A COMPARISON OF FOLK HEALTH BELIEFS AND PRACTICES BETWEEN LADINO WOMEN OF DENVER, COLORADO AND SAGINAW, MICHIGAN

Thesis for the Degree of M. A.

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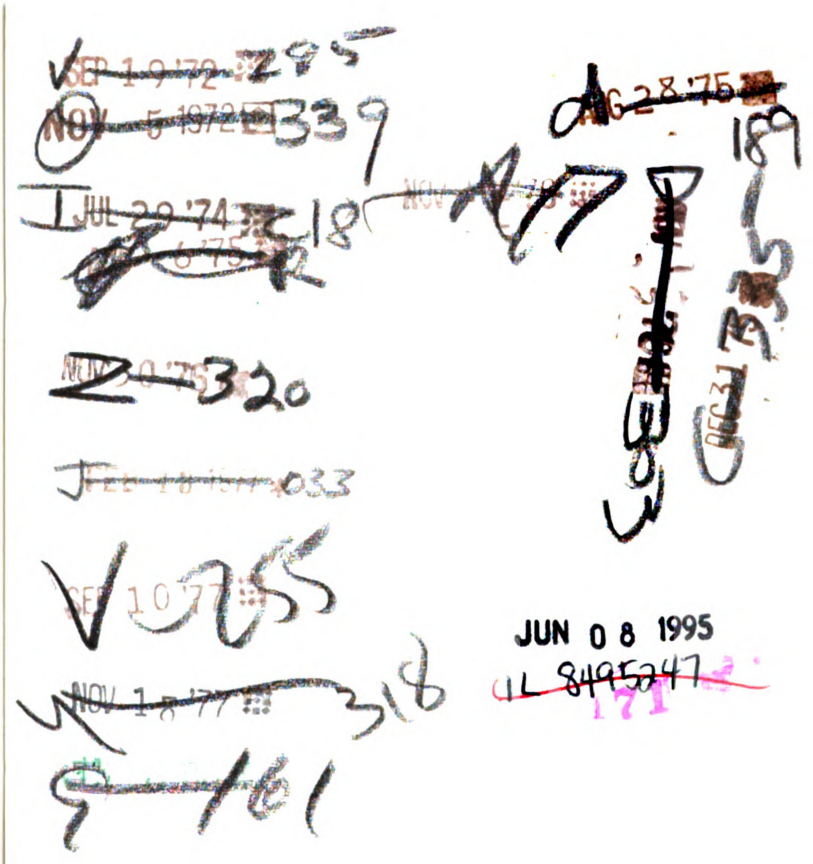

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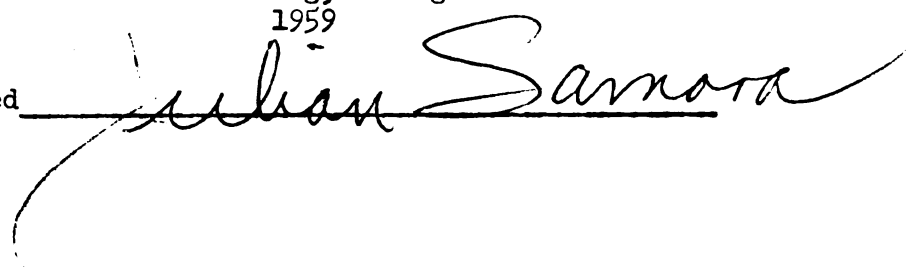
By

Victor Goldkind

AN ABSTRACT

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Sociology and Anthropology in Michigan State University

East Lansing, Michigan
1959

Approved 

VICTOR GOLDKIND ABSTRACT

The main purpose of this thesis is to test the basic hypothesis that Ladino residents of Saginaw will show less adherence to folk medicine than those of Denver. This hypothesis was tested in terms of a series of questions on folk medicine asked of a group of women patients of Denver General Hospital and another group of women past and present out-patients of the Guadalupe Clinic in Saginaw. Although there was reason to believe that answers to questions on health might be influenced by two variables--age and grade of school completed--the number of women interviewed (76) was too small to allow for the simultaneous control of these variables. But since the Saginaw women were seen to be significantly older and less schooled than those from Denver, age and school grade completed as separate variables were each tested with respect to answers to the questions concerning folk medicine. When significant differences were found between older and younger women, or between women with less and more schooling, these differences about specific questions were used as the bases of specific hypotheses about what would be expected in comparing Denver and Saginaw women, given the differences between these two groups of women in age and schooling. Then these hypotheses were tested in a series of tests comparing the Denver and Saginaw women.

The results of this study may be said to confirm in some respects and refute in others the hypothesis that Saginaw women show less adherence to folk medicine than do those of Denver. The hypothesis is

supported, in that Saginaw women show significantly less adherence to folk medicine than would be expected, given their age and education, with respect to:

1. Delivery of babies at home rather than hospital.
2. Willingness to admit knowledge of cases of witchcraft.
3. Responding positively to any of ten indices of belief in witchcraft.
4. Knowledge of a group of 21 folk medicines.

The hypothesis is refuted, in that Saginaw women do not significantly differ from those of Denver, with respect to:

1. Use of curanderas.
2. Personal experience with witchcraft.
3. Belief in effectiveness of curanderas
4. Use of a group of 21 folk medicines.

The hypothesis is most spectacularly refuted by the finding that significantly more Saginaw than Denver women responded positively to nine or ten of ten indices of belief in witchcraft. However, this suggests that there may have been greater belief in witchcraft among Texas Ladinos at the time of migration to Saginaw than among Denver Ladinos at the time of this study. The results suggest the hypothesis, which would require considerable further testing, that belief in folk medicine, or willingness to report belief, is more readily changed by change in residence than the actual practice of reporting of the practice of folk medicine.

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ACKNOWLEDGEMENTS

I would like to express my appreciation to the following members of the Department of Sociology and Anthropology for their help in the preparation of this thesis: J. Allan Beegle, Harold Goldsmith, Charles P. Loomis, and Julian Samora. Special thanks are directed to Julian Samora for having directed the thesis and to Charles P. Loomis for the original idea and research design for the study, as well as financial support from his research grant to study Anglo-Latino relations. Great appreciation is expressed for the splendid cooperation of Fathers Theodore Lamarre and Robert Keller and to Sister Lucia of the Guadalupe Clinic in Saginaw, and to the administrative staff of the Saginaw General Hospital. Many thanks are due to Lyle Saunders and Julian Samora for making available their data collected at the Denver General Hospital.

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CHAPTER I

INTRODUCTION

The main purpose of this study is to determine whether or not there are significant differences between certain samples of the Ladino populations[1] of Denver, Colorado, and Saginaw, Michigan, with respect to beliefs and practices of folk medicine. A number of studies[2] have described the prevalence of traditional medical folk beliefs and practices among Ladinos in the southwestern part of the United States. But adherence to the traditional folk medicine seems to be diminishing where acculturation to Anglo ways is strongest. Charles P. Loomis, in a study of a county health organization in New Mexico,[3] makes the following generalization: "The further the acculturation process resulting from the invasion of Anglo culture

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1 The term Ladino in this thesis is intended to refer primarily to the subcultural ethnic group popularly called "Mexican." This group of people is derived from several origins. Some are descendents of ancestors who settled in the southwest long before there was a country named Mexico and long before the arrival of migrants from the eastern part of the United States. Others derive from ancestors who migrated from the country of Mexico; some themselves migrated from Mexico; many were born in the United States and have never seen Mexico. Because of this latter group, and the fact that "Mexican" is a term often used invidiously, the term "Spanish-speaking" has been used. Not only is this term awkward, but it seems that some people undoubtedly members of this subculture do not or even cannot speak Spanish! Some term is needed to distinguish the group from those who share the dominant, "Anglo" culture of the United States, and the term Ladino will be so used in this thesis.

2 Notable among these are Lyle Saunders, Cultural Differences and Medical Care, New York: Russell Sage Foundation, 1954; and Mary Margaret Clark, Sickness and Health in Sal si Puedes: Mexican-Americans in a California Community, Unpublished Ph.D. thesis, University of California, 1957.

3 Charles P. Loomis, "A Cooperative Health Association in Spanish Speaking Villages: The Organization of the Taos County Cooperative Health Association," American Sociological Review, 10: 149-157 (April, 1945).

has proceeded . . . the less the influence of the /folk medical/ beliefs."

Scope of the Study

The underlying assumption of this thesis is that Ladinos settled in Denver, in the midst of the traditional Ladino culture area of the southwest, tend to retain more of the traditional folk culture than those who have migrated to reside in the more industrialized north, separated by long distance from the main body of Ladino population from which they derive. Hence the basic hypothesis of this thesis is that Ladinos settled in Saginaw show less belief in the practices of folk medicine than those in Denver.

If folk medical beliefs and practices were found to occur less among Ladinos in Saginaw than in Denver, this would support the hypothesis that either those who migrate to industrial centers in Michigan are less traditional in their folk beliefs, or that residence in such an industrial center has the effect of speeding the change from traditional folk medical beliefs and practices to those of the Anglo population. If no significant differences between Saginaw and Denver were to be found, then the hypothesis would be supported that migrants to industrial areas in Michigan are not less traditional in their folk beliefs and that residence in such an area does not speed the change from folk to Anglo beliefs and practices, at least not for the length of residence of the Saginaw sample.[4]

Because the Saginaw Ladinos represent the results of a migration from the southwest, no provision could be made in this study for separating the effects of the two distinct variables, migration to Michigan

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4 Of the 40 women in the Saginaw sample, only one had lived in Saginaw for as little as two years, only four for less than five years. Over three-fourths had lived in Saginaw for seven or more years, over half for more than ten years.

and residence in Michigan as factors influencing the beliefs of those resident in Saginaw. Nor could differential availability of scientific medicine be controlled for--its apparently greater availability in Saginaw will have to be treated merely as one of the differences in the urban industrial north.

Because of its identification with the dominant Anglo culture, its greater medical effectiveness, and its increasing availability through welfare programs, scientific medicine is probably gaining adherents--however slowly--among all groups in the United States previously committed to folk medicine. Granting this assumption, it is likely that these inroads are occurring more among young persons than older ones (usually more conservative in all societies), and more among those with a greater number of years in school, where Anglo ways are emphasized. These hypotheses are also tested within the framework of this study, but primarily to control for possible significant differences between the Denver and Saginaw samples.

Folk Medicine and Scientific Medicine

Before passing on the methods and results of this study, let us take a brief look at the nature and context of the folk medical beliefs and practices of concern here, especially as these have been discussed by Saunders,[5] who did much of his work with the Ladino population of Denver.

The interest in the folk medicine of Ladinos in the southwest part of the United States has become an increasingly practical one for

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5 Saunders, op. cit., pp. 141-173, passim. All citations refer to these pages.

personnel in the field of health as they have encountered seemingly strange behavior in attempting to attend the health needs of Ladinos. For example, why should a person seriously infected with tuberculosis choose to remain at home and risk an early death, as well as exposure of his loved ones to the disease, rather than go to a sanatorium for a probable cure at no cost to himself? Why should a person with an illness which obviously has long needed medical attention come to a doctor only when the disease has become so serious as to require his hospitalization? Why should the advice of an uneducated, even illiterate person be preferred to that of a physician or nurse? Why should a mother fail to keep appointments at a free clinic for treatments which would prevent her newly born baby from falling victim to possibly fatal illness? Certainly people have different customs, but what kind of people apparently prefers sickness over health, even death over life, for themselves and their loved ones?

Before examining the folk medicine specifically underlying this seemingly "strange" behavior, it is necessary to understand certain realities about the general subject of medicine and illness. First, it must be realized that what is considered to be illness is a matter of cultural definition, whether by an illiterate, rural Ladino population, by highly educated Anglo city dwellers, or by medically educated professionals. It is true that the latter approach the subject from an ostensibly scientific point of view, but the actual practice of medicine is not simply a matter of science. Because of the high value placed on human life in this culture, doctors often must act on incomplete evidence and on intuition. The practice of medicine has been

called an art, even though doctors attempt as far as possible to use knowledge which has scientific support. But opinion as to what is the best practice changes with time; and certainly not all doctors are of the same opinion about all specific matters, nor are they all equally rigorous in scientific procedures, nor equally well-informed about the most recent developments in their vast field. Although a particular physician may be wrong in a specific case, it is assumed here that physicians as a group have more valid knowledge about how to cure illness which they have been trained to recognize and classify as illness than does the lay person. But, as we shall see, there is a whole class of illness in folk medicine which physicians have not been trained to recognize. From a sociological point of view, the physician's notion of illness and treatment may be regarded as part of what has been learned in socialization into the medical subculture.[6]

Both "science and the "expert" have a great deal of prestige in Anglo culture. Both unite in the status of the physician to invoke a high degree of faith on the part of most Anglos toward the medical doctor and scientific medicine as Anglos understand it and as culturally defined in their particular subculture. But this does not mean that people with faith in the results of scientific medicine are themselves scientific in attitude or behavior, any more than a person who drives a car has either the physicist's knowledge or understanding of scientific rigor. The common act of faith in the efficacy of the medical doctor, the approved status in Anglo culture for treating illness, is

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6 See Robert K. Merton, George G. Reader, Patricia L. Kendall, Editors, The Student Physician, Cambridge: Published for the Commonwealth Fund by Harvard University Press, 1957

socially and psychologically similar to the act of faith in the witch doctor as a curer of illness in a tribal society in which the witch doctor is the culturally defined expert and agent of cure.

But the discussion up to now is misleading in its assumption of a homogenous Anglo culture, which includes reliance on the scientific medicine of physicians, contrasting with a homogenous Ladino culture in which there is uniform reliance on folk medicine and folk practitioners. Actually, both cultures vary regionally, according to ethnic origin, and by class structure. There is reason to believe that much of the alleged extreme differences between medical beliefs and practices in the two cultures reflect a difference in class, a relatively large proportion of Ladinos being lower class.

Koos,[7] in a study of a village and hinterland of some 2,500 households in New York State, found a marked difference among classes with respect to health beliefs and practices. The population was grouped into three classes according to the occupation of the family head[8] as follows:

CLASS	OCCUPATION OF FAMILY HEAD	PER CENT OF POPULATION
Class I	business, professional	8
Class II	skilled, semiskilled workers farm owners and tenants	66
Class III	laborers, including farm	26

7 Earl Lomon Koos, The Health of Regionville, New York: Columbia University Press, 1954.

8 "Residents of Regionville were assigned positions in the social class hierarchy according to their positions in the occupational hierarchy, but only because these positions were found to be highly correlated with the way people grouped themselves in their everyday associations." Ibid., p. 18 (Emphasis in the original.)

Koos found that recognition of the importance of the symptoms of illness was "uniformly high among the Class I respondents," somewhat less for most Class II respondents, but much less for Class III respondents who "showed a marked indifference to most symptoms." Said a public health nurse about these differences:

> I would expect something like this. Poor people in our part of the state don't know much about sickness . . . As for backache, tiredness, and stiffness, why should they worry about those? Heavens, they're second nature to poor people, with bad diets, poor post-natal care, too much work, and all the rest. I'd be surprised if they didn't say these things. [9]

The existence of a medical subculture creates problems within Anglo culture. More dissatisfaction with treatment by doctors was expressed by Class II than by Class I respondents, and even more by Class III respondents. Koos engaged in further questioning of the latter on the subject:

> The total impression gained from the questioning was that much of the dissatisfaction resulted from a lack of communication between the physician and his patient. Part of this lack was due, no doubt, to the fact that physician and patient too often represent differing subcultures, and 'speak different languages.' The practice of medicine in Regionville as elsewhere, was a recondite science (and art), and some of these differences were undoubtedly unavoidable. It appeared, however, that some of the 'scientific distance' between patient and physician was artificial, and could be reduced. [10]

Koos found that as one descended from Class I to III, the greater economic difficulty in paying for medical care in addition to subcultural differences made for increasing resistance to complying with

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9 Ibid., p. 33

10 Ibid., p. 75-77

the demands of scientific medicine. The following is a revealing statement from a woman of Class III who was discharged from a hospital after childbirth "with the strict admonition to return to her physician for postnatal examination."

> I would have had my kid at home, but the doctor wouldn't let me. I was born at home--all my kin was, too . . . I almost was mad enough to stay at home and just have my mother or somebody help me. But I went to the hospital, and then he wanted me to come back--just to get the money for another visit, I guess . . . Nuts to him, I said. I didn't see any reason to go--I felt fine, so I just didn't. I'm not going to do something like that when my mother didn't, and my girl friends don't neither. [11]

Many, especially in the lower classes, seemed to prefer consulting a chiropractor rather than a medical doctor. There was also a great reliance on the prescriptions and diagnoses of the druggist, and many families in Classes II and III made great use of various patent medicines, rather than seek medical treatment. As one Class III woman put it:

> My husband and I take C----- Liver Pills regular. We get to feeling stuffy if we don't, and keeping your liver flushed out gets rid of the stuffiness. . . Once in a while I take S------ Kidney Pills, too. It's good to flush out your kidneys once in a while. . . If I do this, I don't get sick. [12]

Similarly, two recent studies in Iowa,[13] of an Old Order Amish settlement and a Bohemian (Czech) speech community, reveal similar

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11 Ibid., p. 75

12 Ibid., p. 89

13 Edward Kibbe and Thomas McCorkle, Culture and Medical Behavior in a Bohemian Speech Community in Iowa. Iowa City: State University of Iowa Institute of Agricultural Medicine. Bulletin Number 1; November 1957. And, Jochem von Heeringen and Thomas McCorkle, Culture and Medical Behavior of the Old Order Amish of Johnson County, Iowa. Iowa City: State University of Iowa Institute of Agricultural Medicine. Bulletin Number Two; March, 1958.

departures from the ideals of "Anglo" medicine. The Amish are described as beliving that basically God determines which individuals become ill, and yet at the same time, they recognize the germ theory of disease and are willing to take "common sense" measures to insure health. Although the continued presence of folk practitioners is denied, the Amish prefer consulting chiropractors rather than physicians. And folk medicine does persist in the form of home curing, which makes use of various herbs, teas, tonics, and ointments, which however, are being replaced by patent medicines sold by peddlers. Although the Amish are not noted for being free spenders, they do not seem to be conservative in the purchase of "mineral" and "vitamin" pills. But all of these practices and beliefs are reported as occurring among many other Iowans.[14]

The Czechs are also reported to have made greater use of folk remedies in the past, with drugstore products now replacing many of the old ingredients. Older people remember folk practitioners in the area, but these may no longer exist. It is suggested that the chiropractor may be filling the role of the folk practitioner, because people prefer to consult the chiropractor, whose friendly and pleasant manner and more convincing explanation of illness is preferred to the professional manner and higher fees of the physician. The initial reaction to symptoms of illness is to ignore them in the hope they will disappear; if not, various folk cures are tried, usually consisting of poultices made from any of a variety of substances, from pigs' ears to cow dung. If the symptoms persist, friends will come to suggest

14 Ibid. p. 27-28

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14 Ibid. p. 27-28

remedies, and only as a last resort will the chiropractor or medical doctor be consulted.[15]

No one is more aware of the unscientific basis of the popular beliefs about illness in the United States than the physician. Millions of dollars worth of patent "medicines" are sold in the United Sates every year, thanks in part to advertising which skillfully employs "scientific" symbols in appealing to a public which strongly believes in "science" and yet has little comprehension of what scientific attitude or procedure involves. Illness of whatever kind is rarely perceived by its victim in cold objectivity. Its perception is usually subjective and often highly emotional. Physicians too often encounter the person who has allowed fear of the possible seriousness of his illness to postpone consulting a doctor until first giving the patent medicines a chance, thus allowing a serious illness to extend itself.

On the other hand, patients sometimes find that several different physicians must be consulted before one of them is found to have an effective course of treatment. And there is the problem of when to go to a doctor. If one describes symptoms which the doctor knows are not serious, he is apt to laugh and dismiss them as of no importance; if one persists in coming to a doctor with such symptoms or taking them seriously, he will be considered peculiar or neurotic. But if a person decides that a particular condition is of no importance and it continues until he finally does go to a physician who diagnoses it a serious illness, the doctor is likely to castigate the person for not having reported to him "at the first sign of anything wrong." As Samora has

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15 Kibbe and McCorkle, p. 9-18; 25-26

put it, the first diagnosis really must be made by the patient. Fortunately, in most illnesses the mere passage of time (and perhaps rest) is enough for the body to cure itself without external aid. So no matter what is or is not done in the way of treatment, most illness is "cured." And when there is faith in the effectiveness of some medicine or procedure, even if it should have no direct organic effect, it might have the effect of organizing the emotions to support the body in defending itself most effectively.

The main difference in the beliefs of lay persons who have faith in scientific as opposed to folk medicine would seem to consist in contents of the respective beliefs rather than in the basic attitudes toward these beliefs, or in the extent to which these beliefs are rational or scientific, or in the quality of the intellectual processes which support them. In short, the crucial difference is with respect to just what is culturally defined as meriting faith as curative agents and procedures.

It is also generally true that folk medicine is less the monopoly of a few specialists than is scientific medicine. Although folk medicine has its specialist, their knowledge of the subject is not considered such an exclusive province as is scientific medicine that of the physician. Most adults in the folk-like society in which folk medicine develops concern themselves with knowledge of folk medicine, consider their opinions of the subject to merit respect, and feel free to engage in medical discussions with specialists on a basis of relative equality completely alien to the doctor-patient relationship of scientific medicine.

George M. Foster [16] joins with Sanders in emphasizing that the practices and beliefs of folk medicine are very much functionally integrated into the culture of a people. Rather than being a random collection of dubious beliefs, they constitute a systematic approach to problems of health which is as whole-heartedly accepted, rooted in tradition, and reinforced by the folk culture as a whole, as any aspect of social life. The normal attitude to any element of folk medicine is uncritical acceptance. In case of illness, a remedy is tried. If it works, that is only what was to be expected; if not, the failure is rationalized, and something else is tried. If the patient does not recover, then he was beyond help. No outcome will necessarily shake the faith of believers in the efficacy of folk medicine. The same holds true for those who have faith in scientific medicine, and similar reasoning occurs in case of failure. Saunders points out that both folk and scientific medicine derive much of their prestige among their respective adherents from the fact that the majority of sick persons get well regardless of what is done.

Saunders also indicates that folk medical practices are not accepted uncritically. With the passage of time there is a rough empirical evaluation--in some cases ineffective remedies drop out of use and effective remedies are employed more frequently. Some such process is necessary to explain the findings of the late Dr. Edgar H. Lucas, Professor of Horticulture at Michigan State University. Lucas found

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16 George M. Foster, "Relationship Between Theoretical and Applied Anthropology: A Public Health Program Analysis," Human Organization 11: 5-16, Fall, 1952.

that while at most 15 per cent of a random sample of all plants had antibacterial characteristics, some 60 per cent of a sample of plants mentioned as medicinal in folklore had antibacterial characteristics in vitrio. Because some extracts are effective in living organisms although not in test tubes--e.g., extract of garlic inhibits tuberculosis in mice, but seems to have no effect on tuberculosis germs in vitrio--Lucas was confident that fully 90 per cent of the plants mentioned in folklore as medicinal will prove to have some scientific basis for this belief. Among his more spectacular findings is the fact that one part garlic vapor in two billion parts of air has a retarding effect on the growth of some microorganisms, thus justifying the European peasant custom of the clove of garlic placed around the neck of a child during certain epidemics. The position around the neck would be the most effective place for the garlic vapor to protect the child by acting on the air being breathed in. [17]

Saunders goes on to say that:

> Between scientific medicine and folk medicine there is a constant two-way interchange. Remedies that have been developed by scientific medicine becomes a part of the pharmacopoeia of folk medicine (for example, aspirin to relieve headaches or other minor aches and pains) and others with a long history of folk use are 'discovered,' analyzed, tested, and ultimately become a part of scientific medicine (for example, curare, quinine, cocaine). It is not the materials or procedures that determine whether a given technique represents folk or scientific medicine, but rather the way in which they are used and the body of knowledge or belief that lies behind the use. Scientific medicine is rooted in a precise knowledge of cause and effect relationships and a critical attitude toward both practices and results. Folk medicine is

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17 Personal conversation. Also see E. H. Lucas, "The Role of Folklore in Discovery and Rediscovery of Plant Drugs," The Centennial Review of Arts and Science, Spring 1959, pp. 173-188.

> neither precise or critical. It is rooted in belief not knowledge, and it requires only occasional success to maintain its vigor. [18]

Ladino Folk Medicine

Some of the characteristics of Ladino folk medicine are reminiscent of the Amish and Bohemians, as well as the lower class Anglos of Regionville described above. There is a conviction that human welfare is in the hands of God, coupled with a willingness to take some curative action in the case of recognized illness. And there is the tendency not to define such "normal" conditions as aches, pains, and tiredness as illness, and to thus ignore them. In case of illness, the first step is often treatment by some family member, and only afterwards by a folk practitioner, while a physician is consulted only as a last resort.

Saunders describes the illnesses recognized by Ladinos as of several types. There are those resulting from known external factors operating directly on the organism, e.g., microorganisms, contact with an infected person, eating improper foods, failure to keep a "clean stomach," and "bad air." Although some of the illnesses thus resulting are not recognized in scientific medicine, many are, e.g., colds, rheumatism, tuberculosis, pneumonia, worms, diarrhea, veneral disease. Psychological illness caused by strong emotional experience may also result in states recognized as illness by scientific medicine, but in addition, there are some which are not so recognized, e.g., some types of susto (fright). But these overlap into the realm of magical illness, the distinction not always being clear. Susto, or something very similar to it, may

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18 Saunders, op. cit. p. 146

be caused by witchcraft. Mal ojo (evil eye) occurs especially in young children and is due to someone's "strong glance," although this may be completely unintentional.

There are a great number and variety of remedial measures: herb preparations, the consumption or avoidance of particular foods, massage, various types of bathing, prayers, religious formulae, charms, incantanations, and such borrowings from scientific medicine as injections and patent medicines. The ordinary person is considered fully competent to use any of these for treating any mild disorder. In most cases such treatment for a long enough period of time, as explained previously, will be accompanied by a disappearance of the disorder. But if not, some specialist in medical practice will probably be consulted.

Who is called, and when, depends on a series of factors. If the illness is a "natural" one that seems fairly serious, a physician may be called if there is some mutually satisfactory way of arranging for his payment. But for a disease believed to be of magical or psychological origin, some folk specialist such as a curandera or bruja is more likely to be consulted since they are assumed to be more competent to treat this type of ailment. To complain to a physician of susto or mal ojo is more apt to evoke a response of condemnation or ridicule rather than the sympathetic understanding and intelligible treatment of the folk practitioner.

Saunders is cited so often because his is one of the most detailed and insightful studies, and based mainly on Ladinos in Colorado, from whence comes a large part of thepopulation treated in this thesis. But quite similar patterns of Ladino folk medicine are described for

other regions, e.g., Clark (op. cit.) for a California community. Loomis (op. cit.) mentions folk practices in medicine--curanderos, albolarios, witchcraft--for a county in New Mexico. Dodson,[19] writing about folk medical beliefs among Texas Ladinos, describes many of the same phenomena: the evil eye and its cure by use of an egg; the occurrence of susto and bewitchment and the curandera who may be able to cure them; the common use of herbs for medicinal purposes. The close relationship between the specialist's and the lay person's knowledge is seen in her description of the professionalization of the specialist:

> Once in awhile some Mexican woman with a taste for the study of . . . remedios and the human ills to which they may be applied, becomes so efficient that her services are sought more and more until she is, automatically, raised to the profession of curandera--one who cures.

Indeed, the pattern of Ladino folk medicine is so widespread that George M. Foster has discussed it in terms of a general Latin American pattern,[20] many of whose details hold for the population treated in this thesis, e.g., illnesses caused by "airs," wrong combinations of "hot" and "cold" foods, evil eye, fright and other strong emotional experiences; such cures as massage, poultices, rubbing an egg over the body of a victim of the evil eye; a great variety of herb brews; the role of the folk practitioner.

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19 Ruth Dodson, "Folk-Curing Among the Mexicans," in J. Frank Dobie, Ed., Tone the Bell Easy. Publications of the Texas Folk-Lore Society, Number 10: 82-98, 1932.

20 George M. Foster, op. cit.

This view of Ladino folk medicine is consistent with the findings of the present study. Of the 76 persons interviewed, nine admitted consulting curanderas themselves, while only ten were willing to say that curanderas were not good at treating some illnesses. Five admitted having been the objects of witchcraft, while only 11 were willing to say that there were not many witches. All recognized one or more folk medicines; most recognized and used several. Teas made from manzanilla and yerbabuena are commonly taken for any stomach disorder; "Volcanic Oil" and "Mexican Oil" are just as commonly used for bodily pains.

Typical of the use made of curanderas is this account from one informant: A baby had a case of diarrhea which continued for several days. He was taken to a physician who prescribed a bottle of medicine which was used up without producing any change in the child. Then a curandera was consulted. She diagnosed the case as one of empacho with a "fallen" fontanel (mollera). This latter was "lifted" by rubbing soap barely mixed with water on the top of the baby's head, turning the baby upside down, and shaking it while holding it by the feet. Then salt was placed inside the mouth on the palate. Within four days the diarrhea was cured. Another woman described how a child with fever was cured of this effect of the evil eye--within an hour--by the curandera passing an egg all over the sick child. However, another woman told of using a curandera's powders to cure an empacho to no avail, only to be taken to the hospital with whooping cough. In response to another question she cited whooping cough as a disease curanderas are not good at curing, but still insisted that this same curandera cured her son's pimples. Another informant told of the susto of her

daughter which led her to be afraid of little animals, insects, and shadows. A curandera prescribed remedies that worked a cure within three days: white-wash to paint a cross in the child's cradle; the recitation of the Credo prayer three times while passing a broom over the child in the form of a cross.

The last informant was one of the few to give accounts of cases of witchcraft. Just after her mother married, she was bewitched by her former sweetheart, resentful of being rejected. "She got mentally sick and saw a lot of things, like worms, on her plate. They took her to a curandera who cured her of that." Another woman would "go crazy, take off her clothes and dance in the nude. Some old lady is supposed to have bewitched her," and she was eventually cured by a curandera. A friend's brother would feel a knife stuck in his back and his mouth full of hairs. He was ready to kill the people who had done this to him, but this was prevented by taking him to a curandera who cured him. Other informants told of similar cases (that of the rejected suitor being especially frequent), but it is noteworthy that all these from this informant were given in English. Although the interviews in Saginaw were ordinarily conducted in Spanish, this informant preferred to answer in English. Although she was the informant most acculturated to Anglo ways, judging by her appearance and that of her home, and evidently was more at ease in speaking English than Spanish, she provided some of the most detailed accounts of Ladino beliefs and practices. The extent of her belief may be seen in her comment after describing one folk cure: "I don't know if it works because you believe it, or what, but it works."

A major factor in keeping Ladinos from accepting scientific medicine derives from the different ways in which Ladino and Anglo cultures tend to define the corresponding status-roles of folk curer and medical doctor. As Saunders describes it, the process of diagnosis and treatment in the case of the folk practitioner takes place in a context of cooperation and collaboration between patient, family, and healer. Consultation between the practitioner and family regarding alternative courses of action are discussed as between near equals, the views of family members often being given much weight in final decisions. Throughout the treatment, relations among all concerned are mainly personal and informal, the family members being free to give suggestions and criticisms. All those involved know what is going on and why. The folk practitioner works less as an independent specialist than as a consultant and technician working together with the patient and his family to implement their theraputic plans.

The contrast with Anglo practice need hardly be elaborated. The patient is turned over to the physician who becomes completely and solely responsible for all diagnosis and treatment. Far from accepting advice from the patient and his family, he is more likely to resent it as passing the bonds of behavior appropriate to the rather impersonal, formal "professional" relationship he maintains with all lay persons. He feels no obligation to inform the family or patient as to what treatment is taking place. The patient and his family are expected to be relatively passive participants in a situation dominated by experts. The less the familiarity with the English language and Anglo ways, the more unsatisfactory is this situation for Ladino sharers of folk culture.

The existence of a distinctive folk medicine has been explained in terms of cultural definition. But cultural definition is not a fixed, automatic process that occurs in some cultural "ether." Cultural definitions emerge out of social relationships and interactions. The socialization of an infant into an adult sharer of a culture occurs through participation in social relationships and interactions and involves the mobilizing of nonrational emotions to support the beliefs and cultural definitions which the individual accepts as his own. A person who has thus learned, for example, of magical fright from all those around him as he has grown up, who has seen their fear of it--and perhaps actual cases--is unlikely to be convinced by an argument that such a thing does not exist. Ladinos are as sure of the efficacy of the medical practices they have accepted as valid out of their life experiences as are Anglos of theirs.

This chapter has attempted to introduce this study of differences in folk medical beliefs and practices between Ladino women of Denver and Saginaw. A brief description of Ladino folk medicine has been presented as well as an attempt to explain why it tends to persist. Since this persistence is explained mainly in terms of differential cultural definition, it is assumed that acculturation to Anglo culture includes a decrease in the belief and practice of Ladino folk medicine. It is further assumed that residence in an industrial Michigan city will tend to speed up the general acculturation process. Thus, the basic hypothesis of this study is that the Saginaw women will show less belief and practice of Ladino folk medicine than those of Denver. Before seeing how this basic hypothesis is tested in terms of others

pertaining to specific aspects of folk medicine, let us turn to consideration of methodological matters.

CHAPTER II

METHODOLOGY

Since the methodological core of this thesis consists of a comparison between data collected in Saginaw, Michigan, and Denver, Colorado, a brief account of the collection of the Denver data is appropriate, even though the writer did not participate in the study.

The Denver Study

By 1955, professionals in the field of health at the General Medical Clinic of the Denver General Hospital wanted a sociological study of their patients, about 15 per cent of whom were Negro, 30 per cent Ladino, and 55 per cent Anglo.

> Staff members and some students in the General Medical Clinic have repeatedly noted that many of their patients and their families have attitudes and characteristics somewhat different from those of themselves, their families and friends, and their professional associates. At times these differences have been felt to be so great as to interfere with the giving of a desirable quality of medical care and service.
>
> At present relatively little is known about the particular social and personal characteristics of the patients who come to the clinic or about their families. It is generally agreed that more precise information might be useful for both the educational and service functions of the Clinic. (20)

The research project in its final form involved a stratified sample of about 300 of the hospital patients. The research staff, headed by Lyle Saunders and Julian Samora, required over half a year to develop a battery of 21 schedules to obtain data pertaining to a wide range of variables hypothesized to be related to health

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20 From a memorandum of the General Medical Clinic, "Preliminary protocol for a sociological research program in the GMC," June 9, 1955.

beliefs and practices. Three of these schedules were used by the writer in his interviewing in Saginaw and those portions pertinent for present purposes are reproduced in Appendix I.

Research Site

Ideally, to compare the Denver sample with a similar Michigan sample, the latter should have been hospital patients also. But practical considerations prevented this. Because there are relatively few Ladinos in Michigan, a city had to be selected with a relatively high concentration of Ladinos and also where permission could be obtained from hospital authorities to interview patients. Both of these criteria were satisfied in Saginaw, with an estimated 5,000 Ladinos in permanent residence and where permission was obtained to interview patients of the Guadalupe Health Center and Saginaw General Hospital. A visit to the latter revealed only one Ladino patient, and hospital authorities said that there were never more than several in the hospital at any one time. So the Guadalupe Health Center provided most of the members of the Saginaw sample.

The Guadalupe Health Center had been founded in 1945 and functioned as an outpatient clinic until 1948. From 1948 to 1951 it also served as a maternity home, and about 550 babies were born there. But "as more of the [Ladino] people became residents and got factory jobs with Blue Cross benefits, and more people became eligible for public assistance, the maternity home was discontinued." [21] Thus, although the outpatient services were maintained, in 1958 there were no permanent

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21 Dolly McCarty Soddy, "A Preliminary Survey of the Spanish-speaking People of Saginaw County, Michigan." Unpublished paper, 1958, pp. 32-3.

hospital patients in the Clinic. However, most of the outpatients were women making use of the Clinic's obstetrical and gynecological services, a group similar to the women of the Denver sample. For purposes of this study, these Saginaw patients are assumed to be comparable to the women hospital patients interviewed in Denver.

Interviewing

Although the interviewer in Saginaw did not participate in the interviewing in Denver, he went over the schedules ahead of time with Samora so that the interviewing would be as similar as possible to that in Denver. The interviewers in Denver were identified with the hospital medical staff so far as patients were concerned. In Saginaw every attempt was made to present a "professional" appearance: the interviewer always wore suit and tie, and spoke in the educated but disinterested professional manner; he was presented to patients in the Guadalupe Clinic by medical personnel in the manner of presenting a colleague. A card from the Clinic requested that the interviewer be given full cooperation in answering questions and this served as a very effective means of entry to homes of patients. Several women interviewed at home remembered having seen the interviewer at the Clinic and seemed to identify him with the Clinic staff.

Sample Design

There were several reasons entering into the decision to confine the study to women of ages 15 to 44. Since the study compares Ladinos in Saginaw with those already interviewed in Denver, the Saginaw sample had to be chosen to be as similar as possible to that of

Denver in all significant respects. Nearly two-thirds of the Denver sample of Ladinos consisted of women of child-bearing age, most of whom had come to the hospital for obstetrical or gynecological service. Status-roles of men and women are relatively sharply differentiated in Ladino culture. Many more activities than in Anglo culture are much more exclusively the province of one sex or the other, e.g., housekeeping for women, working and engaging in recreation outside the home (or those of relatives) for men. Many, if not all of the folk remedies would ordinarily be prepared by women in their capacity as master of the kitchen. It was suspected that there might be important differences between men and women as to health beliefs and practices.[22] Therefore, to simplify the study, men were excluded from consideration. It was also suspected that with differential acculturation among age grades, there might be considerable differences with respect to folk medicine between older and younger persons. In order to simplify the study, persons 45 years of age and over, only about one-sixth of the Denver sample, were also excluded. (No one in the Denver sample was less than 15 years of age.) The population remaining for the study, 76 women of child-bearing age, 15 to 44, constitutes a legitimate socio-biological category of people. Of the total 76 women, 36 constitute the Denver sample and 40 the sample from Saginaw.

The weakest aspect of this study lies in its sampling. Although

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22 Dodson referring to Texas Ladinos states that although men seem to know many of the health practices, "The men . . . do not generally interest themselves in remedios as far as they concern human ills. As a rule the men consider that the business of doctoring people beongs to women." op. cit. p. 83.

the study attempts to compare Ladino populations of Denver and Saginaw, neither group of women interviewed to provide the data for this study was systematically selected as a sample of the Ladino populations of the respective cities. The Denver group was selected to be a sample of hospital patients. No reliable data on the actual Ladino population of Saginaw in 1958 were available for accurate sampling. To survey the whole city to obtain such a sample would have been too great a task for the one available investigator, and if undertaken, would have required so much time as to be inaccurate when finally completed for a population which seems to be relatively mobile. The women interviewed in Saginaw represent a proportion of current patients of the Guadalupe Clinic selected by Sister Lucia as typical of the women attending the Clinic. One-fourth of the Saginaw sample of 40 were interviewed in the Clinic. The remaining 30 women were interviewed in their homes. There was no indication of any bias with regard to belief in folk medicine among the Saginaw women: some were complete disbelievers, others were strong believers and practitioners, one even admitting that she herself was a curandera. But the fact remains that the sample was not drawn in any systematically random way and at best, merely represents a judgment that it is typical to any extent. On the other hand, Lyle Saunders is authority for the opinion that in cities such as Denver and Saginaw, where welfare agencies are relatively active, probably all and certainly most Ladino women have their births in hospitals. And the overwhelming majority of Ladino women in the two cities apparently make use of

Denver General Hospital and the Guadalupe Clinic. (However, one of the women in the Saginaw sample was a patient of Saginaw General Hospital.) Thus, for present purposes, it is assumed that the women of the two samples are representative to some degree of the Ladino women of their respective cities.

However, neither of the two samples was stratified to control for any of the variables which might be significant in influencing health beliefs and practices. In Chapter I age and social class were discussed as potentially being such variables, differential acculturation among age grades and subcultural differences among classes possibly making for different health beliefs and practices. Information as to the age of the Saginaw women was obtained, but unfortunately data could not be obtained to make possible an exact social class identification. This was possible for the Denver sample, which was found to be overwhelmingly lower class in terms of the Hollingshead Index: of the heads of the families of the 36 women of the Denver sample, three were classified as clerical, one was classified as skilled worker, and the remainder were semi- and unskilled. Although there was a general impression of a lower class affiliation of the Saginaw families, the only objective index of social class that could be obtained for the Saginaw women was grade of school completed. Thus, the age and school grade completed of the women of the two cities are the two variables of possible significance on which there is information. However, as can be seen in Appendix II, the total population of both samples is too small to

permit holding both age and school grade completed constant for a comparison between the two cities. But some attempt to control for these two variables is made in Chapter III: the two samples are pooled into a single population and the hypothesis is tested that belonging to one or another category of age or school grade completed makes a significant difference in responses to various questions on health. As a result of this preliminary analysis, hypotheses are derived predicting differences in responses to specific questions to be expected in comparing the Denver and Saginaw samples because of the differences between them in age and school grade completed. These hypotheses are tested in Chapter IV. To the extent that these hypotheses are rejected because of responses indicating a lesser adherence to folk medicine among the Saginaw women, to that extent would this thesis' basic hypothesis be confirmed, namely that residence in Saginaw has the effect of weakening adherence to folk medicine more than residence in Denver.

Statistical Tests

The main statistical test used in this thesis is the Chi-square test. However, certain problems arise because of the small size of the sample which leads to a very small calculated expected for some cells. Leo Katz, Chairman of the Department of Statistics at Michigan State University, is authority for the use of Chi-square with the Yates Correction if the expected for the smallest cell of a four-cell table is as small as 1.00. If an expected of less than 1.00 occurs, Katz recommends the Fisher Exact Probability Test, with the formula:

$$P_0 = \frac{(A+B)!\ (C+D)!\ (A+C)!\ (B+D)!}{N!A!B!C!D!}$$

Ordinarily P_1, P_2, P_3, etc. need to be calculated respectively for each of the next extreme distributions and added to P to provide the total probability for any particular distribution. But because all cases in which this test had to be used in this thesis resulted in a P_0 greater than .20, the additional calculations were unnecessary to arrive at a decision not to reject the null hypothesis.

Thus, the procedure used in the present work is to employ the Fisher Exact Probability Test if the expected for any cell is less than 1.00, the Chi-square with Yates Correction if for any cell the expected is between 1.00 and less than 5.00, and the Chi-square test without correction if no cell has an expected of less than 5.00.

Results of the Chi-square test on the .05, or less, level of significance will be considered "significant;" those greater than the .05 level but smaller than .10 will be referred to as "possibly significant."

CHAPTER III

PRELIMINARY ANALYSIS: AGE AND SCHOOLING AS VARIABLES INFLUENCING ADHERENCE TO LADINO FOLK MEDICINE

In this chapter a preliminary analysis is presented and specific hypotheses derived for the comparison of the Denver and Saginaw samples in the next chapter. First, differences with respect to age and education between the Denver and Saginaw samples are demonstrated. Then, a series of tests are conducted on the total population of the combined samples testing the basic hypothesis that people of older age and less education show greater affinity for the belief and practice of folk medicine. This hypothesis is rejected in some specific forms and accepted in others, thus allowing for the statement of specific hypotheses about the comparison of the Denver and Saginaw samples in the next chapter.

Data on the ages of respondents are presented in Table I:

TABLE I

NUMERICAL DISTRIBUTION OF DENVER AND SAGINAW RESPONDENTS, BY AGE

Ages	Denver	Saginaw
15-18	4	3
19-24	15	4
25-34	11	21
35-44	6	12
Total	36	40

$\chi^2 = 9.00$ $.05 > p > .02$

Collapsing rows 1 and 2, and 3 and 4 yields:

$\chi^2 = 10.48$ $.01 > p > .001$

We see that the Saginaw sample contains a significantly higher proportion of women in the ages 25 and above. Data on years of schooling are presented in Table II:

TABLE II

NUMERICAL DISTRIBUTION OF DENVER AND SAGINAW RESPONDENTS, BY SCHOOLING

School Grades Completed	Denver	Saginaw
6 or less	5	29
7 to 9	18	6
10 to 11	9	4
High school graduate	2	1
1 to 3 in college	1	0
No response	1	0
Total	36	40

$\chi^2 = 21.21$: $.001 > p$ (But one cell has an expected value of 0.5)

Collapsing rows 3, 4, and 5 yields:

$\chi^2 = 25,75$: $.001 > p$

Collapsing rows 1 and 2, and 3, 4, and 5 yields:

$\chi^2 = 5.05$: $.05 > p > .02$

Again we see a significant difference between the two samples: the Saginaw women have spent less time in school.

Thus it is demonstrated that the Saginaw women in the sample are

24 Informants who provide no response are excluded from the calculations in all tests in this thesis. Therefore, since one Denver respondent did not give her years of schooling, all tables involving school grades completed as a variable will have a total population of N-1, or 75.

significantly older and less schooled than those from Denver.[25] As discussed previously, both of these characteristics should operate in the same direction, i.e., both older age and less schooling should operate to make for greater belief and practice of folk medicine among the Saginaw women. But we do not have to rely only on hypothesizing in this regard: we can proceed to test the hypothesis that older age and less schooling make for greater adherence to specific aspects of folk medicine in the total population of respondents. In devoting the greater part of this chapter to that task, it becomes convenient to collapse the categories of age and schooling so as to have relatively large numbers in the cells of the tables. The women are divided into 26 younger women, ages 15-24, and 50 older women, ages 25-44; and 58 less schooled, having completed nine or fewer grades of school, as opposed to 17 more schooled, having completed ten or more grades. The data and exact results of tests used in this chapter are presented in Appendix III.

Delivery of Babies

Now let us turn attention to the data on whether informants bore children at home, at a hospital, or both. In Tables IV and V we

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25 Although these differences may be due to unknown biases in the sampling, it is worth noting that according to 1950 census data, persons of Spanish surname in Colorado showed a median age of 18.2 years, while those residing in Texas had a median age of 19.6. The Saginaw sample represents the results of migration from Texas. More striking is the difference in education: the median school grade completed of Spanish surname 14 years and over is 7.6 for those in Colorado, but only 4.5 for those in Texas. See Robert H. Talbert, Spanish-Name People in the Southwest and West. Fort Worth, Texas: Leo Potishman Foundation, Texas Christian University, for the Texas Good Neighbor Foundation, 1955, pp. 36; 45-46.

see that more younger than older women had all their children in hospitals, and so did women with more schooling. From this, one would hypothesize that the older and less schooled women of the Saginaw sample would have delivered babies only at home to a greater extent than the Denver women.

Respondents were also asked about their own place of birth along with their siblings. From the data presented in Tables VI and VII we see again that both age and schooling are significant variables; more older respondents reported that they and their siblings were all born at home than did younger respondents; and more of the less schooled respondents reported that they and their siblings were all born at home than did the more schooled respondents.

The data presented in Table VI show the definite tendency for younger women and their siblings to have been born in hospitals. Thus we would expect more of the older and less schooled women of the Saginaw sample and siblings to have been born at home than the Denver women and siblings.

Folk Practitioners

In Tables VIII to XVII responses to questions about curanderas reveal no significant differences between age or educational categories. But one possibly significant result was obtained with respect to age differences in the answers given by those not admitting to a use of curanderas themselves, to the question, "Do you know of, or have you heard of anyone anywhere making use of a curandera or medica?"

Therefore, in terms of the differences in the Denver and Saginaw

samples in age and schooling, we would expect no differences with respect to use and belief in curanderas, with the possible exception of responses to the question; "Do you know of, or have you heard of anyone anywhere making use of a curandera or medica?" which showed a possible correlation between negative responses and older age among respondents not admitting to ause of curanderas themselves.

Similarly, in Tables XVIII to XXIII we see that neither age nor education is associated significantly with respondents' statements about their experience with or belief in witchcraft.

Folk Medicines

Research in Denver yielded a group of herbs and patent medicines commonly used by Ladino practitioners of folk medicine, and the subjects in Saginaw were asked a series of questions about these remedies. (See Appendix IV for further identification of these medicines.) For present purposes interest is focused on two kinds of responses: (1) whether or not respondents reported having used the particular item for medicinal purposes within the past year; (2) whether or not respondents indicated recognition of the item. Data on the former is presented in Table XXIV in relation to age and in Table XXV in relation to schooling; data on the latter (i.e. recognition of items) is presented in relation to age and schooling in Tables XXVI and XXVII respectively.

In Table XXIV we see that out of a total of 21 items, the use of only one (No. 21)is significantly associated with older age. Two items (No. 13, No. 20) are possibly associated with older age, with

levels of significance falling between .05 and .10. In Table XXV differences in schooling are not definitely associated with the use of any item, although probabilities falling between the .05 and .10 levels of significance are obtained in a possible association between less schooling and the use of three items (Nos. 5, 13, 21).

It could be hypothesized that the older and less schooled Saginaw women would tend to use these few items more than those from Denver, but the fact that this could be claimed for so few out of the total of 21 items is itself an important consideration. Using the .05 level of significance means that on a chance basis, even if no significant differences existed, a significant difference would come up in one case out of 20. And even in Table XXVI, where the maximum of significant differences are indicated, only nine out of the 21 items are involved. (Older age is associated with greater recognition to a significant extent for items 4, 17, 18, and to a possibly greater extent for items 3, 7, 9, 11, 13, 21.) For only one item (No. 17) in Table XXVII is there an indication of even a possible significance for a difference in schooling being associated with greater knowledge of an item.

In order to attempt some evaluation of the total group of items as a whole, a sign test was conducted [26] for each table. For example, with respect to Table XXVI, which involves age and knowledge of items, within each item a plus or minus sign is assigned to each of the two age categories. If the number of respondents indicating knowledge of an item was more than half the respondents in the age category, a plus sign was assigned; if half or less of the women in the age category

26 Cf. Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Company, Inc., 1956. pp. 68-75

indicated knowledge of the item, a minus sign was assigned, and so on for each of the items. Items in which both age categories have the same sign were discarded and excluded from the final N. For the remaining items, all with differing signs in the age categories, the null hypothesis is that the two age categories have equal numbers of plus signs, i.e., that there will be as many items recognized by more than half the older women and half or less of the younger as the reverse case. In Table XXVI, women aged 15-24 have only one plus (item 1), while those aged 25-44 have six (items 3, 4, 9, 15, 17, 18), a result which has a probability of .06. In Table XXVII, respondents with nine or fewer years of schooling have seven pluses (items 4, 5, 6, 9, 15, 17, 18), while those with ten or more have only one plus (item 1) to yield a probability of .04. Unfortunately, with respect to use of the items a final N of less than 5 results both for age and schooling, and the test requires a minimum final N of 5. Thus we are left with some indication, but not a very strong one, that age and education does make a difference in the use and recognition of some items; may make a difference for a few more; and perhaps makes a difference in knowing about the total group of items.

Hypotheses

The main content of this chapter has been concerned with determining to what extent greater affinity for various aspects of Ladino folk medicine is associated with older age and less schooling in the total sample. Let us summarize the results of this effort in the form of the hypothesis that can be made about the differences to be

expected in comparing the Denver and Saginaw samples, because of the older age and less schooling of the latter. We will ignore for the present, t he hypothesized effect of differential residence, which is the main concern of this s tudy. Indication of the strength of the support for each hypothesis is presented by mentioning the variable (age and/or school grades completed) which yielded significant differences, plus a statement of the level of significance.

1. More Saginaw women will have delivered their babies only at home than Denver women. Age: significant ($p. = .001$); schooling: significant ($.02 > p > .01$).

2. Saginaw women and their siblings will have been born only at home to a greater extent than those from Denver. Age: significant ($p < .001$); schooling: ($p < .001$).

3. No differences will be found between the Denver and Saginaw samples with respect to use of and belief in curanderas and medicas, with one possible exception: Saginaw women not admitting to their own use of curanderas might respond in the negative more than Denver women to the question "Do you know of, or have you heard of anyone anyone anywhere making use of a curandera or medica?" age: possibly significant.

4. No differences will be found between the Denver and Saginaw samples in experience or belief in witchcraft.

5. With respect to specific medicines, the Saginaw women will show significantly greater use of item 21 (age: significant, $.02 > p > .01$; schooling: possibly significant) and possibly significantly greater use of item 13 (age and schooling); item 20 (age); and item 5 (schooling). With respect to recognition of the items, Saginaw women will show significantly greater knowledge of items 4 (age: $.05 > p > .02$); item 17 (age: $.05 > p > .02$; schooling: possibly significant); item 18 (age: $.05 > p > .02$). Saginaw women will show possibly significantly greater knowledge of items 3, 7, 9, 11, 13, 21 (age for all these).

6. Treating the medicines together as a group in a sign test, greater knowledge should be shown by the Saginaw women (age: $p = .06$; schooling: $p = .04$). No hypothesis can be made with respect to use.

CHAPTER IV

RESIDENCE IN DENVER AND SAGINAW AS VARIABLES INFLUENCING ADHERENCE TO LADINO FOLK MEDICINE

In the last chapter certain hypotheses were derived about what would be expected in comparing the Denver and Saginaw samples in several aspects of Ladino folk medicine because of differences of age and schooling in the two samples. Since this study's basic hypothesis is that residence in Saginaw will make for a weakening of belief and practice of folk medicine, the specific form of the hypotheses about differences between Denver and Saginaw in particular aspects of folk medicine will depend on a combination of the two general considerations: the effects of age and/or schooling and residence. All the data and tests for this chapter are to be found in Appendix V.

From the differences in age and schooling between Saginaw and Denver for example, it can be hypothesized that fewer Saginaw women will have delivered their babies only in hospitals. But with the hypothesis that residence in Saginaw will have weakened the reliance on folk medicine, this latter hypothesis would be verified by a finding that Saginaw women do not deliver babies only in hospitals with less frequency than Denver women. In Table XXVIII data is presented to show that there is no difference between the respondents of the two cities in this regard. Similarly, from the differences in age and schooling, it would be expected that more of the Saginaw women and their siblings would all have been born at home, and yet

Table XXXIX yields a probability of only possibly significant difference between the two cities in this regard. Thus, residence in Saginaw leads to a greater use of hospital facilities for child birth than would be expected with the age and schooling of the Saginaw sample. This may be due to the greater availability of clinical facilities through the Guadalupe Clinic. Now, let us examine the use of and belief in curanderas and medicas.

With respect to use of and belief in curanderas or medicas no differences between the Denver and Saginaw samples would be expected from the differences in age and schooling, with the possible exception of one question to be discussed shortly. Thus, for verification of the basic hypothesis that residence in Saginaw decreases adherence to folk medical beliefs and practices, it would have to be found that Saginaw women show significantly less frequent use of and belief in folk medicine than do Denver women. The data presented in Tables XXX to XXXIV show no significant differences between the two cities and thus refutes the basic hypothesis, with one possible exception. In Table XXXI we see a highly significant difference between Denver and Saginaw in the larger proportion of Denver women not admitting to having used the services of curanderas or medicas themselves, but who are willing to indicate they had heard of others who had used their services. This is described as a possible exception because this is the very question which was seen to be possibly significantly associated with differences in age in the previous chapter. In view of the lack of difference between the two cities on the other question on

this subject, it does not seem appropriate to attach too much importance to this one case. It will be referred to as "one possible exception." Although data are not included, no significant--or even possibly significant--differences are found between age categories, schooling categories, or residence in Denver and Saginaw with respect to responses to such other questions as "How do curanderas learn how to treat illness?" and "Do curanderas usually charge for their services?" It would seem justified to conclude that, with one possible exception, the basic hypothesis that residence in Saginaw weakens adherence to folk medicine is refuted with respect to the use of lay practitioners such as curanderas and medicas.

According to the analysis of the previous chapter, no differences between the Denver and Saginaw samples would be expected from the differences in age and schooling with regard to witchcraft. The basic hypothesis that residence in Saginaw weakens belief in folk medicine would be supported only by finding significantly less belief in and experience with witchcraft among the Saginaw women. The data in Table XXV to XXXVII indicate some support for this hypothesis. Although there is no difference between the samples in the number of respondents admitting to having been bewitched themselves (Table XXXV), considerably more of the Denver women admit knowing or having heard of cases of witchcraft, as can be seen in Table XXXVI. Although there is no significant differences between the two samples in the total range of responses, the "don't know" responses compared to all the others taken together are significantly more frequent among the Saginaw women as shown in Table XXXVII.

Witchcraft is a relatively delicate subject and there is reason to believe that some of the respondents did not answer the questions on this subject with complete frankness. It should be remembered that the interviews lasted from twenty minutes to an hour and a half, and in such a short time rapport was established much better with some women that with others. Having been told of detailed cases of witchcraft by several women, the suspicions of the investigator were naturally aroused when several other women of similar age and background, responded a little too quickly to each question about witchcraft, not merely by saying that they did not believe in it, but that they had never even heard of it. One woman responded to the first question on the subject with the greatest certainty and assurance that witchcraft did not exist: "I've worked too long in hospitals and seen too many mentally ill people cured by doctors to believe in that stuff," she said. She answered smilingly in firm negation of the remotest possibility of the existence of witches or witchcraft to such questions as "How does a person know when he is bewitched?" "Are there many witches?" "How does a person know who may be a witch?" etc. But when we came to the question "Could a person be bewitched as a result of the actions of one of his relatives?" there was an immediate response without the least bit of hesitation: "Only if he didn't like him." Other women also were very consistent in all their responses in not believing in witchcraft until the question "Can doctors help persons who have been bewitched?" They would reply "no," and then in response to the follow-up question, "Who can?" they would

reply "someone else who knows about such things," or "a curandera." In order to get some indication of the number of women giving only this kind of indirect evidence of some belief in witchcraft, a series of responses which would serve as indices of belief in witchcraft was decided upon.

Ten questions were chosen so that a person would be given a positive score for each if he answered it in the following way:

Questions and Responses Used as an Index of Belief in Witchcraft

1. "Do you know or have you heard of anyone anywhere being bewitched?" those who answered yes.
2. To the request for an account of any known cases of witchcraft, those who described any.
3. "How does a person know when he is bewitched?" those who described any ways of knowing.
4. "What kinds of sickness result from being bewitched?" those who named or described any sickness.
5. "Is there anything a person can do to prevent being bewitched?" those who answered either yes or no.
6. "Are there many witches?" those who answered yes.
7. "How does a person become a witch?" those who described any means to becoming a witch.
8. "Could a person be bewitched as a result of the actions of one of his relatives?" those who answered yes.
9. "Can doctors help persons who have been bewitched?" those who answered no.
10. In response to the question put to those answering "no" to the previous question "(If doctors cannot) who can help a bewitched person?" those who named some category of person, e.g., the same witch, a curandera.

Most of these questions have so few responses which are classifiable as

positive indices of a belief in witchcraft that it does not seem worthwhile to present tables of data. In Tables XXXVIII to XL, however, data are presented on the number of respondents showing positive indication of belief in witchcraft following the ten questions chosen as an index. The respondents are grouped according to age, schooling, and city, respectively, in the three tables.

Tables XXXVIII and XXXIX show that neither differences in age nor schooling are associated with any differences in the number of positive responses to the indices of belief in witchcraft. On the other hand, although no differences between Denver and Saginaw would be hypothesized from this, Saginaw shows a possibly significantly larger number of respondents who do not show up positively on any indices. This would seem to support the hypothesis that residence in Saginaw makes for a weakening of belief in this aspect of folk medicine. But strangely enough, Saginaw also shows a significantly larger number of respondents who respond positively on the largest number of indices (9 and 10), indicating maximum belief in witchcraft. This might seem to indicate that residence in Saginaw made for greater belief in this aspect of folk medicine. The two taken together would at least indicate a more heterogenous population for Saginaw, unless no significance at all were attached to the "possibly" significant result, in which case we are left only with the significant result of Saginaw having more respondents showing the maximum positive reaction to the indices of belief in witchcraft. One plausible explanation would be that the assumption that Ladinos in Colorado and those in

Texas (from whence come those in the Saginaw sample not born and raised in Michigan) share an identical cultural base is a mistaken one, and that a greater belief in witchcraft existed in at least some of the Saginaw women before they reached Saginaw. Of the six women showing nine or ten positive indices of belief in witchcraft, only one was born in Mexico and she had lived in Michigan for 16 years; the other five had lived in Michigan from nine to seventeen years.

From the analysis of age and schooling in relation to the use of the items, women in the Saginaw sample would be expected to show a significantly greater use of item 21 and a possibly greater use of items 5, 13, and 20. But in Table XLI we see that the only one of these which was reported as being so used to a significant extent is item 13. In addition, item 7 shows significantly greater use by the Saginaw women. But, on the other hand, item 1 shows significantly greater use by the Denver women, and item 8 possibly significantly greater use by the women of the Denver sample. A sign test (again taking 1/10 of each sample using the item as criterion for a plus) yields items 1, 2, 8, and 18 as pluses for Denver and item 17 as a plus for Saginaw and produces a probability of .19 indicating no significant difference between the two samples in the use of the items taken as a whole.

From the analysis of age and schooling in relation to the recognition of the items, we would expect significantly greater knowledge among the Saginaw women of items 4, 17, and 18; and possibly greater knowledge of items 3, 7, 9, 11, 13, and 21. In Table XLII we find

a significantly greater knowledge on the part of the Saginaw women of item 9 and a possibly greater recognition of item 7, and in addition, a significantly greater knowledge of items 10 and 17. But a significantly greater recognition by Denver women is shown in items 1, 2, 3, 5, 6, 8, 12, and 19, with a possibly greater knowledge of item 11. Furthermore, a sign test (with more than half the sample showing recognition of the item the criterion for a plus) yields pluses for Denver for items 1, 2, 3, 4, 5, 6, 8, 15, 18, and 19, and for Saginaw for items 9 and 17, and produces a probability of .02. Thus, although there seems to be little difference between the two samples in the recognition of the items, there is some indication of a greater knowledge by the Denver women of several of the items--less than half, but more than those used more by the Saginaw women. From the sign test conducted with respect to age and education, Saginaw would have been expected to show knowledge of more items than Denver; and yet the sign test conducted between the two samples indicates a significantly greater knowledge of the items by the Denver women.

To sum up the results of this chapter, no difference was found between the two cities in respondents' delivery of babies in hospitals, although from the differences in age and education a significantly lesser use of hospital facilities would be expected from the Saginaw sample. In general, no differences in belief and use of curanderas would be expected because of difference in age and schooling between the two samples and none was found (with one possible but indeterminate exception). No differences would be expected with regard to belief

and experience with witchcraft from the analysis of age and schooling and no difference was found between the two cities as far as personal experience with witchcraft is concerned. However, significantly more of the Denver women admit to knowing or having heard of cases of witchcraft and significantly more of the Saginaw women answered "don't know" to the question "Are there many witches?" rather than "yes," "no," or "don't think so." Although the number of Saginaw women responding positively to none of ten indices of witchcraft is possibly significantly greater than the Denver women, the significantly greater number of Saginaw women showing positive responses to nine or ten indices serves to complicate the issue. This may reflect differences between Colorado and Texas Ladinos. There is support for the basic hypothesis that residence in Saginaw weakens the belief and practice of folk medicine in the greater use of hospital facilities for child birth by Saginaw women than would be expected from the age and schooling of the sample, and the greater reluctance on the part of Saginaw women to admit knowledge of witchcraft. On the other hand, no effect of differential residence could be found with respect to the belief and use of lay practitioners such as curanderas and medicas, nor is the reporting of actual personal experience with witchcraft. Little difference could be found between the two cities in the reported use of various herbs and medicines, but there was some indication of a lesser knowledge of theitems on the part of the Saginaw women.

CHAPTER V

SUMMARY AND CONCLUSION

The basic hypothesis of this thesis is that, because of an assumed greater change to Anglo ways by Ladinos in Saginaw than in Denver, Ladino residents of Saginaw will show less belief in and practice of folk medicine than those of Denver. This hypothesis was tested in terms of a series of questions on folk medicine asked of a group of women patients of Denver General Hospital and another group of women past and present outpatients of the Guadalupe Clinic in Saginaw. Although there was reason to belief that answers to questions on health might be influenced by two variables--age and grade of school completed--the number of women interviewed (76) was too small to allow for the simultaneous control of these variables. But since the Saginaw women were seen to be significantly older and less schooled than those from Denver, age and school grade completed as separate variables were each tested with respect to answers to the questions concerning folk medicine. When significant differences were found between older and younger women, or between women with less or more schooling, these differences about specific questions were used as the bases of specific hypotheses about what would be expected in comparing Denver and Saginaw women, given the differences between these two groups of women in age and schooling. Then these hypotheses were tested in a series of tests comparing the Denver and Saginaw women.

From the differences in either age or education, fewer Saginaw

women would have been expected to deliver all their babies in hospitals; yet no significant difference between the Denver and Saginaw women in this regard could be found. From the differences in age and schooling, it would have been expected that more Saginaw women, together with all their siblings, would have been born at home, but the results from comparing the two cities are uncertain (i.e., a Chi-square value resulted falling between the .05 and .10 levels of significance). From the differences in age and schooling, no differences in belief and use of curanderas would be expected (with one possible but indeterminate exception), and in comparing the two cities no difference was found. From the differences in age and schooling, no differences between the women of the two cities would be expected with respect to either belief in or experience with witchcraft. In comparing the two cities, no difference was found with respect to personal experience with witchcraft, but significantly fewer of the Saginaw women admitted knowing or having heard of cases of witchcraft, and significantly more of the Saginaw women replied to the question: "Are there many witches?" with a "don't know" response rather than "yes," "no," or "don't think so." From the differences in age and schooling, no differences would be expected between the two cities with respect to ten indices of belief in witchcraft, but in comparing women from the two cities, a significantly larger number of Saginaw women did not respond positively to any of the indices, and yet at the same time, a significantly larger number of the Saginaw women responded positively to nine or ten of the total of ten indices. Since it is unlikely

that residence in Saginaw would tend to increase belief in witchcraft, this suggests possible differences between Ladinos in Colorado and those in Texas, from whence nearly all those now in Saginaw derive. From the differences in age and schooling with respect to the use of 21 items used in folk medicine, Saginaw women would be expected to show greater use of one item, and possibly greater use of three others; however, in comparing women in the two cities Saginaw women show significantly greater use of two items, and Denver women show significantly greater use of one item, and possibly greater use of another. A sign test indicates no significant difference between the two samples in the use of the 21 items taken as a whole. From the differences in age and years of schooling, greater knowledge on the part of Saginaw women would be expected for three items, and possibly for six others; but in comparing women from the two cities Saginaw women show significantly greater knowledge of three items and a possibly greater use of one. But Denver women show a significantly greater knowledge of eight items and a possibly greater recognition of one other. And a sign test of the 21 items taken as a whole shows a significantly greater recognition of the items by the Denver women with a probability of .02.

The results of this study may be said to confirm in some respects and refute in others the hypothesis that Saginaw women show less adherence to folk medicine than do those in Denver. The hypothesis is supported, in that Saginaw women show significantly less adherence to folk medicine than would be expected, given their age and education, with respect to:

1. Delivery of babies at home rather than hospital.
2. Willingness to admit knowledge of cases of witchcraft.
3. Responding positively to any of ten indices of belief in witchcraft.
4. Knowledge of a group of 21 folk medicines.

The hypothesis is refuted, in that Saginaw women do not significantly differ from those of Denver, with respect to:

1. Use of curanderas.
2. Belief in effectiveness of curanderas.
3. Personal experience with witchcraft.
4. Use of a group of 21 folk medicines.

The hypothesis is most spectacularly refuted by the finding that significantly more Saginaw than Denver women responded positively to nine or ten of ten indices of belief in witchcraft. However, this suggests that there may have been greater belief in witchcraft among Texas Ladinos at the time of migration to Saginaw than among Denver Ladinos at the time of this study. Further study of this problem should include research on Ladinos in the area from which migrants come, preferably also studies of particular groups of Ladinos in different social environments over a number of years.

It might be noted that three of the four aspects of folk medicine which seem to have been weakened by residence in Saginaw pertain to belief or knowledge rather than actual practice. The only practice which was diminished was that of delivering babies at home, while the use of curanderas and folk medicines was not significantly decreased.

Furthermore, there was a decrease among the Saginaw women in the willingness to admit, directly and indirectly, knowledge of witchcraft in general or as occurring to others, but no decrease in the proportion willing to admit personal experience with witchcraft. This suggests the hypothesis, which would require considerable further testing, that belief, or at least willingness to report belief, is more susceptible to influence by change in residence than actual practice.

APPENDIX I

Schedule I (modified)

Patient Identification

1. Name

2. Sex

3. Age group

   Code: 0. 15-18 years
   1. 19-24 years
   2. 25-34 years
   3. 35-44 years

4. Place of birth

5. Marital status

6. Annual family income

7. Occupation (for household head)

   Code: 1. Higher executives, professionals, proprietors
   2. Lesser executives, professionals, proprietors
   3. Small independent business
   4. Clerical
   5. Skilled
   6. Semiskilled
   7. Unskilled

8. Education:

   Code: 1. Professional education
   2. Four-year college graduate
   3. One to three years college
   4. High school graduate
   5. Ten toeleven years school
   6. Seven to nine years school
   7. Six or fewer years school

9. Cities, towns, villages in which family has lived during past five years.

10. Religion

11. Service assignment

(Schedule I, continued)

Code:
1. Medicine
2. Surgery
3. Ob-gyn
4. TB
5. GMC
6. Other OPD
7. Other

Schedule II (modified)

People sometimes use the help of friends or neighbors who know a great deal about treating some kinds of sickness. We are interested in knowing how much people make use of their services.

1. How many children have you had?

2. Did you have them at home or in a hospital?

3. How many children did your mother have?

4. Were you and your brothers and sisters born at home or in a hospital?

5. Do you know of any curanderas or medicas in Denver (or Saginaw)?

6. Have you ever made use of a curandera or medica anywhere?

7. Do you know or have you heard of anyone anywhere making use of a curandera or medica?

8. Are curanderas good at treating some kinds of sickness?

9. Are there some kinds of sickness that curanderas are not good at treating?

We have heard that some people sometimes get sick as a result of things that witches do.

10. Has this ever happened to you?

11. (If no) Do you know or have you heard of anyone anywhere being bewitched?

12. Can you describe any cases?

13. How does a person know when he is bewitched?

14. What kinds of sickness result from being bewitched?

15. Is there anything a person can do to prevent being bewitched?

(Schedule II, continued)

16. Are there many witches?

17. How does a person become a witch?

18. Could a person be bewitched as a result of the actions of one of his relatives?

19. Can doctors help persons who have been bewitched?

20. (If no) Who can help a bewitched person?

Schedule III (modified)

Some conditions may not require that you see a doctor, and may sometimes be treated with home remedies using herbs or patent medicines. Would you tell us whether or not you know about or recognize the names of the following herbs and medicines,[27] and whether or not you have used them during the past year?

Medicine

1. Osha
2. Poleo
3. Alhucema
4. (E)pasote
5. Yerbabuena
6. Inmortal
7. Manzanilla
8. Jarabe de Osha
9. Romero
10. Altamisa Castilla
11. Asafran
12. Plumajillo
13. Rosa de Casilla
14. Hojas de Senna
15. Malva
16. Gobernador
17. Sassafras

27 See Appendix IV for further identification of these items.

(Schedule III, continued)

18. S.S.S.*

19. Lydia E. Pinkham's*

20. Aceite Volcanico *

21. Aceite Mexicano *

* Patent medicine.

APPENDIX II

TABLE III

NUMERICAL DISTRIBUTION OF RESPONDENTS BY AGE, SCHOOLING, AND CITY OF RESIDENCE

School Grade Completed	Denver Age 15-24	25-44	Total
Nine or Fewer	9	14	23
Ten or More	10	2	12
Total	19	16	35

School Grade Completed	Saginaw Age 15-24	25-44	Total
Nine or Fewer	5	30	35
Ten or More	2	3	5
Total	7	33	40

Holding age and schooling constant simultaneously for a comparison between the two cities results in cells toosmall to permit much confidence in test results. Therefore, the procedure in Chapter III was adopted of pooling the samples of the two cities and testing age and schooling separately with respect to the total pooled population.

APPENDIX III

(See CHAPTER III)

TABLE IV

NUMERICAL DISTRIBUTION OF RESPONDENTS DELIVERING BABIES AT HOME, HOSPITAL, OR BOTH, BY AGE

Place of Delivery	Ages 15-24	Ages 25-44
Hospital only	23	23
Home only	0	2
Both home and hospital	0	25
No response	3	0
Total	26	50

Collapsing rows 2 and 3 (to avoid expecteds of less than 1.00) yields:
$\chi^2 = 19.71$: $.001 > p$

TABLE V

NUMERICAL DISTRIBUTION OF RESPONDENTS DELIVERING BABIES AT HOME, HOSPITAL, OR BOTH, BY SCHOOLING

Place of Delivery	School Grades Completed: Nine or Fewer	School Grades Completed: Ten or More
Hospital only	31	14
Home only	1	1
Both home and hospital	24	1
No response	2	1
Total	58	17

Collapsing rows 2 and 3 yields:
$\chi^2 = 5.48$: $.02 > p > .01$

TABLE VI

NUMERICAL DISTRIBUTION OF RESPONDENTS AND THEIR SIBLINGS BORN AT HOME, HOSPITAL, OR BOTH, BY AGE

Place of Birth	Ages 15-24	Ages 25-44
Hospital only	1	0
Home only	7	35
Both home and hospital	16	10
No response	2	5
Total	26	50
Combining rows 1 and 3 yields: $\chi^2 = 15.52$:	.001 > p	

TABLE VII

NUMERICAL DISTRIBUTION OF RESPONDENTS AND THEIR SIBLINGS BORN AT HOME, HOSPITAL, OR BOTH, BY SCHOOLING

Place of Birth	School Grades Completed: Nine or Fewer	School Grades Completed: Ten or More
Hospital only	0	1
Home only	37	4
Both home and hospital	14	12
No response	7	0
Total	58	17
Combining rows 1 and 3 yields: $\chi^2 = 12.80$:	.001 > p	

TABLE VIII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "HAVE YOU EVER MADE USE OF A CURANDERA OR MEDICA ANYWHERE?" BY AGE

Response	Ages	
	15-24	25-44
Yes	2	7
No	22	42
Don't know	1	1
No response	1	0
Total	26	50

Using only rows 1 and 2 (a "don't know" response being ambiguous) yields: $\chi^2 = 0.14$: $.80 > p > .70$

TABLE IX

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "HAVE YOU EVER MADE USE OF A CURANDERA OR MEDICA ANYWHERE?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	8	1
No	48	15
Don't know	1	1
No response	1	0
Total	58	17

Using only rows 1 and 2 yields: $\chi^2 = 0.18$: $.70 > p > .50$

TABLE X

NUMERICAL DISTRIBUTION OF RESPONSES OF RESPONDENTS NOT ADMITTING USE OF CURANDERAS OR MEDICAS THEMSELVES TO QUESTION: "DO YOU KNOW OR HAVE YOU HEARD OF ANYONE ANYWHERE MAKING USE OF A CURANDERA OR MEDICA?" BY AGE

Response	Ages	
	15-24	25-44
Yes	13	15
No	10	28
Don't know	0	1
Total	23	44

$\chi^2 = 2.87$: $.10 > p > .05$

TABLE XI

NUMERICAL DISTRIBUTION OF RESPONSES OF RESPONDENTS NOT ADMITTING USE OF CURANDERAS OR MEDICAS THEMSELVES TO QUESTION: "DO YOU KNOW OR HAVE YOU HEARD OF ANYONE ANYWHERE MAKING USE OF A CURANDERA OR MEDICA?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	19	9
No	31	6
Don't know	1	0
Total	51	15

$\chi^2 = 2.28$: $.20 > p > .10$

TABLE XII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "ARE CURANDERAS GOOD AT TREATING SOME KINDS OF SICKNESS?" BY AGE

Response	Ages	
	15-24	25-44
Yes	16	22
No	4	6
Don't know	5	22
No response	1	0
Total	26	50

$\chi^2 = 2.99$: $.30 > p > .20$

TABLE XIII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "ARE CURANDERAS GOOD AT TREATING SOME KINDS OF SICKNESS?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	30	8
No	7	3
Don't know	20	6
No response	1	0
Total	58	17

$\chi^2 = 0.02$: $.99 > p > .98$

TABLE XIV

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "ARE THERE SOME KINDS OF SICKNESS THAT CURANDERAS ARE NOT GOOD AT TREATING?" BY AGE

Response	Ages	
	15-24	25-44
Yes	12	19
No	0	1
Don't know	11	27
No response	3	3
Total	26	50

Using only rows 1 and 3 (to avoid marginals of less than 1.00):
$\chi^2 = 0.74$: $.50 > p > .30$

TABLE XV

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "ARE THERE SOME KINDS OF SICKNESS THAT CURANDERAS ARE NOT GOOD AT TREATING?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	24	7
No	1	0
Don't know	28	9
No response	5	1
Total	58	17

Using only rows 1 and 3:
$\chi^2 = 0.03$: $.90 > p > .80$

TABLE XVI

NUMERICAL DISTRIBUTION OF RESPONSES AS TO WHETHER OR NOT RESPONDENTS KNOW OR HAVE HEARD OF ANY CURANDERAS IN THEIR LOCAL CITY, BY AGE

Response	Ages	
	15-24	25-44
Knows or has heard of	7	11
No knowledge of	19	38
No response	0	1
Total	26	50

$\chi^2 = 0.23$: $.70 > p > .50$

TABLE XVII

NUMERICAL DISTRIBUTION OF RESPONSES AS TO WHETHER OR NOT RESPONDENTS KNOW OR HAVE HEARD OF ANY CURANDERAS IN THEIR LOCAL CITY, BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Knows or has heard of	14	4
No knowledge of	43	13
No response	1	0
Total	58	17

$\chi^2 = 0.00$: $p = 1.00$

TABLE XVIII

NUMERICAL DISTRIBUTION OF RESPONSES TO THE QUESTION: "HAVE YOU EVER BEEN BEWITCHED?" BY AGE

Response	Ages	
	15-24	25-44
Yes	1	4
No	22	43
Don't know	2	2
No response	1	1
Total	26	50

$\chi^2 = 0.04$: $.90 > p > .80$

TABLE XIX

NUMERICAL DISTRIBUTION OF RESPONSES TO THE QUESTION: "HAVE YOU EVER BEEN BEWITCHED?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	4	1
No	50	14
Don't know	3	1
No response	1	1
Total	58	17

$\chi^2 = 0.00$: $p = 1.00$

TABLE XX

NUMERICAL DISTRIBUTION OF RESPONDENTS NOT ADMITTING TO HAVING BEEN BEWITCHED THEMSELVES TO QUESTION: "DO YOU KNOW OR HAVE YOU HEARD OF ANYONE ANYWHERE BEING BEWITCHED?" BY AGE

Response	Ages	
	15-24	25-44
Yes	14	25
No	11	20
Don't know	0	1
Total	25	46

$\chi^2 = 1.29$: $.30 > p > .20$

TABLE XXI

NUMERICAL DISTRIBUTION OF RESPONDENTS NOT ADMITTING TO HAVING BEEN BEWITCHED THEMSELVES TO QUESTION: "DO YOU KNOW OR HAVE YOU HEARD OF ANYONE ANYWHERE BEING BEWITCHED?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	31	8
No	22	8
Don't know	1	0
Total	54	16

$\chi^2 = 0.36$: $.70 > p > .50$

TABLE XXII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION:
"ARE THERE MANY WITCHES?" BY AGE

Response	Ages	
	15-24	25-44
Yes	9	13
Don't think so	2	4
Don't know	9	23
No	3	8
No response	3	2
Total	26	50

$\chi^2 = 1.80$: $.70 > p > .50$

TABLE XXIII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION:
"ARE THERE MANY WITCHES?" BY SCHOOLING

Response	School Grades Completed	
	Nine or Fewer	Ten or More
Yes	16	6
Don't think so	4	2
Don't know	26	5
No	9	2
No response	3	2
Total	58	17

$\chi^2 = 0.45$: $.95 > p > .90$

TABLE XXIV

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING USE OF HERBS AND MEDICINES, BY AGE

Item		Age	Used	Not Used	No Response	Total	Probability
1.	Osha	15-24	4	21	1	26	$\chi^2 = 0.02$
		25-44	6	44	0	50	$.95 > p > .90$
2.	Poleo	15-24	2	24	0	26	$\chi^2 = 0.21$
		25-44	7	43	0	50	$.70 > p > .50$
3.	Alhucema	15-24	1	25	0	26	$\chi^2 = 0.03$
		25-44	4	46	0	50	$.90 > p > .80$
4.	(E)pasote	15-24	0	26	0	26	
		25-44	3	47	0	50	$p_o = .28$
5.	Yerbabuena	15-24	8	18	0	26	$\chi^2 = 2.08$
		25-44	24	26	0	50	$.20 > p > .10$
6.	Inmortal	15-24	1	25	0	26	
		25-44	1	49	0	50	$p_o = .46$
7.	Manzanilla	15-24	5	21	0	26	$\chi^2 = 2.28$
		25-44	18	32	0	50	$.20 > p > .10$
8.	Jarabe de Osha	15-24	1	25	0	26	$\chi^2 = 0.00$
		25-44	3	47	0	50	$p = 1.00$
9.	Romero	15-24	1	25	0	26	$\chi^2 = 0.03$
		25-44	4	46	0	50	$.90 > p > .80$
10.	Altamisa Castilla	15-24	0	26	0	26	
		25-44	1	49	0	50	$p_o = .66$
11.	Asafran	15-24	0	26	0	26	
		25-44	1	49	0	50	$p_\Theta = .66$
12.	Plumajillo	15-24	0	26	0	26	
		25-44	1	49	0	50	$p_\Theta = .66$
13.	Rosa de Castilla	15-24	4	22	0	26	$\chi^2 = 3.74$
		25-44	18	31	1	50	$.10 \; p \; .05$

TABLE XXIV
(continued)

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING USE OF HERBS AND MEDICINES, BY AGE

Item		Age	Used	Not Used	No Response	Total	Probability
14.	Hojas de Senna	15-24	0	26	0	26	
		25-44	3	47	0	50	$p_o = .28$
15.	Malva	15-24	2	24	0	26	$\chi^2 = 0.21$
		25-44	7	43	0	50	$.70 > p > .50$
16.	Gobernador	15-24	0	26	0	26	
		25-44	2	48	0	50	$p_o = .43$
17.	Sassafras	15-24	0	25	1	26	$\chi^2 = 0.77$
		25-44	4	46	0	50	$.50 > p > .30$
18.	S.S.S.	15-24	3	22	1	26	$\chi^2 = 0.00$
		25-44	5	45	0	50	$p = 1.00$
19.	Lydia E. Pinkham's	15-24	1	24	1	26	$\chi^2 = 0.00$
		25-44	3	47	0	50	$p = 1.00$
20.	Aceite Volcanico	15-24	12	13	1	26	$\chi^2 = 3.45$
		25-44	35	15	0	50	$.10 > p > .05$
21.	Aceite Mexicano	15-24	7	18	1	26	$\chi^2 = 6.01$
		25-44	29	21	0	50	$.02 > p > .01$

TABLE XXV

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING USE OF HERBS AND MEDICINES, BY SCHOOLING

Item	Years of Schooling	Used	Not Used	No Response	Total	Probability
1. Osha	9 or less	8	50	0	58	$\chi^2 = 0.00$
	10 or more	3	14	0	17	$p = 1.00$
2. Poleo	9 or less	9	49	0	58	$\chi^2 = 1.71$
	10 or more	0	17	0	17	$.20 > p > .10$
3. Alhucema	9 or less	4	54	0	58	$\chi^2 = 0.00$
	10 or more	1	16	0	17	$p = 1.00$
4. (E)pasote	9 or less	3	55	0	58	
	10 or more	0	17	0	17	$p = .46$
5. Yerbabuena	9 or less	27	31	0	58	$\chi^2 = 2.88$
	10 or more	4	13	0	17	$.10 > p > .05$
6. Inmortal	9 or less	2	56	0	58	
	10 or more	0	17	0	17	$p_o = .60$
7. Manzanilla	9 or less	18	40	0	58	$\chi^2 = 0.02$
	10 or more	5	12	0	17	$.90 > p > .80$
8. Jarabe de Osha	9 or less	3	55	0	58	
	10 or more	1	16	0	17	$p_o = .43$
9. Romero	9 or less	5	53	0	58	$\chi^2 = 0.44$
	10 or more	0	17	0	17	$.70 > p > .50$
10. Altamisa Castilla	9 or less	1	57	0	58	
	10 or more	0	17	0	17	$p_o = .77$
11. Asafran	9 or less	1	57	0	58	
	10 or more	0	17	0	17	$p = .77$
12. Plumajillo	9 or less	1	57	0	58	
	10 or more	0	17	0	17	$p = .77$
13. Rosa de Castilla	9 or less	20	37	1	58	$\lambda^2 = 3.41$
	10 or more	2	15	0	17	$.10 > p > .05$

TABLE XXV
(continued)

Item	Years of Schooling	Used	Not Used	No Response	Total	Probability
14. Hojas de Senna	9 or less	3	55	0	58	
	10 or more	0	17	0	17	$p = .46$
15. Malva	9 or less	9	49	0	58	$\chi^2 = 1.63$
	10 or more	0	17	0	17	$.30 > p > .20$
16. Gobernador	9 or less	2	56	0	58	
	10 or more	0	17	0	17	$p_o = .60$
17. Sassafras	9 or less	4	54	0	58	
	10 or more	0	16	1	17	$p_o = .37$
18. S.S.S.	9 or less	6	51	1	58	$\chi^2 = .00$
	10 or more	1	16	0	17	$p = 1.00$
19. Lydia E. Pinkham's	9 or less	4	53	1	58	
	10 or more	0	17	0	17	$p_o = .34$
20. Aceite Volcanico	9 or less	38	19	1	58	$\chi^2 = 2.14$
	10 or more	8	9	0	17	$.20 > p > .10$
21. Aceite Mexicano	9 or less	31	26	1	58	$\chi^2 = 3.27$
	10 or more	5	12	0	17	$.10 > p > .05$

TABLE XXVI

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING KNOWLEDGE OF HERBS AND MEDICINES, BY AGE

Item	Age	Known	Not Known	No Response	Total	Probability
1. Osha	15-24	14	11	1	26	$\chi^2 = 1.72$
	25-44	20	30	0	50	$.20 > p > .10$
2. Poleo	15-24	15	11	0	26	$\chi^2 = 0.22$
	25-44	26	24	0	50	$.70 > p > .50$
3. Alhucema	15-24	12	14	0	26	$\chi^2 = 2.79$
	25-44	33	17	0	50	$.10 > p > .05$
4. (E)pasote	15-24	8	18	0	26	$\chi^2 = 5.08$
	25-44	29	21	0	50	$.05 > p > .02$
5. Yerbabuena	15-24	25	1	0	26	
	25-44	50	0	0	50	$p_o = .34$
6. Inmortal	15-24	11	15	0	26	$\chi^2 = 0.51$
	25-44	17	33	0	50	$.50 > p > .30$
7. Manzanilla	15-24	20	6	0	26	$\chi^2 = 3.40$
	25-44	46	4	0	50	$.10 > p > .05$
8. Jarabe de Osha	15-24	13	13	0	26	$\chi^2 = 1.01$
	25-44	19	31	0	50	$.50 > p > .30$
9. Romero	15-24	12	14	0	26	$\chi^2 = 3.42$
	25-44	34	16	0	50	$.10 > p > .05$
10. Altamisa Castilla	15-24	4	22	0	26	$\chi^2 = 1.11$
	25-44	13	37	0	50	$.30 > p > .20$
11. Asafran	15-24	7	19	0	26	$\chi^2 = 3.74$
	25-44	25	25	0	50	$.10 > p > .05$
12. Plumajillo	15-24	6	20	0	26	$\chi^2 = 0.01$
	25-44	11	39	0	50	$.95 > p > .90$
13. Rose de Castilla	15-24	20	6	0	26	$\chi^2 = 3.22$
	25-44	46	3	1	50	$.10 > p > .05$
14. Hojas de Senna	15-24	6	20	0	26	$\chi^2 = 0.21$
	25-44	14	36	0	50	$.70 > p > .50$

TABLE XXVI
(continued)

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING KNOWLEDGE OF HERBS AND MEDICINES, BY AGE

Item	Age	Known	Not Known	No Response	Total	Probability
15. Malva	15-24	11	15	0	26	$\chi^2 = 1.69$
	25-44	29	21	0	50	$.20 > p > .10$
16. Gobernador	15-24	3	23	0	26	$\chi^2 = 2.15$
	25-44	13	37	0	50	$.20 > p > .10$
17. Sassafras	15-24	7	18	1	26	$\chi^2 = 4.55$
	25-44	27	23	0	50	$.05 > p > .02$
18. S.S.S.	15-24	9	16	1	26	$\chi^2 = 4.53$
	25-44	31	19	0	50	$.05 > p > .02$
19. Lydia E. Pinkham's	15-24	7	18	1	26	$\chi^2 = 1.80$
	25-44	22	28	0	50	$.20 > p > .10$
20. Aceite Volcanico	15-24	24	1	1	26	
	25-44	49	1	0	50	$p_o = .45$
21. Aceite Mexicano	15-24	18	7	1	26	$\chi^2 = 3.74$
	25-44	46	4	0	50	$.10 > p > .05$

TABLE XXVII

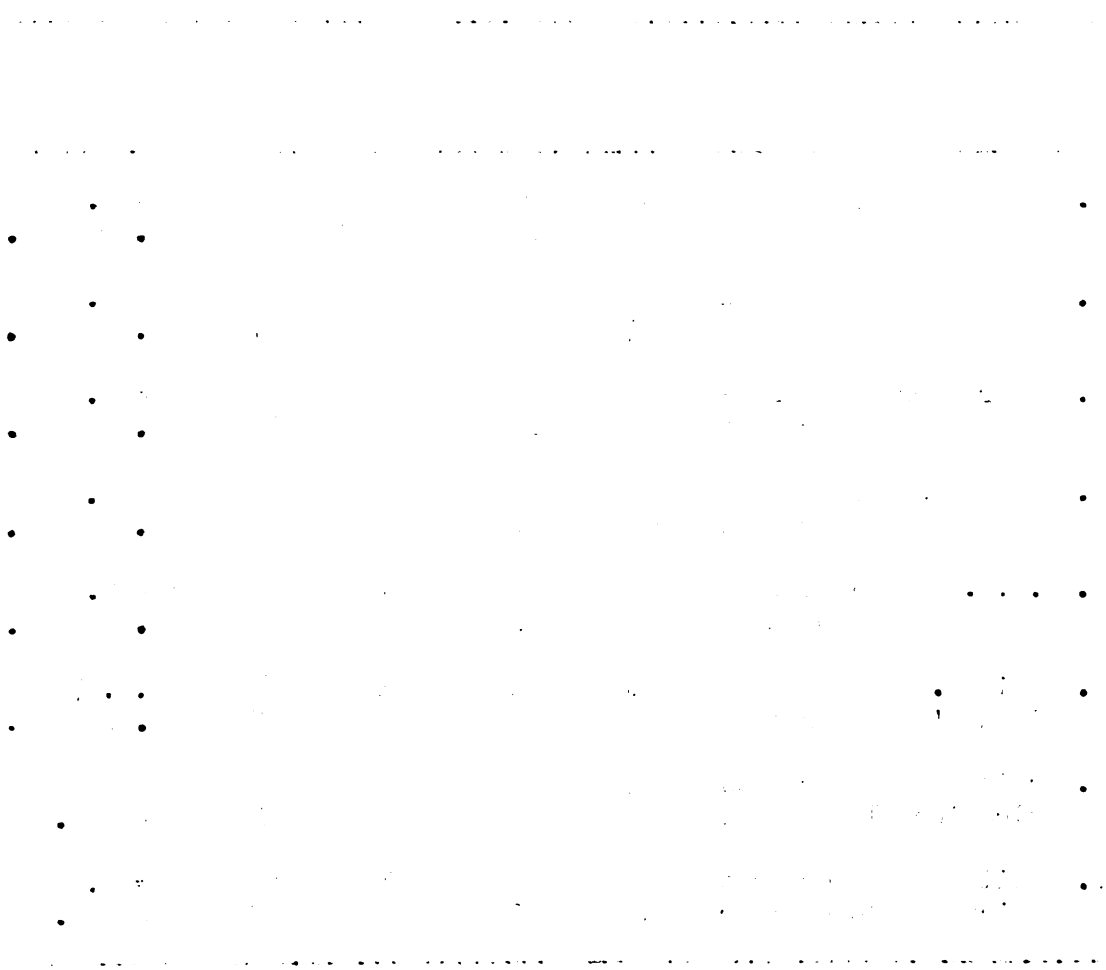
NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING KNOWLEDGE OF HERBS AND MEDICINES, BY SCHOOLING

Item	Years of Schooling	Known	Not Known	No Response	Total	Probability
1. Osha	9 or less	24	34	0	58	$\chi^2 = 1.61$
	10 or more	10	7	0	17	$.30 > p > .20$
2. Poleo	9 or less	30	28	0	58	$\chi^2 = 0.89$
	10 or more	11	6	0	17	$.50 > p > .30$
3. Alhucema	9 or less	35	23	0	58	$\chi^2 = 0.01$
	10 or more	10	7	0	17	$.95 > p > .90$
4. (E)pasote	9 or less	30	28	0	58	$\chi^2 = 0.58$
	10 or more	7	10	0	17	$.50 > p > .30$
5. Yerbabuena	9 or less	57	1	0	58	
	10 or more	17	0	0	17	$p_o = .77$
6. Inmortal	9 or less	19	39	0	58	$\chi^2 = 1.17$
	10 or more	8	9	0	17	$.30 > p > .20$
7. Manzanilla	9 or less	53	5	0	58	$\chi^2 = 1.63$
	10 or more	13	4	0	17	$.30 > p > .20$
8. Jarabe de Osha	9 or less	24	34	0	58	$\chi^2 = 0.17$
	10 or more	8	9	0	17	$.70 > p > .50$
9. Romero	9 or less	38	20	0	58	$\chi^2 = 1.89$
	10 or more	8	9	0	17	$.20 > p > .10$
10. Altamisa Castilla	9 or less	14	44	0	58	$\chi^2 = 0.04$
	10 or more	3	14	0	17	$.90 > p > .80$
11. Asafran	9 or less	27	31	0	58	$\chi^2 = 1.58$
	10 or more	5	12	0	17	$.30 > p > .20$
12. Plumajillo	9 or less	13	45	0	58	$\chi^2 = 0.00$
	10 or more	4	13	0	17	$p = 1.00$
13. Rosa de Castilla	9 or less	52	5	1	58	$\chi^2 = 1.38$
	10 or more	13	4	0	17	$.30 > p > .20$

TABLE XXVII
(continued)

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING KNOWLEDGE OF HERBS AND MEDICINES, BY SCHOOLING

Item	Years of Schooling	Known	Not Known	No Response	Total	Probability
14. Hojas de Senna	9 or less	14	44	0	58	$\chi^2 = 0.38$
	10 or more	6	11	0	17	$.70 > p > .50$
15. Malva	9 or less	32	26	0	58	$\chi^2 = 1.03$
	10 or more	7	10	0	17	$.50 > p > .30$
16. Gobernador	9 or less	14	44	0	58	$\chi^2 = 0.56$
	10 or more	2	15	0	17	$.50 > p > .30$
17. Sassafras	9 or less	30	28	0	58	$\chi^2 = 3.61$
	10 or more	4	12	1	17	$.10 > p > .05$
18. S.S.S.	9 or less	33	24	1	58	$\chi^2 = 2.68$
	10 or more	6	11	0	17	$.20 > p > .10$
19. Lydia E. Pinkham's	9 or less	21	36	1	58	$\chi^2 = .0.57$
	10 or more	8	9	0	17	$.50 > p > .30$
20. Aceite Volcanico	9 or less	55	2	1	58	
	10 or more	17	0	0	17	$p_o = .59$
21. Aceite Mexicano	9 or less	49	8	1	58	$\chi^2 = 0.00$
	10 or more	14	3	0	17	$p = 1.00$



APPENDIX IV

SCIENTIFIC AND ENGLISH NAMES OF LADINO FOLK MEDICINES USED IN THIS STUDY [28]

Ladino Name	Scientific Name	English Name
1. Osha	Unknown	Unknown
2. Poleo	Mentha pulegium	Penny Royal
3. Alhucema	Lavandula officinalis Chaix.	Lavender Flowers
4. (E)pasote	Chenopodium ambrosioides	Wormseed
5. Yerbabuena	Mentha piperita L.	Peppermint
6. Inmortal	Gomphrena decumbens Jacq.	Unknown
7. Manzanilla	Anthemis nobilis L.	Camomile
8. Jarabe de Osha	Unknown	Unknown
9. Romero	Rosmarinus officinalis L.	Rosemary
10. Altamisa Castilla	Ambrosia artemisiifolia L.	Ragweed Pollen

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28 The reader should be warned that there is no assurance that this listing is accurate; nor that such a list could accurately be drawn up for any wide region. Dr. Lucas stated that he found that sometimes the same plant species would have different names in different places and that sometimes different plants would have the same name. The purpose here is to provide some tentative identification of the names of herbs used and recognized by the Ladino subjects of this study. For this purpose, the following works were used: E. N. Gathercoal and H. W. Youngken, Check List of Native and Introduced Drug Plants in the United States. Chicago: Prepared Under the Auspices of the Committee on Pharmaceutical Botany and Pharmacognosy of the Division of Biology and Agriculture of the National Research Council, 1942; Dr. Leo Manfred, Siete Mil Recetas Botanicas A Base De Mil Trescientas Plantas Medicinales. Buenos Aires: Editorial Kier, 1947; and two works by Professor Maximino Martinez: Plantas Utiles de Mexico, Second edition; Ediciones Botas, 1936; and Las Plantas Medicinales de Mexico, Third edition; Ediciones Botas, 1944.

APPENDIX IV
(Continued)

Ladino Name	Scientific Name	English Name
11. Asafran	Unknown	Unknown
12. Plumajillo	Achillea millefolium L.	Yarrow Herb
13. Rosa de Casilla	Rosa centifolia L.	Rose Buds, Pale
14. Hojas de Senna	Cassia marilandica L.	Leaves of American Senna
15. Malva	Malva sylvestris L.	Malva Leaves
16. Gobernador	Covillea tridentata	Unknown
17. Sassafras	Sassafras officinale	Sassafras
18. S.S.S. *		
19. Lydia E. Pinkham's *		
20. Aceite Volcanico *		Volcanic Oil
21. Aceite Mexicano *		Mexican Oil

*patent medicine.

APPENDIX V

(See CHAPTER V)

TABLE XXVIII

NUMERICAL DISTRIBUTION OF RESPONDENTS DELIVERING BABIES AT HOME, HOSPITAL, OR BOTH, BY CITY

Place of Delivery	Denver	Saginaw
Hospital only	21	25
Home only	1	1
Both home and hospital	12	13
No response	2	1
Total	36	40

Collapsing rows 2 and 3 yields:
$\chi^2 = 0.04$: $.90 > p > .80$

TABLE XXIX

NUMERICAL DISTRIBUTION OF RESPONDENTS AND THEIR SIBLINGS BORN AT HOME, HOSPITAL, OR BOTH, BY CITY

Place of Birth	Denver	Saginaw
Hospital only	0	1
Home only	16	26
Both home and hospital	16	10
No response	4	3
Total	36	40

Combining rows 1 and 3 yields:
$\chi^2 = 2.96$: $.10 > p > .05$

TABLE XXX

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "HAVE YOU EVER MADE USE OF A CURANDERA OR MEDICA ANYWHERE?" BY CITY

Response	Denver	Saginaw
Yes	2	7
No	31	33
Don't know	2	0
No response	1	0
Total	36	40

Using only rows 1 and 2 (a "don't know" response being ambiguous): $\chi^2 = 1.30$: $.30 > p > .20$

TABLE XXXI

NUMERICAL DISTRIBUTION OF RESPONSES OF RESPONDENTS NOT ADMITTING USE OF CURANDERAS OR MEDICAS THEMSELVES TO QUESTION: "DO YOU KNOW OR HAVE YOU HEARD OF ANYONE ANYWHERE MAKING USE OF A CURANDERA OR MEDICA?" BY CITY

Response	Denver	Saginaw
Yes	19	9
No	13	25
Don't know	1	0
No response	3	6
Total	36	40

$\chi^2 = 7.30$: $.01 > p > .001$

TABLE XXXII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "ARE CURANDERAS GOOD AT TREATING SOME KINDS OF SICKNESS?" BY CITY

Response	Denver	Saginaw
Yes	18	20
No	6	4
Don't know	11	16
No response	1	0
Total	36	40

$\chi^2 = 1.06$: $.50 > p > .30$

TABLE XXXIII

NUMERICAL DISTRIBUTION OF RESPONSES TO QUESTION: "ARE THERE SOME KINDS OF SICKNESS THAT CURANDERAS ARE NOT GOOD AT TREATING?" BY CITY

Response	Denver	Saginaw
Yes	17	14
No	1	0
Don't know	14	24
No response	4	2
Total	36	40

Using only rows 1 and 3:
$\chi^2 = 1.87$: $.20 > p > .10$

TABLE XXXIV

NUMERICAL DISTRIBUTION OF RESPONSES AS TO WHETHER OR NOT RESPONDENTS KNOW OR HAVE HEARD OF ANY CURANDERAS IN THEIR LOCAL CITY, BY CITY

Response	Denver	Saginaw
Knows or has heard of	8	10
No knowledge of	27	30
No response	1	0
Total	36	40

χ^2 0.05: $.90 > p > .80$

TABLE XXXV

NUMERICAL DISTRIBUTION OF RESPONSES TO THE QUESTION: "HAVE YOU EVER BEEN BEWITCHED?" BY CITY

Response	Denver	Saginaw
Yes	1	4
No	32	33
Don't know	1	3
No response	2	0
Total	36	40

$\chi^2 = 0.78$: $.70 > p > .50$

TABLE XXXVI

NUMERICAL DISTRIBUTION OF RESPONSES OF RESPONDENTS NOT ADMITTING TO HAVING BEEN BEWITCHED THEMSELVES TO THE QUESTION: "DO YOU KNOW OR HAVE YOU HEARD OF ANYONE ANYWHERE BEING BEWITCHED?" BY CITY

Response	Denver	Saginaw
Yes	24	15
No	10	21
Don't know	0	1
Total	34	37

$\chi^2 = 5.93$: $.02 > p > .01$

TABLE XXXVII

NUMERICAL DISTRIBUTION OF RESPONSES TO THE QUESTION: "ARE THERE MANY WITCHES?" BY CITY

Response	Denver	Saginaw
Yes	11	11
Don't think so	5	1
Don't know	9	23
No	6	5
No response	5	0
Total	36	40

$\chi^2 = 5.97$: $.20 > p > .10$

Combining rows 1, 2, and 3 yields:

$\chi^2 = 5.72$: $.02 > p > .01$

TABLE XXXVIII

NUMERICAL DISTRIBUTION OF RESPONDENTS RESPONDING POSITIVELY TO VARIOUS NUMBERS OF INDICES OF BELIEF IN WITCHCRAFT, BY AGE

Number of Indices	Ages	
	15-24	25-44
10	0	3
9	0	3
8	7	4
7	2	3
6	3	4
5	2	8
4	2	6
3	5	5
2	2	2
1	1	1
0	2	11
Total	26	50

Collapsing rows 1 and 2 together, and all the remainder together yields:
$\chi^2 = 1.94$: $.20 > p > .10$
Collapsing all but the 11th row together yields:
$\chi^2 = 1.50$: $.30 > p > .20$

TABLE XXXIX

NUMERICAL DISTRIBUTION OF RESPONDENTS RESPONDING POSITIVELY TO VARIOUS NUMBERS OF INDICES OF BELIEF IN WITCHCRAFT BY SCHOOLING

Number of Indices	School Grades Completed	
	Nine or Fewer	Ten or More
10	3	0
9	3	0
8	9	2
7	3	2
6	5	2
5	8	2
4	5	3
3	6	3
2	3	1
1	1	1
0	12	1
Total	58	17

Collapsing rows 1 and 2 together, and all the remainder together yields:
$\chi^2 = 0.83$: $.50 > p > .30$
Collapsing rows 1, 2, and 3, and all the rest together yields:
$\chi^2 = 0.78$: $.50 > p > .30$
Collapsing all but the 11th row together yields:
$\chi^2 = 1.10$: $.30 > p > .20$

TABLE XL

NUMERICAL DISTRIBUTION OF RESPONDENTS RESPONDING POSITIVELY TO VARIOUS NUMBERS OF INDICES OF BELIEF IN WITCHCRAFT, BY CITY

Number of Indices	Denver	Saginaw
10	0	3
9	0	3
8	8	3
7	3	2
6	2	5
5	8	2
4	4	4
3	5	5
2	2	2
1	1	1
0	3	10
Total	36	40

Collapsing rows 1 and 2 together, and all the rest together yields:
$\chi^2 = 3.96$: $.05 > p > .02$
Collapsing all but the 11th row together yields:
$\chi^2 = 3.71$: $.10 > p > .05$

TABLE XLI

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING USE OF HERBS AND MEDICINES, BY CITY

Item	City	Used	Not Used	No Response	Total	Probability
1. Osha	Denver	11	25	0	36	$\chi^2 = 14.29$
	Saginaw	0	40	0	40	$.001 > p$
2. Poleo	Denver	7	29	0	36	$\chi^2 = 2.44$
	Saginaw	2	38	0	40	$.20 > p > .10$
3. Alhucema	Denver	3	33	0	36	$\chi^2 = 0.00$
	Saginaw	2	38	0	40	$p = 1.00$
4. (E)pasote	Denver	0	36	0	36	$\chi^2 = 1.13$
	Saginaw	3	37	0	40	$.30 > p > .20$
5. Yerbabuena	Denver	12	24	0	36	$\chi^2 = 2.16$
	Saginaw	20	20	0	40	$.20 > p > .10$
6. Inmortal	Denver	2	34	0	36	
	Saginaw	0	40	0	40	$p = .22$
7. Manzanilla	Denver	6	30	0	36	$\chi^2 = 5.99$
	Saginaw	17	23	0	40	$.02 > p > .01$
8. Jerabe de Osha	Denver	4	32	0	36	$\chi^2 = 2.72$
	Saginaw	0	40	0	40	$.10 > p > .05$
9. Romero	Denver	3	33	0	36	$\chi^2 = 0.00$
	Saginaw	2	40	0	40	$p = 1.00$
10. Altamisa Castilla	Denver	0	36	0	36	
	Saginaw	1	39	0	40	$p = .53$
11. Asafran	Denver	0	36	0	36	
	Saginaw	1	39	0	40	$p = .53$
12. Plumajillo	Denver	1	35	0	36	
	Saginaw	0	40	0	40	$p = .47$
13. Rosa de Castilla	Denver	6	29	1	36	$\chi^2 = 4.70$
	Saginaw	16	24	0	40	$.05 > p > .02$

TABLE XLI
(continued)

NUMERICAL DISTRIBUTION OF RESPONDENTS REPORTING USE OF HERBS AND MEDICINE, BY CITY

Item	City	Used	Not Used	No Response	Total	Probability
14. Hojas de Senna	Denver	2	34	0	36	$\chi^2 = 0.02$
	Saginaw	1	39	0	40	$.90 > p > .80$
15. Malva	Denver	5	31	0	36	$\chi^2 = 0.02$
	Saginaw	4	36	0	40	$.90 > p > .80$
16. Gobernador	Denver	0	36	0	36	
	Saginaw	2	38	0	40	$p_o = .27$
17. Sassafrass	Denver	0	35	1	36	$\chi^2 = 2.07$
	Saginaw	4	36	0	40	$.20 > p > .10$
18. S.S.S.	Denver	5	30	1	36	$\chi^2 = 0.36$
	Saginaw	3	37	0	40	$.70 > p > .50$
19. Lydia E. Pinkham's	Denver	3	32	1	36	$\chi^2 = 0.38$
	Saginaw	1	39	0	40	$.70 > p > .50$
20. Aceite Volcanico	Denver	20	15	1	36	$\chi^2 = 0.86$
	Saginaw	27	13	0	40	$.50 > p > .30$
21. Aceite Mexicano	Denver	19	16	1	36	$\chi^2 = 1.04$
	Saginaw	17	23	0	40	$.50 > p > .30$

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