

It was, on motion,

RESOLVED that the sum of One hundred sixty-three thousand two  
RF 56002 hundred eighty dollars (\$163,280), or as much thereof  
as may be necessary, be, and it hereby is, appropriated  
to HARVARD UNIVERSITY for a field study of population  
problems in India under the direction of Dr. John E.  
Gordon during the four-year period beginning April 1,  
1956.

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The following considerations were presented:

Medical Education and Public Health: General

Previous Interest: On October 27, 1953, a grant in aid of \$10,000  
to Harvard University was approved to permit Dr. John E. Gordon  
and his associates to organize activities and plans as a pre-  
liminary step toward a field study of population problems in  
India. On December 1-2, 1953, an appropriation of \$58,450 was  
made for this study, under Dr. Gordon's direction. The appro-  
priation terminates March 31, 1956.

General Description: Overpopulation in many parts of the world is  
recognized as an outstanding problem. A single-minded attention  
to death rates and to the crippling and disability associated  
with disease processes has characterized public health activity  
since its beginning - it was a commendable and sufficient objective.  
The actual success of that endeavor, however, is reflected in an  
exaggeration of the problem of population. As so often happens in  
biology, an effect exerted on one element of the ecologic system  
seriously disturbs the existing equilibrium and sometimes lets  
loose more variables than it controls. Since it is so largely  
responsible for the widening gap between births and deaths, public

health is called upon justifiably to turn a part of its resources to a concern with birth rates as well as with death rates. Unfortunately, the public health effort in this direction has lagged. In the Western world it has been limited principally to voluntary health agencies and, so far as the official public health agencies are concerned, to essentially two countries, Japan and India.

The problem is one of communities, of the general population, and not primarily of individuals. Technical methods for control of conception have been developed for the individual and selectively used; they require field tests of efficiency if they are to be employed under the more difficult conditions of general use. Safety has to be evaluated in terms outside the controlled conditions of clinic, office and hospital. Acceptability by a general population involves something more than acceptability by those persons who come to a clinic because of a recognized need for help. The India-Harvard-Ludhiana Population Study was organized with these several considerations in mind. Its objectives are the following:

1. To measure some of the variables important in growth and recession of populations. The approach is biological, concerned with the physiology of reproduction but with the population as the unit of observation, as distinguished from the individual. Firm attention is given to sociologic and cultural factors. This information is sought mainly through observation of a group of villages representative of the Punjab area and serving as a control to the test villages of paragraph 2, and also to an extent through observations on the test villages themselves.

2. Through direct field investigation to test an individual technical method and determine whether or not family planning exerts a significant effect on the size of village populations. The attempt is to define principles basic in controlling total populations by methods of family planning, and practicability of such measures, the measurement of accomplishment in limiting numbers, and finally what limitation of numbers accomplishes in respect to improved health conditions and altered social status. The aim is to develop data upon which to base a program of control directed toward general populations which can be incorporated into a general public health program.

3. To give training and experience to a limited number of physicians and other health workers in problems of populations, in order to further research and, more pertinently, to provide leaders in developing such practical programs of population control as the field study warrants. (Continued)

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The principal findings of the preliminary study have been:

1. The importance of family limitation is appreciated by the people of the test villages. Contraceptive methods to achieve control of family size were found to have a high acceptability (76 per cent of females in fertile period of life).
2. The period of high fertility in women in these villages is about 20 years, irrespective of the age at marriage. The age range of fertility is from 16 to 43 years.
3. Foam tablets had a far higher preference than any other contraceptive method and were therefore adopted for exclusive use.
4. In observations limited to 809 months of exposure to risk of pregnancy, the groups accepting contraception in the two villages had a pregnancy rate of 14.8 pregnancies per 100 woman-years of exposure, while the control group with 836 months of exposure conceived at the rate of 33.0 pregnancies per 100 woman-years.

It is now proposed to extend the project to a test population of 8,000 persons and a similar number of controls, with observations carried on over a period of four years beginning April 1, 1956. The methods to be employed would be those previously developed in the exploratory and pilot studies. A trained team is ready to undertake the work. Headquarters and field facilities are at hand. The Indian Advisory Committee of outstanding scientists have endorsed continuance of the experiment, and Dr. John E. Gordon and Dr. John B. Wyon would continue direction of the research.

Finances: The proposed appropriation of \$163,280 would provide for the field operation in India, consultation services, administrative costs, and travel to India for personnel of the Harvard headquarters in Boston. For these purposes, the funds would be used at approximately the following rate:

1st year . . . .	\$ 39,670
2nd year . . . .	41,870
3rd year . . . .	40,870
4th year . . . .	<u>40,870</u>

Total     \$163,280

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(Continued)

It is anticipated that support from Indian sources will continue at the current level of approximately 10 per cent. If so, the expenditures from Foundation funds will be reduced in proportion to contributions from Indian sources.

Future Implications: Further expansion to a practical population application will depend upon the results of this study. At the moment there is no commitment of support beyond the time specified.

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