MATERNITY CARE AT THE TWO EXTREMES (RURAL/URBAN)
OF THE DELIVERY SYSTEM

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After this extensive review of modern fertility control technology by Dr. Allan Rosenfield and before opening the panel reactions, it may be good to sketch the population growth of the Philippines.

I. THE BURDEN OF DEMOGRAPHIC INERTIA: IMPLICATIONS

In the 16th century, when the conquistadores came to the Philippines, there were around 600,000 people. 325 years later, as shown in the population growth chart-constructed from data supplied by UPPI (Dr. Mercedes B. Concepcion) there were 5.9 million. Thirty years later, there were 10.1 million and still thirty years later, right after World War II 1946., there were 18.5 million. Today, after another 30 years, the nation counts 43 million. Whatever we are going to undertake today, the population will reach around 90 million by the year 2006. This is due to the tremendous inertia of the demographic impact of previous interventions as stressed yesterday by Prof. Alfred Sauvy from Paris. So what we really undertake will start to have a strong impact on numerical population growth reduction at the beginning of the next century only. This demographic inertia burdens the professional categories who are dealing with human reproduction with a long term responsibility. Obstetricians, midwives and nurses must be mobilized into a national movement of changing the nation's fertility behavior now. This professional manpower, including pediatricians and paramedical personnel, constitutes now a national health corps of fighters of excess fertility. But many members of this corps have not yet understood their new mission. They have not understood the implications of the "explosive fact" that while in 1946 there were only 800,000 annual births, the Philippine in 1976 have approximately
1,700,000 annual births.

I have then tried to look for clues from within the Philippines for future rapid growth in both urban and rural fertility management. I am told that today less than one third of all deliveries are professionally attended to and that this category is growing very slowly. Obviously, from the service delivery point of view, we have to ask the question on how the message and service of planned parenthood can most easily reach both the home-delivery women and the maternity-delivery women.

II. HOME DELIVERY WOMEN

The rural penetration process of family planning can only proceed and succeed if the smallest reproductive unit -- the family -- is reached by way of the elected local community leader in whom some 10-30 families have put a common or communal trust. This person--I am told by my driver and assigned courtesy guide -- is called the Purok head who in turn reports to the Barangay head or captain. I understand that the Philippines counts 42,000 barangays or barrios and that the captains are elected for 4 years. It would then appear that early after election, the new barangay heads together with the rural doctors and/or key paramedical personnel may come together to a retreat workshop of a few days in order to discuss and learn about the inverse relations of community development and family crowding, malnutrition and disease. In addition to interpreting this antidevelopment triade (of family crowding, malnutrition and disease), the barangay heads would then convey knowledge and information on availability to the Purok leaders. Resupply points at the level of the barangays would then secure continuity of availability of contra-
ceptives such as pills, condoms etc. After perhaps one year, the barangay heads and health care staff should come together again and exchange their experience and views of family planning penetration. I do not see any better way for getting at the heart of the rural penetration problem. The barangay heads may then formulate some recommendations which would go back to the village for implementation and also upward via the regional center (to be created) to Manila to reach the Population Commission and Population Center Foundation for analysis, synthesis and integration. In other words, let the peripheral barangay leadership show the central Commission on Population what the path of rural penetration really is. On a more immediate, pragmatic note; the president of the 12 regional barangay federations in Cezon City tomorrow may want to get a thorough briefing of the outcome of this conference.

III. MATERNITY DELIVERY WOMEN

Now let's come to the maternity deliveries. We hear of a recent regionalization effort of national development. The improvement in institutional maternity care in the 12 administrative regions could best proceed if each region had a maternity reference center of a service-cum-research type. Obviously, each region must be able to look up to the Manila avant garde institutions in public fertility management. Such regional reference centers should have a MODEL SERVICE WITH OUTREACH in antenatal care, delivery, postnatal care and child protection. The reference center would also have a major regional training function not only for staff of the maternity homes but also for traditional birth attendants and rural paramedics. Here then appears to me to emerge the critical link from avant-garde Metro
Manila Maternity Management to grassroots home fertility management in deep rural and insular Philippines. Clearly, the creation of a center linking home and maternity deliveries should be considered now rather than in 20 years when the population will have increased by another 30 million. This regional center of excellence would have built-in function of training research and evaluation. I venture to humbly suggest to this forum---and through this forum to the First Lady—that the REgional Mother and Child Health Center may merit her early attention and sponsorship. What could be closer to the heart of the First Mother of the Nation than the well being of the nation's mothers and children.

IV. INSTITUTIONAL SERVICE RESEARCH

What about recent service research in selected institutions in Manila? As of late, I have had the chance to look at three places: the Mary Johnston Hospital Family Planning Unit, in Tondo directed by Dr. Virgilio Oblepias. The Philippine General Hospital Study and Training Center for Surgical Sterilization under Prof. Gloria T. Aragon and co-workers and the J.F.M. Maternity Hospital in Sta. Cruz with the Comprehensive Family Planning Project under Prof. Ruben Apelo. In all three centers, voluntary sterilizations are on a swift and sustained increase while IUD's and even Pills are on the decrease. In 1976, there are now around 700 monthly interval sterilizations at Mary Johnston Hospital; and over 700 post partum and interval sterilizations/1000 deliveries at the Manila General Hospital. At the JFMM Hospital, the just terminated analysis of service statistics of the period 1970-1975 shows the following patterns and trends. (Discussion of five charts).
Clearly, from this 6-year epidemiological profile of reproduction management at the single largest maternity ward of the Philippines, we derive that after documented enormous family planning input in the early seventies both deliveries and early neonatal deaths have decreased in the mid-Seventies.

I recommend that this simple methodology of Composite Fertility Management Accounting (CFMA) be tried in selected maternity centers in the 12 regions of the Philippines for early analysis, synthesis and discussion of both results and needed alterations.

It is obvious that this methodology of analysis could provide a continuous, easy and measurable central feedback via the regional centers of excellence from both maternity and home deliveries. Perhaps this approach to expanded fertility management could also generate new facts pertaining to the needed acceleration of national fertility reduction. Thank you.
PHILIPPINES: FROM CENTURY 19 TO 21, OR FROM 6 TO 90 MILLION PEOPLE

THE SURVIVAL OF HUMANKIND: THE PHILIPPINE EXPERIMENT

Million People

1886 1916 1946 1976 2006

10 20 40 80

1886 1900 1916 1946 1976
FREQUENCY TREND OF SELECTED MATERNITY VARIABLES

J.F.M. HOSPITAL, MANILA, PHILIPPINES, 1970-1975

Data Source: Dr. Ruben A. Apelo

Key:
- REPRODUCTIVE EVENT
- FERTILITY CONTROL INTERVENTION

- Deliveries
- Tubectomies
- I.U.D.
- I.L.T. Abortions
- Neonatal Deaths

Data Source: Dr. Ruben A. Apelo
**LOSS MEASUREMENT AT THE MATERNITY**
FROM ABORTION TO LATE NEONATAL TO MATERNAL DEATH

Data Source: Dr. Ruben A. Apelo, Jose Fabella Memorial Hospital, Sto. Cruz, Manila, Philippines

### SELECTED LOSS TRENDS, 1970-1975

<table>
<thead>
<tr>
<th>Year</th>
<th>Abortion</th>
<th>Stillbirth</th>
<th>Neonatal Death Early</th>
<th>Neonatal Death Late</th>
<th>Maternal Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>134.3</td>
<td>22.6</td>
<td>1.5</td>
<td>0.6</td>
<td>2.35</td>
</tr>
<tr>
<td>1971</td>
<td>129.5</td>
<td>24.1</td>
<td>1.8</td>
<td>0.6</td>
<td>1.82</td>
</tr>
<tr>
<td>1972</td>
<td>117.8</td>
<td>23.2</td>
<td>0.9</td>
<td>0.6</td>
<td>1.52</td>
</tr>
<tr>
<td>1973</td>
<td>117.5</td>
<td>22.5</td>
<td>1.9</td>
<td>0.6</td>
<td>1.26</td>
</tr>
<tr>
<td>1974</td>
<td>126.2</td>
<td>22.5</td>
<td>2.7</td>
<td>0.6</td>
<td>1.86</td>
</tr>
<tr>
<td>1975</td>
<td>164.3</td>
<td>21.6</td>
<td>1.8</td>
<td>0.6</td>
<td>1.81</td>
</tr>
</tbody>
</table>

Total Cases: Deliveries $N = 157,647$
Losses $N = 36,215$ (230 per 1000 Deliveries)
SECULAR TREND OF FERTILITY CARE ACTIVITIES -- MANILA, J.F.M. Hospital, 1970-1975

Total Deliveries: N=157,647
Data Source: Dr. Ruben Apelo, Manila
Ratio per 1000 Deliveries

SHIFT FROM PREGNANCY PREVENTION TO FERTILITY TERMINATION

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
<th>Rate per 1000 Deliveries</th>
<th>Number Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERTILITY TERMINATION: Six-Year Average</td>
<td>8.2</td>
<td>36.6</td>
<td>N = 57,670</td>
</tr>
<tr>
<td>PREGNANCY PREVENTION: Six-Year Average</td>
<td>91.8</td>
<td>409.1</td>
<td>N = 64,493</td>
</tr>
<tr>
<td>ALL FERTILITY CONTROL ACCEPTORS (NEW)</td>
<td>100.0</td>
<td>545.7</td>
<td>N = 70,260</td>
</tr>
</tbody>
</table>

### PERCENT

![Diagram showing the shift from pregnancy prevention to fertility termination.](image)

- **Sterilization**
- **Contraception**

### RATIO

![Diagram showing the number of new acceptors per 1000 deliveries.](image)

- **Sterilization**
- **Contraception**
COMPOSITE MATERNITY PROFILE, 1970-1975
J.F.M. HOSPITAL, MANILA, PHILIPPINES, 1970-1975

1970-1974
   (Annual Mean)

   ALL DELIVERIES
       (Number)

   270014

   1975
       22640

   1975 CHANGE

ABORTION

   123.7
   L.L.T. ABORTIONS

   154.3

EARLY DEATH

   1.1
   MATERNAL DEATH

   1.8
   LATE NEONATAL DEATH

   16.9
   EARLY NEONATAL DEATH

   58.7
   STILLBIRTH

   0.0
   ALL MATERNITY DEATHS

BIRTH (and DEATH) PREVENTION

   327.6
   VASECTOMY

   155.3
   TUBECTOMY

   121.2
   L.U.D.

   537.6
   ALL FERTILITY CONTROL

   248.9
   PILL

   9.5
   CONVENTIONAL

   24.3
   ALL DELIVERIES

   431.9

1975 CHANGE

   See Model, Figure 5

   -24.7
   ABORTION

   +2.6
   EARLY DEATH

   +2.4
   BIRTH (and DEATH) PREVENTION

   -31.5
   ALL DELIVERIES

   0% decrease

   +40% increase
MANILA MATERNITY MODEL 1975

OBSERVATION
Jose Fabella Memorial Hospital
Comprehensive Family Planning Project
1975 versus 1970-1974

(+24.7)
INCOMPLETE ABORTION

(+23.5)
FAMILY PLANNING

(-16.2)
NATALITY

(-11.5)
NEONATAL MORTALITY

INFANT SURVIVAL

GENERALIZATION
Philippines Maternity
Work Hypothesis Model for the Late Seventies

ABORTION

CONTRACEPTION

FERTILITY

MCH

Explanation:
1. This Empirical Interactive Model connecting natality, abortion, contraception and infant mortality is the translation of the findings of the epidemiological analysis of cross-sectional registration data at the Maternity Ward and service statistics of the Comprehensive Family Planning Project at the largest Maternity in the Philippines. The figures in brackets are the actual percentage change having occurred in 1975 as compared with the annual mean for the five-year period 1970-1974 (see Figure 4, right frame).
2. Statistical Associations:
   - +: positive links among Abortion, Family Planning and Infant Survival
   - -: negative links between Natality and (Abortion, Family Planning and Infant Survival)
3. Given the complementarity of neonatal death and infant survival, the step from empirical observation to 'work hypothesis' generalization is indicated. The cause-effect chain that seems to emerge is: Fertility Control - Reduction in Fertility - M. and C. Health.