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SEVEN YEARS OF CLINIC EXPERIENCE UNDER THE 'TRADITIONAL PLANNED PARENTHOOD APPROACH' IN KARACHI: A BASE LINE FOR FAMILY PLANNING IN PAKISTAN

Lawrence W. Green and Karol J. Krotki

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The authors are deeply indebted to Mrs. Julian Cole of Oxford, England, who first began consolidating these data while working as a volunteer in the FPA clinic, and who supervised the coding and tabulation of the data at the Central Statistical Office in Karachi; also to Drs. Zarena Fazalbhoy and M.... Hai of the Karachi FPA for their cooperation and dedication to their pioneering work in allowing this evaluation to be conducted by persons outside the Association. Helpful comments were received at various stages of this project from Dr. Christopher Tietze, Director of Research for the National Committee on Maternal Health, New York; Dr. Sultan S. Hashmi, Senior Research Demographer, Institute of Development Economics, Karachi; Dr. Samuel Wishik, Population Council Representative, Karachi; Miss Jamila Akhter, Medical Social Research Project, Lahore; Dr. Harvey Choldin, Pakistan Academy for Rural Development, Comilla; Dr. Harold C. Gustafson, Public Health Education Research Project, Dacca; and Begum A. Inayatullah, Executive Director, Family Planning Association of Pakistan, Lahore.

One of the most highly regarded family planning efforts in Pakistan over the past seven years has been that of the Model Clinic of the Family Planning Association, Karachi Branch. Located in the heart of Metropolitan Karachi, the FPA clinic has operated an "optimal standards" program since 1958, according to criteria of the International Planned Parenthood Federation(I.P.P.F.)[1]

[1] International Planned Parenthood Federation, Medical Handbook, Part I, (London: International Planned Parenthood Federation, 1962).

applying the best of medical and educational services within the clinic. Personal contacts and follow-up education outside the clinic, however, have been necessarily limited on budget considerations, as in most voluntary health and welfare programmes of this stage. The performance of the model clinic in terms of the attendance patterns of its clients and other criteria provides a rather full picture of the long-range results that can be expected of a clinic-only approach to family planning in urban Pakistan, as well as a benchmark against which rural and other urban programs and alternative approaches can be evaluated.

THE TRADITIONAL PLANNED PARENTHOOD APPROACH

Experiences in other parts of the world, particularly in developing countries, have demonstrated the inadequacy of the clinic-only approach to family planning. India attributes the gross shortcomings of its first family planning scheme to its undue emphasis on the expansion of clinic facilities.(2, pp.4,10, 19, and 22-24). R.A. Gopalswami characterizes this bias as having

[2] Raina, Lieut.Col.B.L., Family Planning Programme: Report for 1962-63, (New Delhi: Government of India, April, 1963).

derived from the "orthodox school," the "eminent social workers whose minds have been moulded by participation in the international family planning movement of the nineteen-thirties." (3, p.71). Stycos has itemized and documented, in addition to the clinical bias, the "medical bias," the "middle class bias," and the "feminist bias" of what he termed "the traditional Planned Parenthood approach."(4)

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[3]Gopalswami, R.A., "Family Planning: Outlook for Government Action in India," in Kiser, Clyde V.(ed.), Research in Family Planning, (Princeton, New Jersey: Princeton University Press, 1962), pp. 67 - 81.

[4]Stycos, J.Mayone, "A Critique of the Traditional Planned Parenthood Approach in Underdeveloped Areas," in Kiser, C.V. (ed.) op.cit., pp. 477-501.

Although Stycos is highly critical of the Planned Parenthood approach to birth control in underdeveloped areas, he offers little confidence in the primary alternative attempted in most countries, the public health-community approach (4 pp.483-486).

It is not the purpose of this study, however, to argue the relative efficacy of different approaches to family planning education and supply. This is the subject of numerous ongoing action research projects not only in Pakistan but in virtually every country faced with a population problem. Much has already been said on this topic at the speculative level in Pakistan (e.g., 5,6 and 7) and much is forthcoming from empirical

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[5]Kortki, Karol J., "The Feasibility of an effective Population Policy for Pakistan, "The Pakistan Devel. Rev., 4(2), Summer, 1964, pp. 283-313.

[6]Family Planning Association of Pakistan, Pakistan's Popu-

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lation Quake, Report of the National Seminar and Exhibition, 10-14th March, 1964, Lahore.

[7] Qureshi, M.L. (Ed.), Population Growth and Economic Development (summary report of a seminar, Sept. 1958, Karachi), Karachi: Institute of Development Economics, 1960.

studies in the vicinities of Dacca, Lahore, Comilla, Karachi, Hyderabad and Chittagong (e.g., 8,9,10 & 11 on the Comilla approach; 12 & 13 for descriptions and preliminary impressions from experimental programs in Dacca and Lahore). The immediat

[8] Zaidi, W.H., "An Action Research in Family Planning," Jour. of the East Pakistan Academy for Rural Development, I(, Dec., 1960, pp.38-48.

[9] Berelson, Bernard, "Pakistan: The Rural Pilot Family Planning Action Programme at Comilla," Studies in Family Planning, No. , 1964.

[10] Khan, A. Majeed, "Population Control: A Two-Year Rural Action Experience," Demography, 1(1), 1964, pp.

[11] Khan, A .Majeed, Pilot Project in Family Planning: Progress Report to May, 1963, Comilla: Pakistan Academy for Rural Development, 1964.

[12] Clark, Elizabeth W., and others, "Pakistan: The Public Health Education Research Project in Dacca," Studies in Family Planning No.5, Dec. 1964.

[13] Kantner, John.F., "Pakistan: The Medical Social Research Project in Lahore" Studies in Family Planning No.4, Aug.1964.

need, before results from these efforts can be perspectively judged, is the presentation of at least one detailed account of what has gone on before the introduction of planned education programs and alternative channels and types of contraceptive supplies in Pakistan. Some specific baselines are needed on what

have been the results of the "traditional Planned Parenthood approach" in Pakistan.

An analysis of the case records covering the first six year period, June 1958 through May 1964, of the model clinic operation in Karachi was undertaken with the general purpose of providing such a baseline. In the seventh year, 1964-65, the Karachi FPA has begun to emphasize the radically different intra-uterine contraceptive device (IUD) as well as the oral contraceptives, Enovid and Conovid. Both methods were first recommended in the model clinic on 28 April 1963 but did not receive major attention until 1964. The introduction of these methods, while still consistent with the "traditional Planned Parenthood approach," has marked a major change in the Karachi program. The seventh year, therefore, is treated separately in this analysis.

PURPOSE

It is presumed, then, that the data from the Karachi FPA model clinic records, systematically organized, can serve three major functions:

(1) As a progress evaluation of the FPA clinic program in Karachi after several years of operation, to provide rough program guidelines to administration and staff of this and other voluntary and government programs, clinical, semi-clinical or non-clinical in nature.

(2) To provide baseline measures of program effects among various socio-economic groups and at various time intervals against which other programs can gauge their own effects, taking the Karachi clinic data as roughly representative in Pakistan of the results to be expected (a) in a metropolitan clinic (b) of very high medical standards, (c) with some mass publicity, (d) but with virtually no face-to-face educational program in

the field. Programs elsewhere in Pakistan that are characterized by any three of these factors (constants) could draw tentative conclusions about their relative effect in changing the fourth factor (variable) by comparing their data with those of the Karachi FPA presented here. Statistical presentations of family planning program results in Pakistan are few, and those so far available in published form are very specific or limited in scope and comparability (Cf, 10 & 11 on a unique rural approach at Comilla, and 14 on women seeking sterilization operation in Dacca).

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[14]Roberts, Beryl J.; Griffiths, William; Shimmel, Gilbert M.; and Clark, Elizabeth W., "A Post-Operative Study of Ligatees in Dacca, East Pakistan," Jour. Pak. Acad.Rur.Devel., 4(3), Jan.1964, pp.93-113.

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(3) To suggest and illustrate various criteria of program success, other than clinic attendance and fertility rates, measurable from data generally available in clinic records. Examples of such criteria suggested here are: proportion of new clients never having practiced family planning before; proportions of new clients referred to the clinic by sources attributable to educational or community organization efforts of the program; proportion of clients in low parity or early age groups (couples actually planning their families as distinguished from high parity, older couples already near the end of their reproductive period); and proportion of clients in lower socio-economic classes (who have less access to channels of information and supply than higher classes).

THE URBAN PHASE OF FAMILY PLANNING

The early phases of the national family planning program under the Second Five Year Plan, and to a lesser extent under the Third Plan, focus largely on the urban areas, not in exclusion of intensive, concurrent rural efforts, but as a logistically proper place to begin. Supply lines for contraceptives must be developed; administrative structures for family planning must be built. These and other prerequisites can most efficiently be initiated in urban centers and district towns.

Equally important as a consideration in introducing family planning to a nation, however, is the fact that most social and economic change proceeds from the urban middle and upper classes, spreading downward in class and outward to the villages. Foster has found that "The cultural innovations of urban areas have prestige attached to them. This prestige is the motivation which produces the outward and downward diffusion of ideas and behavior forms" (15).

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[15]Foster, George M., Traditional Cultures and the Impact of Technological Change, (New York: Harper & Bros., 1962), p.29.

Hoselitz notes particularly of Asian cities that "Their intermediate position between East and West, their contact with world markets of commodities and ideas, their lack of many traditional bonds make them into eminently suitable vehicles for the introduction of new ideas and techniques" (16).

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[16]Hoselitz, Bert F., "Urbanization and Economic Growth in Asia," Economic Development and Cultural Change, Vol.6 (1957), pp.42-54.

Asian port cities, especially, have acted as channels and catalysts of social and economic ideas from the West and as the primary medium through which Western influences have penetrated the countryside(17).

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[17] Ginsburg, Norton S., "The Great City in Southeast Asia," American Journ. of Sociology, 60 (1955), pp. 455-462.

Of Indian and Pakistani cities, Davis predicts:

> If the signs are valid, if urbanization is coming on a big scale, then a fundamental revolution will inevitably occur in Hindu and Muslim society. The city is the [illegible] for modern civilization, and as it comes to dominate the countryside, the new will come to dominate the old. The city has so far led in the growth of literacy, in the education of women, in the decline of caste, in the reduction of fertility, and in the development of political awareness. It is therefore playing the same innovating and stimulating role that it played in Western Civilization. (18).

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[18] Davis, Kingsley, The Population of India and Pakistan, Princeton: Princeton University Press, 1951, p. 148.

Rapid urbanization still is creating a need for attention to family planning efforts in the cities of Pakistan. In 1961 only eight per cent of the population of Pakistan was living in urban areas (Census, 1961). The Planning Commission estimates that the proportion has climbed to 12 per cent in 1965, creating overwhelming demands on water, sewage, housing, health, welfare and other municipal facilities and services.

The Third Five Year Plan for Family Planning justifies a proposed expenditure of 67.4 lakhs of rupees, 2.4 per cent of the total five year family planning budget, for urban clinics in the following terms:

> Between eight and ten per cent of the population of Pakistan lives in cities of 1,00,000 or more. The needed staff are more easily found in cities and Family Planning Programme for IUD insertions and other forms of clinical contraception may most easily and quickly be extended in these areas. It is, therefore, proposed that Family Planning cover be extended on full time basis to 37 urban centres, 21 in West Pakistan and 16 in East Pakistan. Vehicles have been provided for each such clinic...(19,p.27).

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[19]Ministry of Health, Labour and Social Welfare, Government of Pakistan, Family Planning Scheme for Pakistan During the Third Five Year Plan Period, 1965-1970, Rawalpindi: Govt. of Pakistan--Sweden-Pakistan Family Welfare Project, 1965.

In addition to the full-time urban clinics, a part-time rural clinic for every Thana in East Pakistan and two for every Tehsil in West Pakistan will be equipped and maintained in the plan period from funds other than those budgeted for the urban clinics. The educational or "Publicity" programmes surrounding these clinics will not have baseline fertility data to evaluate actual results in terms of lowering the birth rate.

It would be unfair to suggest that a major portion of the proposed family planning budget is ear-marked for clinics, for the new plan very wisely builds on the experience of its predecessor national plans in both Pakistan and India which clearly demonstrated the inability of clinics to reach more than a small exceptional proportion of the population already highly motivated to adopt family planning. The important role that clinics will play as sources of supply is pointed out here

primarily to emphasize the continuing relevance of clinic records, especially in the cities, as the major source of data for program evaluation throughout the country. The most relevant baseline data, therefore, will be that from previously existing urban clinics.

KARACHI: DEMOGRAPHIC AND SOCIAL SETTING

Economists, administrators, politicians, social scientists and city planners everywhere on the subcontinent are painfully aware of the problems of rapidly growing cities. Perhaps erroneously, however, they also have tended to regard urbanization as having a depressing effect on the birth rate, while assuming that the main cause of the urban population growth is migration. Sultan Hashmi, in his analysis of the 1959 People of Karachi data and the census data of 1951 and 1961, concludes:

> This study shows that in recent years the share of natural entries in the growth of population of Karachi has been greater than the share of entries due to migration. The migration into the metropolis... has already tapered off. The main current problem of population growth is, therefore, no longer a product of net migration but rather of procreation. (20, p.125).

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[20]Hashmi, Sultan S., The People of Karachi: Demographic Characteristics, Karachi: Pakistan Institute of Development Economics, Jan.1965 (Monographs in the Economics of Development No. 13).

He finds, moreover, an increase in the birth rate in recent years (20, p.108) and sees no indication of decline in Karachi from the present high of 47 per thousand (20, p.125). He expects, therefore, that the 1961 population of the city will

double itself by 1974 to approximately 4 million people (20, p.126).

Karachi is not unique in this regard. Warren Robinson, testing the generally unchallenged assumption of lower urban fertility, surveyed fertility data on a sample of non-Western cities and the corresponding rates for rural areas in those countries, concluding that "In about half the cases, urban fertility is below rural, in others there are no apparent differences while in yet others urban fertility appears to be higher than rural fertility" (21, p.305).

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[21]Robinson, Warren C., "Urbanization and Fertility: the Non-Western Experience," Milban Memorial Fund Quarterly, 41 (July 1963), pp.291-308.

There is little reason to believe that Karachi is markedly different from Lahore or Dacca in regard to fertility and other aspects of urbanization besides industry. (Even Chittagong, Hyderabad and Rawalpindi would share many characteristics in common with Karachi and the other two urban centers.) All have been capitals of government at one time or another, creating large communities of clerks, peons, and petty officials clustered in government apartment-type housing colonies, usually shared with numerous relatives from the villages. All have a large geographical area with a very small percentage of the population living in spacious new houses built for gracious living: PECHS in Karachi, Dhanmandi in Dacca and Gulberg in Lahore. All have an "Old Town" with crowded tenement houses in narrow foot lanes dating back centuries. All have their bustees, refugee housing in shacks (or juggis) on vacant lots without drainage or other municipal facilities, creating sanitation as well as social problems.

In East Pakistan and the Punjab, most refugees have been placed on evacuee property, primarily in villages. But in Karachi the population living in juggis constituted about 35 per cent of the total population (22, p.8) before the 30,000 or more units were built for refugees at Korangi and elsewhere around the city. At least 90,000 families still remained in juggis after the completion of Korangi and Landi settlements (23, p.5). (See also: 24 and 25.)

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22 Hashmi, Sultan S.; Khan , Masihur Rahman; and Krotki, Karol J., The People of Karachi: Data from a Survey, Karachi: Pakistan Institute of Development Economics, June 1964 (Statistical Papers No. 2).

23 Rudduck, Grenfell, Towns and Villages of Pakistan, Karachi: Government of Pakistan Press, 1964 (a report originally submitted to the National Planning Board in 1957, first printed by the Planning Commission in 1961 and reprinted by the Manager of Publications in 1964).

24 Ahmad, Nazir, Survey of Shelterless Persons in Karachi, Karachi: Manager of Publications, 1959).

25 Central Statistical Office, Ministry of Finance , Government of Pakistan, Report on Socio-Economic Survey of Korangi, December, 1960- January 1961, Karachi: Manager of Publications, 1961.

Of particular importance in fertility is age at marriage because this is the main determinant of how long a couple remains in fertile union. Although major differences between East and West Pakistan urban female ages at marriage are evident, Karachi women have a mean age at marriage that is closer to that of East Pakistani women than to the mean for

women in Lahore city. There is less difference between ages at marriage for men in the various cities of Pakistan and again Karachi is most representative of the whole urban population in that it ranks between Lahore and Dacca. Table 1 shows mean ages at marriage in 1951 and 1961 (between which years most present family planning clients were married) as calculated by Sadiq (26) from census data on proportions of single and married persons at different ages.

TABLE I

MEAN AGES AT MARRIAGE FOR FEMALES AND MALES IN FOUR PRINCIPAL CITIES OF PAKISTAN, 1951 AND 1961.

City	Females		Males	
	1951	1961	1951	1961
Dacca	15.3	16.3	24.6	26.6
Chittagong	16.3	16.3	24.2	25.8
Karachi	16.9	18.2	24.8	25.5
Lahore	..	21.4	..	24.9

Source: [26] Sadiq, Nasim M., "Estimation of Nuptiality and its Analysis from the Census Data of Pakistan, "Tables from Unpublished Dissertation, Princeton University, mimeographed, Karachi: National Research Institute for Family Planning, 1965. (Table IV).

The foregoing comments on Karachi have emphasized its comparability with other major urban areas of the country with regard to social and demographic factors impinging on fertility and the adoption of family planning. This was by way of suggesting the utility of the Karachi FPA data as a baseline against which later urban efforts in birth control may be evaluated. Yet, there are segments of the Karachi population, as a result of the

heavy immigration of rural people, that make the city not totally unlike rural areas. Karachi is less like the British cities of East Africa in this regard than the cities of West Africa which Gutkind has contrasted as being more closely geared to the rural areas (27). Hashmi notes an increase in the

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[27]Gutkind, Peter C.W., "The African Urban Mileau: A Force in Rapid Change," Civilisations, 12(2) 1962, pp. 167-191.

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proportion of young children and of women aged 15-49 in Karachi between 1951 and 1959, suggesting major increases in rural families moving to the city "...joining belatedly their menfolk and rectifying in this way, partly at least, the imbalances in the sex structure, created by the earlier predominantly male migration waves."(20, p. 48).

The typical pattern of settlement in the city of these new rural families has given Karachi its hundreds of *juggi* communities. Karachi thus becomes an example of the kind of Asian cities described by a UNESCO committee:

> Many cities in Asia and the Far East, in contrast with Western cities, often retain strong village characteristics or those of an agglomeration of villages. In general they tend to be characterized by the coexistence of two distinctive areas: (i) the Western type area, and (ii) the indigenous type area consisting of an agglomeration of villages. In consequence, although a rather small elite indigenous population appears in Asian cities with the same characteristics as those possessed by urban residents in the West, the mass population of many Asian cities is resident in village agglomerations and tend to retain 'folk' characteristics. The characteristics of the urban residents, identified with such dichotomies of continue as the 'folk-urban,' 'rural-urban' or 'community-society' categories, do not hold for the mass of residents in many Asian cities. (28, pp.34-35).

TABLE 2

PERCENTAGE DISTRIBUTION OF POPULATION BY MAJOR AGE GROUPS FOR THE PRINCIPAL CITIES OF PAKISTAN, 1961.

Age Group	Karachi	Lahore	Dacca	Chittagong	Rawalpindi
0-9	29.8	31.0	30.2	25.9	28.8
10-24	31.3	31.0	31.6	31.6	31.7
25-44	26.9	24.5	28.1	31.4	27.4
45 & over	12.0	13.5	10.1	11.1	12.1

Source: Office of the Census Commissioner, Population Census of Pakistan 1961: Age, Sex and Marital Status, (Census Bulletin No.3) Karachi: Govt. of Pakistan, Manager of Publications, May 1962, Statement 6, p.xiii.

There is virtually no difference between the proportions of persons in the 10-24 year age group in the five principal cities. All had between 31 and 32 per cent of their total 1961 populations in this age range, which represents for practical purposes the recently and soon to be married population. These cities, moreover, are only slightly higher in their percentage in the 10-24 year age group than that for all urban areas in Pakistan, which is about 30 per cent. Differences between the principal cities are greater when comparing other age groups, but in every range, Karachi stands closest to the average for the five cities.

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[28]UNESCO Research Centre on the Social Implications of Industrialization in Southern Asia, Urbanization in Asia and the Far East, (P.M. Hauser, ed.), New York: United Nations, 1958,

It is not contradictory, therefore, to suggest that urban family planning data from Karachi may bear some implications for rural programmes and may have some utility as a baseline measure for evaluating rural family planning efforts, especially where clinics are the pivotal source of contraceptive supplies.

HISTORY OF THE KARACHI FPA PROGRAMME

Family planning was begun in Karachi as a voluntary medical-social activity in 1954 by Dr. Zarena Fazalbhoy. Dr. Fazalbhoy began her organizational efforts ambitiously in refugee camps but resources were spread too thin with the attempt to open several clinics at once. The refugee camp programme was abandoned and a major survey undertaken as a means of exploring receptivity to the idea of family planning and, at the same time, to draw public attention to the need and the demand for family planning among Karachi women. An unsystematic sample of 10,000 households was obtained by selecting 20 low income areas in the city . Voluntary female interviewers were trained and equipped with a brief schedule. The results of the survey, reported at a seminar of the Institute of Development Economics (29), underlined both the need (nearly half of the fertile women interviewed had 5 or more children) and the demand (63 per cent desired family planning, only 10 per cent opposed and 27 per cent "did not require").

[29]Fazalbhoy, Zarena A., "A Preliminary Report on a Field Survey of 10,000 Families in Karachi for Fertility and Attitudes", in M.L. Qureshi (ed.), Population Growth and Economic Development, Karachi: Institute of Development Economics, 1960, pp.332-336.

In 1958, a technical committe under the chairmanship of Dr. M.A.Hai reviewed the entire programme and decided to close down the outlaying clinics and to put the resources of the Karachi Branch behind the expansion of the Model Clinic in the PMA House on Garden Road. The clinic was completely reorganized, properly equipped and staffed and the hours of operation increased.

The Association in Karachi has since conducted other activities including training of technical family planning personnel, publication of brochures and articles in English and Urdu, participation in clinical studies of foam tablets and the IUD, and consultation in the establishment of other clinics in Karachi. The bulk of effort, however, has been in maintaining the high standards of the Model Clinic. In addition to the family limitation and spacing cases studied here, the Model Clinic has served a large number of sterlity and sub-fertility cases, as well as persons seeking marriage counselling. Besides the full-time service of Dr. Hai, the Model Clinic has been staffed by a lady doctor and various assistants.

The history of the Family Planning Association of Pakistan and the Karachi Branch is reported more fully in published annual reports to the International Planned Parenthood Federation (30,31) of which the Association is an active member.

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[30]Waheed, Begum Saida, "Report of the Family Planning Association of Pakistan for 1958," Sixth International Conference on Planned Parenthood (Proceedings), London: IPPF, 1959, pp.361-364.

[31]Family Planning Association of Pakistan, "A Short History of the Family Planning Movement in Pakistan," Proceedings of the Second Conference of the Region for Europe, Near East and Africa, The Hague: IPPF, 1960, pp.139-149.

SCOPE AND FEATURES OF CLINIC DATA

Between June 1958 and May 1964, the Karachi FPA received and interviewed 3,422 female family planning clients. Many of these women returned and some continue to attend the clinic regularly for additional contraceptive supplies. The record card made out on each new client was revised about midway through this period to conform more closely to international recommendations and pratice. Although the records from the earlier period included fewer entries and somewhat broader categories on certain characteristics, they are still compar - able in broad outline with those of the latter period. The record cards were of a comparatively high clerical standard and there was continuity of personnel interviewing and filling out the cards over the entire six year period. The relatively few apparent omissions and inconsistencies in this large pool of data justified putting it on punched cards for machine tabulation at the Central Statistical Office in Karachi.

One particular potential of the Karachi FPA data was its comparability not only with the 1961 Census data but with the more detailed data gathered in 1959 in The People of Karachi survey (20,22). This comparison would enable a thorough look at couples attending the clinic in relation to the Karachi population at large from which they came. Data on the demographic, social and economic characteristics and residence in any one of 102 territorial "chunks" of Karachi all were possible to code from clinic record cards using categories identical to those of The People of Karachi data. It was thus possible to analyze in detail the geographical influence of the clinic in terms of residential areas delineated in the People of Karachi survey. Occupational categories also were matched with those used in

the second population census of Pakistan and The People of Karachi survey, and these are grouped into categories that approximate those used by ICLO (33).

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[33] International Labour Office, International Standard Classification of Occupations. Geneva: International Labour Office, 1958.

One further feature of the data coded from the FPA clinic record cards was its potential comparability with other similar analyses of family planning data in other Asian cities, notably New Delhi (34), Hong Kong (35) and Singapore (36).

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[34] Agarwala, S.N., Fertility Control Through Contraception: A Study of Family Planning Clinics of Metropolitan Delhi, New Delhi: Directorate General of Health Services, Ministry of Health, Government of India, 1960.

[35] Chidell, Margaret, "Report on the Birth Control Clinics of the Family Planning Association of Hong Kong, 1951 to 1958," Proceedings of the Sixth International Conference on Planned Parenthood. London: International Planned Parenthood Federation, 1959, pp.348-355.

[36] Ward, Shiela, "Study of Patients Who Registered at Kandang Kerban Family Planning Clinic, Singapore, During 1958, Proceedings of the Seventh International Planned Paranthood Conference, London: Excerpta Medica Foundation No.72, 1965, pp.186-196.

These and other comparisons enable an evaluation of the first six years of the Karachi FPA clinic operation in terms of a wide variety of criteria. The plan of this study was to explore these crit ria, using the FPA data to test some of the criteria and to illustrate their applicability to clinic records, which are and will continue to be the primary source of family planning data in Pakistan.

There are a number of rather consistant features of clinic record forms used everywhere. We are concerned here primarily with those features which characterize records on clients of

FPA clinics at Karachi, Lahore and Dacca and the more than one thousand government family planning clinics/throughout the country.

Most of the questions asked of each client attending a family planning clinic are recorded for medical case history purposes. The clinic record card is usually designed by and for a doctor, for his use in reviewing the medical-social history of the client before each re-visit so that intelligent medical judgements and recommendations can be made on the client. Seldom is the information called for on family planning record cards intended for use by educators, social scientists or field programme administrators. Little is included ostensibly for its utility in programme planning or evaluation. There are few clues to such questions as: What influenced this person to adopt family planning? Was this client ever contacted by any of our field workers? Where else are these clients obtaining contraceptives? Would this person be willing to talk to some of her neighbours about family planning, to pass on a pamphlet, or to hold an informal meeting of friends at her house where we could send one of our workers to explain family planning?

It is not recommended here that these record-keeping practices be unilaterally changed in Pakistan, for much is to be gained from having comparability with universal data and the current procedures have the important virtue of simplicity. Two alternative courses of action are possible. One is to develop a supplementary record card to be filled out on a small sample of all clients, to include information needed by educators and administrators in planning and evaluating field programmes. The other course is to develop new criteria for programme evaluation based on existing data. Both approaches are recommended. This paper focuses on the latter.

The first principle of evaluation is that it must be done in terms of objectives. The primary objective of the national family planning programme is to reduce the birth rate of Pakistan by 20 per cent (from 50 to 40 per thousand) by preventing at least five to six million births in the next five years. This, in turn, is to be accomplished by covering virtually all of the 20 million fertile couples of Pakistan by 1970 (19, p.1). The long-range birth rate objective can only be measured ultimately in terms of fertility change. This will require the development of complete and accurate registration of all births (and deaths) in at least a representative sample of the population of Pakistan. This is being done now in the Population Growth Estimation (PGE) project of the Central Statistical Office in consultation with the Institute of Development Economics (32, 37).

32 Ahmed, Nazir and Krotki, Karol J., "Simultaneous Estimations of Population Growth: The Pakistan Experiment," Pakistan Development Review, 3 (1), Spring 1963, pp. 37-65.

37 Zelnik, Melvin and Khan, Masihur Rahman, "An Estimate of the Birth Rate in East and West Pakistan", Pakistan Development Review, 5 (1), Spring 1965, pp. 64-93.

Change in fertility, however, is not an adequately short range or sensitive indicator of programme effectiveness, and for local or regional family planning projects the PGE data cannot be used as a representative baseline of local fertility. A second level of baseline data is therefore sought in sample surveys of family planning attitudes and contraceptive knowledge and use (29, 38, 39, 40, 41, 42, 43,).

Knowledge, attitude and use surveys in family planning are subject to numerous problems of design and interpretation in a country such as Pakistan. The tendency of females to under-report what they actually know and practice with regard to contraception is only one example of problems encountered in past survey attempts in Pakistan (43, 44, 45, 46). This kind of data will not be readily

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[38] Zaidi, Wiqar Hussain, A Survey of Attitude of Rural Population Towards Family Planning, Comilla: Pakistan Academy for Village Development, Aug. 1961.

[39] Social Sciences Research Centre, University of the Panjab, Knowledge of and Attitudes Towards Family Planning, Lahore: Family Planning Association of Pakistan, 1961.

[40] _____, Attitudes of the Union Councillors Towards Adoption of Family Planning as National Policy, Lahore: Family Planning Association of Pakistan, 1961.

[41] Roberts, Beryl J.; Yaukey, David; Griffiths, William; Clark, Elizabeth W.; Shaffiullah, A.B.M.; and Huq, Raisunessa, "Family Planning Survey in Dacca, East Pakistan," forthcoming in Demography, Vol. 2, 1965.

[42] Ahmed, Mohiuddin, "Male Attitudes Towards Family Limitation in East Pakistan," Paper No.240, United Nations World Population Conference, Belgrade, Yugoslavia, Aug.-Sept. 1965.

[43] Green, Lawrence W. and Jan, Yasmin Azra, "Family Planning Knowledge and Attitude Surveys in Pakistan," Pakistan Development Review, 4(2), Summer 1964, pp.332-355.

[44] Yaukey, David; Roberts, Beryl J. and Griffiths, William, "Husbands' vs. Wives' Responses to a Fertility Survey," forthcoming in Population Studies, July 1965.

[45] Poti, S.J.; Chandraborti, B.; and Malaker, C.R., "Reliability of Data Relating to Contraceptive Practices," in Kiser, Clyde V. (op.cit., 3), pp. 51-66.

[46] Stephan, Frederick F., "Possibilities and Pitfalls in the Measurement of Attitudes and Opinions on Family Planning," in Kiser, Clyde V. (op. cit., 3), pp. 423-431.

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or generally available in most places because of the time and personnel resources it demands (47, p. 388).

[47] Corsa, Leslie, "The Sample Survey in a National Population Program", Public Opinion Quarterly, 28, Fall 1964) (Special Issue: Sample Surveys and Population Control), pp. 383-388.

Saunders and Agarwala have suggested additional criteria based on data from a variety of sources (48 and 49) and Berelson has outlined the components of a realistic numerator (number of effective users) and denominator (number of eligibles) for guaging success in national programmes (50, p.).

[48] Saunders, Lyle, "Indicators of Impact in Family Planning Communications Research Projects," Family Planning News, Aug. 1962, pp. 177-185.

[49] Agarwala, S.N., "Evaluating the Effectiveness of a Family Planning Program," in Kiser, Clyde V. (op.cit.,3), pp. 409-421.

[50] Berelson, Bernard, "National Family Planning Programs: A Guide," Family Planning Studies, Supplement to No. 5, 1965.

In every case, however, the problem of how to derive simple evaluations of local programmes from typical clinic records without conducting costly follow-up surveys has not been dealt with or the use of clinic only data considered. This is so mainly because the pilot investigations to date, by and large, have been conducted with adequate funds and personnel to include one of the other levels of evaluation data; though the current disrepute of the clinic-only approach may cause some investigators to overlook the exclusive role that clinics continue to have in most places as the only constant source of supply. Clinics possess the only client records with any consistency over time.

The clinic, then, should now be looked upon as an insufficient instrument of disseminating family planning by itself, but nevertheless as a source of the only widely

available data that is comparable both geographically and temporally.

What is there, then, in the typical client records kept by clinics that can be used to evaluate changes in a field programme over time, or to compare the field programme in one area with identical field programmes in other areas and alternative field programmes in still other areas? An answer to this question should lead to recommendations on what items in clinic records should be carried over to records kept by other soucres of contraceptive supply that will supplement clinics in the future in Pakistan, such as village volunteers, shop-keepers, and midwives.

GEOGRAPHICAL DISTRIBUTION OF CLIENTS

Address of the client is almost inevitably recorded in clinic records of any kind. There is probably no real need for the address of a client from the clinic worker point of view; most clinics with no follow-up home visit programme have likely included address on the record card simply out of bureaucratic habit. Often in metropolitan areas, no sense can be made of the street address given by most clients without an elaborate street indexing system or an intimate knowledge of the lanes and by-lanes of an Asian city. Even then, clients not infrequently falsify their addresses to avoid the embarrassment of home visits or literature and reminders in the mail. Often they will list their place of work or a fictitious address in a higher class neighborhood than their own. Experienced clinic workers alive to these problems may tend to discredit what the client says and carelessly record the address reported.

The spatial distribution of clients, nevertheless, can provide valuable clues to the geographical influence of the clinic and its supporting field programme. The effectiveness of specific field personnel or educational methods being used

in different areas of the clinic region can be roughly evaluated on the basis of change in residential pattern of clients over time and the over-representation of some areas relative to others.

Residence data is most valuable, of course, when there have been census and other social surveys already completed in the areas, providing backgrounds for viewing client residence patterns perspectively. The district census reports on the 1961 Census of Pakistan provide sex, literacy and household data on every village in rural Pakistan and on Union Committees in the urban areas. Numerous social surveys have been conducted in Pakistan and many of them primarily concerned with other problems have included items on family planning or fertility-related factors. It is important to consult the residential or area classifications used in such studies and in the census before codifying the addresses from clinic records, in order to obtain maximum comparability with the best available background data.

For Karachi, the most comprehensive socio-economic survey yet conducted is The People of Karachi study (20, 22). With the help of the original wall map (16"-to-a-mile) of Karachi, it was possible to locate the home address of each FPA client in one of 102 territorial "chunks" as defined by The People of Karachi (POK) survey. The "chunk" was a somewhat arbitrary sampling unit based on boundaries of main streets or landmarks within the city and homogeneous communities just outside the city. These 102 chunks, each with an average of about 4,000 households, are grouped into eight "major divisions." The major divisions form geographically compact units with the exception of the "Noncontiguous Area" which consists of outlying

chunks with special characteristics (e.g., islands, cantonments and refugee colonies). The designations for the other seven major divisions are descriptive of the main feature or function of the area. (For detailed descriptions of localities with chunks and major divisions, see 22, Appen. E and F, pp. 359-368.)

Table 3 presents the 1959 "eligible" family planning target populations of each of the major divisions, the actual number of FPA clients from each division over the entire six year period 1958-64, and the "acceptor" rate. The latter is to be distinguished from a "user" or "continuing user" rate and especially from a rate of "effective users." By "acceptor" we mean all those persons who ever took family planning supplies from the clinic.

Berelson, in attempting to arrive at an average target group for national programmes, estimates that in developing countries about half of the married women in reproductive ages will not be available for family planning at any given time because they are pregnant, lactating, sub-fertile or currently practicing some method; and that perhaps one out of five of the remainder actively want another child (50, p.). Having already accounted for the women whose husbands are not present, we could perhaps take 50 per cent as our factor of reduction for the target group. This would mean doubling all of the acceptor rates in Table 3, giving a maximum acceptor rate of 3.58 per cent in the Commercial Area, a minimum of .50 per cent in the Rural Area, and an overall rate of 2.40 per cent.

In Taichung, where literacy is very high and the proportion of eligible women now already using an acceptable method is probably higher than in Karachi, a base

T A B L E 3

TOTAL POPULATION, FEMALE POPULATION 15-49, AND TARGET POPULATION IN 1959, AND ALL FPA CLIENTS, 1958-64, BY MAJOR DIVISION OF KARACHI.

Major Division of Karachi.	(1) Total 1959 Population	(2) All Women Ages 15-49	(3) Married Women 15-49 With Husband Present.		(4)	(5) All FPA Clients		(6) Acceptor Rate (5)÷(3)x 100
			No	%		No.	%	
Commercial Area	376,390	79,101	59,396	20.8		1,064	34.5	1.79
Industrial Area	110,347	21,400	18,353	6.4		114	3.7	0.62
Lower Residential Area	233,924	50,247	40,487	14.2		342	11.1	0.84
Middle Residential	449,270	97,770	77,066	27.0		1,037	33.6	1.35
Upper Residential	184,087	39,272	31,230	10.9		319	10.3	1.02
Non-Contiguous Areas	47,327	7,907	6,867	2.4		50	1.6	0.73
Labour Area	249,631	48,775	39,987	14.0		130	4.2	0.32
Rural Area	74,549	15,627	12,348	4.3		31	1.0	0.25
Total Karachi	1,725,525	860,099	285,734	100.0		3,087	100.0	1.08
Outside Karachi or not Reported	-	-	-			335	-	-
Grand Total	-	-	285,734	-		3,422	-	1.20

Source: Columns 1, 2 and 3 from unpublished table 2.05 of the People of Karachi survey, Karachi: Institute of Development Economics, mimeographed, 1964.

population of 30 per cent of the married women in peak childbearing years, 20-39, is used. Freedman is then able to say of the Taichung programme, "While 'only' 11 per cent of all married women twenty to thirty-nine years old were 'acceptors' up to March 15 of this year [1964, 1 year after the programme began], the proportion is probably 20 to 40 per cent for properly defined groups of "eligible' respondents". (54, p. 380).

Applying the same arithmetic used by Berelson and Freedman for arriving at their "currently eligible" and "success" figures for Taichung (51, P.8), we would start with a base of 226,475 married women between the ages of 20 and 39 (22, Table 1.01, pp. 22-23). We would then take 55 per cent of this figure to obtain an "eligible" population of 124,561. If in Karachi, as in Taichung, about half of these are "... women who actively want another child--young wives who have not completed their families or those who want a son" (51, p.8), then we would have a "currently eligible" target group of 62,280 women in a given recent year in Karachi. With this denominator, the Karachi FPA has obtained an average of less than one per cent of the "currently eligible" population in any of its first six years of operation, and a cumulative total of 5.49 per cent of the currently eligible.

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54 Freedman, Ronald, "Sample Surveys for Family Planning Research in Taiwan," Public Opinion Quarterly 28, Fall 1964, pp. 373-382.

51 Berelson, Bernard, and Freedman, Ronald, "A Study in Fertility Control, "Scientific American, May 1964 (Reprint No. 621, 12 pp.).

These figures are in no way intended for comparison with the Taichung experiment. The Karachi FPA is only one of many sources of contraceptive supply in Karachi, and clinic attendance is a very different numerator than professed family planning in survey interviews. The Taichung experiment has already become a classic example of the results possible from a well planned field programme. There has been virtually no field programme in Karachi, a city with approximately 6 times as many people as Taichung.

Most programmes in Pakistan will use the 1961 census figures for their denominator in judging their success. Census Bulletin Number 3 provides age, sex and marital status tabulation down to the Sub-divisional level for East Pakistan and to the District level for West Pakistan (53, Table 1) and for all cities and towns (53, Table 2). Married women 15-49 in 1961 will, therefore, be the typical denominator used for evaluations of programmes on this particular criterion. It will not be unjustifiable, however, to use married women 15 to 44 years old and even 20 to 39 years old as in Taiwan evaluations.

Regardless of how narrowly one defines the target universe from which the Karachi FPA clients are drawn, the net influence of the clinic over the six year period from 1958 to 1964 was approximately one percent of the married women in reproductive age groups and not more than 5 or 6 per cent of the most eligible couples. Assuming that each of the other major family planning

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53 Pakistan, Government of, Office of the Census Commissioner, Population Census of Pakistan, 1961: Age, Sex and Marital Status, Census Bulletin No.3, Karachi: Manager of Publications, 1962.

clinics in Karachi (notably Jinnah Medical College Hospital, Dow Medical College, Civil Hospital and the Municipal Dispensary) has had equal success and that any client ever visiting one clinic never visited another, one could multiply the FPA rate by the number of Karachi clinics to arrive at a total Karachi clinic user rate somewhere between 10 and 20 per cent. Neither of the assumptions for arriving at this estimate, however, are very tenable. It is certainly unlikely that most women clients have attended only one clinic. Particularly suspected of "clinic-hopping" are the 1,460 clients nearly half, who attended the FPA clinic only once. These women either became regular attenders of the other clinics or else never really adopted family planning. In either case, the experience of the other clinics in terms of the proportion of clients attending only once being probably the same as that of the FPA, the estimate of 10-20 per cent should be halved.

The other assumption upon which the tentative clinic user estimate for Karachi is based -- that other clinics have been as busy as the FPA--also is subject to considerable doubt. Most government clinics are devoting only part-time to family planning and are over-burdened with patients requiring medical before preventive attention. Their waiting rooms are crowded, lacking the privacy family planning clients demand. Smaller government dispensaries located throughout Karachi District offer family planning supplies, and it may be these to which most clients eventually turn for continuing supply. Most of the pharmacies within the city now offer contraceptives but at non-subsidized prices. The geographical distribution of family planning adoption and practice in Karachi will be qualified by these considerations,

requiring further investigation.

Urban clinics, in cities and towns other than Karachi will likely receive a much larger proportion of their clients from surrounding rural areas. Table 3 shows only one per cent of the Karachi FPA clients coming from the Rural Area, and an additional 5.8 per cent from other outlying areas of the city. In Dacca, for example, four family planning clinics placed in separate government housing colonies received about 20 per cent of their first nine month out-of-colony cases from surrounding villages, mostly within a few miles of the clinics (55).

The first geographical issue for an urban clinic, however, is not how much it will draw clients from the rural areas but rather; where should the clinic be located within the city to serve the most people and to serve the people who most need family planning guidance? The placement of clinics in low income (or high fertility) neighbourhoods presumes that proximity or accessibility of the clinic service to place of residence is an important drawing factor in itself. To test this assumption, the Karachi FPA clients were grouped into the 102 chunks of their residence and these groupings of clients were placed on a map with concentric circles drawn to scale around the FPA clinic location, representing one and two mile radii of the clinic.

The Karachi FPA Model Clinic is located near the intersection of Garden Road and Bunder Road, two of the main thoroughfares of Karachi. It is very central, geographically, to the city and to metropolitan or Greater Karachi, and even to Karachi District. Located at the southwestern

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[55] Public Health Education Research Project, "Dacca Family Growth Study Clinic and Education Data: First Nine Months" (Marginal tabulations), Dacca: Public Health Education Research Project, January 1965, dittoed.

tip of the major division labeled Middle Residential Area in the data presented earlier, it borders both the Commercial and Lower Industrial areas and is within a few blocks of both the Upper Residential and the Industrial areas. If the site of the FPA clinic was intended to be equidistant from, and equally accessible to, all corners of the city, it could not have been more precisely selected.

Although the major divisions of the city have been shown to be unequally represented by the FPA clientele, this cannot, therefore, be the result of proximity only, nor of accessibility by road. This is more dramatically illustrated by the findings from our concentric circle map, presented in Table 4.

The striking result of this analysis is that, within the city itself, the population groups living nearest the FPA clinic have made proportionately less use of the clinic service than those living farther away. This may be accounted for in two ways . There may be socio-economic characteristics more predominant in the peripheral areas of the city than in the central areas and these characteristics are of such significance in family planning adoption that they more than compensate for distance and inconvenience or low accessibility. This hypothesis will be explored further in later sections, though space will not permit a full presentation of the evidence at this writing. The alternative explanation is that proximity to the clinic had a negative effect on attendance, perhaps because of the need for anonymity or secrecy in procuring contraceptive supplies.

For many of the potential clients in the immediate

TABLE 4

DISTRIBUTION OF FPA CLIENTS 1958-64 AND TOTAL 1959 KARACHI POPULATION BY DISTANCE OF GEOGRAPHICAL CHUNKS OF RESIDENCE FROM THE FPA MODEL CLINIC, KARACHI.

Chunk of Residence in Relation to Clinic	FPA Clients, 1958-64		Total Population 1959 [a]		FPA Clients per 1000 Population
	Number	Per Cent	Number	Per Cent	
Within 1 mile Radius of FPA Clinic	875	27.2	498,827	27.7	1.75
Between 1 & 2 miles from Clinic	840	26.2	399,465	22.1	2.10
More than 2 but within the city	1161	36.2	516,656	28.6	2.25
Rural and outlying areas*	334	10.4	388,227	21.6	0.86
Total Reported	3,210	100.0	1,803,175	100.0	1.78

[a] Source (22, Table 7.14, pp. 297-301).

*Includes Labour Area, Noncontiguous Area & Rural Area Major Divisions & Non-Karachi Clients.

neighbourhood of the FPA clinic, the fear of being seen entering the clinic by a gossiping neighbour could be the main impediment to their decision to act. Conversely, many clients from more distant chunks might be circumventing clinics in their own neighbourhoods, opting to take their supplies from the FPA clinic where they are more in the company of strengers.

The anonymity explanation, although it is the basis of much discussion and research on the commercial and village volunteer approach to family planning in Pakistan (e.g., 56), is not confirmed in a more finite investigation of the Karachi residential data. By drawing a smaller concerntric circle with a radius of one-half mile, seven geographical chunks immediately contiguous to the FPA clinic are identified. These chunks are found to have an overall client rate of 3.69 per thousand population, higher than the rates (shown in Table 4) for groups of chunks farther from the clinic. But the individual chunks so near the clinic are highly variable in their client rates, ranging from more than 35 per thousand to only one per nineteen thousand, as shown in Table 5.

The proximity factor, therefore, if it is operating at all in the action of Karachi women to procure contraceptive supplies, operates differently for the population immediately surrounding the clinic. Holding distance relatively constant, avery high degree of variability is found from one chunk to another in the proportion of residents attending the clinic.

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[56] Croley, H.T., The Rural Action Study (Progress Report), Dacca: Public Health Education Research Project, 1965, Mimeogr.

Table 5

F.P.A. CLIENTS 1958-64, TOTAL 1959 POPULATIONS, CLIENT RATES PER 1000 POPULATION AND HOUSEHOLD COMPOSITION OF CHUNKS WITHIN ONE-HALF MILE OF THE F.P.A. CLINIC, KARACHI.

Chunk No.[1]	Name of Chunk[2]	FPA Clients, 1958-64		Total Population 1959[3]		Clients per 1000 Pop.	Majority of Habitation.[3]
		Number	Per Cent	Number	Per cent		
1014	Arambagh	96	17.9	30,750	21.1	3.12	Pucca
1029	Jahangir Park	70	13.0	1,980	1.4	35.35	"
1031	Plaza Qrts.	102	19.0	21,025	14.4	4.85	"
1039	Ramswamy	198	36.9	14,550	10.0	13.61	Juggi
4043	Patel Park	14	2.6	21,312	14.6	0.66	Pucca
4044	KGA Ground	1	0.2	19,003	13.1	0.05	Juggi
4045	Jacob Lines	56	10.4	36,972	25.4	1.51	"
All Chunks within ½ mile		537	100.0	145,592	100.0	3.69	

1. The first digit of the chunk number identifies the major division in which the chunk lies: 1 = Commercial Area, 4 = Middle Residential Area. The remaining 3 digits are the chunk reference and may be used to locate the chunks in the frontispiece map of The People of Karachi monographs (22, pp.ii-iii, and 20, pp. ii-iii).

2. The chunk name is not necessarily a comprehensive description of the area included, usually identifying only the most prominant part of the chunk (22, Appen E, pp. 359-366).

3. Source: 22, Table 7.14, pp. 297-301.

Table 5 also presents the variability of housing in 1959 as one measure of the relative socio-economic levels of these contiguous chunks. There is no apparent relationship between attendance rates and housing characteristics of the chunks contiguous to the FPA clinic.

The distribution of juggi dwellers did not vary greatly by major division in the 1959 People of Karachi, which found that the "... proportions of juggi-dwellers in industrial, middle and upper residential and labour areas were not much different from each other, and they were more or less generally distributed in the various areas." (22, pp. 8-9). From chunk to chunk within the major divisions, however, there was a wide disparity in predominant type of habitation. Of the total 102 chunks of Karachi, 38 had a clear majority of pucca habitations while 39 had a clear majority of juggi dwellers. In only 11 chunks was there a relatively even distribution of habitation types and the remaining 14 chunks had a majority of semi-pucca dwellings (calculated from 22, Table 7.14).

Although housing information was not obtained from clients at the FPA clinic, it was possible to match their addresses with chunks defined in The People of Karachi and thereby to draw some conclusions regarding the extent to which the FPA programme has reached the juggi dwellers and the relative success of the programme in this regard in the different geographical areas of Karachi. Table 6 presents the proportion of clients in the different areas who live in chunks predominated by pucca, semi-pucca or juggi dwellings, and the corresponding proportions for the married women actually living in one of the 3 types of housing in 1959.

Table 6

PROPORTION OF FPA CLIENTS WHO LIVE IN CHUNKS IN WHICH OVER HALF OF THE INHABITANTS ARE IN EITHER PUCCA, SEMIPUCCA OR JUGGI HOUSING BY MAJOR AREA OF RESIDENCE, KARACHI.

Characteristic of Majority of Habitations in Chunk of Residence.	All FPA Clients in Karachi.	Commercial Area.[1]	Industrial Area.[1]	Lower Residential.	Middle Residential.	Upper Residential.	Other Areas[2]	Karachi Population. All Married Women[3] 1959	All Chunks No.	All Chunks %
Pucca	52.7	61.8	0.9	24.6	44.1	77.8	83.9	42.8	38	37.3
Semi-Pucca	11.0	9.9	27.2	0.6	13.9	9.7	14.7	20.1	14	13.7
Juggi and Roof-top	29.6	28.3	1.7	73.1	30.8	12.2	1.4	37.1	39	38.2
No Majority	6.7	-	70.2	1.7	11.3	0.3	-	-	11	10.8
All	100.0	100.0	100.0	100.0	100.1	100.0	100.0	100.0	102	100.0
% Total 1959 Population in Juggis.	-	19.5	34.5	50.5	38.7	39.0	36.1	37.1	-	-

Source of data on type of habitation by chunk: 22, Table 7.14, pp.297-301.

1/ Source: 22, p.9, and unpublished Table 7.13 of the People of Karachi survey, Karachi: Institute of Development Economics, 1964.

2/ Includes Non-Contiguous, Labour and Rural Areas.

3/ Source: 22, Table 1.05, pp. 28-29

Reading Table 6 horizontally, pucca habitation areas appear to be generally over-represented by the FPA clients, except in the Industrial Area and the Lower Residential Area. The exceptions, nevertheless, are different from each other in housing composition. The major divisions in general are highly inconsistent in their percentages of clients from habitation types of chunks, bearing no apparent relationship to the actual distribution of these chunks. This suggests that the regional characteristics of the population of Karachi are of no greater significance in explaining FPA attendance than was proximity. The reason this may be so in the case of the data we are dealing with here is that the housing conditions of Karachi were radically changed after the 1958 FPA Model Clinic opening and after the 1959 People of Karachi survey. The removal of many juggi dwellers to the newly built Korangi and Landi refugee housing in the suburbs grossly disturbed the spatial distribution of demographic, economic and social traits in the city. The mixing of migrant juggis in upper residential areas before that time accounts for the fact that the People of Karachi "...data tabulated by areal subdivisions for many traits did not show striking differences among ecological groups" (22, p.9).

It is beyond the scope of this presentation to answer satisfactorily the questions we have raised regarding the relative influence of proximity and urban regional characteristics in drawing family planning clients to an urban clinic. The primary purpose of this paper is to explore such questions in terms of their relevance for providing baseline information with which to evaluate family planning programmes in Pakistan.

Perhaps a more realistic measure of the success of a

programme in drawing clients to a clinic is the time taken by clients to reach the clinic, rather than the actual distance travelled. To make this a truly different measure than distance, the client should be asked how long it took him or her to reach the clinic. No such data is available in the Karachi FPA records, nor is such a question included in typical clinic forms. A sample of clients could be asked this question in an interview, however, as was done by the Hong Kong FPA in 1958 (35, p.352).

In Table 7, a rough comparison is made between the time taken by Hong Kong FPA clients to travel to the clinic and back home again, as reported by a sample of the clients themselves, and the time that would be required by the Karachi FPA clients under two different assumptions of time-distance relationship in the city. This comparison only serves to confirm the earlier findings on lack of any real relationship between proximity or accessibility and clinic attendance. It also indicates, as suspected, that comparison between one city and another on this factor is of little value. There are innumerable variables that could account for the differing patterns of the Hong Kong and Karachi clients and most of these would have little relevance to programme planning. The usefulness of the time-distance approach to residence data in clinic records lies mainly in comparing the results of one phase of the programme with another. Thus, a before-and-after comparison of the geographical distribution of clients

Table 7

APPROXIMATE ROUND-TRIP (R.T.) TIME BETWEEN RESIDENCE AND CLINIC FOR F.P.A. CLIENTS IN KARACHI AND HONG KONG

Time required to travel to and from Clinic	HONG KONG FPA (As Reported by Client)[1]		If 1 mile=15 minutes R.T.		If 1 mile=30 minutes R.T.	
	Number	Percent	Number	Percent	Number	Percent
Less than 15 minutes	25	14.3	875	27.2	537	16.7
15 - 30 minutes	92	52.6	840	26.2	338	10.5
31 minutes-1 hour	36	20.6	1161	36.2	840	26.2
More than one hour	22	12.6	334	10.4	1,495	46.6
Total Reported	175	100.1	3210	100.0	3,210	100.0
Residence not recorded	-	-	212	-	212	-
All clients	175	-	3422	-	3,422	-

[1]Source: 35/ Chidell, Margaret, "Report on the Birth Control Clinics of the Family Planning Association of Hong Kong, 1951 to 1958," Proceedings of the Sixth International Conference on Planned Parenthood, London: International Planned Parenthood Federation, 1959, pp.348-355, (Table 13, p.352)

might show, for example, that clients are coming greater distances, spending more time or coming from more "hard-core" neighbourhoods since the advent of a specifix field activity.

An important factor unaccounted for in clinic data on residence is the place of employment of clients and their spouses. The Dacca FPA clinic at Segum Bagicha, for example, is located in the shadow of both the Central and Provincial government offices. A casual review of their records revealed numerous male clients attending the FPA who live in one of several government housing colonies with family planning clinics where additional clinic records are found on the same clients or their wives. Clients may prefer to attend a clinic farther from their home for reasons discussed earlier, or they may alternate their visits between one clinic and another to avoid becoming salient in either. In either case, proximity to workplace could be a more significant factor than proximity to residence.

In Karachi, 72 per cent of the working men and 57 per cent of the working women work outside their immediate neighbourhoods (chunks) and the majority of these people work beyond any contiguous neighbourhood (22, Table 3.22, pp.126-127). This degree of work-day mobility further indicates the irrelavence of residence proximity to clinics, although for women this irrelavence is probably less than for men.

By far the largest proportion of either male or female workers in Karachi, about 1 out of 3, is employed in the Commercial Area (22, Table 3.21, pp.124-125) in addition to

those working in their own households in the Commercial Area. Many more have no fixed place of work, probably spending much of their time in the Commercial Area. These figures may help to explain the over-representation of the Commercial Area in the FPA clinic. Clients do tend to give address of employer instead of their own very often in family planning clinics. The same explanation may apply to the over-representation of the Middle Residential Area which employs more than 20 per cent of all Karachi women working outside their own households (22, Table 3.21, pp. 124-125).

Other questions of major importance concerning the geographical distribution of family planning clients, especially in an urban clinic are:

(i) To what extent do the socio-economic characteristics of clients from different sectors represent the populations of those areas; e.g., are the family planning adopters from the lower residential areas really low income couples or are they mainly the middle and high income couples in these areas?

(ii) What persons, agencies, institutions, professions, publicity and other media have been most influential in the different areas in referring clients to the clinic? Is one channel of family planning communication most effective in some areas of a city, say hospital personnel in the lower residential area, while another channel is preferred in other areas, such as private doctors in the upper residential area?

(iii) To qualify what we have said already about the relative unimportance of residential proximity as a factor influencing people ever to attend a family planning clinic, is area of residence important as a factor in people maintaining their attendance at a clinic?

Data bearing on these three questions are presented below under seperate headings. The data from the Karachi FPA on these topics are similar to those available in clinic records everywhere in Pakistan and in other Asian countries. Their presentation and comparison can provide very useful programme guidelines, supplementing or substituting for more costly kinds of evaluation procedures.

In general, three conclusions may be drawn from the foregoing analyses:

(i) Proximity of residence to an urban family planning clinic appears to have little, if any, effect on the action of eligible couples to avail themselves of the services of the clinic. From this finding, one might conclude that the location of clinics within urban areas should be based on considerations other than accessibility to specific sub-populations. If couples are motivated to procure contraceptive supplies, apparently they will do so regardless of where the clinic is located in the city in relation to their homes, in terms of distance and of time.

(ii) Nature of the housing, or the majority of habitation types, in a given area is not a sensitive predictor of the client rate to be expected from that area. Although pucca housing areas within Karachi were found to be somewhat over-represented in the FPA clinic this was neither a necessary nor a sufficient factor in itself in accounting for clinic attendance rates.

(iii)There are nevertheless, major differences in client rates for the different sectors of the city, the commercial area being particularly over-represented. This must therefore be accounted for by other factors, to be further explored below.

THE PATTERN OF CLINIC ATTENDANCE:

Probably the most sensitive indicator available from clinic records of the success of a family planning programme is the degree of continuing use of those who first adopt the use of contraceptives under the programme. Whereas a measure of the number of clients first attending the clinic is highly subject to the definition of the target or eligible population, attendance pattern after first visit measures sustained motivation of those ever motivated. Rather than measuring only how widely the programme has spred its influence, continuing attendance data tells how effectively the programme has satisfied those initially influenced, regardless of the source of their influence. The number of cases ever attending a clinic measures the interest and trial stages of adoption. Continuing attendance is a criterion of actual adoption.

The term "continuing use" must be used guardedly, for it is one of a set of terms (including, e.g., "acceptor," "current user," "active user" "irregular user") applied variously by different family planning investigators. A more universally consistent term is the negative designation "dropout" but even this is variously defined. International criteria for these terms have not been established and the only efforts to approach agreement on terms have been among investigators of clinical effectiveness and use-effectiveness of contraceptive methods (e.g. 57).

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[57]Tietze, Christopher, Recommended Procedures for the Study of the Clinical Effectiveness of Contraceptive Methods, New York: National Committee on Maternal Health, Inc., 1958

In general, evaluations of clinic attendance patterns have used a kind of life table technique to arrive at real or hypothetical "survival" rates of clients at successive intervals after first attendance. Some publications of clinic data have not gone this far but have presented enough raw data to enable the reader to make the calculations himself. If dropout figures are available, they can be subtracted successively from the balance of active clients after given intervals. Other investigations have gone a step beyond estimating continuing use from clinic records by actually interviewing clients in the field at the end of a follow-up period. Tietze and Alleyne used both the life table technique and the follow-up interview in their West Indies study and found that, for diaphragm users at least the estimate of active users based on clinic records very closely matched the percentage actually observed in follow-up interviews (58, p.264).

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[58]Tietze, Christopher and Alleyne, Charles, "A Family Planning Service in the West Indies," Fertility and Sterility 10(3) May-June, 1959, pp. 259-271.

A comparison of the Karachi FPA programme with a number of other clinic programmes on this measure of success is presented in Table 8. In every clinic programme shown here and with any method except the intra-uterine device, the steepest decline in active users occurs in the first few months. The Karachi FPA and Delhi government clinics have the least successful records interms of maintaining

Table 8

PERCENT OF ALL CLIENTS STILL ATTENDING THE CLINIC AT SUCCESSIVE QUARTER AND FULL YEAR INTERVALS AFTER THEIR FIRST ATTENDANCE AT SELECTED CLINICS.

Months After First visit	Per Cent Continuing to Attend								
	General Family Planning Services					Specific Method Programme			
	Karachi FPA	Delhi[34] Govt.	Singapore[36] FPA	Hong Kong[35] FPA	New York[59] (1940)	Barbados[58] Diaphragm	W.Virginia[60] orals	Karachi-IUD[61] Observed	Karachi-IUD[61] Projected
3	40%	44%	-	-	69%	84%	87%	95%	-
6	35	36	-	-	64	76	82	93	-
9	27	29	-	-	59	70	77	-	-
12	22	22	61%	50%	56	68	74	89	75%
15	17	16	-	-	48	66	-	-	-
18	13	11	-	-	-	64	70	-	-
21	10	8	-	-	43	-	-	-	-
24	8	-	42	30	-	-	66	-	50
36	3	-	29	19	-	-	-	-	35
48	1	-	20	13	-	-	-	-	25

[34]Agarwala, S.N., op. cit., Table 6: 8, p.41.

[35]Chidell, Margaret, op.cit.,Table III, p.350.

[36]Ward,Shiela, op. cit., Unpublished Table VIII, Mimeogr., Feb.1963.

[58]Tietze and Alleyne, op.cit., p.264

[59]Stix, R.K. and Notestein, Frank W., Controlled Fertility, Baltimore: Williams and Wilkins, 1940, p.96.

[60]Corkey, Elizabeth C., "A family Planning Program for the Low Income Family," Journ. of Marriage and the Family 26 (Nov.1964),pp.478-480)(Table II p.480).

[61]Khan, Ziauddin and Wishik,Samuel M., "The National Intra-Uterine Conreceptive Device Evaluation Program of Pakistan," Mimeogr.,p.6; Forthcoming in Proceedings of the Second International Conference on Intra-Uterine Devices. New York, October 2-3,1964, S.J. Segol and A.L.Southam (eds.), Amsterdam: Excerpta Medica Foundation, International Congress Series No.86, 1965.

their initial clients. The Karachi FPA has the sharpest drop of all in the first year but then manages to retain a slightly larger proportion of its clients in later months than the Delhi government clinics. The two subcontinent cities, on the whole, have had almost identicale experiences with their family planning clinics. Neither has had supporting field programmes of follow-up home visits and both cities have numerous sources of contraceptives other/than the clinics studied.

The Singapore and Hong Kong FPA programmes provide excellent comparisons in this regard, because the Singapore programme has included field activities while the Hong Kong programme has little field activity but constitutes the only clinical programme in that city. Comparing the proportion of clients continuing to attend the four clinic groups at the end of one year, the Singapore FPA is seen to have been considerably more successful than the other Asian programmes in retaining its clients. Other factors may be operating there, but the salient variable distinguishing the Singapore programme is its home visits to clients who fail to return to the clinic for their follow-up appointments.

The clinical methods only programmes appear to have been generally more successful than the mixed conventional and clinical methods programmes. In the West Indies, and West Virginia this may again be a difference due mainly to extraneous local factors. The two-year active user figure for the Charolette, West Virginia experiment is based on actual observation, whereas that for Karachi IUD clients is a hypothetical projection by the life table technique from experience in the first year. It is probably an under-estimate of the actual number of

continuing IUD's that will be observed after two years, because the dropouts from the first year will tend to leave a high proportion of satisfied users among those who continue to rely on this method. The Karachi IUD rates after successive one year intervals are still remarkably higher than those observed for the Karachi FPA clients. In this comparison, most variables are held relatively constant so that the difference must be attributed mainly to the advanced contraceptive method.

A summary of the FPA cohort data upon which the continuing user figures are based is presented by year of first and last attendance in table 9. In this tabulation, two findings are of particular interest. One is the very high continuing user rate of 40 per cent for the earliest adopters, those first attending the clinics in 1958. This means that 67 of the 167 clients who first attended the FPA clinic six years

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ago were still attending in 1964, an extremely high ratio compared with any of the programmes presented in Table 8. It contrasts even more dramatically with the 1964 survival rates of clients who first attended the FPA in the following two years, 1959 and 1960, only 6 out of 1,252 clients.

One explanation for this high continuing user rate for the 1958 cohort might be that these clients have had sufficient time to drop out for one or more intended or accidental pregnancies and then return as apparent continuing users in 1964. The early adopters might then be regarded as a group consisting largely of couples interested in spacing births as much as stopping further births.

Table 9

YEAR OF FIRST ATTENDANCE BY YEAR OF LAST ATTENDANCE AT KARACHI FPA, 1958-64.

Year of Last Attendance or dropout	All Clients	PER CENT Year of First Attendance						
		1958	1959	1960	1961	1962	1963	1964
1958	1.8	37.1	-	-	-	-	-	-
1959	9.4	4.8	49.2	-	-	-	-	-
1960	6.7	4.2	15.0	20.7	-	-	-	-
1961	32.7	12.0	27.1	67.6	81.8	-	-	-
1962	16.6	.6	3.6	6.1	9.3	87.7	-	-
1963	17.6	1.2	4.1	5.5	7.1	8.6	76.0	-
1964	15.2	40.1	.9	-	1.8	3.7	24.0	100.0
	100.0	100.0	99.9	99.9	100.0	100.0	100.0	100.0
(N)	3,422	167*	634	618	622	511	595	275*

* Partial years.

If their supposed interim dropout was for accidental pregnancies, however, then the explanation is contradicted by the continuing user rates of the 1959 and 1960 cohorts who also have had sufficient time to deliver once or twice and still return in 1964.

An alternative or supplementary explanation - and one that seems more plausible - is that the early adopters are different in their degree of motivation for family planning and therefore in their perseverances in practicing it. There is a vast literature on the characteristics of early adopters of health practices (e.g., 62, 63 and 64) and Stycos has attempted to conceptualize the relation

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[62]Hochbaum, Godfrey M., Public Participation in Medical Screening Programs: A Socio-Psychological Study, Washington: U.S. Public Health Service Publication, No. 572, 1958.

[63]Rosenstock, I.M., "What Research in Motivation Suggests for Public Health," Amer. Jour, of Public Health 50(3), March 1960.

[64]Roberts, Beryl J. "Decision-making: An Illustration of Theory Building," Health Education Monographs, No. 9, 1960.

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of the time factor in adoption of family planning to knowledge, attitude and concern factors (65, Table 45, p.230). An experimental programme in Dacca is analyzing its data now on the early adopters of family planning in a controlled urban study (55). The Karachi FPA data suggests that this factor is of considerable

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[65]Stycos, J. Mayone, Family and Fertility in Puerto Rico, New York: Columbia University Press, 1955.

importance in understanding family planning adoption and continuing practice.

The second feature of particular interest in Table 9 is the exceptionally low dropout rate in the first year of clients who first attended the FPA clinic in 1960. Only 20.7 per cent of the 1960 cohort of clients failed to return in 1961 or later, whereas the average dropout rate in the same calendar year as first attendance is 63.8 for all FPA clients. Even the 1958 cohort, who have the very high continuing user rate after 6 years, lost 37.1 per cent in 1958.

It was in 1960 that the Karachi FPA undertook a brief home visit programme in connection with a use-effectiveness study supported by the Population Council of New York. The Impact of the home visits are found in a closer analysis to account for the exceptional clinic attendance pattern obtained in that year. Table 10 has been drawn from a master tabulation of monthly attendance records for first attendance cohorts. A comparison is made here of two nine-month cohort sets and their respective attendance patterns, showing in detail the dropouts occurring in the first nine months after first attendance. The top half of the table represents a period between October 1, 1961 and June 30, 1962, during which time no home visits were conducted.

The lower half of Table 10 represents a comparable period between June 1, 1960 and February, 1961 when the home visit programme was in operation. Of the 420 women who first came to the clinic in the later period and therefore, received no home visits, nearly 87 per cent either never returned to the clinic a second time or had dropped out completely within one or two months of

Table 10

FIRST NINE MONTHS CLINIC ATTENDANCE AND DROPOUT PATTERN OF CLIENTS FIRST ATTENDING THE KARACHI FPA IN A 1960-61 PERIOD OF FOLLOW-UP HOME VISITS AND CLIENTS ATTENDING IN A 1961-62 PERIOD OF NO HOME VISIT PROCEDURES.

Month of First Attendance		All Cases First Attending	No. of Months After First Attendance that clients Last Attended the Clinic										
			0 Never Returned	1	2	3	4	5	6	7	8	9	10 or More.
June	1962	36	29	4	0	0	0	2	0	0	0	0	1
May	1962	51	39	1	1	0	1	1	0	1	1	1	5
April	1962	60	51	3	1	1	0	0	0	0	0	0	4
March	1962	60	49	4	1	1	0	0	0	0	0	1	4
February	1962	32	21	4	3	2	0	0	0	0	0	0	2
January	1962	37	25	3	2	0	0	1	1	0	1	1	3
December	1961	56	44	5	0	0	0	0	0	0	0	0	7
November	1961	40	30	4	2	0	0	0	0	0	0	0	4
October	1961	48	37	1	1	0	0	0	0	0	0	0	9
All Dropouts		420	325	29	11	4	1	4	1	1	2	3	39
%		100.0	77.4	6.9	2.6	1.0	0.2	1.0	0.2	0.2	0.5	0.7	9.3
			Period of Follow up Home Visits										
February	1961	43	7	5	1	0	0	1	1	18	1	1	8
January	1961	56	2	0	1	0	0	0	1	35	4	0	13
December	1960	44	0	1	2	1	3	4	3	13	3	0	14
November	1960	49	3	1	2	0	2	7	2	1	13	0	18
October	1960	61	17	0	0	1	1	4	3	0	0	12	23
September	1960	42	4	0	0	8	0	0	1	4	2	0	23
August	1960	70	6	0	0	0	8	1	1	4	4	4	42
July	1960	49	19	0	1	1	1	0	0	0	2	1	24
June	1960	49	14	1	0	2	0	0	0	2	2	1	27
All Dropouts		463	72	8	7	13	15	17	12	77	31	19	192
%		100.0	15.6	1.7	1.5	2.8	3.2	3.7	2.6	16.6	6.7	4.1	41.5

their first visits. In striking contrast, only 18.8 per cent of the group receiving home visits had dropped out within two months of their first visits. Only 10.7 per cent of the unvisited 1961-62 cohort continued to attend for more than half a year, whereas 68.8 per cent of the 1960-61 home visit cohort continued to attend to attend the clinic for more than six months.

The heavy dropout rate between seven and nine months of the home visited cohort must be the result of a short lined follow-up field programme. One follow-up visit per client apparently is sufficient to bring about 60 per cent of the clients who otherwise would not have returned, but approximately 25 per cent of the total group will then drop out unless they receive further encouragement through additional home visits. Thus, a single follow-up visit for every client appears to make a very significant difference in the return rate, but subsequent visits are needed to maintain the attendance of many of the returnees.

There is evidence from an urban programme in Dacca, however, suggesting that too many home visits can have a negative effect particularly if they are aimed at only one spouse (66, p.4)

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[66]Griffiths, William; Roberts, Beryl J.; and Huq, Raisunnessa, "Application of Learning Theory to a Family Planning Programme in Dacca, East Pakistan," Paper No.270, United Nations World Population Conference, Belgrade, Yugoslavia, Aug.-Sept. 1965.

Research is continuing there to establish an optimum number, if there is one, and to determine which groups most require follow-up visits.

Whereas Table 8 based active user rates on the actual duration of attendance between first and last visit, and Table 9 used a criterion of attended within the past five months (within 1964), a more discriminating criterion of continuing use might be that the client has taken supplies within the past three months for the second or more time. This is a realistic measure for most govern-

ment clinics in Pakistan where conventional contraceptives (condoms & foam tablets) are generally dispensed in lots of one or two dozen per client per visit. Allowing for our lack of reliable data on coital frequency in Pakistan, a dozen condoms should not last more than two months if used faithfully. A clinic visit within the past three months would therefore seem a liberal definition of continuing user. The FPA programme, however, has traditionally emphasized the diaphragm, which requires less frequent revisits to the clinic. The continuing users identified by attendance in 1964 in Table 9 are probably real continuing users for the most part, and a further analysis by methods used will be presented in another section. The overall FPA continuing user rates by the three month criterion are presented in Table 11 for their use by other programmes in Pakistan for comparing results.

Excluding the clients who attended for the first time in the last month before observation (May 1964, when the records were coded), out of 315 women who had attended for the first time within the past half year, 69, or 22 per cent, had attended at least a second time within the past three months. The rate of continuing users by this definition is approximately the same for those clients who first attended in the previous half year period (between 6 and 12 months before).

Thus, approximately one out of five women new to the clinic in the past year or in the past half year can be expected to return for additional contraceptive supplies within the past three months. Less than half as many of those who first attended in the next earlier half year period, however, would be found returning recently. Stated in terms of the arithmetic used, less than 1 out of

Table 11

"CONTINUING USERS" BY CRITERION OF HAVING ATTENDED THE CLINIC A SECOND OR MORE TIME WITHIN THE PAST THREE MONTHS, BY PERIOD OF FIRST ATTENDANCE, KARACHI F.P.A., 1958-1964

Period of First Attendance	Duration of Potential Attendance in Months	Number of Clients in Cohort	"Continuing Users"	
			Number	Rate per 100
Dec.'63-Apr.'64	2-6	315	69	21.9%
June'63-Nov.'63	7-12	318	67	21.1
Dec.'62-May.'63	13-18	244	23	9.4
June'62-Nov.'62	19-24	231	5	2.2
Dec.'61-May.'62	25-30	296	1	0.3
June'61-Nov.'61	31-36	268	3	1.1
June'58-May.'61	37-72	1,649	2	0.1
Date not recored	-	68	-	-
All Clients before May'64	2-72	3,321	170	5.0

10 women who have a potential duration of attendance of 13-18 months have an actual duration of 13 to 18 minus 3 months. Most of the 9 out of 10 have an actual duration of zero months, for they never return to the clinic.

Less than half of one per cent of the first 2,444 clients of the Karachi FPA - those who first attended more than 18 months before May 1964 - were still attending the clinic in the 3 months prior to May, 1964, when their records were coded.

Many of the 90 per cent who are no longer classed as users after a year and the 99 per cent not classed as users after two years hopefully have turned to other sources of supply. Some likely have stopped contraception, satisfied with their achieved spacing, and are preparing for another pregnancy. Many others would be lost for less comforting reasons such as their lack of sustained motivation, dissatisfaction with the methods prescribed for them or with their first experience at the family planning clinic. In the case of the Karachi FPA, many clients are misclassified as dropouts by this criterion because they are diaphragm users and have no reason to attend the clinic every three months.

Surveys have been undertaken by the Family Planning Associations of Hong Kong and Singapore to determine the reasons for their dropouts. The Hong Kong FPA reports the responses of clients to reminders sent through the mail to those overdue for their check-up visit. Most of the admittedly biased group who responded reported that they had become pregnant (35, Table III, p.350). In a more detailed analysis of dropouts with follow-up interviews,

the Singapore FPA found that only 46 per cent of its lost cases could be classed as "real loss," the remainder being classed either as "pseudo loss" or "ligitimate loss" because of their having transfered to another clinic, pregnancy, sterilized, moved out of the city or become separated from husband for one reason or another (36, unpublished Table VIII, mimeogr.).

Returning to the geographical distribution of the FPA clients, it is possible now to look at the attendance pattern of the clients from the different major divisions of the city. Comparing Table 12 with earlier findings in Table 3, it is apparent that the two areas with

the largest proportions of FPA clients and the highest "acceptor rates," the Commercial and Middle Residential areas, do not have attendance or dropout records that differ significantly from the other areas of Karachi. Although the Middle Residential Area Clients have the lowest proportion of dropouts in the first month of attendance, they are exceeded both by Industrial Area and Upper Residential Area Clients in the proportion who continue to attend for more than 2 years. The Commercial Area excedes both the Lower and Upper Residential Areas in proportion of dropouts in the first month and has a lower continuing rate beyond 31 months than even the Rural Area.

Again, it should be emphasized that the clients from the Middle Residential Area are not necessarily middle class, and those from the Upper Residential Area are not necessarily a predominantly upper class group. The extent to which income and other socio-economic factors are disturbing the residential

TABLE 12

DURATION OF CLINIC ATTENDANCE BY MAJOR DIVISION OF RESIDENCE, KARACHI F.P.A., 1958-1964.

Duration of Attendance	Percentage of Clients Dropping Out by Major Division of Residence							
	Commercial Area	Industrial Area	Lower Res.	Middle Res.	Upper Res.	Non-contig Area	Labour Area	Rural Area
Never Returned	53.0	58.9	52.8	45.2	49.2	65.9	62.4	70.0
1 - 6 Months	15.9	15.0	16.4	14.7	15.6	9.1	12.8	6.7
7 - 12 Months	12.8	6.5	16.1	14.3	13.1	11.4	10.4	3.3
13- 18 Months	6.7	2.8	6.0	10.7	7.7	4.5	8.0	13.2
19- 24 Months	6.2	7.5	4.2	7.5	5.4	2.3	3.2	3.3
25- 30 Months	2.9	2.8	1.5	3.5	4.2	4.5	1.6	0.0
More than 31 Months	2.5	6.5	3.0	4.0	4.8	2.3	1.6	3.3

area data will be discussed below. The important thing to note here is that gross clinic attendance figures (all clients ever attending) may bear no relationship to continuing user rates. Thus, it is not to be recommended that generalizations can be made from demographic and socio-economic distributions of all clients to the actual adoption or continuing use of contraceptives by socio-economic or parity groups. It would have been an error, for example, to conclude from the data in Table 3 that residents of the Commercial Area of Karachi are a more highly contracepted population than other areas. Table 12 contradicts such a conclusion and suggests instead that residents of the Commercial Area would be found in a cross-sectional survey to have a higher proportion of sometime users but a lower proportion of effective or continuing users than residents of other areas of Karachi. In other words, the incidence of family planning attempts may be higher in the Commercial Area, but the prevalence of family planning practice would be less at a given time than in other areas.

Duration of attendance data will be used in the following analyses to draw this distinction between incidence and prevalence along other variables included in clinic records.

One further consideration in clinic attendance patterns, of course, is the number of times clients visit the clinic within given periods. Table 13 shows the pattern of attendance frequency within

given six month durations between first and last attendance Among the clients who never returned after the month of their

Table 13

FREQUENCY OF CLINIC ATTENDANCE: NUMBER OF VISITS BY CLIENTS IN HALF-YEAR DURATION GROUPS, KARACHI FPA, 1958-64

No. of Times Visited Clinic	Duration of Attendance (Number of Months Between First and Last Visit)											
	Zero Months		1-6 Months		7-12 Months		13-18 Months		19-24 Months		25 + Months	
	No.	%	No.	%	No.	%	No.	%	No.	%	No	%
1	1457	83.5	-	-	-	-	-	-	-	-	-	-
2	258	14.8	263	54.2	224	51.8	85	33.2	65	32.7	19	9.3
3	26	1.5	136	28.1	113	26.2	58	22.6	46	23.1	26	12.7
4	2	0.1	54	11.1	50	11.6	56	21.9	36	18.1	22	10.8
5	2	0.1	17	3.5	26	6.0	26	10.2	21	10.5	30	14.7
6 +	-	0.0	15	3.1	19	4.4	31	12.1	31	15.6	107	52.5
Total	1745	100.0	485	100.0	432	100.0	256	100.0	199	100.0	204	100.0

first visit, 16.5 per cent are found to have attended two or more times within that month. About half of the clients who then dropped out(in the following 6 months or within the first year, attend only twice. About one-third of those who dropped out) between one and two years attended only twice. The only group, then, with an appreciable proportion of clients attending the clinic more than 5 times are those who continued attending for more than two years. Even in that group, the sizeable proportion who attended only two or three times in more than two years, 22 per cent, indicates that the FPA is by no means the only source of supply relied upon by many clients. On the other hand, this figure might be to some extent a measure of the failures in use-effectiveness among clients who still want to practice family after completing their unwanted pregnancy. Thus, about one out of five of the clients who continue attending a family planning clinic for more than two years are found to have attended only two or three times, either because they are obtaining supplies regularly elsewhere or because they have not been practicing family planning consistently over the two years.

To summarize our attendance pattern data, some totals and central tendency values are presented here. Of the 3,422 clients who attended the Karachi FPA between June 1, 1958 and May 30, 1964, a six year period, complete attendance records were available on 3,336. These 3,336 clients attended the FPA clinic for a total of 21,940 woman-months, giving an average duration of attendance of 6.58 months. More than half of these women, however, never returned to the clinic after the first month of their attendance. The mean duration of 6.58 months gives these earliest dropouts credit for half a month. Because most of them attended only once, it is perhaps more realistic to count their duration of attendance as zero, in which case the mean duration for all clients attending the Karachi FPA clinic would be 6.31 months.

The Karachi FPA has had higher dropout rates in successive three month periods up to one year than those obtained in family planning clinics in three other Asian cities, although the cumulative dropout rate for the Karachi FPA matches exactly the experience of Municipal clinics in Delhi after one year (Table 8).

Although the proportion of all 3,422 clients who were still attending the Karachi FPA clinic in 1964 was only 15.2 per cent, including those who first attended that year, the finding in Table 9 that 40.1 per cent of the earliest attenders from 1958 were still attending in 1964 strongly suggests the importance of further research on early adopters of family planning.

Table 9 also revealed a very low first year dropout rate for the clients who first attended in 1960. This led to a further analysis of that period, revealing rather dramatically the success of the follow-up home visit procedure in bringing clients back for a second or third clinic visit. The long-range effect of a single home visit, however, might even have been negative, for the second year dropout rate of the 1960 cohort more than made up for the low rate in the first year. In fact, none of the 1960 home visited clients are found continuing to attend the clinic in 1964.

The analysis of attendance patterns of clients residing in the geographical areas of Karachi that were most highly represented among all clients showed no relationship between areas high in "acceptor" rates (Table 3) and those high in continuing user rates (Table 12). A distinction is therefore suggested between incidence and prevalence of family planning practice in subpopulations. This approach will be taken in the analyses of variables below.

HOW CLIENTS ARE REFERRED TO THE CLINIC

Different family planning programmes emphasize different channels of communication to potential clients. In a programme like that of the FPA in Karachi where funds are not available to employ educational field workers, reliance is necessarily put on mass media, referral from other agencies, institutions and private physicians, and of course on the reputation of the clinic service as interpreted to others by satisfied clients. The relative effectiveness of each of these channels depends partly on the effort made by the clinic administration and staff to utilize and to cultivate them, partly on the image of the clinic as perceived by relavent persons in each of the channels, and partly on the inherent effectiveness of the channels themselves in influencing behaviour.

With regard to the latter consideration - the relative inherent effectiveness of communication channels - there is considerable documentation in the social-psychological and public health education literature (e.g., 62, 64, 67, 68, 69, 70). The applicability of this research to family planning is still being debated and tested in Pakistan and other developing countries (cf., e.g., 66, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 43, 50, 51, 56 and 71).

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[67]Griffiths, William and Knutson, Andie L., "The Role of Mass Media in Public Health" Amer. Jour. of Public Health, 50 (Apr. 1960), pp.515-523.

[68]Schramm, Wilbur (Ed.), The Process and Effects of Mass Communication, Urbana, Illinois: University of Illinois Press, 1961.

[69]Katz, Elihu and Lazarsfeld, Paul F. Personal Influence: The Part Played by People in the Flow of Mass Communication, Glencoe, Illinois: The Free Press, 1955.

[70]Hovland, Carl I., "Effects of Mass Media of Communication," in Gardner Lindzey (ed.), Handbook of Social Psychology, vol. II, Cambridge, Mass: Addison - Wesley, 1954; pp. 1062-1103.

[71]Bogue, Donald J., "Some Tentative Recommendations for a 'Sociologically Correct' Family Planning Communication and Motivation Program in India," in Clyde V. Kiser (ed.), op.cit., pp. 503-538.

In general, the literature suggests that education through mass media alone is insufficient to bring about action for family planning (43, 71); that medical and para-medical institutions and personnel are effective as a source of influence with certain groups but not with others (14); and that personal, face-to-face contact through friends home visits by professional or volunteer workers, and especially small group discussions are the most effective channels of influence but that even these can have diminishing returns beyond some equivocal point of saturation or tolerance (66, 10, 11, 12, 14, 50, 51, 56, 71).

The Karachi FPA data on the source of referral of clients confirm these general findings and provide further documentation of the extent to which they operate in an urban programme in Pakistan.

The specific responses of the Karachi FPA clients in their first clinic visit to the question of how they were referred to the clinic are presented in Table 14 in order of their frequency.

Before reviewing the implications of these data, a few qualifications should be mentioned. The rather high proportion of clients

TABLE 14

SPECIFIC SOURCES OF REFERRAL OF CLIENTS, KARACHI FPA
1958-1964

Referral Source Named by Client at Time of First Clinic Visit	Number of Clients	Per cent of All Clients Responding
1. Personal-Medical: doctor, health visitor, field worker, social worker, nurse or dispensor	1,177	37.7
2. Institutional: hospital, maternity home, clinic, health centre or TB centre	992	31.8
3. Radio	345	11.1
4. Another FPA client or former client	318	10.2
5. Friend, neighbor, employer or relative other than husband	128	4.1
6. FPA: staff, administrator or volunteer of the Association	122	3.9
7. Self or husband	21	0.7
8. Press: newspaper, magazine, pamphlet, reading board or other printed media	15	0.5
All Clients Responding	3,118	100.0
Cases with no response recorded	304	-
All Clients, 1958-64	3,422	-

recorded as having been referred by radio might be a function of the fact that staff of the clinic themselves have presented radio programmes on family planning. Clients who heard these programmes might have mentioned them even though they were not necessarily influenced by the programme itself to attend the clinic, and there would, of course, be the tendency on the part of the staff to record their radio presentation as having had a real effect. The relatively low incidence of friend or neighbour as a source of referral is misleading in this break-down because the preceeding category of "other FPA clients" would be almost entirely friends. Thus, rows 4 and 5 are not mutually exclusive and rows 1, 2 and 6 also would include persons who might really belong to the friend category. Taking these considerations into account, the friends category should be placed above radio as the third most frequently mentioned source of referral.

To put these findings in perspective, they are regrouped and compared in Table 15 with sources of referral reported at FPA clinics in Hong Kong and Singapore (35, p. 352 and 36, unpublished Table VII, mimeogr.). There is some loss of comparability in the fact that both the Hong Kong and Singapore analyses are based on special interviews with a small sample of the many clients attending the FPA clinics in those cities over a period of several years and therefore may not have been referred to the clinics by sources similar to those of an earlier or later period. The Singapore interviews; moreover, were with women who had not returned to the clinic after a reasonable period. The comparison, nevertheless, reveals some striking differances among the three FPA programmes that suggest the usefulness of this measure as an

Table 15

SOURCE OF REFERRAL OF CLIENTS TO FPA CLINICS IN KARACHI, HONG KONG[35] AND SINGAPORE[36]

Primary Source of Referral	Karachi-All Cases		Hong Kong-Sample		Singapore Sample	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Other FPA Client (old case)	318	10.2	85	48.8	242	23.3
Friend, neighbour or relative	128	4.1	8	4.6		
Professional or institutional	2,169	69.6	41	23.5	374	36.0
FPA worker	122	3.9	12	7.0	365	35.1
Press or Radio	360	11.5	24	13.8	22	2.1
Self husband or other	21	0.7	4	2.3	36	3.5
All Reported	3,118	100.0	174	100.0	1,039	100.0

Source: 35, p.352; 36, unpublished Table VII, mimeogr.

evaluation tool.

The Hong Kong data shows the real potential of the satisfied client as an agent of influence for the clinic programme. The proportion of clients there who have been referred by another FPA client is nearly five times as great as the proportion in Karachi and more than double that of the Singapore clients. The Hong Kong record suggests that the FPA there has done an effective job of educating and satisfying its clients in the clinic and providing them sufficient information to inform others in turn. The Karachi personnel could perhaps give increased attention to the importance of the personal flow of information and influence and encourage their clients more to speak to friends about the clinic.

On the other hand, the Karachi FPA appear to have been far more effective in its community organization efforts, as revealed by the very large proportion of its clients, nearly seven out of ten, referred by other agencies, hospitals and professional personnel. The professional community of Karachi has been made sufficiently aware of the FPA and convinced of its standards to have referred at least 2,169 clients to the Model Clinic in six years. The fact that there are several other major family planning clinics in Karachi (whereas the FPA in both Hong Kong and Singapore virtually monopolize the family planning market in those cities) speaks well not only for the reputation and image of the Karachi association and the performance of its clinic programme, but also for the importance of the kind of community organization that reaches all relevant agencies which are "gate-keepers" of potential clients.

2.1 per cent of all clients of the Singapore FPA clinics mentioned any of these sources of information as having influenced them to attend the clinic (36, unpublished Table VII, mimeogr.).

The Singapore referral data is not wholly comparable with that of Karachi and Hong Kong insofar as no distinction was made in Singapore between persons referred by old clients and those referred by "F.P.A." or "Friend." In an independent tally, however, Sinha reports that "Friends' were responsible in persuading others to attend our clinics to the extent of about 30% of our new cases... Our 'own patients' were directly responsible in introducing about 40% of our new cases" (72, p.3). Again the categories are not mutually exclusive, but a compromise between the conflicting Singapore report would bring the data in line with conclusions drawn from Karachi and Hong Kong: the person-to-person referral is most effective in bringing about the decision and the momentum to attend the family planning clinic.

In an independent study of the Hong Kong FPA clients, Coughlan and Coughlan note efforts of the Association there

> "... to publicize its work through advertisements in newspapers, spot advertisements preceding movies at some theatres, billboard notices at the ferry terminals, and the distribution of pamphlets. (73, p.175).

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[73] Coughlan, Richard J. and Coughlan, Margaret M., "Fertility and Birth Control Among Low Income Chinese Families in Hong Kong," Marriage and Family Living (now Jour. of Marriage and the Family) 25(2), May 1963, pp. 171-177.

They found, nevertheless, approximately the same proportions of referral sources in their sample of the Hong Kong FPA clients (73, p.175) as those reported in Table 15 for Hong Kong from Chidell (35). They conclude, therefore, that "face-to-face contact with women is the most effective way of spreading favourable information about family limitations" (Sic) (73, p.177).

The Singapore FPA is the only Association of the three with a field staff conducting educational home visits and follow-up of lost clients. Thus, 35 per cent of its clients are referred by an FPA worker, compared with only 7 per cent of the Singapore clients and only 4 per cent of the Karachi clients. The real value of face-to-face education outside the clinic is not fully shown in this table but has been discussed earlier in terms of continuing attendance after the first visit.

The most important channels of information and influence in all three Asian cities have been professional workers and friends (including previous FPA clients). In both cases, personal influence is the key. In fact, about one third of the Hong Kong clients are reported to have been acompanied by a friend or relative other than husband on their visit to the clinic (35,p.353). Mass media of any kind have played a very insignificant role in prompting clients to go to the family planning clinics in any of the three cities.

The unimpressive record of mass media in arousing action for clinic attendance is most salient in Singapore where the FPA has had a very active Publicity Committee "Interviewing and giving articles to the press, broadcasting scripts...writing 'feature articles' in the Sunday papers ... posters for display in clinics, centers, factories, etc... Cinema slides in Chinese language" and where the Government of the State of Singapore "... openly proclaimed its support and conducted a concentrated compaign to popularise the movement... culminated in the holding of a large scale public exhibition at Victoria Memorial Hall" (72, pp.214). Yet, only

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[72]Sinha, Hena "Family Planning Association, Singapore" Organisational Report for the Seventh International Conference on Planned Parenthood, Singapore, February, 1963, Mimeogr.

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The data from all three clinics are unanimous on the importance of the face to face approach but they do not justify the conclusion that this should be primarily through women. It is true that very few clients are found to have reported being referred to the clinic by their husbands but this may only be an evidence of the female bias of these programmes, as described by Stycos in his critique of the "traditional Planned Parenthood approach" (4, pp.481-482). Stycos points out several reasons why the feminist bias is not justified in family planning programmes and cites several studies that show an equal and sometimes greater interest in preventing births among husbands than among wives (4, pp.490-493). Preliminary findings from an experimental programme testing educational approaches through males only, through females only and through both, in Dacca, East Pakistan, suggest very strongly that both spouses need to be contacted to achieve any real and lasting change in their clinic attendance pattern. "In the two one-sex channels of communication, the percentage of users did not differ significantly" (66, p.3).

The attendance patterns of the referral groups add another dimension to this variable with real implications for clinic education. Table 16 shows significant differences between the continuing attendance of clients referred by press or radio and those referred by any of the other sources.

The most effective sources of referral in terms of our earlier discussion have the lowest continuing attendance, the highest

Table 16

DURATION OF ATTENDANCE BY SOURCES OR REFERRAL OF FPA CLIENTS, KARACHI, 1958 - 1964.

Duration of Attendance	All Clients	SOURCE OF REFERRAL TO THE CLINIC Per Cent				
		Doctor, Health Visitor, Other Professional Person	Husband, Friend, or other FPA Client	FPA or other Medical Institution	Press or Radio	Source not Reported.
0 (Never Returned)	52.7	63.3%	52.2%	51.5	48.2	22.4
1-6 Months	14.6	16.7	16.9	13.5	7.6	14.9
7-12 Months	12.9	9.7	16.4	13.2	8.2	24.4
13-18 "	7.7	4.9	5.5	9.0	8.5	15.5
19-24 "	5.9	3.0	4.0	6.1	12.3	12.2
25 + "	6.2	2.3	4.7	6.7	15.2	10.6
All Cases	100.0	99.9	100.0	100.0	100.0	100.0
N	(3,339)	(1153)	(451)	(1090)	(342)	(303)
Mean Duration:	6.31 months	3.61 months	5.02 months	6.86 months	10.71 months	11.46 months

early dropout and the lowest mean duration records. This finding matches that of the Singapore FPA which found the lowest dropout rate to be among clients who came to the clinic on their own initiative after learning about it through mass media, 18.1 per cent compared with 37 per cent for all clients studied (36, unpublished Table VII, mimeogr).

This may seem on first consideration to contradict the earlier finding that mass media are unimportant sources of referral. In fact, it substantiates that conclusion in the sense that the people attracted to the clinic by mass media were the most highly motivated already and therefore needed the least encouragement from external sources. This is what is referred to in the literature on mass communication as the role of media in "scraping the cream off the top." There is a small percentage of any population that is ready to adopt almost any reasonable practice at a given time, and mass media merely serves to direct them into the proper channel. It does not serve as a motivation instrument in this sense, but rather simply as an information source.

The populations shown in Table 16 to have been influenced to attend the clinic by more effective motivation sources (face-to-face) are the more difficult to reach group. We may conclude in very general terms from Table 16 that the more influential the source of referral the less inherently motivated the clients were on their own, and therefore, the less likely they were to continue attending the clinic beyond any given period of time.

This is a general but a very strong conclusion in terms of implications to be discussed below. One word of caution must be added here, however. The attendance distribution of cases for whom no information was recorded on source of referral is presented in Table 16 to show the extent of bias introduced to this variable.

by the cases not included in the tabulations. The no information cases are seen here to be a group with very high continuing user rates. This is primarily because these are cases from the earliest year of the clinic, 1958, when a different record card was used that did not include the question on source of referral. These cases, it will be recalled from Table 9, had the highest continuing user rate of any group in 1964. It may be assumed with consistency that these earliest motivated clients were most like the group referred by mass media. If this is so, then the inclusion of the no information cases in other categories would favour the press and radio category and thereby fortify our earlier conclusion.

The main implication of our conclusion that the more influential sources of referral send cases to the clinic who are less independently motivated is that source of referral data is a highly useful indicator or predictor in clinic records of the group of clients needing closest attention by the clinic staff. If a family planning programme, because of limited resources, is forced to choose among its clients a few cases to be given special attention, then source of referral might be one of the best criteria for this selection. Clients who indicate they have come to the clinic without the personal urging of a friend, neighbor, relative, doctor, health visitor or social worker may be screened from the group to be given special attention on the assumption that they are more independently motivated to practice family planning. If the programme can provide special education or follow-up visits to about one out of every three clients, then the criterion of selection might be those clients referred by a doctor, health visitor or other professional person, for this group has the highest dropout rates, i.e., it is the least independently motivated group.

What kind of special attention should be provided for these clients? Unfortunately, the literature on outpatient clinic education and administration so far is limited primarily to Western countries (e.g., 74, 75, 76, 77) although experience is accumulating in Pakistan (12, 66, 78).

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[74]Skinner, Mary Lon, and Derryberry,Mayhew, "Health Education for Outpatients," Public Health Reports, 69(11) Nov. 1954, pp.1107-1114.

[75]Fischer, Mercedes M. "Outpatient Departments Have a Long Way to Go," Amer. Jour. of Nursing 61(8) Aug. 1961, pp.56-59.

[76]Schade,Julia Ann, "Comprehensive Nursing in an Outpatient Clinic," Amer. Jour. of Nursing 60(9) Sept. 1960,pp.1259-1262.

[77]Wishik, Samuel M. "Parents' Group Discussion in A Child Health Conference," Amer. Jour. of Public Health 43(7) July 1953, pp.888-895.

[78]Fazalbhoy, Zarena A., "Organisation and Administration of Family Planning Clinics," Jour. of Family Welfare Vol.4, March 1958 pp. 93-98

The most common recommendation from clinic experiences in the United States is that group teaching of clients should be provided whenever possible. Prior to his family planning work in Pakistan, Dr. Samuel Wishik studied the use of parent group discussions in child health conferences. He states that "...group counseling, complemented by individual conferences, will prove more effective than the latter alone" (77, p.888). He notes that in the group setting, mothers tend to support each other in sharing problems and "sometimes are readier to change practices when the suggestion comes from peers rather than from staff" (77, p.888). Skinner and Derryherry warn that group teaching "....in this context does not mean classes in the traditional lecture form; it means, instead,

ways of bringing people together to discuss their own reactions about the problems in question" (74, p.1112).

In an evaluation of the group instruction approach in public health department family planning clinics in California, it was noted that 85 per cent fewer calls were received from patients concerning the side effects of Enovid than were received by private physicians recommending the same method (79, p.3).

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[79]Green, Lawrence W., "Evaluation of the Educational Program in Family Clinics of Contra Costa County," Martinez, California: Contra Costa County Health Department, Sept. 1963, Typescript.

Whatever approach is used, within the limitation of clinic or field staff resources, it is possible to identify from source of referral data in clinic records the clients that need additional attention. Fischer had pointed out the need, even in Western clinics for such "...a screening system to determine which patients need teaching... Obviously, all patients do not require such service. No patient who does require extensive service should ever leave the clinic without a plan for providing it" (75, p.59).

One further question concerning source of referral that was raised in our earlier analysis of the geographical distribution of clients can now be reviewed. Comparing Table 3 and Table 12, we found that geographical areas that were high in the incidence of clinic attendances were low in continuing use or prevalence of contraceptive practice. We now have found that incidence and prevalence also varies with the source of referral of clients. We might enquire at this point, then, whether source of referral and geographical distribution covary in the same direction as

incidence and prevalence. In other words, are source of referral and geographical distribution as they relate to incidence and prevalence of contraception really functions of one another?

Table 17 shows virtually no variation between one referral group and another in their geographical distribution. Thus, we may conclude that geographical distribution and source of referral act independently of one another as factors affecting incidence and prevalence of contraceptive practice.

Source of referral data, then, has wide applicability as a measure of programme evaluation and as a criterion for identifying clients in need of further educational or motivational service. Source of referral has been shown to have been a significant factor in continuing clinic attendance in Karachi. This influence appears to act independently of geographical area of client residence.

Table 17

SOURCE OF REFERRAL OF FPA CLIENTS BY THEIR GEOGRAPHICAL AREA OF RESIDENCE, KARACHI, 1958 - 64.

Major Division of Residence.	Doctor, Health Visitor, Med. Person		Husband, Friend or Other FPA Client		FPA or Other Med. Institution		Press or Radio	
	No.	%	No.	%	No.	%	No.	%
Commercial Area	389	35.5	144	32.6	338	31.9	112	34.1
Industrial Area	37	3.4	21	4.8	42	4.0	9	2.8
Lower Res.	113	10.3	39	8.8	130	12.2	30	9.2
Middle Res.	341	31.2	131	29.6	339	32.0	111	33.8
Upper Res.	102	9.3	57	12.9	87	8.2	37	11.3
Non.Contig.	9	0.8	9	2.0	21	2.0	10	3.0
Labour Area	41	3.8	24	5.4	46	4.3	9	2.8
Rural Area	11	1.0	1	0.2	14	1.3	5	1.5
Outside Karachi	52	4.7	16	3.6	44	4.1	5	1.5
All Areas	1095	100.0	442	99.9	1061	100.0	328	100.0
No Information	81	-	25	-	54	-	32	-
All Cases	1176	-	467	-	1115	-	360	-

INCOME AND OCCUPATIONAL CHARACTERISTICS:

A widespread criticism not only of the "traditional Planned Parenthood approach" but of the clinic approach to family planning in general is that it covers only the middle and upper classes and a select few highly motivated lower class persons.

To test the extent to which this criticism applies to the Karachi FPA clients and to make the clinic data on income and occupation as highly comparable with the best available baseline data, categories from the People of Karachi data have been used. This presents no problem with income classification but occupational classification is more difficult.

The occupational entry coded reports faithfully whatever was reported by the female client. It is understood, however, that no particular effort was made in the clinic during the initial interview to obtain precise or comprehensive descriptions. It is an unfortunate characteristic of the classification system used by the Census Commissioner that occupations with a similar industrial connection have been grouped together, almost throughout the socio-economic spectum. Thus, two husbands employed in the same industry often are placed in the same occupational group, irrespective of the socio-economic levels of their individual jobs. It was preferable, nevertheless, to maintain comparability with other data and to rely on income and education data for socio-economic determinations, rather than to attempt to make occupational classifications conform with socio-economic status.

We attempt here to treat income and occupation together in rather general terms and in relation to other Asian Clinic experiences, and then to look more carefully at income as it relates to clinic attendance patterns in the Karachi FPA.

In the subsequent section we will discuss education of wife as an independent but related variable.

Table 18 presents, first, a tenuous breakdown of the income distributions of clients at four urban family planning clinics in Asia.

This comparison indicates that Karachi may be more subject to the "traditional Planned Parenthood" criticism than other programmes in one sense but not in another. It is guilty of an upper-class bias but not particularly of a middle-class bias nor of a lower class exclusion. The Karachi FPA has a larger proportion of low income clients than the Singapore programme.

The Karachi clinic programme appears to have appealed much more to higher and less to the middle income groups than have the clinics of Metropolitan Delhi, Singapore or Hong Kong. Comparison with the Delhi Clinics on this variable, however, is not entirely fair to the FPA clinics, insofar as the Delhi clients, by and large, were wives of government servants (96.6 percent, most of them clerical) and therefore of established low and middle income classes. Nevertheless, the absence of such an exclusively governmental clinic program in Karachi, until recently also a Federal Capital area, has not palpably affected the income distribution of the FPA clinic patients toward a heavier lower income concentration.

Table 18

GENERAL DISTRIBUTION OF CLIENTS AT FOUR ASIAN FAMILY PLANNING CLINICS BY INCOME APPROXIMATIONS*

Approximate Monthly Income	Karachi		Delhi[34]		Singapore[36]		Hong Kong[35]	
	No.	%	No.	%	No.	%	No.	%
Rs. 0-150[a]	771	22.7	2,265	40.1	139	13.4	122	69.7
151-500	1,790	52,7	3,156	55.9	763	73.5	53[b]	30.3
Over 500	837	24.6	228	4.0	137	13.1		
Total Reported	3,398	100.0	5,649	100.0	1,039	100.0	175	100.0
Not Reported	24	-	263	-	-	-	-	-
Grand Total	3,422	-	5,912	-	1,039	-	-	-
Mean Income	Rs.292		Rs.214		Rs.315 (M$188)		Rs.148 (HK$178)	

*The translation from Malayan and Hong Kong dollars to rupees is made very roughly on the basis of MD $ 3 = Rs.5 : and HK $6 = Rs.5

[a]The grouping of reported incomes differs in three sets of data. Thus, the group Rs.0-150 is true for Agarwala's Metropolitan Delhi data, but refers to our first 4 Karachi groupings covering Rs.0-149 and to Ward's Singapore dollars 0-99 group. The latter actually translates into Rs.0-165. These problems of classification combined with different standards of living in the three Asian cities demand caution in interpreting these comparisons.

[b]Only 4% of the Hong Kong Clients had monthly incomes above HK $400 (Rs.333)

Table 19

OCCUPATIONAL DISTRIBUTION OF HUSBANDS OF FPA CLIENTS IN KARACHI, SIGNAPORE AND HONG KONG.

Husbands' Occupation	Karachi		Singapore*		Hong Kong*	
	No.	%	No.	%	No.	%
0 Prof.,Tech. & Related	344	10.1	40	3.9	9	5.1
1 Adm.,Exec. & Managerial	279	8.2	43	4.1		
2 Clerical	500	14.7	132	12.7	20	11.4
3 Sales Workers	776	22.9	239	23.0	34	19.4
4 Agric.,Forestry Mining	35	1.0	10	1.0	4	2.3
6 Transport & Communications	119	3.5	109	10.5	18	10.3
7 Craftsmen, Production	194	5.7	176	17.0	39	22.3
8 Process & Labourers	198	5.8	152	14.6	24	13.8
9 Entertainment, Sports & Service	872	25.7	124	11.9	17	9.7
Other, including unemployed	78	2.3	14	1.3	10	5.7
Total Reported	3,395	99.9	1,039	100.0	175	100.0
Not Reported	27	-	-	-	-	-
Grand Total	3,422	-	1,039	-	-	-

*Source: 35 & 36.

The relative occupational structures of the FPA clients' husbands in the Asian cities is very consistent with their relative income distributions, shown in the previous table. In both income and occupation of husbands, the Karachi and Singapore FPA clinic groups are predominantly middle class, but the Singapore group the more so of the two. In both cities, the non middle income groups, i.e., the high and low income groups, were approximately equal. In Karachi, however, the high income group accounts for a larger proportion of the total clinic population than in the Singapore the Hong Kong or the Delhi programmes. This higher class bias of the Karachi clinic is accounted for mainly in attendance by wives of professional, technical, administrative, executive and managerial workers. These occupations represent 18.3 per cent of the Singapore clients and only 5.1 per cent of the Hong Kong clients. Other comparisons between the two groups cannot be made without taking into account the under representation of middle and low occupational groups caused by the tendency in Karachi for wives to report the occupations of their husbands simply as "service". Occupational distribution figures for a sample of the Hong Kong FPA clients are included in this table primarily to emphasize the dissimilarity of the Karachi group.

Comparing the occupational structure of the Karachi F.P.A. husbands with that of the married males at large in the Karachi population reveals further evidence of the upper class bias of the Karachi F.P.A clinic programme.

Table 20

PERCENT DISTRIBUTION OF HUSBANDS OF FPA CLIENTS IN KARACHI AND HONG KONG BY OCCUPATIONAL GROUP AND OF CORRESPONDING TOTAL MALE POPULATIONS MARRIED OR 18 OR MORE YEARS OF AGE.

Husband's Occupational Group	Karachi		Hong Kong	
	FPA	All Married Males (1959)	FPA	All Males 18 & over (1961)
Professional and Technical	10.1	2.4	5.1	4.6
Administrative, Managerial	8.2	11.2		4.5
Office and Clerical	14.7	3.4	11.4	7.8
Sales Workers(incl.proprietors)	22.9	8.3	19.4	16.9
Agriculture,Forestry,Mining	1.0	3.9	2.3	0.5
Transport and Communications	3.5	6.7	10.3	6.8
Craftsmen,Production Workers	5.7	16.9	22.3	45.4
Semi-smilled & Unskilled labourers	5.8	16.8	13.8	
Service, Sport & Recreation	25.7	12.0	9.7	1.5
Others,	99.9	100.0	100.0	100.0

Sources: 22 Hashmi, Khan and Krotki, op.cit., Table 1.04, pp.26-27; 35 Chidell, op.cit., Table 24, p.353; 80 Irene B. Taeuber, "Hong Kong: Migrants and Metropolis," Population Index 29 (Jan. 1963), Table 5, p.13, based on Hong Kong, Report on the 1961 Census, Vol. II, Table 112, and Vol. III, Tables 226 and 227.

Table 21

MEAN INCOMES OF HUSBANDS BY ATTENDANCE PATTERN OF FPA WIVES: DURATION OF ATTENDANCE AND NUMBER OF TIMES ATTENDED, KARACHI, 1958 - 1964.

No. of Times Attended Clinic	Client Attended Clinic for the last time						Total Cases
	In the Same month as First Attendance	1-6 months after first Attendance.	7-12 Months after first attendance	13-18 Months After first Attendance	19-24 months after first Attendance.	25 or more months after first Attendance.	
Once Only	Rs.375	-	-	-	-	-	1457
Twice	392	Rs.396	Rs.382	Rs.427	Rs.365	Rs.540	927
Thrice	396	388	382	342	379	400	
4 times	700[a]	362	555	343	421	450	
5 times	750[a]	302	347	352	433	376	
6 times	-	455[b]	376	394	343	330	
7 or more	-	-	710	380	374	383	
Not Recorded	Rs.237	No Income[c]	-	-	-	-	81
All cases	Rs.375	Rs.388	Rs.384	Rs.377	Rs.385	Rs.400	
N	(1749)	(484)	(430)	(254)	(197)	(202)	

[a]Based on only two cases.

[b]Six or more visits: 1 person attended 7 times and one attended 8 times.

[c]Only one case.