

# Multiple Variable Motivators Involved in the Recruitment of Physicians for the Indian Health Service

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INDUCING PHYSICIANS to serve in isolated areas, where facilities, supporting staff, and financial remuneration are often marginal, has long been difficult for the Indian Health Service (IHS). Nevertheless, until recently a negative incentive, indirect conscription resulting from the military physician draft, has been instrumental in motivating physicians to accept such assignments.

Realizing that when the physician draft ended on July 1, 1973, this negative incentive would no longer operate, the staff of the Indian Health Service undertook certain major recruitment efforts in the fall of 1972. We have assessed the results of these efforts in terms of the technique used and have also sought to identify specific motivational factors that may lead physicians to seek IHS employment.

## Recruitment Techniques

Among the possible recruitment approaches that were available were the following:

1. Identifying physicians among whom recruitment was most likely to be successful so that a concerted effort could be made to attract this limited group.
2. Designing and carrying out a recruitment effort that would insure that as many physicians as possible learned of the Indian Health Service's existence, knew that their services were actively being sought, and were aware of the major inducements and opportunities offered.
3. Identifying, characterizing, and measuring the impact of certain variables that might significantly motivate physicians to join the Indian Health Service so that the variables with the greatest impact could be stressed and, if possible, augmented.

All three of these approaches are somewhat interrelated, and ideally all three could contribute to the design of an effective and efficient recruitment strategy. However because of factors which will be discussed at length subsequently, as well as pragmatic budgetary and time constraints, the second approach was utilized.

## 1972 Recruitment Campaign

Mass media and other means of communication intended to reach most physicians and medical students were used in an effort to sell them on the health needs, adventure, challenge, and personal fulfillment the Indian Health Service offered. The aim was to convince them that they could become part of a progressive,

comprehensive health system in which they would fill a real health need. These recruitment efforts contributed to the recruitment of 69 physicians scheduled to begin service on July 1, 1973; approximately 100 others had been previously selected from persons who had applied for or expressed interest in service before the campaign got underway.

Despite the extra recruitment efforts, on July 1, 1973, the Indian Health Service still was approximately 31 physicians short of filling its 200 physician vacancies. Thus, for fiscal year 1974 the vacancy rate was 5.7 percent. The corresponding rate for fiscal 1973 was 4.1 percent and for fiscal 1972, 3.1 percent; these were years in which the physician draft was in effect.

Although without indirect conscription IHS recruiting was more difficult, the difference between the rates of vacant positions for the years with the draft and the rate for the year without it was not statistically significant:

$$\chi^2 = 5.29, 0.05 < P < 0.10, df = 2.$$

This fact suggested to us that no single motivating variable was responsible for recruiting a physician. To explore this premise and collect information that might assist in increasing the effectiveness and efficiency of recruitment, we tried to ascertain what had attracted the physicians entering the Indian Health Service in fiscal year 1974 and what had actually prompted them to join it. We have also analyzed underlying factors possibly influencing the IHS physician recruitment pattern since abolition of the draft.

## Rural Practice Motivators

Of the factors suggested in the literature which might possibly motivate physicians to practice in rural communities, the following have been among the most frequently mentioned:

1. Rural background of the physician
2. Exposure to rural medical practice during professional training
3. Financial aid during medical school in return for service in a rural area

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## RURAL HEALTH

4. Various financial and material incentives
5. Coercion (that is, the military draft)
6. Provision of an organized medical care delivery system and professional companionship
7. Desire of the physician to live in a small community
8. Desire to establish a busy practice quickly

Although these motivators have been found or suggested to be important ones, there is, as yet, insufficient knowledge of their comparative strength or of how they may interact to lead a physician into a rural practice.

In much of the literature on recruitment of physicians for rural areas, the authors assume a stereotypical rural community with an economic base capable of supporting a physician and a medical program and with a population that will be actively engaged in the recruitment process and in establishing the medical program. These assumptions do not hold for rural practice in the Indian Health Service, as we will discuss subsequently.

### Indian Health Practice Motivators

This paper deals with a relatively small and unique segment of rural medical practice represented by the Indian Health Service, a segment in which certain of these traditionally recognized motivating factors remain more or less constant or have a relatively low level of influence and in which certain additional motivating factors probably come into play.

The Indian Health Service provides comprehensive health services to some 500,000 Native Americans. Its hospitals and health centers are located in some of the most isolated rural communities in the country. In general, these communities have a small or almost non-existent economic base. In such communities, a physician cannot expand his income on his own initiative. Also, to date, most of the communities have not actively participated either in the recruitment of physicians or the establishment of their medical programs. Since physicians in the Indian Health Service are Federal employees, their salaries are fairly standardized at rather low levels (\$17,000 to \$20,000 per year for new recruits). The average work week of IHS physicians practicing in a rural setting exceeds 60 hours. Although the use of coercion through the mechanism of the

military draft as a motivation had been a reality, the expiration of the draft legislation in 1973 has greatly reduced the impact of this particular factor. In spite of the fact that many of the variables mentioned previously are relatively constant and exert a relatively low level of influence in recruiting for the Indian Health Service, certain motivators nevertheless could be suggested to apply to the recruitment of physicians for this particular rural health program, namely:

1. Exposure to the Indian Health Service during training
2. Financial aid during medical school
3. The opportunity to practice as a member of an organized health care delivery system
4. The challenge, the adventure, and the opportunity to do something different
5. Idealism, a sense of social purpose, and a sense of accomplishment in the face of an overwhelming health need
6. Desire to live in a rural community
7. Desire to live in a cross-cultural setting and learn more about American Indians
8. Fulfillment of military obligation in case of a future draft

In the discussion which follows, these motivators are examined as they relate to the Indian Health Service physician recruitment efforts. Although the findings cannot easily be generalized to other health programs or communities, the fact that many variables commonly mentioned as capable of motivating physicians to practice in rural areas (for example, financial remuneration, cultural facilities) have been naturally held constant or operate at a very low level of influence, or both, tends to make such analysis collectively useful to other programs. In other words, although we may not be able to identify precisely the specific motivators that influence physicians to practice in some of the most remote areas of the country, we suggest that there is a group of motivators other than many of the commonly mentioned factors which are significant in influencing some physicians.

### Study Methods

The sources of information for our study were IHS records on physician applications and employment for the fiscal years 1970-74 and the results of an attitudinal mail survey of all new physicians (176) entering the Indian Health Service in July 1973. Records

Trends in employment of physicians in the Indian Health Service, fiscal years 1970-74

Items	1970	1971	1972	1973	1974
Applications <sup>1</sup>		700	500	300	100
Funded positions	437	466	522	536	523
Physicians on duty <sup>2,3</sup>	432	456	506	414	492
Vacancies <sup>3</sup> :					
Number	45	110	16	22	31
Percent of funded positions	1.1	2.2	3.1	4.1	5.7

<sup>1</sup>Estimated number on file 6 to 8 months before date of call to duty.

<sup>2</sup>Figures for 1970, 1971, and 1972 are believed to have been slightly higher than figures. Figures for years before 1972 are based only on unverified personnel computer reports and probably represent incomplete reporting, especially

of specialists and civil service physicians.

<sup>3</sup>At midpoint of fiscal year—December 31.

<sup>4</sup>Estimated. No accurate records available.

were analyzed primarily to ascertain the effect of the abolition of the physician draft on IHS physician recruitment and employment.

The aim of the survey was to elicit a valid response from each physician as to what had induced him or her to seek employment in the Indian Health Service. Being intentionally unstructured, the survey contained basically only one open-ended question: What prompted you to seek employment with the Indian Health Service? To guide the respondent, examples were given of subjective personal motivators (cross cultural experience, fulfillment of military obligation, challenge, interest in American Indians) and of objective recruitment techniques (magazine advertisements, direct mailings). We were at least as interested in learning whether the motivation recorded was personal or was related to formal recruitment techniques as we were in knowing the physician's specific response.

## Results

*Trends in physician applications and employment.* The trends in physician applications and employment over the fiscal years 1970-74 in the IHS records are summarized in the table. Until the end of the military draft, physicians applying to the Public Health Service were asked to submit their applications no later than December 31 for service that was to begin in July of the following year and to indicate if their preferred assignment was with the Indian Health Service. This request appeared on the application form. Selection of medical officers for the IHS was made from among those listing it as their first choice of assignment. The physicians selected were notified of their appointment before March 1. Since, however, most applications were received before October 1, the majority of the final selections were usually made before December 1. Thus, comparison of the numbers of applications received in various fiscal years is based on the number received before December 1 of the given year.

The table shows that the number of applications dropped dramatically between fiscal years 1971 and 1974, although the number and percent of vacant positions increased only slightly. The Indian Health Service did not suffer a severe loss of physician manpower, but the pool of applicants from which to select physicians shrank considerably.

*Responses to questionnaire.* Of the 176 physicians who were sent questionnaires (all new physicians entering the Indian Health Service in July 1973) 129 returned them, a rate of 72 percent. From these questionnaires and records of the IHS Recruitment Branch, we found that 85 of the 129 had originally applied to the Public Health Service before October 1972, listing the Indian Health Service as their first choice. Another 22 were already obligated before that date through commitments made to the Commissioned Officer Residency Deferment Program (CORD) or to the Commissioned Officer Student Training and Extern Program (COSTEP). The remaining 69 new

physicians were recruited between October 1972 and June 1973, after the mass media program got underway. The following table shows what prompted the 129 respondents to seek employment with the Indian Health Service, as revealed in their responses to the questionnaire:

<i>Motivating influence</i>	<i>Number of physicians</i>	<i>Percent of physicians</i>
Previous contacts with IHS personnel or former personnel .....	34	26.4
Previous contact with IHS facility .....	26	20.2
Interest in IHS or American Indian culture ..	22	17.1
IHS mailing .....	20	15.5
News article, magazine advertising, or Riker's Service advertisement <sup>1</sup> .....	6	4.7
Military obligation .....	4	3.1
Miscellaneous .....	17	13.2
Advice of classmates and friends .....	7	.....
Word of mouth .....	4	.....
Medical school contacts .....	3	.....
Location of hospital .....	1	.....
Service to country .....	1	.....
Mental health .....	1	.....
Total .....	129	<sup>2</sup> 100.2

<sup>1</sup>Riker's Service is a monthly free classified advertising publication for physicians.

<sup>2</sup>Components do not add to 100.0 because of rounding.

Previous personal contacts with IHS personnel or former personnel accounted for the recruitment of more of the new physicians (34 of the 129) than any other single influence. Most of the 34 were recruited before October 1972. Twenty-six respondents were influenced, they said, by a previous contact with an IHS facility; 13 of these had worked on reservations as medical students, their earlier temporary assignments having been arranged through Project Hope, IHS Area offices, university affiliations, volunteer organizations, the Junior COSTEP program, and in other ways. Seventy-four of 129 (57.5 percent) were recruited through some type of personal contact or experience. Only four respondents said that need to fulfill their military obligation was the primary factor in their recruitment. Few indicated that the selling points used in the IHS recruitment efforts had influenced them in seeking IHS employment.

Fifty-six of the 69 new physicians who were recruited after October 1972 completed questionnaires; they indicated that the following factors had been significant in their recruitment:

<i>Motivating influence</i>	<i>Number of physicians</i>	<i>Percent of physicians</i>
IHS mailing to interns .....	17	30.4
Contacts with IHS Area personnel or former personnel .....	11	19.6
Recall to active duty .....	4	7.1
Transfer from other part of Public Health Service .....	4	7.1
Magazine advertising .....	3	5.4
Previous personal contact with an IHS facility .....	3	5.4
Riker's Service advertisement .....	2	3.6
Miscellaneous influences (medical school contacts, individual motivation, service to country, and so forth) .....	12	21.4
Total .....	56	100.0

As the preceding table shows, 17 interns responding to an IHS mailing to all U.S. interns were recruited for July 1973 service. The cost-effectiveness of the fall 1972 centralized mass advertising campaign, however, cannot be assessed by only counting the physicians who were recruited for service starting in July 1973. The majority of the 350 respondents to the mailing directed at interns expressed interest in an IHS position, but in the future, presumably after a residency. It takes time for advertising to have an impact, for the person at whom it is directed to consider the message and respond, and for the Indian Health Service to follow up, process applications, and screen and place applicants. Moreover, the long-term training plans of medical students, interns, and residents affect their responses to recruitment efforts, and the responses of mid-career physicians may be affected by the need to arrange for such matters as orderly transfer of patients and the moving of their families from one location to another. Since recruitment efforts may not bring results until sometime in the future, given the tendency of physicians to make decisions about career changes well in advance, a major aim of the 1972 campaign was to build up a file of persons with a future interest in becoming IHS physicians.

The Riker's Service advertising, which 2 of the 56 respondents said prompted them to seek IHS employment, was clearly the most economical recruitment technique used. The only expenses incurred with this technique were for collect phone calls to the IHS Recruitment Branch made by persons responding to these advertisements.

Advertising in medical magazines in the first 3 months of 1972 motivated 3 of the 56 respondents to seek IHS employment. Again, most of the 600 inquiries received as a result of this advertising were concerned with future IHS openings. Only half of the inquiries, however, came from physicians.

In a recruitment effort completely oriented to the future, the Indian Health Service sent a mailing to all U.S. fourth year medical students in the spring of 1973. This target population would not be available for service before July 1974 at the earliest, and perhaps not even then if a residency was planned. As of July 15, 1973, 150 persons had responded.

Twenty-two of the 56 respondents were recruited by direct advertising (mailings, magazines, and Riker's Service). Again, the impact of the advertising extended beyond these 22. By July 15, 1973, the IHS Recruitment Branch had files on more than 500 persons who had responded to the advertising and had been sent

answers to queries about positions that would be available in the years 1974-76.

Those recalled or transferred from other Public Health Service Branches numbered eight. Certainly they were aware of the Indian Health Service before the recruitment campaign.

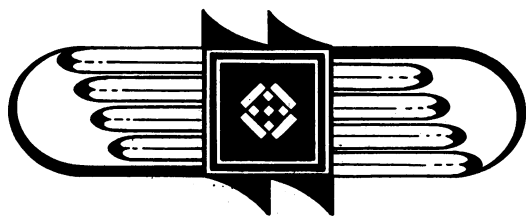
Another significant group of physicians are those who attributed their interest in the Indian Health Service to their own previous personal contact with IHS facilities. These may be considered with those who stated that they were recruited by IHS Area personnel or former IHS personnel. Together these sources accounted for 14 new physicians.

## Discussion

The findings, as revealed by IHS records, clearly suggest that factors other than the coercive effect of indirect conscription via the military physician draft are capable of motivating physicians to join the Indian Health Service. Nevertheless, the dramatic decline in applications and the slowly rising vacancy rate strongly suggest that the physician draft was very influential in motivating physicians to join the Indian Health Service and that the ability of the program at present to recruit an adequate number of physicians is marginal. Also, the decline in applications and the rising vacancy rate tend to indicate that the program is probably presently seeking persons from a somewhat different basic pool, probably physicians with somewhat different experience, background, personality characteristics, and needs who are influenced more strongly than their predecessors by motivators other than the physician draft.

Studies to identify the characteristics or traits of physicians who can be attracted to employment in rural, isolated communities and the factors which induced them to practice in such settings have not proved overly fruitful. One reason probably is that it is difficult to determine the relationship between multiple, complex, subjective, personal criteria (such as experiences, feelings, ego needs, attitudes, prejudices, perceptions, and personality characteristics) and the numerous motivators in the rural practice environment (such as remuneration, setting and organization of the practice, and challenge of the job). Very few "neat" objective indicators of a proclivity toward rural practice have been identified, such as age, sex, or place of birth, for example. In an experimental study designed to identify, measure, and rank the multitude of personal characteristics and motivators that may influence a physician to seek rural employment, there are so many confounding variables for which to control that the results may well be of questionable validity and reliability.

Although such characteristics and motivators might be identified, to pragmatically measure and rank them in thousands of individuals on a prospective operational basis would be a most arduous task. This does not mean to suggest that certain variables that serve as



motivators or deterrents to attract physicians to rural practice cannot be enhanced or diminished with positive measurable results, but only that in a statistical sense it might be difficult, if not impossible, to attribute success or failure to the manipulation of any such variables.

If the characteristics and motivators that lead physicians to seek IHS employment cannot be identified with any degree of confidence, then our recruitment cannot be focused initially on a limited personnel pool comprised of likely candidates but will have to be directed at a larger group with largely undelineated characteristics. To allow maximum exposure of this group to our recruitment message—to make them aware that their services are being sought and that the IHS offers certain specified advantages—the use of mass media and other aggressive recruitment techniques, such as providing medical students with experience in IHS facilities or visits by IHS personnel, seems imperative. Once the large group is exposed to such techniques, more intensive efforts can be made to attract those expressing more than a casual interest in IHS employment.

At the same time, we can strive to enhance motivators (for example, remuneration, professional experience, group practice setting) which we empirically believe will improve physician recruitment, although statistically we might not be able to attribute success or failure to the manipulation of any specific variables.

In our attitudinal survey, we were trying to ascertain the best ways to disseminate information to a large group of physicians, some of whom might be potential candidates for IHS employment, and we were seeking to discover what inducements would have the greatest impact in motivating physicians to join the Service.

Sixty of the 129 respondents in the survey attributed their entry into the Indian Health Service to their contacts with an IHS facility or with former IHS personnel. Thus, placement of more medical students in IHS facilities and making greater use of personal contact by present or former IHS personnel would probably enhance recruitment efforts.

The high proportion (74 of 129) of physicians indicating that some kind of personal contact or personal experience prompted them to seek IHS employment further suggests personal contact as an area for emphasis in recruitment. Exactly what motivators came into play in these contacts and experiences was not elicited. Among the possibilities are the overwhelming health need, unique IHS health delivery programs, challenge, adventure, possibility of cross-cultural experiences, desire for rural living, and the professional experience. The motivators, of course, would vary from person to person and the degrees of response they elicited could also vary. Perhaps, however, the impact that personal experiences and personal contacts had on recruitment was due more to the high degree of credibility they established rather than to the stress on particular motivators.

According to IHS records, 90 percent or more of the physicians who received financial aid from the Indian Health Service over the past 5 years for senior medical school expenses chose to honor their obligation and serve with the program. This fact suggests that scholarships are an effective, although expensive recruitment motivator. A portion of the physicians who received scholarship aid possibly would have joined the IHS even if they hadn't received it. It would be of interest to know what prompted the physicians who received such aid to seek support from the Indian Health Service rather than from other sources. Possibly the reasons given would be the same as those given for joining the Service.

Although examples of external recruitment techniques and personal recruitment motivators were given the respondents, the question that we asked the physicians entering the IHS was essentially open to individual interpretation. The fact that so few (29 of 129) responded in terms of personal motivators and that more than 75 percent (100 of 129) chose to respond in terms of external recruitment techniques may reflect the difficulty that even the physician himself faces in seeking to identify the frequently complex and overlapping motivators that led him to join the Indian Health Service. The survey question is probably as difficult to answer completely and honestly as the question: Why did you become a physician? Moreover, if through a detailed, structured format the question could have been more completely answered, the physicians' responses would probably have been so multifaceted that they would not have helped much in identifying the potential for employment with the IHS. Also, when specific personal motivators are listed in a structured format, the answers may not represent the respondent's actual reasons for joining the Service but rather a socially gratifying reason, one that he considers "proper."

When the military draft was operational, for example, most physicians gave socially acceptable reasons on their applications for seeking IHS employment—helping the Indian people, serving one's country, and so forth. Few listed avoidance of service in a military setting. Yet, as the military draft was phased out, there was a tremendous decline in applications for IHS employment.

Twenty-six respondents said that the IHS mass publicity was what prompted them to seek employment. Since such techniques were not extensively used until nearly two-thirds of the physicians had already been recruited, these techniques are apparently useful. Forty percent (22 of 56) of the respondents recruited after the mass media campaign began indicated that they were attracted to the Service by this publicity. Some physicians, however, who became aware of the IHS through the mass media initially may have ultimately sought IHS employment for other reasons.

Less than 25 percent (29 of 129) of the respondents gave reasons related to personal motivators; the rest

said that an external recruitment technique was responsible for interesting them in the Service. Of those 29 respondents, 22 (17.1 percent) claimed that they were individually motivated by an interest in the Indian Health Service or in American Indian culture. These answers suggest that the unique features of the IHS's health care delivery program and the cross-cultural benefits to be derived from IHS employment might well be stressed.

We did not find that any of the specific motivators that were stressed in the IHS recruitment campaign were major factors in physicians seeking service with the IHS. To determine the quantitative impact of a specific motivator on an individual was not even attempted.

## Conclusions

Because it is so difficult to define, measure, rank, and identify the characteristics that make physicians amenable to recruitment into the Indian Health Service, recruitment cannot start with a well-defined pool of prospective IHS physicians. A more useful approach is to perfect systems for dissemination of information about the Service to large numbers of physicians and to use these systems to reach a large group of potential recruits. These physicians will probably respond to a different degree to multiple motivators and practice self-selection for IHS employment on the basis of their individual personal characteristics, experience, and

needs. In this approach, extensive use of the mass media and other communication techniques seems essential, especially in initially acquainting physicians with the IHS program.

The most potent motivation apparently comes from personal contacts with persons in, or familiar with, the IHS program and from personal experience in serving in such a program. Therefore, recruitment visits by present and former IHS employees and Reservation visits or experiences by potential recruits appear most efficacious.

Certain more or less fixed characteristics inherent in the IHS system and aspects of the Native American culture should probably be stressed. Appeals can also be made to the person's idealism, his or her desires for participation in a group practice, and for the opportunity afforded to fill a health need. More objective and external means of motivation, such as monetary ones, can be stressed; they can also be enhanced or diminished to test by trial and error their relationship to the desired result—an adequate supply of physicians. For example, the effect of increasing or reducing the salary offered physicians might be evaluated, taking care, however, not to infer that every change in the supply of physicians directly results from such a change. Likewise, the effects of stressing certain subjective motivators, such as idealism, can only be evaluated in relation to the desired end product of an adequate supply of physicians.

## SYNOPSIS

HOSTETTER, C. L., (Indian Health Service), and ELSEN, J. D.: *Multiple variable motivators involved in the recruitment of physicians for the Indian Health Service. Public Health Reports, Vol. 90, July-August 1975, pp. 319-324.*

Attracting physicians to serve in isolated areas, often with marginal facilities, support staff, and remuneration, has long been a problem of the Indian Health Service (IHS). Until recently the physician draft was instrumental in motivating physicians to accept such assignments. Realizing that this "negative incentive" would no longer operate when the draft ended as of July 1, 1973, in the fall of 1972 the IHS staff launched some major "positive" efforts to recruit physicians. The mass media and other communication techniques were used to try to sell U.S. physicians and medical students on what the Service could offer them in terms of adventure, challenge, personal fulfillment,

idealism, and the opportunity to be part of a progressive, comprehensive health system. Such efforts assisted in recruiting 69 physicians to begin service in July 1973. These 69 were in addition to approximately 100 who had already been recruited from among persons who had expressed interest in joining the Indian Health Service or who had applied to it before inception of this major recruitment effort. As of July 1, 1973, however, the Service was still approximately 30 physicians short of filling 200 vacancies.

In June and July of 1973, an evaluation was done to determine what had motivated the 169 physicians to join the Indian Health Service. They were asked an open ended question: What prompted you to seek employment with the Indian Health Service? Whether physicians listed personal, subjective motivators or recruitment techniques was of as much interest as the specific answers they gave. More than 75 percent (100 of 129) mentioned recruit-

ment techniques, such as magazine advertisements, rather than personal motivating factors, such as challenge. Personal contact with a present or former IHS physician seemed to be especially influential in attracting physicians.

The present state of the recruitment art does not provide the means to adequately identify, qualify, quantify, and rank the multiple motivators that prompt physicians to join a program such as that of the Indian Health Service; nor does it allow for meaningful, predetermined identification of a limited pool of physicians who would have a high probability of joining such a program. At present, the best recruitment strategy appears to be to saturate the entire physician "marketplace," stressing with a variety of techniques the positive aspects of IHS employment. Physicians then select themselves for such employment by exhibiting a more than casual interest in the Indian Health Service.