse is but one of many

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tormentors. Thus, a typhus-control campaign directed specifically against the louse is redefined by the people as a nuisance-reduction service directed broadly against an assortment of pests.

In itself, this misinterpretation does no obvious harm; however, its consequences do. Most natives own herds of sheep; their main source of cash comes from the sale of the wool. Sheep are infested with mites, ticks and fleas. Many sheep waste away under insect attacks.

When they were dusted with DDT on second and subsequent rounds, untold hundreds of families, unaware of the connection between DDT and typhus, subordinated personal comfort to economic security. As soon as the DDT-worker had dusted and gone, they brushed the powder from themselves and applied it to their animals — too thinly to do much good. One wonders what, if any, residual effect in curtailing typhus the DDT might have had on these briefly-dusted persons.

Because campaign officials learned of this while the campaign was still in progress, they were able to devise appropriate educational measures. Nevertheless, the lesson is clear. Even where health work is defined in narrow technical terms, and where no apparent need is seen to take the people's ideas into account, programme objectives can be subverted precisely because of narrowness of definition. As self-evident to us as health methods and objectives appear to be, the community may interpret them in unanticipated ways. And, perceiving a programme in its own way, the community responds to it on the basis of its own — rather than the health team's — understandings.

**Domiciliary midwifery** — Domiciliary midwifery has been proposed as an approach to the people in rural regions of the Western Pacific where health services are to be developed. It raises many technical and administrative questions for the health administrator. What form should a programme of domiciliary midwifery take? Should it involve preparing highly trained personnel, who would necessarily be relatively few in numbers? Would it be better to provide briefer training for greatly increased numbers of auxiliary personnel whose work, unavoidably, would be of lower quality? Or should one assign well-trained personnel to the task of instructing or controlling local lay-midwives?

In part, these are technical and administrative problems. However, the development of rural health services also poses cultural and human relations problems which need to be considered. To introduce rural health services — however their formal objectives are stated — ultimately involves efforts to modify the beliefs or habits of people.

In planning domiciliary midwifery projects, what cultural factors need to be taken into account? Although detailed answers to this question require first-hand study of the communities concerned, at least two factors would seem to be important in any community. These are (1) the social role of the lay-midwife and (2) local customs related to child-bearing. For illustrative material it may be useful to turn to rural Peru. The Peruvian *partera* or lay-midwife has much in common with such counterparts as the *hilot* in the Philippines, the *dai* in India, the *bidan* in Malay.
Paradoxically enough, although parteras in Peru deliver most of the nation's babies, they are regarded by law as offenders and by the medical profession as quacks. National legal statutes define them as illicit practitioners and declare them liable to arrest and imprisonment. Peruvian medical associations condemn lay-midwifery as quackery and are formally pledged to eradicate it. For all their force, however, these denunciations are seldom implemented, and lay-midwives go about their activities with virtually no interference from any quarter.

Whether the partera is socially graded as a creature of disrepute or as a respected authority depends on the point of social reference from which one views her. The educated urban public holds the parteras in contempt, regarding her as dirty, ignorant and superstitious. Village mothers, at the other extreme, respect and defer to her. They regard her both as a village elder and as an experienced authority in matters of general maternity care. Valued by some, denounced by others, what is she really like?

The social role of the partera - In the Peruvian valley of Ica, the partera is always a woman who has herself borne children. She is no longer an active child-bearer, is between 50 and 70 years of age, and is usually a grandmother with many kinsmen in the community. Her children are grown and she has no compelling household responsibilities. She is a life-long resident of her village and, as a rule, limits her zone of operations to her own and immediately neighboring communities.

She begins her career by serving a long apprenticeship as a "novice" or "amateur" under the sponsorship of a senior partera, usually her godmother, mother or aunt. Typically, she had obeyed a "call" to midwifery through a dream or supernatural sign. She begins practicing under the close supervision and guidance of her sponsor, drawing her first clientele from kinswomen and close friends. Should her competence become recognized, she is called on increasingly by women outside her immediate group. As a rule, she "inherits" as clients the daughters of the women attended by her sponsor. The average partera delivers about eight babies a year. At a rough estimate, the valley of Ica has one partera for every 40 child-bearing women.

Her services are solicited not later than about the fifth month of pregnancy and always include more than delivery. She is at the disposal of the client from the day she is solicited until the infant's birth cord dries and falls. Her pre-natal services include periodic back-rubs and abdominal massages, predictions as to the sex of the child and probable date of labor, manipulation to ensure that the fetus is in proper position, and a variety of counsels on diet and behaviour.

She remains with her client from the onset of labour until after delivery. Each partera has her secret techniques and guards them jealously from other lay-midwives; they include various herb concoctions, special infusions and secret prayers and chants which are orated during final

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stages of labor. Should the patient's courage falter, the partera restores it by reviling the women with insults and threats. Three of the most effective threats significantly reveal certain fears felt by the mother. "I will leave and force you to give birth alone"; "I will call a doctor to attend you"; and "I will send you to the hospital". In general, the partera relies on a variety of empirical techniques, reinforced by psychological and ritual aids.

The partera shares with her clients a complex of fundamental beliefs and customs. These include, among others, conceptions of proper and improper foods during the maternity-cycle, notions about the body and its functions, and interpretations of the birth-process. Not only does the partera share these ideas with the rest of the community; she is also a key figure in transmitting them, backed by powerful emotions, to the younger generation of mothers.

In part, her respected position stems from the fact that she is recognized as a wise authority in the maternity sphere. Moreover, her status as an older person calls for deference on the part of her juniors. In addition, she wins respect by virtue of being a relative and a godmother to many members of the community.

**Maternity customs** - Ica culture prescribes many don'ts and relatively few do's for pregnant and postpartum mothers. Foods are locally classified as inherently "hot" or "cold" and as inherently "heavy" or "soft". "Cold" and "heavy" foods are regarded as harmful for both mother and fetus, and hence avoided in pregnancy. Unfortunately, these prohibitions reduce her consumption of meat, eggs, and fresh fruit and vegetables; since the mother never gets much milk at any time, her diet becomes deficient during a period of particular nutritional stress. She takes special precautions to avoid the "evil eye" and other diseases not represented in modern nosology. She is careful not to look at and do certain things that might adversely affect the fetus, according to prevailing assumptions.

Although the perennial sunlight of Ica is renowned throughout Peru, infants are rarely exposed to it; the mother worries about uncovering the child to "airs" and to "evil eyes". Because of the mother's conviction that the infant's body is not strong enough for stronger foods, she feeds him only milk until the sixth month or later. His first supplements are starchy pape.

Mothers hear about vitamins through contacts with health personnel from the Ica Departmental Health Service (IDHS) but characteristically reinterpret the information so that it fits their system of ideas. As villagers redefine them, vitamins are constituents of "heavy" and fattening foods; therefore, they are inappropriate for pregnant women and infants. A pervasive concern among all rural inhabitants is with avoiding a "dirty stomach"; everyone except pregnant women takes laxatives regularly. The newborn are not exempt; for the first three days of life, the infant is fed nothing but a mild laxative oil. His meconium is seen as evidence of a "dirty stomach", which must be cleaned before he can be permitted to suckle.
The nurse-midwife and the partera - The IDHS staff includes three nurse-midwives, who carry out an experimental project involving the instruction and control of parteras. They perform no direct midwifery services; their duties consist of working with parteras and operating prenatal centers in rural communities. Although some resistances of parteras and mothers show little immediate promise of being overcome, the nurse-midwives are gaining gradual acceptance and showing slow but positive results.

How do nurse-midwife and partera perceive one another? The nurse-midwife regards the latter as "untrained". In that the partera lacks academic and professional qualifications, this is patently true. Yet, from another point of view, it is only half-true. It is not that the partera has no training; she has a different training. She is the product of long and rigorous training in the use of empirical, psychological and ritual techniques that mesh with the culture patterns of her society like a hand in a glove.

Rural mothers and parteras view the nurse-midwife as a young and childless woman, highly trained in some respects and wholly inexperienced in others. She is respected as a representative of the modern system of midwifery, one which villagers grant is more powerful and resourceful than their own. However, by virtue of being young and childless, her "body" is innocent of personal birth experience. Parteras often refer to nurse-midwives as "lady professors" a term which carries several meanings. It acknowledges the nurse-midwife's grasp of her professional specialty and her superior social status relative to villagers. It is also a subtle thrust that all she knows of midwifery is what comes out of schools and books.

Implications - These specific case materials suggest several general implications applicable beyond Peru. For one, the beliefs and customs impinging on child-bearing are not a collection of random or meaningless elements but form a coherent and inter-related system. Particular customs derive their strength from being linked with other customs and from the emotional meanings which people attach to them.

Secondly, while native midwifery is inadequate in technical terms, it is rich in its provisions for the mother's psychological security. The culture of the people includes ready-made definitions of the birth process and of its problems and dangers. The culture generates certain standardized anxieties about birth, but it also provides its own standardized means of allaying them. Modern domiciliary midwifery would be unlikely to appeal to village mothers if it addressed only the issues of technical health and hygiene and disregarded the complexities of psychological stress and reassurance.

Thirdly, the lay-midwife occupies a strategic position relative to the community's mothers. In introducing programmes involving maternity, health workers cannot afford to overlook her. It is wiser to have her as a passive friend than as an active enemy.
Conclusions - The instance of DDT-dusting underlines the importance of ensuring that the people understand the programme. That of lay-midwifery emphasizes that health workers must understand the people. Ultimately, the need for understanding people and for taking their understandings into account rests on the significance of culture in human affairs.

The culture of a people is its whole design of living - its everyday customs as well as its art, religion and values. Everywhere people live in groups, and everywhere the cultures of human groups insistently shape the lives and outlooks of their members. Men enter the world as creatures of biology but live in it as products of culture; between themselves and their natural environments they interpose layers of culture. Differences between professional and peasant are due less to matters of genetic inheritance than to their respective cultural inheritances.

In order to change a community's ways of acting or thinking, one must first know what they are. For the task of mapping cultural patterns, a cultural anthropologist should be used. Whether he should survey the community in advance of a programme, investigate local attitudes during a programme, or both - are matters best decided according to the particulars of the situation.

In the event a cultural anthropologist is not available, health workers themselves as best they can must acquire a knowledge and understanding of the people. It is as essential to understand the people one works with as it is to know one's medicine and epidemiology. Inescapably, he who wishes to teach the people how to think and act about health has the equally important task of first learning how they do so.

When people are indifferent to a programme, or appear not to understand its objectives, the difficulty can often be remedied by consulting not only with higher headquarters but with the people. Frequently, reasons for difficulty can be traced to incompatibility between certain local attitudes or customs and one or another programme element. Through tactful and patient questioning, one can often learn from the people how they view the situation. It is then possible to attack the difficulty, either by modifying local attitudes or altering programme practice.

It is necessary to realize that we introduce programmes not into vacuums but into communities with systems of complex cultural patterns. Too often we read our own preconceptions and values into the rural situations in which we work. In part, this is inescapable; we are all carriers of one or another culture and we tend to project our own characteristic biases into what we see and experience. In the last analysis, however, patience and effort spent in learning from the people their values and preconceptions can also teach us much about our own. With this insight into ourselves, we do more effective and enduring health work with others.
AN ANTHROPOLOGICAL APPROACH TO MIDWIFERY TRAINING IN MEXICO

by

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In Mexico - and in Latin America generally - medical attention at birth is limited to a negligible number of persons. Ordinarily, these are the most privileged urbanites, who have been blessed with higher education and economic security. By far, the great number of parturients look to the midwife for attention and assistance, and it would appear that for decades to come she will continue to officiate for the bulk of the population. Accordingly, an eminently useful and realistic goal would seem to be the preparation of more competent midwives.

The Mexican Midwife

Because of her extensive experience, a Mexican midwife, without formal training, often is extremely skilful in calculating the month of pregnancy, in gauging the position of the foetus, and in other purely empirical matters. On such scores, she may know more than do many highly-trained persons. The fields where she seems to need help would appear to be: (a) acquaintance with the basic principles of hygiene, of which she often is quite innocent; (b) guidance on the score of pre-natal and post-natal advice and care; and (c) recognition of cases beyond her capacities which, if possible, should be referred to a doctor. In one community the "empirical" midwife was criticized by her clients. In difficult cases, she tended to relax, remarking, "Let us see what God's will may be".

In Mexico, the social position of the midwife is by no means uniform; in some mestizo zones she enjoys moderately high status and is the depository for a large body of traditional lore, particularly in the realm of folk medicine.

Sometimes, however, she has little personal prestige and is selected more for her alleged esoteric powers than for her skill. This holds particularly for indigenous zones and for areas where there still are significant survivals of native culture (cf. Redfield, p. 134). In one Indian community which has been studied intensively, the midwife with the largest practice is an elderly woman and a monolingual (that is, she speaks only her native language), who is unabashedly grubby and, to boot, a confirmed tippler. She enjoys little personal standing and, among other chores,

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does the parturient's laundry. Aside from officiating at delivery, her most important function is that of assuaging certain potentially malevolent supernatural beings, who are in a position to harm the newborn.

In addition, there are understandable differences in standing among individual midwives of the same community - differences based on personal prestige which, in turn, is based on considerations such as preparation, skill, luck, and personality. These differences are reflected in the wide range of prices charged by the various midwives within a given community.

It seems pretty clear that the midwife's response to training and her ability to pass along to her clientele counsel which will be followed, may vary directly with her position in the community. Accordingly, before any training programme is developed for a specific zone, it would seem wise to study in advance the social status of the midwife in that area. Some zones might give good prospects of success and within them certain midwives might seem to offer the most promising student timber; other areas might present such potential difficulties that it would be preferable to look elsewhere for more favourable terrain. In any case, the social position of the midwife in her community should be a basic point of reference when any midwifery training programme is contemplated.

The cultural background

Simply to determine in advance the status of the midwife is not sufficient. Birth - along with puberty, marriage, and death - sometimes is called a life crisis. Because of its physiological aspect, birth is a phenomenon common to all human cultures, from that of the so-called "savage", to that of the most sophisticated segment of Occidental culture. In short, it is a universal phenomenon and all cultures, including our own, have their respectively associated ideas and practices. These vary greatly, from area to area, and from population sector to sector within the same area. Not infrequently, they are embedded in what might be called an emotional matrix and to them people cling tenaciously.

It seems manifest that a programme for training of midwives should have, as a second fundamental point of reference, the local body of beliefs and practices associated with pregnancy, birth, and post-natal care. The first step, of course, is to define this cultural background for whatever zone the programme is contemplated; the second, to analyse and apply the findings. It is likely that once the local cultural situation is known, three overlapping and inter-related possibilities for application will present themselves. Below, these are discussed, one by one, with concrete examples cited in each case:

1. Avoidance of unnecessary conflict with existing culture patterns

In many cases, major difficulties might be avoided by carefully charting a course along the reefs of folk culture, instead of crashing precipitously upon them.
(a) The first examples concern hospitalization. Obviously, a midwife cannot be expected to do herself out of a job by recommending wholesale delivery in hospitals. Nevertheless, should hospital facilities be available, it would be preferable to have the midwife view them with tolerance rather than hostility. A few changes in current hospital practice might help to produce a favourable attitude on the part of midwives and parturients; to both, as matters now stand, hospitalization might well seem to offer hazard rather than help.

Of course, many women prefer to give birth at home and derive comfort and confidence from the familiar surroundings and the accumulation of solicitous relatives. For a woman who already has a number of small children, there is scarcely any choice; she has to remain at home to keep an eye on the youngsters and on domestic matters in general. But other factors of local custom sometimes account for disinclination to patronize the hospital.

One of these is the disposition of the placenta, which has been mentioned by Foster.3 It is said that along Mexico's northern border some far-sighted hospital administrators make a practice, upon request, of delivering the placenta to the family, for disposition. Such a move might well be adopted throughout the provinces.

Two problems relate further to the umbilical cord. Sometimes one finds a firm conviction that the ultimate size of an individual's genitals depends on the length of umbilical cord left attached to the navel. The family is consulted by the midwife as to desired length or there is an established measure which, incidentally, seems considerably greater than that customary in normal hospital practice. When delivery takes place in the hospital, clearly the family loses control of a matter which is believed to be of vital import to the newborn, once he or she attains adulthood. Particularly for a female, large genitals are considered desirable, to avoid difficulty in giving birth. Assuredly, in zones where this belief concerning the umbilical cord is current, it would not inconvenience the hospital unduly to allow the parents to stipulate the length of cord or to follow the measure dictated by local tradition.

In some instances, disposition of the stump may be a matter of considerable moment. Some groups believe it should be buried in a spot which fulfills certain conditions; or it may be exposed in a tree, to rot. It may be carried by the father to some remote spot; if he throws it away too near home base, the infant will turn out to be timid. In one zone the cord is treasured, later to be used as a home remedy; should it be lost, the child will grow up to be improvident. In an area where disposal is a matter for concern, the hospital might be persuaded to turn the stump over to the family, provided it is sloughed off before the mother and child leave the institution.

The post-partal diet of a woman is rigidly prescribed by local custom. If she eats beans the umbilicus will not heal; if she consumes certain foods (generally those classed as "cold"), she will suffer from cramps. Some foods are considered injurious to both mother and child.
The varied diet generally offered in hospitals often is not culturally acceptable, although, especially outside of Mexico City, diet presumably presents no problems, for the family supplies the patient's food. Such conflict may destroy the patient's peace of mind and for that reason actually cause physical upset. Foods, judiciously selected, to accord with local beliefs, might make hospitalization seem less grim. The selection of foods for the post-partial diet is discussed further below.

(b) A second example of avoidance of conflict with culture patterns concerns the post-natal bath. In many parts of Mexico, special interest and significance surround it. Generally it takes place a stipulated number of days following birth; perhaps in a sweathouse or makeshift substitute; with specially prepared water, to which herbs have been added. Often it is believed that the patient will not regain full health until she has undergone the prescribed bath treatment, and the debilitating effect of a vapour bath probably is more than offset by the psychological aspect. In any event, as long as it is not demonstrated that the baths in question are actually harmful, it would seem eminently sound diplomacy not to attempt to change the popular bath regimen. The midwives would be alarmed and their confidence shaken, and the populace assuredly would respond in negative form.

2. Exploitation of elements of local culture

Sometimes, certain injurious or unfavourable elements of the local culture complex can be nullified through judicious exploitation of others, which are favourable or, at least, innocuous.

(a) In one of our communities it is said that a pregnant woman should drink little water; if she must have water, it should be drunk from a very small vessel, for fear the child's head may grow unduly and complicate birth. The same informant, however, mentions that the pregnant woman may take various herb teas to relieve discomfort. Such teas appear harmless and are part and parcel of the local culture pattern, in slightly different context. Accordingly, it might be practical to suggest that the woman add herb drinks to her daily diet during pregnancy. In the specific example cited, it would be preferable to prescribe three glasses of herb tea before breakfast daily, since three happens to be the ritual number and since home remedies ordinarily are taken early in the morning. Thus, without any conflict, the necessary intake of liquid could be provided.

(b) Some women think it unnecessary to give an infant water during lactation. Undoubtedly, this helps avoid major intestinal infections because the infant does not receive impure water. To tell a midwife or a mother that the infant should be given boiled water is not likely to be effective. But here, again, we might well suggest that herb teas, administered daily, would be helpful. Under such circumstances, the infant might obtain a normal intake of fluid, without the accompanying danger of imbuing contaminated water.

(c) Although few food restrictions are imposed on the pregnant woman, they are legion after birth. Sometimes the choice is so rigidly limited by tradition that the woman cannot approximate a well-balanced diet.
Often foods receive an arbitrary classification of "hot" or "cold", irrespective of actual temperature. Such classification is common in mestizo Mexico and almost universally it is said that the diet should consist of "hot" foods; "cold" ones cause cramps and general discomfort. Classification of individual foods is by no means uniform and what is "hot" in one zone may be "cold" in another; as a consequence, generalization is impossible, and in each locality it will be indispensable to study the current classification of foods in the light of post-partal requirements from the nutritional viewpoint and from that of local folk beliefs.

In general, most fruits and vegetables are considered "cold"; accordingly this has an implication on the way in which fruit and vegetables should be recommended. Nevertheless, if one studies the local repertoire of "hot" foods, the list is likely to contain various dishes which, without much resistance, might be added to the mother's diet.

For example, in one community, the woman subsists on "hot" foods until the day she leaves her bed. But specifically, these are limited to chocolate, coffee, cinnamon tea, certain kinds of gruel, toasted bread and toasted tortilla. The meat of a laying hen (and not of any other fowl) is acceptable but few families can afford such a luxury. In this same zone, milk, eggs, and goat meat happily are classed as "hot". Accordingly, it might be possible to persuade local midwives to recommend that these be added to the diet. At least, they should meet less resistance than would the suggestion that the midwife sponsor beef, for the latter is "cold".

In summary, it should be possible to exploit the current folk classification of foods, in order to overcome certain deficiencies in the post-partal diet.

3. **Delineation of current practices which should be combatted**

As a rule, local pre-natal recommendations make sense by our standards, but once in a while a trait crops up which manifestly is harmful. If it cannot be nullified (as suggested above, through exploitation of some other local culture element), there is no choice but to combat it. Examples follow:

(a) In some zones the notion is general that a pregnant woman should sleep far less than usual. She should go to bed late and, under no circumstances, take a nap during the day; otherwise, the foetus will grow unduly or will adhere to the womb.

(b) In the rural settlements just south of Mexico City, it is customary to wear a tight abdominal binder during pregnancy, "to reduce the danger of miscarriage". Obviously, under such conditions, the midwife should be shown how to make a more adequate support to serve the alleged purpose. The health centre in Xochimilco, for instance, wisely instructs its prenatal cases how to make such a belt.
Conclusions

It seems dubious that any programme - be it for midwifery training or anything else - can be effective if it is planned by remote control, for broadside application. It will have a far better chance of success if it is designed and tailored to measure, zone by zone.

In the case of midwifery, a major point of departure should be the social position of the midwife in the local community. Furthermore, the programme should be painstakingly planned so as to interdigitate - with minimum conflict and maximum exploitation - with local customs and practices related to pregnancy, birth, and post-natal care.

1 In the present paper, no effort has been made to draw on the published literature, and the few references to printed sources are cited by author. The old classic work of Nicolas Leon (La obstetricia en Mexico, published in 1910) still is an excellent introduction to birth customs in Mexico. It provides a wealth of material, most of which has been culled from the old sources and most of which concerns indigenous cultures. His data for native groups can be amplified greatly by consulting modern ethnographic studies.

The information contained in the present paper comes chiefly from 10 mestizo communities and most of it has been gathered as a by-product of investigations in other fields (e.g. water supply, housing, etc.) The material is by no means even; for some communities data are relatively complete; for the other settlements, they are scanty. As a rule, information in each community was obtained from one, or at most two, informants, hence individual views and individual practices may be represented. For many of the data from two communities I am indebted to my former student collaborators, respectively, Maria Cristina Alvarez de Conde and the late Patricia Barreda de Inchaustegui.

2 Redfield, Robert. Tepoztlan, a Mexican village; a study of folk life. Chicago, University of Chicago press. 1931.


4 Information from Miss Caroline Russell, of the Institute of Inter-American Affairs.
SUMMARY REPORT OF DOMICILIARY MIDWIFERY SERVICES IN COUNTRIES AND TERRITORIES IN THE WESTERN PACIFIC REGION

INTRODUCTION

The present document is compiled from reports sent by the Governments of Brunei, China (Taiwan), Federation of Malaya, Guam, Hongkong, Netherlands New Guinea, New Caledonia, New Hebrides, North Borneo, Philippines, Sarawak, Singapore, Trust Territory of the Pacific Islands, Vietnam and Western Samoa. Emphasis is placed on the domiciliary midwifery service carried out in rural areas.

There is no organized domiciliary midwifery service as such in Australia, New Zealand, New Hebrides and American Samoa. Demonstrations in nutrition and mothercraft are carried out by "infant welfare nurses" in Netherlands New Guinea. Domiciliary midwifery is, to some extent, integrated with the general health services of New Hebrides and New Caledonia. It is carried out by rural midwives in the villages of Vietnam. It is practised and an area-wide service has been planned for in Taiwan, Federation of Malaya, Trust Territory of the Pacific Islands and Western Samoa. The service in Sarawak is confined at present to Kuching, its introduction in a number of other towns is contemplated, but an organized service in other parts of Sarawak is not considered practicable. There are twenty-one private midwives in Guam rendering a creditable but diminishing domiciliary service. An organized service has been in operation in Brunei for five years and has been colony-wide in North Borneo. The first trained midwives were appointed by the Governments of Hongkong and Singapore in 1912 and 1931 respectively, with steady expansion of the service ever since.

TRAINING OF MIDWIVES

The statement that "most maternity cases in Western Samoa are delivered in their homes, and most without skilled help at the actual time of birth" seems to apply to almost all rural areas in this region where deliveries are largely performed by untrained and unqualified personnel. In the rural areas of Taiwan, it is estimated that 42% of births are attended to by such personnel; in the Philippines, it is 85%. In Brunei, a great number of babies are still delivered by the people in the home and it is only after expulsion of the placenta that the midwife is summoned.
In Singapore, Hongkong, Kuching, Sarawak, and the urban areas in Taiwan, Philippines and North Borneo, full training in midwifery and licensing is required of all practising midwives. In Singapore, a trained nurse-midwife is classified as class "A" midwife, one trained in midwifery only as class "B" midwife, while class "C" is an underqualified one. Those corresponding to "A" and "B" in the Federation of Malaya are division I and II midwives. A district midwife in North Borneo also holds a general nursing certificate. Taiwan has a school that graduates about 50 midwifery-nurses a year with three years' training in nursing and one year in midwifery. A midwifery school in Manila, Philippines, offers an eighteen months' course. Field training in midwifery is also given by the Rural Health Demonstration and Training Centre in Quezon City and the Health Department of Manila, Philippines, for midwives who are to work for the Government. There are many other midwifery schools in Manila - usually connected with private maternity hospitals. A pilot in-service midwifery training programme was started in the Philippines by a WHO nurse-midwife consultant in April 1954. Five sessions of four weeks each have been held for the training of nurse supervisors, of whom 56 have completed the course. On return to her station, each supervisor gives practical training to groups of ten pilots (untrained midwife of either sex) once a week for twelve weeks. 568 pilots in different provinces have received this training. Midwives in Guam were originally nurses trained by the United States Navy, with an additional course on midwifery; beginning from 1936, all new candidates for licensure must be graduate nurses. Refresher courses are provided twice a year to midwives in Guam in the form of a public-health meeting, in addition, a twenty-hour refresher course is given to them and public-health nurses by the Obstetrical Section of the Guam Memorial Hospital. Government midwives in Hongkong are given three weeks of training in maternity and child health. The infant welfare nurses in Netherlands New Guinea receive 1-1/2 years of theoretical and practical training which is given in the hospitals and villages by public-health nurses, midwives and medical officers. Rural midwives in Brunei, many of whom are unable to read and write, are given a one-year training. Village midwives in North Borneo receive less training than their district counterparts, and examinations required are oral and practical only. A new training scheme is now in preparation under which native midwives who have received no training whatsoever and who carry out midwifery in their villages will receive a two to three weeks' training course. Vocational training of rural midwives in Vietnam was decreed in 1952. Training of all midwives in domiciliary midwifery has been made compulsory in the Federation of Malaya since 1954.

In the Federation also, the future rural midwife will be trained for eighteen months in a recognized midwifery training hospital following which she will be attached for six months to a maternal and child health centre. Assistant nurses will also be trained as midwives. The midwife will be trained to work as a team with the three other components of a sub-district rural-health centre, namely, the assistant nurse, dispenser and the sanitary overseer. A course in midwifery will be conducted under the direct supervision of the School of Nursing of the Trust Territory of the Pacific Islands in September 1955. Western Samoa is contemplating a
scheme of giving a three-month midwifery training to selected ex-nurses who live in villages and who will return as part-time village midwives. Taiwan is planning to offer one-month refresher courses to small groups of active private practising midwives, the immediate objective being to give up-to-date training to as many as 1000 of them (there being 1329 in private practice as of 1954) within the next three years. Training of unregistered midwives is also being planned.

Difficulties in recruiting candidates for midwifery training, which may also be the case elsewhere, were mentioned in the report from Brunei. Town girls, when trained, will not go to remote areas while local girls from kampongs are not in the habit of leaving their homes. If they are young and trainable, they are not wholly accepted upon their return because of their state of non-marriage and youth. Older women available for training are usually widowed and are set in their habits. On returning, it is not long before their old methods of midwifery are resumed. It may be construed from the Trust Territory report that the lack of a common language among islanders, there being at least nine distinct languages, tends to limit the number that can be recruited in any area or island groups.

ORGANIZATION OF MIDWIFERY SERVICE

Singapore, Hongkong, and a demonstration area in Quezon City, Philippines, offer a domiciliary midwifery service within the framework of a rural-health centre or unit under the government or city health department. A domiciliary obstetrical service has been established in the Manila City Health Department for two years.

In Singapore, there are forty-seven midwives in three rural areas with a total population of approximately 334,000. They work jointly with the health sisters and health nurses of each health centre, and are under the direct supervision of an assistant public-health matron. Since December 1954 three kampong midwives have been added. This is a new type of midwife who resides in government quarters with her family and works among the people of her own area. A plan has been envisaged to provide a midwife in every kampong in the rural areas.

In Hongkong, a staff of thirty-one registered midwives is attached to eighteen centres or district dispensaries, of which twelve are in rural areas. The centres are provided with maternity homes of three to twelve beds each. A maternity and child health service is maintained by half the centres in the rural areas. Overall supervision of midwives is exercised by the supervisor of midwives. In addition, there are over 200 midwives setting up private practice each year. Most of them have maternity homes, but they also attend domiciliary cases. They are under the same supervision and are subject to the rules and regulations laid down by the Midwives Board.
A nurse, a midwife and two to five trainees are organized into two teams to answer calls in rotation at one of the rural-health centres in Quezon City, Philippines. There are nine domiciliary midwifery service stations located in different parts of the city of Manila. There is no mention, however, of the number of registered midwives on the staff, as they are under the supervision of physicians trained in obstetrics. There is a premature infant care centre and home service attached to the Manila Health Department.

A colony-wide domiciliary midwifery service is in operation in North Borneo. There are at present four staff nurse midwives, four trained nurse midwives (district midwives), fifteen village midwives, and in one district, also two pupil village midwives, all under the supervision of three nursing sisters and a health visitor. In general, district midwives are posted in the main towns and the village midwives in rural areas. There are a large number of midwives in private practice in the urban area of Sandakan, North Borneo, who work in close co-operation with the Sandakan Health Centre. UNICEF has supplied fifty midwifery bags for the native midwives upon completion of their short-course training.

The rural domiciliary midwifery service in Brunei was started five years ago by a WHO sister tutor and carried on by a health sister of the Colonial Nursing Service serving in Brunei. The service is essential because Moslem women are against delivery in hospital. There are at present ten trained midwives working in the towns and river kampong, five trained midwives working outside the towns, and five pupil midwives are commencing training to be sent back eventually to their own rural areas. An attempt is being made to cover each of the main places of the State with a midwife.

The domiciliary midwifery service of Kuching, Sarawak, which serves the municipal area and operates from the General Hospital, is supervised by the sister in charge of maternity, who maintains close liaison with the health sister in charge of the extra-mural maternity and child welfare service. The staff operating the domiciliary midwifery service consists of one senior staff nurse who is a trained midwife, three other trained midwives, and three to four pupil midwives in training. There is no organized domiciliary midwifery service in other parts of Sarawak because primitive conditions and difficulties in regard to communication and travel over long distances render the institution of such services impracticable. Such services, however, may be provided in three other big towns as more trained midwives become available.

The domiciliary midwifery service in Guam is performed by twenty-one licensed private practising nurse-midwives, who are invited to work with the public-health midwife of the Department of Medical Services. In 1953, almost half of all deliveries were done by these midwives although the trend is now toward more hospital deliveries.
In Western Samoa, referrals are made by health department district nurses to the Samoan medical practitioner serving the particular district, or to the main hospital in Apia. An antenatal clinic is held regularly by the midwife in charge of the maternity unit of the main hospital, where expectant mothers from neighbouring districts are also seen and where there is a maternity annex for confinement. The present system centres around periodic visits made by district nurses who prefer advice on infant care as well as to expectant mothers, and offer care in confinement to a small proportion of Samoan mothers. The plan for improving the care of village mothers at the time of their confinement by the appointment of part-time village midwives has already been mentioned.

In the Federation of Malaya, a properly organized domiciliary midwifery service is found in a few areas in the country, although a considerable amount of it is practised by midwives. The Government has the objective of setting up throughout the Federation a comprehensive midwifery service, which will aim at supplying one midwife for every 2000 persons. Five such midwives will work in a sub-district rural health centre serving 10,000 persons, and five of these centres will be required to meet the needs of an average administrative district of 50,000 population. One of these centres will assume the role of a supervisory centre. The aim is to give complete health coverage to the Federation, with the midwife as the cornerstone. Nomadic groups who live in the deep jungle cannot, however, be reached in this manner.

A survey in Taiwan in 1953 showed that only 1% of births took place in provincial hospitals. Another survey covering 751 live births showed that 31% of births had been delivered by private midwives, an equal percentage by family members, 17% by midwives attached to local health stations, and 3% by private doctors. It is estimated also that 42% of births in rural areas are handled by untrained and unqualified personnel. There was in 1954, a total of 2453 registered midwives, of whom 413 were in Government service, 1329 in private practice, the remainder inactive. In addition to the refresher courses to be given to active private midwives, the Government plans to organize registered midwives through the health department of each prefecture and city and to encourage the inactive ones to resume work. UNICEF is assisting these plans by providing midwifery kits and supplies will be provided free. The training of unregistered midwives will be a subsequent problem to face.

According to a report of a WHO maternal and child health adviser, there are mobile maternal and child health clinics in the Territories of Papua and New Guinea, and through their work, more pregnant women are gradually being encouraged to seek medical supervision in the ante-natal and post-natal periods and where possible to obtain the services of a trained midwife for delivery.

In the villages of Vietnam, domiciliary midwifery is mostly carried out by rural midwives, of whom 93 are in government service and 89% are in private practice. In urban areas, there are 354
government and 205 private midwives, but whenever possible, expectant mothers prefer to enter government or private hospitals and maternity homes. All physicians and midwives are authorized to practise domiciliary midwifery.

While there is no domiciliary midwifery service as such in New Hebrides and New Caledonia, there are thirty-seven centres (some with physicians, others with male nurses) with provision of beds for delivery, and three maternity homes. These are dispersed throughout the islands. In addition, the area comprising New Caledonia and the Loyalty Islands, other than the City of Noumea, is divided into eleven districts with eleven medical officers, eleven nurses or midwives, and twenty-eight local male nurses, serving a population of 35,000. All these nurses are able to assist in deliveries. The needs of the population are reported to be fully met by the arrangement mentioned above.

SCOPE OF SERVICE

Obstetric bag, uniform, medicine, etc., are provided for each midwife in Hongkong. Mention has also been made of UNICEF assistance in the provision of midwifery kits in Taiwan and North Borneo following implementation of a training programme. Similar kits have been supplied to the Quezon City Health Department, Philippines and presumably midwives elsewhere are similarly equipped where a domiciliary programme is in operation.

Ante-natal examination and visits are mentioned in nearly all reports. Although health education is mentioned only in a few reports, it is probably being applied in one way or another in all ante-natal clinics and visits. Ante-natal clinics are held in the hospital in Kuching, Sarawak, and in Apia, Western Samoa, combined with visits made by midwives and district nurses respectively. These functions are carried out by or in co-ordination with health centres in Manila, the Rural Health Demonstration area in Quezon City, Philippines, in Taiwan, and in Hongkong. Periodic visits are made by nurse midwives or midwives in the rural areas of North Borneo, Brunei, and Guam. Domiciliary midwifery and maternity and child health are integrated into the public-health service in Singapore, the Federation of Malaya, in some of the health centres in Hongkong, in South New Guinea and elsewhere. In Singapore, there is free distribution of vitamins and tonics, and a close liaison is maintained with the Social Hygiene Department. Ante-natal care by private midwives in Guam is rendered in conjunction with the District Public Health Clinic, and is meagre in Taiwan where encouragement of better working relationships between private midwives and local health departments is being planned.

Mention is made in all reports of referral of abnormal cases by midwives to medical officers or hospitals. Mention is also made in reports from Guam and Quezon City that primiparae are also referred to hospitals, and presumably this practice is not limited to these two areas alone.
The Hongkong report mentions the provision of cord string and cord powder to expectant mothers in the rural districts as a precaution against the occurrence of an unexpected birth before the arrival of the midwife. In Singapore, it is surmised that because of distance from the road, lack of transport and racial custom, about 50% of the cases of government midwives are born before their arrival. Reference has been made previously that most maternity cases in Western Samoa are delivered in their own homes, and most without skilled help at the actual time of birth. Hongkong also mentions that simple forceps deliveries may be carried out in three of the centres where there are resident medical officers. Silver nitrate instillation is mentioned in only one report but presumably it is practised in all areas where skilled help is available.

Space does not permit even a summary of the number of deliveries made by midwives in areas where a domiciliary service is available. In all, the case load has been heavy either numerically or in due consideration of distances and difficulties in communication. Although it is stated by only one government that until the service is fully extended, it will not be possible to cater for the demand that is now being made, the same may be said of other areas now or in the near future.

Post-natal visits and care are mentioned in most reports. Daily visits are made in the first five to ten days after birth, with more frequent visits in the first few days, but owing to distance and pressure of work, some cases cannot be visited daily during the first ten days of the puerperium. In Singapore, a home visit is made by the health nurse during this period, and information is given regarding infant welfare clinics days and family planning clinics. In Guam and Manila, visits are made by the midwife during the first three days of the puerperium, and by the public health nurse on subsequent days until the cord is separated or until both mother and baby are considered safe.

Only one report mentions that small-pox vaccination is performed by the midwife in attendance. Birth reporting within a specified period as a function of the midwife in attendance is required by the Governments of Guam and Hongkong. Similar requirements may exist elsewhere.

Only Guam mentions that the private practising midwife is permitted a minimum fee of $25 per case by law. Presumably the domiciliary midwifery service operated by governments charges no fees either for the deliveries per se or for the ante- and post-natal care rendered. In some areas, medicines and perhaps milk powder are also given free. In Singapore, the cost of transport for the midwife has to be borne by the patient. It is not known to what extent the patient is under financial obligation elsewhere.

PROBLEMS

Some of the problems have been mentioned previously - problems of finance, of shortage of qualified personnel, of unregistered or
unlicensed midwives, stability of work, problems arising out of geographical situations, provision of transport or the lack of it, and those associated with racial customs or cultural patterns in general. Other problems, though not specifically mentioned in the country and territory reports received, offer opportunities for further consideration.
SUMMARY REPORT OF DOMICILIARY MIDWIFERY SERVICES

IN COUNTRIES AND TERRITORIES IN THE WESTERN PACIFIC REGION

The present addendum is collected from reports sent by the Governments of Cambodia, Japan, Korea, Macau, Timor and the South Pacific Health Service Territories.

Maternity care in the urban areas of Macau, Timor, Suva and some of the townships of Fiji is undertaken largely by hospitals. This is presumably also true of the cities in Japan. In Timor, there are maternity centres and branch centres. In Macau, more than 50% of births take place in three hospitals, the balance being taken care of in the home by 13 licensed midwives.

In Japan, the 1952 statistics showed that 92% of births took place in the home. As of 1954, there were 55,466 midwives, of whom 33,500 were licensed, and of these over 28,000 were in private practice, the rest being employed by government and private institutions. Another 22,000 were in private practice and were apparently not licensed. Midwives are required to take a one-year course in midwifery before sitting for the national examination. There is a midwife on the staff of each of the 840 health centres supported by the local government. She maintains liaison with the midwives of the health district, participates in planning short refresher courses, study meetings, etc., and in general lends assistance to the midwifery service in the district.

In Fiji, Western Samoa and Tonga, there are about 170 locally trained nurse-midwives stationed at villages and islands, in addition to district health centres, rural hospitals and dispensaries. These nurse-midwives receive three and one fourth years of training which includes general, obstetric and public-health nursing. They are supervised by eleven health sisters, all of whom were trained abroad and hold nursing certificates.

The pattern in the Cook Islands, Gilbert and Ellice Islands, and Solomon Islands is one in which midwifery is undertaken by Assistant Medical Practitioners when available. There are some nurse-midwives in the Cook Islands of somewhat lower standing. Nurse training is provided at the Central Hospital at Tarawa, Gilbert and Ellice Islands. An attempt is being made this year in the Solomon Islands to start the training of local girls in nursing. In the South Pacific Area, Fiji is the only place where post-graduate training in nursing is provided.

In Niue, where there were 20 births in 1954, deliveries take place in the home with the assistance of male or female relatives. There
is also a European district nurse of the health Department who visits each village once every fortnight. Routine examination includes haemoglobin estimate and urinalysis. It is estimated that 80% of the maternity cases attend these local ante-natal clinics.

Ante-natal care is given to expectant mothers in the countries and islands noted above where domiciliary midwifery is practised. Private midwives in Japan are required by law to designate physicians to whom they can refer patients with signs of abnormality in the mother or foetus. Referral to medical officers or hospitals is also practised in the Pacific island territories mentioned above. In Fiji, ante-natal visits are arranged to coincide with confinements, but members of the Women's Village Committees may perform normal delivery in the absence of a health sister or nurse-midwife.

Domiciliary midwifery is still in the early stages of development in Korea and Cambodia. In Korea, about 100 midwives were trained for 40 days in 1954. A peripatetic course in 1955 and 1956 will cover about 400 midwives. In Cambodia, where traditional midwives without any training are responsible for fully three quarters of total births, refresher training has been instituted since 1936. During the period 1936-1949, this took place in provincial hospitals, while since 1949 training has been centred in Phnom Penh. Supervision of domiciliary midwifery has been exercised by graduate nurses and district medical officers. In 1953, there were 132 rural midwives who had received refresher training and who delivered more than 2,000 births. In 1954, there were 160 rural midwives who performed 9,733 deliveries.