

USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE FOR THE
TREATMENT OF ASTHMA AMONG ALLOPATHIC PATIENTS

By

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ABSTRACT OF THE DISSERTATION

Use of Complementary and Alternative Medicine for the Treatment of Asthma Among
Allopathic Patients

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There is little literature on the use of complementary and alternative medicine for the treatment of asthma. It is important to understand factors leading asthmatics to use CAM and to identify patients at high likelihood of using CAM for asthma so as to minimize their risk of inadequate or poor treatment outcomes. The present study evaluated CAM use for asthma among 72 patients of allopathic asthma specialists in a convenience sample. Using an in-depth survey, it compared responses on the use of CAM for asthma with known risk factors and for three novel ones not previously reported in the literature. Hypotheses are: 1) religion will drive CAM usage for the treatment of asthma; 2) personal characteristics will drive CAM usage for the treatment of asthma; 3) referrals, especially from family members, will drive CAM usage for the treatment of asthma. Because of the small sample size, statistical significance was defined as <0.1 .

The study found that those claiming no or Jewish religious identity were less likely to use CAM to treat their asthma. It also found that those with a lack of trust in the allopathic medical system were more likely to use CAM and those whose family members referred them to CAM were more likely to use it.

Despite the fact that the subject population is small and not representative of general New Jersey or U.S. populations, the findings amplify the importance of improved

communication and trust between physician and patient. Findings may also help physicians identify patients likely to use CAM thereby avoiding negative outcomes. The results may also aid researchers in identifying populations rich in CAM use to target for both health education and CAM research.

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Chapter 1: Introduction

1.1 Definition

David Eisenberg et al define complementary and alternative medicine (CAM) as “those treatments and health care practices not taught widely in medical schools, not generally used in hospitals and not usually reimbursed by medical insurance companies.”¹

The National Center for Complementary and Alternative Medicine categorizes CAM among four domains in addition to whole medical systems including traditional Chinese medicine, naturopathy, and homeopathy. The four domains consist of:

1. Mind body medicine (including yoga, meditation prayer and music)
2. Biologically based practices (including the use of vitamins, herbs, minerals and diets)
3. Manipulative and body based practices (including osteopathy, chiropractic and massage therapy)
4. Energy medicine (such as bio-magnetic therapies and bio-field based therapies)

1.2 Need to Understand CAM Usage

From a public health point of view, it is imperative that physicians in clinical practice understand which of their patients are using CAM and why. A large segment (almost 40 percent) of the US population employs CAM. Utilizing data from the 2007 National Health Interview Survey (NHIS) by the Center for Disease Control and Prevention’s National Center for Health Statistics (NCHS), Patricia Barnes et al reported that 38 percent of American adults had used some form of CAM within the last year. The most frequently employed forms of CAM were non-mineral, natural products (18 percent) and deep breathing exercises (13 percent).²

There are marked secular trends for increased use of CAM. The 1999 NHIS reported that an estimated 29 percent of Americans had used CAM in the previous year (compared to

38 percent in 2007).^{2,3} In a 2001 national telephone survey of 2055 respondents, Kessler et al wrote that approximately 30 percent of respondents in the pre-baby boom cohort, 50 percent in the baby boom cohort, and 70 percent in the post-baby boom cohort reported using some type of CAM therapy.³

In summary, a very large proportion of the US population avails themselves of CAM usage. Far from this constituting a temporary phenomenon, CAM usage demonstrates a significant and growing trend. For example, CAM usage is particularly high among those with chronic diseases. Eisenberg et al found that CAM was utilized mainly for chronic conditions, with the highest rates for back problems, anxiety, headaches, and chronic pain.¹

It has been argued that poor patient-physician communication and/or patient dissatisfaction with their allopathic (orthodox medical) practitioners have pushed patients into using CAM.⁴ Studies also demonstrate that many patients do not inform their physicians of their use of CAM. Eisenberg et al found that 72 percent of US subjects using CAM never informed their medical doctor.¹ Liu et al found that CAM use disclosure was 36 percent across visits among HIV-infected women in the United States.⁵ Rivera et al conducted prospective interviews of 60 asthmatic admissions in El Paso, Texas and found that 42 percent of patients used herbal products, but not one case of asthmatic admissions whose charts were retrospectively reviewed had herbal product use documented in the medical report.⁶

A physician's lack of knowledge of patient CAM use may markedly exacerbate patient risk. CAM therapies may cause direct adverse effects such as the puncture of vital organs during acupuncture, depletion of calcium and other minerals with chelation, and intrinsic liver toxicities with phytotherapy.⁷ Senna (a shrub used for laxative effects) may elicit allergies and asthma.⁸ Chamomile tea may cause anaphylaxis.⁹ Very importantly, many CAM therapies have been associated with drug interactions. For instance, garlic and St

John's wort (a weed commonly used for the treatment of insomnia) may cause CYP3A4 enzyme induction, and Kava (a pepper used for the treatment of insomnia) may produce CYP3A4 inhibition, either of which may affect anti-retro-viral therapy for HIV.¹⁰ Bitter orange (an evergreen used for appetite suppression) may interact with medications to cause arrhythmias, and stinging nettle (used for a variety of health-related issues) contains vitamin K which may decrease warfarin's anticoagulant effect.

Patients may choose to substitute CAM therapies for physician-prescribed biomedical therapies. This is why CAM is often called alternative medicine (when used together with biomedical therapies, it is termed complementary medicine). Studies show that use of CAM therapies is associated with significantly decreased adherence to physician prescribed medication. In 2007, Adams et al studied parental beliefs regarding CAM, finding that more positive parental beliefs about CAM were "significantly associated with a higher number of risks for non-adherence."¹¹ Additionally, George et al studied 28 patients in Philadelphia and found that where 100 percent of patients used CAM for asthma, 62 percent had been non-compliant with biomedical therapy during the previous two weeks.¹²

Studies show that CAM practitioners, such as chiropractors, naturalists and homeopaths, often advise against immunizations.¹³ Specifically, Lee et al found that most homeopaths in the United States do not advise patients to have immunizations, and nine percent recommended against them.¹⁴ Studies have also shown that patients receiving CAM as an alternative to conventional health services demonstrate lower rates of other important preventive health services. For example, Downey et al looked at Washington State insurance data and found that women who used naturopathy had a decreased use of mammography.¹⁵

According to Pachter et al and George et al, patients who use CAM often believe in competing non-biological models of health or disease (such as humoral theories of hot and cold disease).^{12,16} They may consequently misinterpret warning signs and delay drug

treatment which can lead to increased morbidity or mortality. Braganza et al demonstrated that 44 percent of inner-city asthmatic children actually used CAM as "first treatment" for asthma attacks.¹⁷

As a large segment of patients who utilize CAM do not inform physicians of such use, it is vital that physicians be aware of which patient population segments are most likely to use CAM. It is also important for public health professionals and researchers to be able to find high risk populations to target with appropriate warnings about CAM use.

1.3 Asthma and CAM Usage

Few studies have been done regarding CAM use among asthmatics. As asthma is a chronic disease that affects 11 percent of the US population over the course of a lifetime, much more needs to be done.¹⁸ For example, in 2005, more than 32 million Americans had a diagnosis of asthma, and asthma prevalence had increased by 16 percent from 1997. In 2005 alone, there was an asthmatic attack episode prevalence involving 4 percent of the US population.¹⁸ Twelve month asthma prevalence rates among blacks increased from 3 percent to 7 percent between 1980 and 1996, and Puerto Ricans had a lifetime asthma prevalence rate of 22 percent with a 12 month attack rate of 10 percent.¹⁸

Globally, large segments of the asthmatic population have been reported to use CAM. Interviewing 4741 asthmatics in the United Kingdom, Ernst reported that 59 percent had used CAM for their disease. Of those with severe asthma, 70 percent used CAM.¹⁹ Studying mainland Puerto Rican asthmatic children in 1995, Pacter et al reported that 21 percent used CAM home remedies alone.¹⁶ In 2004, Rivera et al found that of 67 asthmatics in El Paso Texas, 42 percent used herbal products for the treatment of asthma.⁶ In 2006, George et al reported that of 28 inner city blacks with severe asthma, 100 percent used CAM.¹² Sidora-Arcoleo and colleagues noted in 2007 that 65 percent of 225 asthmatic children in Rochester,

New York currently used CAM.²⁰ Looking at 304 asthmatic children in Turkey, Orhan et al found that 49 percent used CAM to treat their asthma in the past, and 39 percent currently used CAM.²¹ While Reznik reported that 80 percent of 200 Bronx high school students with asthma (57 percent Latino and 35 percent African-American) used CAM, Mazur found 81 percent of 48 pediatric patients with asthma in Houston, Texas in 2001 employed CAM.^{22,23} Adams noted that a similar number (79 percent) of 72 Boston pediatric asthmatic patients used CAM, while Braganza and colleagues reported in 2003 that, of 310 asthmatic inner city children (61 percent Hispanic and 37 percent African-American), 89 percent had used CAM within the last year.^{11,17} Indeed, CAM use has been documented to be highly prevalent across countries and diverse geographic locations.

Studies demonstrate that many asthmatic patients or parents of asthmatic children do not inform their physicians of their or their child's use of CAM. Looking at Australian patients, Mazur et al reported that no patient actually volunteered information that their child had utilized CAM for asthma.²³ Also in Australia, Shenfield et al found that only 46 percent of asthmatic patients notified their physicians of their child's use of CAM.²⁴ Braganza and colleagues found that only 18 percent of asthmatics told their physicians about their child's use of CAM.¹⁷ Additionally, Reznik found that only 54 percent of parents of children with asthma had informed their physician of CAM use.²² Rivera reported that, among adults with asthma whose medical charts were reviewed, none had documentation of CAM use.⁶ It can be surmised that physicians are often unaware of and perhaps do not ask about their patients' CAM use.

As with other diseases, physician lack of knowledge of patient use of CAM for asthma may exacerbate patient risk. There is the potential for patients to use CAM instead of rescue inhalers for first line treatment, thus delaying appropriate urgent care for asthma. CAM is frequently not well regulated. For instance, contaminated *ma huang* (a Chinese

herbal therapy used for asthma) has been reported as possibly causing hepatitis.²⁵ *Auga maravilla* (a Native-American remedy) contains witch hazel with ethyl alcohol and may be toxic in large doses.²⁵ *Datura stramonium* (a weed used in both Chinese and folk medicine for the treatment of asthma) containing atropine, and scopolamine and mandrake have a belladonna-like drug effects.²⁵ All these agents are well known to allopathic physicians as toxins.

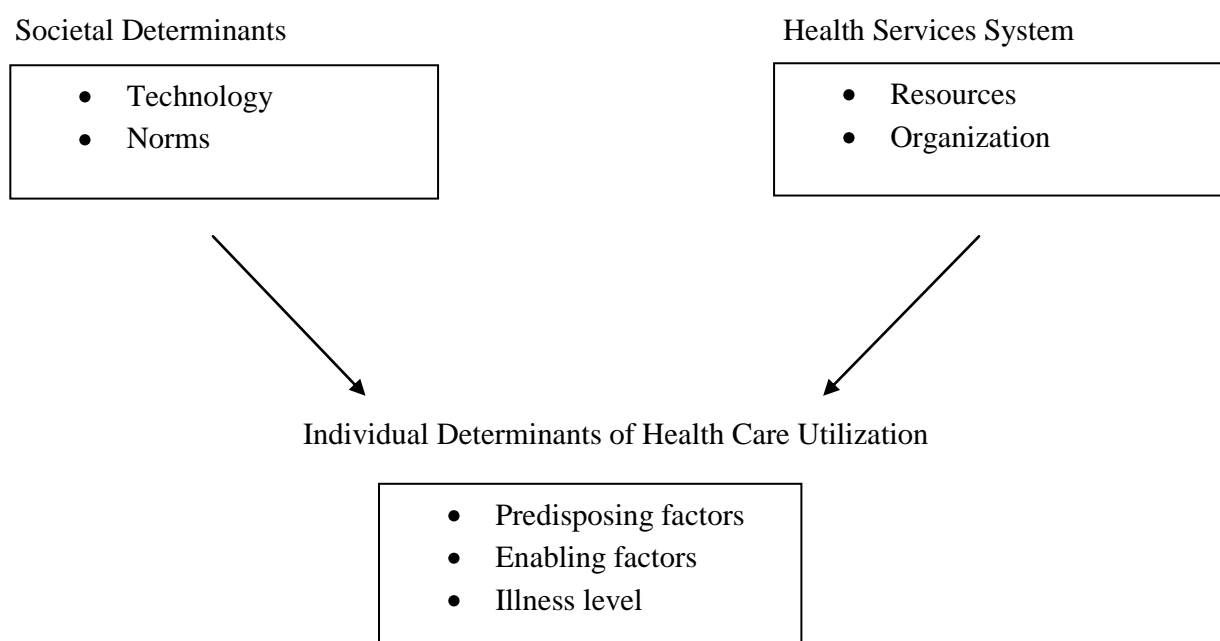
CAM practitioners such as naturalists may interfere with asthmatic patients obtaining immunizations. Specifically, influenza poses a significant risk to asthmatics. Failure to receive immunizations against influenza (or against pneumococcal pneumonia) jeopardizes the health of asthmatics because influenza may provoke severe asthma episodes. Nevertheless, most homeopaths and many other CAM practitioners do not recommend immunizations.⁷

1.4 Summary

In summary, since large segments of the asthmatic population use CAM, and because it poses health risks, it is requisite for the attending physician to determine which patients are likely to be utilizing CAM so as to formulate optimal treatment plans, prevent drug interactions and toxicities, improve physician-patient communication and trust, and increase patient adherence to their treatment plans. The result should be to minimize patient morbidity and mortality. If aware or at least alert to the possibility that a patient may be using CAM, physicians should at least be able to contribute advice as to CAM modality effectiveness and drug interactions, and to better monitor compliance with the recommended program of treatment. From a public health point of view, it is beneficial to determine which populations have an increased use of CAM for asthma so as to specify population catchments for research on CAM use, CAM success and CAM side-effects for the treatment of asthma.

In 1973, Anderson and Newman offered a socio-behavioral model for how societal and individual determinants drive medical care utilization in the United States.²⁶ This model can also be used to demonstrate CAM utilization. To simplify, societal determinants (such as technology and norms) and the health service system (comprising resources and organization) both shape the individual determinants of health service utilization. Please see Figure 1 (derived from Anderson and Newman).

Figure 1- Health Service Utilization Framework



Note: Adapted from Anderson R, Newman J. Societal and individual determinants of medical care utilization in the United States. *Millbank Mem Fund Q Health Soc.* 1973; 51 (1): 95-124.

As CAM is a subtype of health care, many of the Anderson-Newman determinants can be expected to drive CAM usage and will be examined in this paper. For instance, according to the model, those patients with the most severe chronic disease might be expected to be the heaviest users of medical services, including CAM. It would be important

to determine if this is actually the case. Additionally, demographics and patient personality characteristics such as trust, mastery and coping styles may help determine use of CAM. Religion may impact norms, beliefs and values. It is important to evaluate religion as a driving (determining) force for the use of CAM for asthma. Enabling factors include family and other referral sources for the use of CAM. The character of the family milieu may also determine CAM use for asthma.

This study explores the rate and determinants of CAM usage among a cohort of asthmatic patients, including demographic factors, personality characteristics (or personality indicators), asthma severity, and the effect of referral sources for CAM use. Based on the demographics of previous literature, we should find that CAM utilization will increase with female gender, higher educational levels, higher incomes, self identification as white and age lower than 60.^{1,2,20,27-36} It is also anticipated that CAM use will increase with asthma severity and exposure to asthma-provoking environmental factors, patient dissatisfaction with the allopathic physician, and family referrals for use of CAM.

1.5 Specific Aims

The study focuses on an asthmatic patient population receiving allopathic specialist asthma care from either a clinic or private medical practice. Utilizing a cross-sectional interview format it will determine the rate of CAM usage among a cohort of asthmatics. It then will determine the correlates (or determinants or risk factors) for CAM use, including demographic factors and personality characteristics (or personality indicators) such as trust and coping styles, asthma severity and referral sources. A model will be developed to predict CAM usage. From a public health standpoint, this will facilitate the identification of populations heavy in CAM usage. From a clinical standpoint, this will increase the

physicians' chances of identifying which patients are utilizing CAM without their admitting to doing so, thereby avoiding side effects such as drug-interactions.

Based on the literature, it is anticipated that at least 40 percent of asthmatic patients sampled will utilize CAM. Also, in accordance with previous literature, it is anticipated that CAM utilization will increase with female gender, higher educational levels, higher incomes, self-identification as white, and age lower than 60. It is also anticipated that CAM use will increase with asthma severity. These will be examined to determine how the sample compares to previous studies and the general population. Previously untested hypotheses in the literature are that 1) religion will drive CAM usage for the treatment of asthma and that 2) personal characteristics (trust, mastery, coping styles) will drive CAM usage for the treatment of asthma. Specifically, it is anticipated that CAM utilization will increase with lack of trust, among those with problem-focused coping, and among those with higher degrees of mastery. Finally, it is hypothesized that 3) referrals especially from family members will drive CAM usage for the treatment of asthma. That is, it was anticipated that CAM utilization will increase with family referrals to use CAM. Answers to these questions will help define catchment populations for CAM research and identify which patients are likely using CAM.

1.6 Organization of the Thesis

Chapter 2 constitutes a background and literature review. US prevalences are reviewed for asthma, CAM use in general, CAM use among patients with chronic diseases and CAM use for asthma. The Anderson-Newman socio-behavioral-model of health care utilization is discussed, as well as its relevance for CAM usage. Prior studies are reviewed as to demographic effects on CAM usage (gender, income, educational levels, age, ethnic and racial groups), as well as effects of asthma severity on CAM use.

Personal characteristics such as trust, coping styles and mastery and their bearing on CAM use discussed, with prior relevant studies cited. Religion and its influence on CAM use, and the impact of referral sources on CAM use are also discussed with the limited research in that area reviewed.

Chapter 3 involves data and method. This includes the development of the questionnaire, consent forms, subject selection and interview content. The approach to the data is also explained.

Results appear in Chapter 4, encompassing subject demographics, asthma severity, subject environmental risk factors for asthma, subject satisfaction with allopathic treatment, subject use of and satisfaction with CAM and subject families use of CAM. Subject referral sources for use of CAM and subject advice to others to use CAM are also reported, as are findings related to trust, coping and mastery.

Chapter 5 contains the results of the analyses for the three hypotheses tested. Logistic regression results are reported relevant to the determinants of CAM use. A discussion of the findings is contained in Chapter 6. All findings are summarized, as well as the study's limitations, along with public health and clinical implications.

Chapter 2: Background and Literature Review

2.1 Prevalence and Incidence of Asthma

The World Health Organization defines asthma as a chronic condition characterized by recurrent bronchio-spasm resulting from a tendency to develop narrowing of the airway lumina in response to stimuli of a level of intensity not inducing such narrowing in most individuals.³⁷ The 2005 NHIS estimates that 32.6 million Americans (11.2 percent of the population) have a diagnosis of asthma at some time in the course of their lives. NHIS data recorded an increase in the 12-month prevalence rate of asthma between 1980 and 1996 of 73 percent among whites (3.1 percent to 5.4 percent) and 100 percent among blacks (3.3 percent to 6.5 percent).^{18,38} The data also show that asthma prevalence differs among ethnic groups. For example, according to Akinbami, Puerto Ricans demonstrated a lifetime asthma prevalence rate of 22 percent.¹⁸

2.2 Prevalence of CAM Use

For his 1993 article in *The New England Journal of Medicine*, Eisenberg and colleagues surveyed 1530 adults with a 67 percent response rate and noted that 34 percent of respondents utilized at least one form of unconventional therapy within the last twelve months.¹ In his 1998 article, Eisenberg et al estimated that 83 million Americans (43 percent) used CAM.³⁹ The 2002 NHIS based upon 31,044 interviews with subjects over the age of 18 estimated that 62 percent of adults used CAM therapy during the previous 12 months (when prayer for health reasons was included), and 36 percent when prayer was specifically excluded.³²

In his 2001 article on long term trends, Kessler et al reported that 67.6 percent of respondents utilized CAM at least once in their lifetime. Approximately 30 percent of those born before 1945 and 50 percent of those born between 1945 and 1964 used CAM. Seventy

percent of those born between 1965 and 1979 used CAM by the age of 33. This indicates a secular trend beginning over fifty years ago.⁴⁰ Based on the 2007 NHIS survey, 38.3 percent of adults utilized CAM (not including prayer) within the last year.²

2.3 Prevalence and Incidence of CAM Use Among Patients with Chronic Diseases.

The vast majority of CAM users use CAM for chronic conditions.¹ For serious medical conditions, 83 percent of CAM users used it as a complementary rather than an alternative medicine. That is, they seek treatment from medical doctors and use CAM in addition to medical therapy.¹ The Anderson et al socio-behavioral-model of health care utilization posits an illness level which includes both severity and chronicity as determinants of health care utilization.²⁶ In other words, before using medical services one must have a need for them. With a chronic disease, that need is often not met by allopathic medical treatments. This leaves an unfulfilled medical need. In other words, chronic, severe diseases for which modern medicine offers no or incomplete cures, pose conditions that might be expected to encourage CAM use. Examples include cancers, cerebral palsy, diabetes, hepatitis C, HIV, inflammatory bowel disease, and sickle cell anemia.

Utilizing a national survey in 1996, London et al estimated that 15 percent of HIV positive patients were treated by an alternative therapist in the preceding six months.³³ By 2007, Kaufman and Gregory reported that CAM practitioners treated 61 of 122 (50 percent) HIV-positive male patients in Oregon after they were diagnosed.⁴¹ There may have been many others who did not see a CAM practitioner but used CAM therapy individually.

As examples of cancer patients, in 2002 Haberman et al studied 56 long-term lymphoma survivors (median survival time was eleven years). Sixty-eight percent reported using CAM. Thirty-eight percent used herbal supplements and 39 percent used chiropractic medicine.⁴² Looking at 5,046 Shanghai women with breast cancer, Chen et al noted that 97

percent used CAM therapy post-cancer diagnosis. Seventy-seven percent used traditional Chinese medicine, but less than 1 percent had used acupuncture.⁴³

In 2006, Sibinga et al studied the families of 57 sickle cell anemia patients followed at Johns Hopkins University School of Medicine. Fifty-four percent of these patients used CAM therapies; 42 percent of the therapies included energy healing, spiritual healing, or prayer.⁴⁴ Kumar et al studied 493 patients with diabetes in Allabad, India. Sixty-seven percent used CAM, primarily naturopathy.⁴⁵ Studying 363 children with special needs (such as cerebral palsy, spina bifida and congenital heart disease) in Arizona, Sanders et al found that 64 percent used CAM (48 percent within the last six months). Of those children with a non-curable condition, 75 percent used CAM. This is in stark contrast to the children with a curable condition of whom only 24 percent used CAM.⁴⁶ White et al studied 76 patients with hepatitis C. Thirty-five of the 76 patients (46 percent) used CAM. Twenty-four percent of those patients who used CAM used herbal supplements, including four patients with chronic liver disease who used herbs that increased bleeding time, a dangerous practice with this condition.⁴⁷

Callahan et al looked at arthritis patients in North Carolina in 2009. Ninety percent of 1,063 specialty clinic patients and 82 percent of 1,077 patients in a primary clinic had used CAM. Combining both groups, more than 25 percent used meditation or spiritual healing.⁴⁸ Lee et al looked at 154 rheumatoid arthritis patients in Korea. Eighty-two percent had utilized CAM. Of these, 84 percent had used some type of oriental medicine (which includes acupuncture, herbal medicine, qi gong and tai chi). Such high rates of CAM usage may be accounted for by the fact that rheumatoid arthritis is incompletely responsive to medical treatment (which can also be highly toxic) and public health insurance in Korea partially covers CAM.⁴⁹

Sinha et al looked at 75 children between the age of 5 and 17 with ADHD in Melbourne, Australia. Sixty-seven percent of these children used CAM. Sixty-six percent of those that used CAM used a modified diet, and 28 percent used minerals or vitamins.⁵⁰

All of the above studies were cross-sectional studies. Almost all demonstrated that considerable segments of the population utilized CAM for the treatment of chronic diseases. Since asthma is a recurrent and only partially treatable disease (with allopathic medicine), we should expect a similarly high rate of CAM use for asthma.

2.4 CAM Use Among Asthmatics

CAM treatments may have biomedically documented positive effects. Arzu Babayit et al found that oral ginseng may reverse many of the chronic pathologic changes from asthma in a murine model compared to placebo. In asthmatics, thickness of airway epithelium, smooth muscle and basement membranes after ginseng were comparable to those achieved with dexamethasone, a steroid medication.⁵¹ Xiu-Min Li et al found that FAHA-1, a Chinese herbal medication “protected peanut-sensitized mice from anaphylactic reactions and significantly reversed established Ig E- mediated peanut allergy.”⁵²

There are a number of estimates of CAM usage for asthma. Adams et al studied 66 asthmatic children from three community health clinics in Boston. Sixty-two percent were black, 14 percent were multiracial, and 11 percent were Hispanic. Seventy-nine percent of patients reported CAM use within the past year for the treatment of asthma.⁵³ As part of a larger study, Ang et al looked at 53 children with moderate to severe asthma treated at the clinics of The State University of New York at Stony Brook. Only 13 of the 53 children used CAM. The majority of these asthmatics was compliant with treatment and had well controlled asthma, which may partially account for the low rate of CAM use.⁵⁴ Braganza et

al studied the parents of 310 asthmatic children treated at the Albert Einstein College of Medicine in the Bronx (of whom 61 percent were Hispanic and 37 percent African American). Eighty-nine percent of parents had utilized CAM for their children within the previous year. Fifty-three percent used prayers, 53 percent rubs and 45 percent massages.¹⁷

Among a study of 28 African-American patients via the Johns Hopkins School of Nursing and the University of Pennsylvania School of Nursing, George et al found that 100 percent were currently using CAM. Ninety-three percent used medicated chest rubs, 66 percent used prayers and 66 percent used teas.¹² In a study of 304 asthmatic Turkish children, Orhan et al found that 38 percent had used CAM within the previous year. Of those using CAM, 79 percent used quail eggs, 31 percent herbal medicines, and 26 percent Turkish wild honey.²¹ In a study of Hispanic and African-American asthmatic children in Alabama, Reznick et al determined that 80 percent were using CAM. Seventy-four percent of these children used rubs, 39 percent used herbal teas, and 37 percent used prayer for asthma.²² In 2001, Paul Blanc et al reported that of 125 randomly-selected telephone-interviewed asthmatics from Northern California, 52 (42 percent) used CAM.⁵⁵ Mazur et al studied 48 asthmatic children in Houston, Texas, of whom 44 percent were black, 23 percent were Hispanic, and 10 percent were white. The study found that 81 percent of the children used CAM. Ninety-five percent of the black subjects used prayer compared to 64 percent of Hispanics and 60 percent of whites. Five percent of the black children used herbs, compared to 54 percent of Hispanics and 10 percent of whites.²³

In England, Partridge and colleagues interviewed 785 asthmatics and found that only 6 percent were currently using CAM. The most commonly used method of CAM was breathing techniques. He stated that a possible cause of the extremely low rate of CAM use could be the exceedingly high levels of satisfaction with orthodox (allopathic) health care.⁵⁶ Also, in England, Ernst polled 1,471 parents of asthmatics and found that 33 percent reported

having tried CAM for their children's asthma.⁵⁷ In Adelaide, Australia, Andrews and colleagues interviewed the parents of 51 children with asthma and found that 55 percent of the children used CAM. Twenty percent of these pediatric patients used massage therapy, 18 percent used diet, and 12 percent used vitamins for asthma.⁵⁸

Sidora-Arcoleo et al studied 228 parents of asthmatic children from two pediatric clinics in Rochester, NY. Forty-six percent of the patient population was minority. Sixty-five percent of parents were currently using CAM for their child's asthma. Blacks used CAM for their child's asthma at twice the rate of whites or Hispanics.²⁰ In June 2010, Marino and Shen published the largest adult survey of CAM use among asthmatics in the United States (7,352 participants) of whom 75.4 percent were white, 7.2 percent black, 6.9 percent multiracial and 10.4 percent Hispanic. They reported that 39.6 percent of adult asthmatics used CAM within the last year.²⁹

In summary, asthmatics' use of CAM ranged from 6 percent in England to 100 percent among minority inner-city populations in the United States with an average of 58 percent for the thirteen cited studies. The lowest rates of CAM usage were seen among predominantly white populations (Orhan,²¹ 38 percent; Partridge,⁵⁶ 6 percent; Ernest,⁵⁷ 33 percent) and a population characterized by an extremely high rate of compliance with orthodox (allopathic) medical care (Ang, 25 percent).⁵⁴

2.5 Demographic Predictors of CAM Use for Asthma

2.5.1 Gender Effects

Eisenberg et al, in 1993, found no significant gender difference in the use of CAM.¹ The 2007 NHIS survey reported age-adjusted percentages of sex determinants for the use of CAM; 43 percent of females utilized CAM within the last 12 months versus 34 percent of males.² In 2002, Hanyu Ni et al reported that 33 percent of women used CAM versus 24

percent for men.²⁷ MacLennan et al's 2002 study of 3,027 respondents in Adelaide, Australia reported that females used CAM at least 2.4 times the rate for males.²⁸ In 2006, Marino and Shen reported that women used CAM more commonly (42 percent) than men (36 percent) with a borderline significance ($p = .055$).²⁹

From the above studies (except for Eisenberg et al), it appears that females consistently use CAM more frequently than males. Orhan, however, reported gender differences in CAM usage as insignificant²¹ and gender effects on total CAM use for asthma were simply not reported by multiple researchers, all of whom studied CAM use among asthmatics.

In 2002, Alistair McLennan et al reported that females employed more herbals, aromatherapy, and Chinese medicines, and patronized more aroma therapists, herbal therapists, homeopaths, iridologists and naturopaths than males.²⁸ Compared to males, the 2007 NHIS reported that females used all of the major domains of CAM more frequently:

- Biologically-based therapies, 22 percent to 18 percent
- Mind-body therapies, 34 percent to 14 percent
- Alternate medical systems, 4 percent to 3 percent
- Energy healing therapy, 0.7 percent to 0.4 percent
- Manipulative and body-based therapies, 18 percent to 12 percent²

2.5.2 Income Effects

In 1993, Eisenberg reported that CAM use was significantly more common among subjects with annual incomes above \$35,000 than among those with lower salaries (39 percent to 31 percent; $p < 0.05$).¹ Higher economic status could provide greater access to CAM especially if CAM is not covered by insurance. Supporting this, MacLennan, in 1996, derived an odds ratio (OR) for the use of CAM of 1.2 ($p < 0.01$) for high socioeconomic status versus medium or low status among 3,004 subjects in South Australia.³⁰ In 2002, MacLennan derived an OR of CAM use of 1.4 (95 percent CI=1.1 to 1.8) for those earning

\$20,000 to \$40,000 dollars compared to those earning less than \$20,000 dollars. The OR for those earning \$40,000 to \$60,000 dollars compared to those earning less than \$20,000 dollars was 1.8 (95 percent CI=1.4 to 2.3). The OR was 1.8 (CI =1.1 to 1.8) for those earning \$60,000 compared to those earning less than \$20,000 dollars.²⁸ The 2007 NHIS survey using the census bureaus' poverty threshold for 2006 reported that 43.3 percent of Americans who were not poor used CAM, 30.9 percent who were near poor used CAM and 28.9 percent who were poor used CAM.² Ang noted that 33 percent of those asthmatics whose parents were employed used CAM. Conversely, none of those asthmatics whose parents were not employed used CAM.³¹

As CAM is often cheaper than unreimbursed orthodox (allopathic) medical care, those unable to afford the latter may substitute CAM for conventional care. Barnes, in her report of CAM use in 2007, summarized NHIS findings by stating that when the patient was "unable to afford conventional care, adults were more likely to use CAM."² Marino and Shen reported a non-significant effect of income on CAM use among asthmatics. Of the 7,352 participants, 46 percent of those with an income less than \$25,000 used CAM, 38 percent of those making \$25,000 to \$49,999 used CAM, 34 percent of those making \$50,000 to \$74,999 used CAM and 36 percent of those making at least \$75,000 used CAM. The corresponding adjusted OR's for the use of CAM were 1.0, 0.8, 0.8, and 0.9 compared to those making less than \$25,000. In Marino and Shen's study, those reporting a cost barrier for allopathic asthma care did have a significantly greater use of CAM than those who denied such a barrier (61 percent to 34 percent). The adjusted odds ratio for the use of CAM was 2.8. This means that those reporting a cost barrier for allopathic asthma care were almost 3 times as likely to use CAM as those denying such a barrier.²⁹ In 2007, Sidora-Arcoleo et al computed that 81 percent of the asthmatic children she studied in Arizona who were poor used CAM whereas only 63 percent of those who were not poor used CAM.²⁰ Determination

of poverty was made by whether the subject participated in Medicaid or the state childrens Health Insurance Program. The majority of studies seem to support the idea that CAM use varies with income, depending on whether patients have insurance that covers conventional medical care but not CAM. Subjects with lesser income who lack insurance utilize CAM (which is cheaper). Those who have insurance (covering allopathic expenses but not CAM) use less CAM.

2.5.3 Education Effects

In 1993, Eisenberg found that 44 percent of subjects with at least some college education used CAM within the last year. Only 27 percent of those with no college education used CAM ($p < .05$).¹ The 1999 NHIS noted that 19 percent of those with less than 12 years of education used CAM within the year, whereas 28 percent of those having between 12 and 15 years of education and 36 percent of those with at least 16 years of education used CAM.²⁷ The 2002 NHIS confirmed this trend as 57 percent of those without a high school degree used CAM within the last year, 67 percent of those with a college degree and 66 percent of those with at least a masters degree used CAM. Barnes also wrote that excluding prayer used for health, CAM use increased with educational level.³² Therefore, multiple studies confirmed that CAM use increased with education up to a college degree. In 2002, in South Australia, MacLennan et al derived an odds ratio of 1.6 (95 percent CI= 1.3 to 1.8) of those having a post high school education using CAM versus those without any post high school education.²⁸ The former had a 60 percent greater chance of using CAM. The 2007 NHIS survey demonstrated again that CAM use varied with education. Only 21 percent of those without a high school education utilized CAM. Fifty percent of those with a college degree and 55 percent of those with a graduate degree used CAM.² These extensive surveys

on the general use of CAM are consistent in demonstrating that CAM use increases with educational levels.

In 2007 Sidora-Arcoleo and colleagues found that only 14 percent of the asthmatic children whose parents never finished high school used CAM. Thirty percent of the children whose parents had a high school degree used CAM, and 56 percent of those who finished college used CAM.²⁰

Braganza et al found educational levels to be insignificant in a 2003 study of CAM use among inner-city asthmatic children.¹⁷ Her subjects were an inner-city and minority population. Marino and Shen found that among 7,352 asthmatic participants, CAM use did not differ significantly with education. Forty percent of those with a high school education or less used CAM, and 39 percent with at least a college education used CAM. The adjusted OR's were 1.0 and 1.1.²⁹

2.5.4 Age Effects

Eisenberg found that 38 percent of those between 25 and 49 years of age used CAM, as opposed to 33 percent of those adults who were younger and 28 percent of those who were older.¹ The 1999 NHIS survey found that 23 percent of individuals between ages 18 and 24 and 28 percent of those between ages 25 and 34 used CAM. Thirty-one percent of people between ages 35 and 44, 32 percent of those between ages 45 and 54, and only 28 percent of those age 55 and over used CAM.²⁷

The 2002 NHIS survey found that CAM use varies with age. While 54 percent of those ages 18 through 29 use CAM, there is an increase to 67 percent among those in their thirties. Among those in their forties, 64 percent use CAM while 66 percent of those in their fifties utilize CAM. A similar number 65 percent, of those in their sixties employ CAM. The percentage increases to 69 percent among those ages 70 to 84 while the highest percentage 70

percent, occurs among those at least 85 years old.³² The 2007 NHIS survey found the following percentage use of CAM for the above age groupings: 36 percent, 40 percent, 40 percent, 44 percent, 41 percent, 32 percent and 24 percent.² This in an inverted U shape with rates of CAM use peaking among subjects in their fifties. These large studies found that CAM use varies directly with age, up to at least the age of 49 or 55, with some studies finding a decrease in those older.

Marino and Shen found that 37 percent of individuals from ages 19 thru 34 years used CAM, 39 percent of those aged 35 thru 44 used CAM, 41 percent of those aged 45 thru 54 used CAM, 46 percent of those aged 55 thru 64 used CAM and only 34 percent of those over age 65 used CAM.²⁹ These values were not reported as statistically significant and no p value was reported. Nevertheless, the trend shown by Marino and Shen is in accordance with that found in the 2007 NHIS survey: the rates of CAM use vary with age before assuming a reverse U shape.²

2.5.5 Ethno-Racial Effects on CAM Use

In 1993, Eisenberg found that only 23 percent of blacks used CAM within the previous year, as opposed to 35 percent for all other racial groups. This included prayer when used as a therapy.¹ The 1999 NHIS survey found 31 percent of whites used CAM, 24 percent of blacks used CAM, and only 20 percent of Hispanics used CAM.²⁷ The 2002 NHIS survey listed 60 percent of whites utilizing CAM, 71 percent of blacks using CAM, 61 percent of Hispanics and 62 percent of Asians.³² The 2007 NHIS estimated that 43 percent of whites used CAM within the previous year, 26 percent of blacks, 24 percent of Hispanics and 40 percent of Asians. (Prayer for health was not listed as one of the CAM categories).² In 1996, London's study of CAM specialist use (a different effect than CAM use which

includes personal use) among HIV patients in the US had 21 percent of whites, 7 percent of blacks and 12 percent of Hispanics using CAM.³³

Sidora-Arcoleo's study of CAM use among asthmatic children in Arizona showed 64 percent of whites utilizing CAM, 83 percent of blacks and 65 percent of Hispanics. Whether prayer was included was not specified.²⁰ Braganza's study of inner-city children with asthma documented 83 percent of white and 89 percent of both black and Hispanic children using CAM within the last year. This difference among groups was not significant, and the definition of CAM did include prayer.¹⁷ George's survey of inner-city black asthmatics reported that 100 percent used CAM (28 subjects). The definition included prayer.¹² In Lee et al's study of CAM use among women with breast cancer in San Francisco between 1990 and 1992 involving 379 subjects, 36 percent of black women were found to use spiritual healing, compared to 26 percent of Hispanics, 7 percent of Chinese and only 23 percent of whites.³⁴

In Arcury et al's study of older adults (above age 65 years old), utilizing the 2002 NHIS survey (and excluding prayer for health as CAM) an OR for using CAM was computed with white= 1.00, black = 0.82 (95 percent CI= 0.65 to 1.05), Hispanic = 1.48 (95 percent CI= 1.14 to 1.93) and Asian= 2.37 (95 percent CI=1.41 to 3.99).³⁵ This means that blacks were only 82 percent as likely as whites to use CAM.

In 2001, Kroensberg et al studied ethnic CAM use among 3,911 adult women across the United States. Prayer was omitted as CAM therapy. Fifty-two percent of white women utilized CAM within the last year, whereas 38 percent of blacks, 36 percent of Mexican women, and 41 percent of Chinese women used CAM. Adjusting for socio-economic factors, it was found that CAM use by whites and Mexican-Americans were equivalent but that adjustment for socio-economic factors did not account for the differences between African-Americans and whites.³⁶ Marino and Shen reported that 48 percent of Hispanic

asthmatics used CAM, 44 percent of black asthmatics used CAM and 38 percent of whites used CAM. The investigators did not state whether prayer was counted as CAM in this study, but their results were statistically not significant with adjusted OR's of 1.1, 1.1, and 1.0 all having 95 percent CI's encompassing 1.0.²⁹

Most of the original large scale surveys (Eisenberg et al¹, 1999 NHIS survey²⁷, 2007 NHIS survey², Arcury et al³⁵, and Kronenberg et al³⁶) estimated white usage of CAM as greater than that of blacks. Subsequent studies, when prayer for health was included or when the study was aimed at inner-city blacks with asthma, showed high CAM use among blacks. Braganza noted an extremely high use of prayer for health for asthma among blacks.¹⁷

2.5.6 Severity of Asthma

The Anderson-Newman model of Health Care Utilization predicts that the greater the severity of the disease and its non-responsiveness to allopathic care, the greater the need for and utilization of CAM.²⁶ Marino et al reported findings that are consistent with this thesis. Sixty-two percent of those individuals who reported fourteen or greater asthma disability days in the last year used CAM versus 37 percent among those who reported less than fourteen disability days with asthma. Although the prevalence was not reported, the adjusted OR's were 2.1 to 1.0, respectively, indicating that those who had at least fourteen disability days to asthma in the last year were more than twice as likely to use CAM as those who had less than fourteen disability days to asthma. The 95 percent CI was 1.4 to 3.1 indicating that the variable had statistical significance. Also 54 percent of subjects seen in an ER in the past year used CAM but only 36 percent of those not seen in an ER in the past year used CAM. Marino and Shen reported this as statistically significant without a p value but with an adjusted OR of 1.1 to 2.6.²⁹ Asthma severity appears to drive CAM use.

2.6 Personal Characteristics and the Use of CAM

2.6.1 Trust

McGregor and Peay have argued that lack of trust in allopathic physicians and/or allopathic medicine leads to increased use of CAM.⁵⁹ Thus it follows that patients with chronic illness unamenable to full treatment would have decreased trust in health professionals and allopathic medicine. Questions regarding trust were included in this study to investigate trust as a determinant for CAM use among asthmatics, a chronic condition.

In 2003, Brink-Muinen studied 1625 adult patients with chronic illnesses in the Netherlands utilizing a scale to measure trust in health care (graded 1 to 10, with 10 being complete trust) and allopathic health care professionals (graded 1 to 4, with 4 being very much trust). Those who never used CAM averaged a 6.8 level of trust in allopathic health care, and those who recently used CAM averaged a 6.4 ($p < 0.05$). Among those who never used CAM, averages for trust were 3.0 for allopathic medical professionals and 3.1 for allopathic specialists. Those who used CAM averaged a 2.9 trust value for allopathic professionals and 2.7 towards medical specialists. According to the researchers, lack of trust in allopathic medical professionals or specialists or allopathic medicine is a risk factor for the use of CAM.⁶⁰ Utilizing more general scales of trust, Greenberg and Schneider in 1996 found that lack of trust was a highly selective discriminate and a determinant for proactive community activities among inner-city residents in New Jersey. They found that “larger trust scores reflected less trust of experts” and provided “unique explanatory power.”⁶¹

Use of CAM is a proactive personal health activity. McGregor and Peay wrote that users of CAM are simply “less prepared to accept the outcomes that conventional treatment was able to provide.”⁵⁹ Conn and colleagues attributed minority use of CAM to high levels of distrust in the safety of medications.⁶² That is, parents believed they were being proactive

in not using prescribed medications for their children. Astin concluded that distrust of conventional hospitals or physicians is a primary determinant of CAM use and that patients believed that they were being proactive for their health as the most important determinant for CAM use was “its perceived efficacy.”⁶³ Nahin et al concluded that after adjusting for socioeconomic factors, CAM users were significantly more likely to engage in “positive health behaviors” such as having higher exercise levels and quitting smoking.⁶⁴ Kelner and Wellman noted that the majority of their subjects who used alternative therapy “reported that they take a proactive role in maintaining their own health.”⁶⁵ Siapush emphasized that his subjects believe in “personal responsibility” for health related behavior.⁶⁶ In summary, trust is a determinant of proactive behavior and use of CAM.

2.6.2 Coping Styles

According to the International Encyclopedia of the Social Sciences, coping is defined as “the behavioral, cognitive and emotional processes of managing a stressful or threatening situation or circumstance.”⁶⁷ Lazarus and Folkman first distinguished between problem-focused coping and emotion-focused coping.⁶⁸ Problem-focused coping includes such mechanisms as direct action (or active coping) and the seeking of instrumental, social support. Emotional-focused coping includes the seeking of emotional social support, denial and catharsis (the focusing and venting of emotions). According to Carver et al, turning to religion may belong to either type of coping as it may encompass emotional support, may serve as a “vehicle for positive reinterpretation and growth” or plainly as a “tactic of active coping with a stressor.”⁶⁹

As CAM is a proactive health activity, it follows that direct-action coping would be associated with proactive health activities. Thus, individuals utilizing coping mechanisms such as direct action and turning to religion would have likely increased CAM usage (i.e.,

these coping mechanisms would be determinants for CAM use). Conversely, it could be expected that those individuals not utilizing direct action coping but emotion-focused coping mechanisms such as denial, catharsis, distraction and redefinition would use less CAM. Stone and Neale devised a technical measure of coping to discriminate among eight coping mechanisms.⁷⁰

In 1997, Sollner et al studied 172 cancer patients receiving radiation therapy in Innsbruck, Australia regarding the association of coping mechanisms with the use of CAM. Use of active coping was strongly associated with CAM use ($p=0.001$), as was religiousness as a method of coping. They concluded that active problem solving was “the strongest independent predictor of CAM use.” Use of diversion as a coping style was not associated with CAM use. Sollner concluded that “a coping style characterized by information seeking and active problem solving was the strongest independent predictor of the use of CAM.”⁷¹

2.6.3 Mastery

Mastery is a psychologic resource that is measured by “the extent to which one regards one’s life-chances as being under one’s own control, in contrast to being fatalistically ruled.”⁷² One might expect that individuals with a high sense of mastery believe that their own health is under their control and therefore they would be proactive for their health. They might adopt health regimens based on their own inclinations and determinations and not those recommended by an allopathic physician. This would include increased use of CAM.

2.7 Religion

Religion determinants are likely an influence on CAM use. Many religions place emphasis on the spirit. Astin found an association between interest in spirituality and CAM use. He noted a philosophic congruence between having a holistic philosophy and the underlying tenets of many CAM practices such as acupuncture, homeopathy, and chiropractic. Belief that spirit, mind and body must all be treated in health-related matters

was a significant predictor of CAM utilization. Of 1,035 subjects participating in a national study, 61 percent of CAM users agreed but only 47 percent of non-users.⁶³ Astin felt that many CAM users may be attracted to CAM practices “because they perceive (in them) a greater acknowledgment of and appreciation for the role of non-physical factors (mind/spirit) in creating health and illness”.⁶³ Moreover, he noted that those who claimed having a transformational experience “that causes me to see the world differently than before” had a significantly higher frequency of CAM use (53 percent versus 37 percent).⁶³ Certain religions place a premium on transformational experiences. Others berthed in different religious traditions may view such experiences as a cultural paradigm for entering into a new form of life or as a signet on the view that life transcends the limits imposed by previously accepted (scientific) authorities. These beliefs would all predispose individuals toward practices that transcend medically accepted biology such as CAM.

Among African-Americans, prayer has the highest frequency for self-help therapy.⁷³ Dessio et al detached religion/spirituality from other forms of CAM and found that in her study of over 800 African-American women, 43 percent used religion/ spirituality for health in the previous year. Those doing so were more than twice as likely to have used other forms of CAM. The researchers attributed this strong association to “the influences of the Black Church and other churches, since most recognize a connection between religious and spiritual beliefs and health, and promote that recognition among members.”⁷⁴

Some researchers believe that CAM use varies proportionately with personalized religion and inversely with formalized religion. It is likely that those professing a more fundamentalist perspective would use CAM more frequently and that those de-emphasizing such beliefs and perspectives would use less CAM. Brian Huges studied religious affiliations in Ireland and the availability of CAM practitioners (an indirect marker). He found “an inverse correlation between CAM availability and religious affiliation ($p = 0.002$).”⁷⁵

Significance remained after controlling for age within each region and population within each region. Hughes concluded that “CAM usage is greater where (formalized) religious observance is lower.”⁷⁵ He interpreted this to be in accordance with CAM use varying with more personal and less formal religion.

2.8 Referral Sources

The type of referral sources for CAM use may determine CAM utilization. In particular, families may have a disproportionate influence on member CAM use. Families may be a nexus for CAM information, both for general CAM use and towards specific providers. They may serve to transmit views and values (religious and otherwise) that predispose towards CAM use or reinforce such usage. Family use of CAM may also provide legitimization. For instance, individuals may model themselves on their parent’s behavior. Families that use CAM may also determine an adult child’s use of CAM.

Research findings that justify these claims include the 2007 NHIS study that found that children whose parents use CAM had greater than twice the likelihood of using many types of CAM in the last 12 months (9 percent to 4 percent for non-mineral non-vitamin natural products; 6 percent to 3 percent for osteopathic or chiropractic care; 5 percent to 2 percent for breathing methods; 5 percent to 2 percent for yoga; and 3 percent to 1 percent for homeopathy).² Spiegelblatt et al found that “69 percent of the parents of children who used alternative medicine also used it themselves” as compared to 23% of the parents of all children.⁷⁶ Looking at a national population sample and using a multivariate logistic model, Birdee and colleagues found that parents use of CAM was very strongly associated with a child’s use of CAM (OR= 3.8; 95 percent CI=3.04 to 4.84).⁷⁷ Ottolini also found a significant association between a parents use of CAM and a child’s use of CAM (p<0.0001) in the Washington D.C. area.⁷⁸

The religion-spiritual ethics of a family would seem to have an impact on children's CAM usage. In Dessio et al's study of African-American women, those using religion/spirituality for health care were more than twice as likely as other CAM users to "attribute their use of CAM to having grown up around family members who had used CAM (53 percent versus 24 percent; $p < 0.01$).⁷⁴

2.9 Anderson and Newman's Socio-Behavioral Model of Societal and Individual Determinants of Medical Care Utilization

In 1973, Anderson and Newman published an influential model of the determinants of health service utilization that may be helpful in understanding CAM usage determinants. The authors divided determinants for health service utilization into Predisposing, Enabling, and Illness Level Factors. Predisposing factors were divided up among demographics (e.g., age, gender), social structuring factors (e.g., education, race, ethnicity, religion) and beliefs and attitudes (e.g., trust, coping styles and mastery). Enabling factors were divided among family factors including income and education (that allow individuals to network) and community factors. Illness level was divided among perceived and evaluated factors.²⁶ Illness level refers directly to severity and chronicity. Asthma is characterized as a chronic and potentially life threatening disease.

The Anderson-Newman model provides a frame work to understand how possible determinants for CAM operate. CAM is a form of health service. Asthma is a chronic disease only partially treatable by medical methods. The high illness level of this chronic and often severe disease would, according to the Anderson-Newman model, drive a high utilization rate for CAM. As can be gathered from the literature review above, demographics such as middle age and female gender could be expected to determine CAM use. Structuring factors such as Caucasian race and tendencies to non-institutionally structured or centralized

religion might be expected to do likewise. Beliefs and attitudes that determine CAM use would include lack of trust in allopathic physicians and medicines, adoption of direct action coping mechanisms and high levels of mastery. Enabling factors that would favor CAM use for the treatment of asthma would include a higher level of education and either a high income (so that the cost barrier to CAM would not be prohibitive) or even more importantly a very low income and lack of medical insurance thus interfering with the ability to pay the high cost of scientific medical treatment. As for income, the first situation would allow the option of CAM use, and the second would almost mandate its use as alternative therapy. Asthma severity should drive CAM use. The Anderson-Newman model thus schematizes drives or determinants for CAM use (as for other health care). These are determinants that will be assessed in the present study.

Chapter 3: Data and Method

3.1 Concept

To address the research questions for these populations, an instrument (questionnaire) was developed. The estimated time of completion was 20 minutes. A pilot trial was conducted among English-speaking 8th, 9th and 10th graders. All piloted subjects stated they understood the questions without any difficulties and completed the assessment within 20 minutes. Patients would be offered \$10 for their time and effort in completing the survey.

Consent, assent and parental assent forms were then developed and all materials were submitted to the Newark-UMDNJ IRB, which required significant changes. Appendices 1 and 2 contain the questionnaires in English and Spanish, respectively. The respective English and Spanish questionnaires for minors are contained in Appendices 3 and 4. Appendix 5 contains the consent, Appendix 6 the assent in English and Appendix 7 the parental consent forms all in English. The Spanish consent, assent and parental consent forms are found in Appendices 8 thru 10, respectively.

3.2 Subject Selection

Individuals attending the Newark UMDNJ Allergy Clinic and the private practices of two pulmonologists in Irvington were approached over a three to six-hour period by the investigator on seven separate occasions. They were asked if they had been given a diagnosis of asthma by a physician. Upon giving an affirmative answer they were asked if they were willing to participate in a public health study of the treatment of asthma. All fifteen gave their written consent, assent and/or parental assent as indicated. They were informed in writing of the possible negative effects of participation and were offered \$10.00 for consideration for their time and effort which was given upon completion of the questionnaire.

All agreed to participate. All were assured that a decision not to participate would not result in any retaliation or interference with care.

All patients attending the allergy practice in Highland Park, New Jersey, were similarly approached over a six-week period. Criteria for participation were the same as in Newark. Fifty-seven of the 59 patients approached agreed to participate and again provided written consent, assent and/or parental consent. Subjects were again reimbursed \$10.00 for their efforts. After agreeing to participate, all subjects were asked if they preferred to complete the questionnaire in English or Spanish. All selected English.

Criteria for participation were therefore attendance at an asthma specialist's clinic or private practice with a patient-affirmed physician diagnosis of asthma with the patients' age being at least eight years. All interviews were conducted between 9/15/06 and 8/14/08 after which time patient accrual was terminated.

3.3 Interview Content

Asthma was defined as a patient's (and with a minor, a parent's) affirmation that the patient was given a diagnosis of asthma by a physician. To verify the impact of demographics, questions were asked as to age, gender, ethnicity, level of education, religion and income. To gauge asthma severity, dichotomous questions were posed regarding symptoms, emergency room visits, hospital admissions impact on lifestyle and use of medications. Interrogatories were posed as to diagnosis. Subjects were queried as to type of CAM, satisfaction with CAM, family use of CAM, referral sources for CAM, types of CAM practitioners, referral sources for CAM practitioners and family use of CAM practitioners. Five questions were asked comparing subject attitudes towards allopathic practitioners versus attitudes towards CAM practitioners. Dichotomous questions established environmental

factors and relevance to severity. Questions were posed as to religion both type and importance (see Table 1).

Table I- Variables, Scale and Question Number on Survey

Variable	Scale	Number on Questionnaire
Age	Ratio	1
Gender	Nominal	2
Residence	Nominal	3
Race or ethnic group	Nominal	4
Origin if Hispanic	Nominal	5
Level of education	Ordinal	6
Type of medical insurance	Nominal	7
Type of asthma doctor	Nominal	8 & 9
Diagnoses	Nominal	10
Severity	Dichotomous	11-39
Types of medications	Nominal	40
Satisfaction with asthma care	Ordinal	41
CAM therapies utilized	Nominal	42 & 43
Satisfaction with CAM therapy	Ordinal	44
Family member use of CAM	Dichotomous	45
Referral source for CAM	Nominal	46
Advice to others to use CAM	Dichotomous	47
Use of CAM practitioners	Dichotomous	48
Satisfaction with CAM practitioners	Ordinal	49
Family member use of CAM	Dichotomous	50
Referral source for CAM practitioner	Nominal	51
Satisfaction with CAM practitioners	Ordinal	52
Advised anyone to use CAM	Dichotomous	53
Success of allopathic care versus CAM therapy	Ordinal	54
Reasons CAM therapy is preferable	Ordinal	54
Trust	Ordinal	55
Coping Mechanisms	Ordinal	55
Mastery	Ordinal	56
Risk factors for asthma	Dichotomous	57-66
Religion	Nominal	67
Income	Ordinal	68

The questions chosen as to personal characteristics were successfully used by previous researchers and are critical to evaluating the relationship of these characteristics to the use of CAM among asthmatics. In 2003, Greenberg and Schneider employed a ten question instrument for the evaluation of trust in their article on urban neighborhoods in the *Geographical Review*.⁷⁹ These questions were incorporated in this study. Trust questions were answered on a Likert scale graded one to five, with one being “strongly agree” and five being “strongly disagree”. The following statements were given with each subject grading a response from strongly agree (1) to strongly disagree (5): I trust people I meet in my neighborhood; HMOs provide good financial support of patient care; My local pharmacist has been a big help in providing advice about medication; I have little control over risk to my health; Future generations can take care of themselves when facing risks imposed from today’s technologies; Medical doctors know what healthcare is right for my family and me; Religion is important to me; The mayor’s office really cares about my neighborhood; I trust officials elected to represent my neighborhood at the state level to protect our interests; Dentists have provided competent care for me and my family.

The present study includes Pearlin and Schoolers’ mastery scale encompassing seven questions to evaluate the role of mastery as determinants for CAM use. The following statements were given with each subject grading a response from strongly agree (1) to strongly disagree (5): There is really no way I can solve some of the problems I have; Sometimes I feel that I am being pushed around in life; I have little control over the things that happen to me; I can do about anything I really set my mind to; I often feel helpless in dealing with the problems of life; What happens in the future mostly depends on me; There is little I can do to change many of the important things in my life.⁷²

Stone and Neale devised an instrument (questionnaire) to discriminate among coping mechanisms.⁷⁰ These questions are included in this study to explore whether use of particular

coping mechanisms functioned as CAM determinants (such as whether the subject uses relaxation, diversion or expressing emotions). The following questions were evaluated according to the same Likert scale: I divert attention away from the problems by thinking about other things or engaging in some activity; I try to see the problem in a different light that makes it more bearable; I think about solutions to the problem, gather information about it, or actually do something to try to solve it; I express emotions in response to the problem to reduce tension, anxiety or frustration; I accept that the problem has occurred, but that nothing can be done about it; I seek or find emotional support from loved ones, friends, or professionals; I do something with the intention of relaxing; I seek or find spiritual comfort and support.

3.4 Approach to Data

Data were entered manually utilizing PASW Statistics 18. Data were reviewed first by checking for missing responses and then by running frequencies on variables to search for errors and look for outliers. The only continuous variable used was age. In an attempt to establish external validity, subject demographics were compared to New Jersey and US demographics using a difference of proportion method with Z as the test statistic. Severity markers were coded on a dichotomous basis. Likert scales were used to evaluate variables as to trust, coping styles and mastery.

From a public health stand-point, it would be useful to identify population catchments dense in CAM usage. Research recruitment could then concentrate on those populations. Logistic regression was utilized to derive economical markers for such population catchments. Additionally, analysis of variables was conducted as to high predictive value positives and high predictive value negatives to determine such catchments. Patients frequently withhold from physicians information on CAM use. As CAM use may lead to

problems with toxicity, allergy, drug interactions and patient compliance with allopathic therapeutic regimes, from a clinical point of view, it would be beneficial to predict which patients are likely using CAM.

Thus, hypotheses were methodically addressed. Hypothesis 1 is “Religion will drive CAM usage for the treatment of asthma.” The variable chosen to address the hypothesis was “religion is important to me.” Analysis was performed according to the distribution of the chi-square statistic to determine which individuals are more likely to use CAM.

Hypothesis 2 is “Personal characteristics will drive CAM usage for the treatment of asthma.” Hypothesis 2(A) is “CAM usage will increase with lack of trust.” Lack of trust in the allopathic medical system was addressed with four variables: “Medical doctors know what health care is right for my family and me,” “Dentists have provided competent care for me and my family,” “HMOs provide good financial support of patient care,” and “my local pharmacist has been a big help in providing advice about medication.”

Hypothesis 2(B) is “Those using direct problem-focused coping have a higher likelihood of using CAM.” Three variables were chosen to evaluate the association between direct problem focused coping and the use of CAM. The first was “I think about solutions to the problem gather information about it or actually do something to try and solve it.” The second was “I divert attention away from the problem by thinking about other things or engaging in some activity.” The third was, “I express emotions in response to the problem to reduce tension, anxiety or frustration.

Hypothesis 2(C) is “Those exhibiting mastery have a higher likelihood of using CAM.” Seven variables were used to address mastery and the use of CAM: “There is little I can do to change many of the important things in my life,” “I can do about anything I set my mind to,” “What happens in the future mostly depends on me,” “There is really no way I can solve some of the problem I have,” “I often feel helpless in dealing with the problems of

life,” “I have little control over the things that happen to me,” and “Sometimes I feel that I am being pushed around in life.” Analyses for hypotheses 2(A), 2(B) and 2(C) were all performed according to the distribution of the chi-square statistic to determine which individuals are more likely to use CAM.

Hypothesis 3 is “Referrals especially from family members will drive CAM usage for the treatment of asthma.” Two variables were used to address the hypothesis: referral to use CAM from a family member and referral to use CAM from any source. Again, the method used to address the hypothesis was the results obtained by the chi square statistic.

In order to explore the optimal predictive potential of a limited number of variables so as to create a model that simplifies predictions as to which patients use CAM, logistic regression was performed. Predictive values positive and negative were calculated to strengthen the analysis.

Chapter 4: Results and Analysis

4.1.1 Subject Demographics

The breakdown of subject demographics can be seen in Table II. A total of 72 subjects were accrued. The subjects were almost evenly divided by gender with 37 (51 percent) males and 35 (49 percent) females. They ranged from age 8 to age 78, with 60 subjects (83 percent) aged 20 through 69.

Of the 72 subjects, 45 (62 percent) were white and 15 (21 percent) black. Nineteen (26 percent) were Catholic. Only six (8 percent) were Protestant, and 16 (22 percent) identified themselves as “other” Christian. Thirteen (18 percent) were Jewish. Ten (14 percent) identified themselves as having no religion.

The subject population was highly educated. Twenty-three subjects had at least some graduate school whereas 20 graduated college and seven had some college.

Only two individuals declined to participate out of 74 approached. This yielded a 97 percent response rate. All participants requested English. The two individuals who declined to participate were native English speakers. There are problems, however, with external validity. A comparison of demographics between study participants and both New Jersey and US populations may be seen in Table III. Only 10 percent of study participants were under age 18 compared to 24 percent in both the New Jersey and US populations. Twenty-one percent of the study population were black compared to 14 percent and 13 percent of the above populations. Asians were somewhat over-represented (11 percent to 8 percent and 5 percent). Hispanics were strongly under-represented (6 percent to 18 percent and 16 percent). The study population had higher education levels than that found in the New Jersey and general US populations. Sixty percent of study participants had at least a college degree compared to 34 percent and 28 percent of the New Jersey and US populations.⁸⁰ Jews were

over-represented (18 percent) in the study population. In the year 2000, Jews constituted 6 percent of the New Jersey population and 2 percent of the United States population.⁸¹

The study population was specifically drawn from (and limited to) urban, northern New Jersey residents currently being treated by asthma specialists. They encompass a high proportion of Jews and those claiming no religion. They are more highly educated than the general population. Thus, results from this sample may not be generalizable to the total New Jersey or US populations.

Table II- Asthmatic Subjects' Demographics (N= 72 Diagnosed Asthmatics)

<i>Gender</i>	Number	Percent
Male	37	51
Female	35	49
<i>Age Distribution</i>		
<10	2	3
10-19	5	7
20 -29	11	15
30-39	10	14
40-49	11	15
50-59	17	23
60-69	11	15
70+	5	7
<i>Dwellings</i>		
Multifamily houses	5	7
Apartments	16	22
Single Family houses	51	71
<i>Income</i>		
Less than \$15,000	5	7
\$15,000 to \$24,999	6	8
\$25,000 to \$49,999	9	13
\$50,000 to \$74,999	10	14
\$75,000 to \$99,999	11	15
At least \$100,000	24	32
> no income as less than 18 years old	7	10
<i>Insurance</i>		
Medicaid	1	1
Medicare	7	10
Private Insurance	61	85
No Insurance	1	1

Minors who did not list their	2	3
<i>Ethnicity</i>		
White	45	63
Hispanic	4	6
Black American	14	20
Black African	1	1
Asian	8	11
<i>Religion</i>		
Protestant	6	8
Catholic	19	26
Christian other	16	22
Jewish	13	18
Muslim	1	1
Buddhist	1	1
Hindu	2	3
None	10	14
Mormon	1	1
Unitarian	1	1
Quaker	1	1
Other	1	1
<i>Education</i>		
8 th Grade or less	7	10
High School	14	20
Some College	7	10
Graduated College	20	28
Graduate School	23	32
No Answer	1	1

Table III- Percent of Study Population (N=72) Compared to New Jersey and United States Populations.

Variables	Study Participants	NJ Population (2009)	US Population (2009)
Male	51	49	49
Female	49	51	51
Less than age 18	10	24	24
Age 65 or older	15	14	13
White	62	59	64
Black	21	14	13
Asian	11	8	5
Hispanic	6	18	16
High school only	18	53	57
Graduated college	60	34	28

*Percentages of populations were obtained from the US Census Bureau.

American Community Survey, New Jersey selected social characteristics in the United States 2009.

4.1.2 Asthma Subject Severity

According to the Anderson-Newman model, disease severity would drive health service utilization including CAM. In the present study, the level of asthma was not unduly severe. Overall, most subjects' asthma were controlled. Only eight subjects were ever hospitalized for asthma with only one requiring admission to an Intensive Care Unit (see Table IV). Thirteen had been treated in an emergency room (ER) for asthma. The majority (64 percent) complained of negative physical effects from asthma. None were hospitalized in the last year, and only four required ER treatment. This means that less than 6% of subjects received ER treatment for asthma in the last year. In the 42 year experience of this clinician, this represents a very low percentage of asthmatics. These asthmatics were self-selected by choosing allopathic specialist treatment.

Table IV- Asthmatic Subjects' Severity (N= 72)

	Number	Percent
Chest Tightness	57	80
Wheezing	53	74
Use of albuterol	52	72
Have negative physical effects from asthma	46	64
Use of daily medications for asthma	46	64
Asthma with heavy work	41	57
Asthma with sports	30	42
Asthma causes stress	21	29
Indoor pet cat	18	25
Indoor pet dog	18	25
Have negative psychological effects from asthma	16	22
Ever in ER for asthma	13	18
Asthma medicine does not control my asthma	10	14
Ever hospitalized for asthma	8	11
Feather pillow or comforter	8	11
Use of asthma inhaler too much	6	8
In ER for asthma in last year	4	6
Ever in ICU for asthma	1	1
Pet bird	1	1
In hospital for asthma in last year	0	0

The presence in the home of marked precipitating factors for asthma could be expected to increase the need for health services including CAM. From clinical experience, the presence of feathers and pets in subjects' homes was about average. The most commonly found environmental factor was bedroom carpeting (46 percent) followed by pet dogs (25 percent), pet cats (25 percent) and mildew (25 percent). Only one out of the 72 subjects had a pet bird.

4.1.3 Asthmatic Subjects' Satisfaction with Allopathic Treatment

Dissatisfaction with allopathic care could be expected to lead to use of CAM as an alternative treatment. Results may be seen in Table V. Ninety-three percent of subjects were highly satisfied with allopathic treatment (93 percent), and an additional six percent stated

that they were satisfied sometimes. None felt only rare satisfaction, but one gave no response.

Table V- Asthmatic Subjects' Satisfaction With Allopathic Treatment (N=72)

	Number	Percent
Satisfied most of the time	67	93
Satisfied sometimes	4	6
Satisfied only rarely	0	0
No response	1	1
Totals	72	100

4.1.4 Subject Use of CAM and Satisfaction with CAM

A total of 33 out of 72 subjects (46 percent) used CAM (see Table VI). Prayer was the most commonly used form of CAM (19 percent) followed by yoga (15 percent) and chiropractic (11 percent). Santeria, voodoo and hypnosis were not used at all by the asthmatics in this sample.

Table VI- Asthmatic Subjects' Use of CAM (N=33)

	Number	Percent
Prayer	14	19
Yoga	11	15
Chiropractic	8	11
Other CAM	5	7
Acupuncture	4	6
Megavitamin Therapy	4	6
Fold Medicine	3	5
Massage	3	4
Homeopathy	2	3
Imagery	2	3
Relaxation Techniques	2	3
Spiritual Healing	2	3
Biofeedback	1	1
Energy Healing	1	1
Hypnosis	0	0
Santeria	0	0
Voodoo	0	0

It was presumed that lack of satisfaction with CAM would drive down CAM usage. The majority were either satisfied always (34 percent) or satisfied sometimes (46 percent) as can be seen in Table VII.

Table VII- Asthmatic Subjects' Satisfaction With CAM (N=33)

	Number	Percent
Satisfied always	11	34
Satisfied sometimes	15	46
Satisfied not often	5	15
No Answer	2	6

4.1.5 Subjects' Families Use of CAM

The family matrix may transmit values, information and referrals for CAM use. Of the eight individuals who reported that family members used CAM, all eight (100 percent) used CAM. Of the 64 individuals who reported that family members did not use CAM, 25 (40 percent) used CAM (see Table VIII). Of the 13 Jewish subjects, none reported a family member using CAM. Of the 10 who identified their religious group as none, none reported family use of CAM.

Table VIII- Asthmatic Subjects' Families Use of CAM (N= 72)

	Number	Number of those who used CAM	Percent of those who used CAM
Family members used CAM	8	8	100%
Family members did not use CAM	64	25	39%
Totals	72	33	

4.2.1 Subjects Referral Sources for Use of CAM

Referrals including testimonials and influence may drive CAM use. In fact, of the 18 subjects given any referral to use CAM, all 18 (100 percent) used CAM (see Table IX). Therefore, the number of referrals given to an individual to use CAM made no difference, as long as they received at least one. Of 54 individuals not given a referral to use CAM, 15 used CAM (28 percent). Of the 11 subjects whose family members advised them to use CAM, all 11 used CAM (100 percent). Of the 61 individuals whose family members did not advise them to use CAM, only 22 (36 percent) used CAM. Of the 13 Jewish subjects, only one reported advice from a family member to use CAM (8 percent). This subject used CAM. Of the ten individuals identifying their religion as none, not one received advice from a family member to use CAM.

Table IX- Asthmatic Subjects' Referral Sources for Use of CAM (N=26)

	Number	Percent
Family member	11	15
Friend	7	10
Clergyman	1	1
Pharmacist	0	0
Doctor	5	7
Health food store employee	2	2
Bodega Employee	0	0
TV, radio, magazine, newspaper	0	0
Community Leader	0	0
Traditional Healer	0	0
Other	0	0

4.2.2 Subjects Advice to Others to Use CAM

Giving advice to others to use CAM is an obvious marker for the use of CAM. It implies an increased acquaintance with CAM and probable satisfaction with CAM. All nine individuals giving advice to use CAM did, themselves, use CAM (see Table X).

Table X- Asthmatic Subjects' Advice to Others to Use CAM (N=72)

	Number	Percent
Advised others to use CAM	9	12
Did not advise others to use CAM	62	86
Did not answer the question	1	1

4.2.3 Trust Among Subjects

Lack of trust, particularly in allopathic medical systems, can drive CAM usage. The seven minors aged 8 thru 17 years were not asked trust questions. Thus responses are reported only for the 65 adults. Of the ten questions bearing upon the trait of trust, those who “strongly agree” achieved the highest plurality for “Religion is important to me” (35 percent). The next highest rated of “strongly agree were “Trust in the people I meet in my neighborhood” (23 percent), “Medical doctors know what health care is right more than my family and me” (20 percent) and “My local pharmacist being a big help in advising about medications” (20 percent). The trust-related question that had the highest rate of “strongly disagreeing” was “I have little control over risks to my health” (28 percent). The next highest rate of strong disagreement was to “HMOs provide good financial support of patient care” (17 percent). The only non-neutral answer to achieve a majority response at any level were “agree” to “Medical doctors know what health care is right more than my family and me” (62 percent) and “Dentists have provided competent care for me and my family” (57 percent). These results may all be seen in Table XI.

Table XI- Trust (Graded 1 thru 5) Among Asthmatic Subjects' (N=65)

	Number	Percent
<i>I trust the people I meet in my neighborhood.</i>		
(1) strongly agree	15	23
(2) agree	19	29
(3) neutral	24	37
(4) disagree	4	6
(5) strongly disagree	3	5
<i>HMO's provide good financial support of patient care.</i>		
(1) strongly agree	3	5
(2) agree	14	22
(3) neutral	28	43
(4) disagree	9	14
(5) strongly disagree	11	17
<i>My local pharmacist has been a big help in providing advice about medications.</i>		
(1) strongly agree	13	20
(2) agree	23	35
(3) neutral	20	31
(4) disagree	4	6
(5) strongly disagree	5	8
<i>I have little control over risks to my health.</i>		
(1) strongly agree	4	6
(2) agree	5	8
(3) neutral	8	12
(4) disagree	30	46
(5) strongly disagree	18	28
<i>Future generations can take care of themselves when facing risks imposed from today's technologies.</i>		
(1) strongly agree	8	12
(2) agree	1	25
(3) neutral	15	23
(4) disagree	17	26
(5) strongly disagree	9	14
<i>Medical doctors know what health care is right more than my family and me.</i>		
(1) strongly agree	13	20
(2) agree	40	62
(3) neutral	12	19
(4) disagree	0	0

(5) strongly disagree	0	0
<i>Religion is important to me.</i>		
(1) strongly agree	23	35
(2) agree	17	26
(3) neutral	11	17
(4) disagree	7	11
(5) strongly disagree	7	11
<i>The mayors office really cares about my neighborhood.</i>		
(1) strongly agree	3	5
(2) agree	12	19
(3) neutral	29	45
(4) disagree	11	17
(5) strongly disagree	9	14
Failed to answer the question	1	1
<i>I trust officials elected to represent my neighborhood at the state level to protect our interests.</i>		
(1) strongly agree	2	3
(2) agree	1	25
(3) neutral	34	52
(4) disagree	7	11
(5) strongly disagree	6	9
<i>Dentists have provided competent care for me and my family.</i>		
(1) strongly agree	12	18
(2) agree	37	57
(3) neutral	6	9
(4) disagree	8	12
(5) strongly disagree	2	3

This study shows a correlation between lack of trust in physicians and increased CAM use with a chi square of 4.970 and a p (2-sided) of 0.174. However, not one individual gave a grade of four (disagree) or five (strongly disagree) with the statement that “Medical doctors know what health care is right for my family and me.” Not one individual actually distrusted physicians. Lack of trust in dentists correlated with increased CAM use with a chi square of 10.799 and a p (2-sided) of 0.056. For such small numbers these p values appear to

be important. Lack of trust in HMOs trended slightly to increased CAM use with a chi square of 1.506 but a p (2-sided) of only 0.912. Lack of trust in pharmacists trended very slightly with increased CAM use with a chi square of 3.421 and a p (2-sided) of 0.634. Lack of trust in the medical system (as exemplified by HMO's) does not appear to correlate as well with increased CAM use as it does with lack of trust in allopathic medical figures.

4.2.4 Subject's Coping

CAM use is a proactive health activity. Those using direct-action type coping are proactive and could be expected to have a higher likelihood of using CAM. Of the eight coping statements the highest rate for "strongly agree" (45 percent) was given to "I think about solutions to the problem, gather information about it, or actually do something to try to solve it." The same statement received the highest total rate of assent (89 percent) including both strongly agree and agree. By far the highest combined rate of disagreement (72 percent) was given to the statement "I accept that the problem has occurred but that nothing can be done about it" (see Table XII).

Table XII- Asthmatic Subjects' Coping (N=72)

	Number	Percent
<i>I divert attention away from the problems by thinking about other things or engaging in other activities.</i>		
(1) strongly agree	7	10
(2) agree	28	39
(3) neutral	11	13
(4) disagree	19	27
(5) strongly disagree	7	10
<i>I try to see the problem in a different light that makes it more bearable.</i>		
(1) strongly agree	11	13
(2) agree	45	63
(3) neutral	8	11
(4) disagree	7	10
(5) strongly disagree	1	1
<i>I think about solutions to the problem, gather information about</i>		

<i>it, or actually do something to try to solve it</i>		
(1) strongly agree	32	45
(2) agree	32	45
(3) neutral	4	6
(4) disagree	3	4
(5) strongly disagree	1	1
<i>I express emotions in response to the problem to reduce tension, anxiety or frustration.</i>		
(1) strongly agree	8	11
(2) agree	36	50
(3) neutral	15	21
(4) disagree	12	17
(5) strongly disagree	1	1
<i>I accept that the problem has occurred but that nothing can be done about it.</i>		
(1) strongly agree	6	8
(2) agree	6	8
(3) neutral	8	11
(4) disagree	42	59
(5) strongly disagree	10	14
<i>I seek or find emotional support from loved ones, friends or professionals.</i>		
(1) strongly agree	26	36
(2) agree	31	43
(3) neutral	10	14
(4) disagree	4	6
(5) strongly disagree	1	1
<i>I do something with the intention of relaxing.</i>		
(1) strongly agree	20	28
(2) agree	40	56
(3) neutral	10	14
(4) disagree	2	3
(5) strongly disagree	0	0
<i>I seek or find spiritual comfort and support.</i>		
(1) strongly agree	11	13
(2) agree	27	38
(3) neutral	15	21
(4) disagree	14	20
(5) strongly disagree	5	7

4.2.5 Subject's Mastery

Individuals with high levels of mastery could be expected to adopt health regimens according to their own determinations and not those of an allopathic physician. Therefore, mastery could drive CAM use. Of the 7 statements regarding mastery, subjects gave the highest approval (36 percent) to “I can do anything I really set my mind to” and “what happens with me in the future mostly depends on me” (31 percent). Fifty-percent also marked agree to “I can do anything I really set my mind to” and 51 percent to “what happens to me in the future mostly depends on me”. There was marked disagreement (either disagree or strongly disagree) to the five statements indicating lack of mastery (56 percent, 64 percent, 76 percent, 74 percent and 75 percent). These results may be seen in Table XIII.

Table XIII- Asthmatic Subjects' Mastery (N=72)

	Number	Percent
<i>There is really no way I can solve some of the problems I have.</i>		
(1) strongly agree	5	7
(2) agree	15	21
(3) neutral	12	17
(4) disagree	25	35
(5) strongly disagree	15	21
<i>Sometimes I feel that I am being pushed around in life.</i>		
(1) strongly agree	1	1
(2) agree	10	14
(3) neutral	15	21
(4) disagree	31	43
(5) strongly disagree	15	21
<i>I have little control over the things that happen to me.</i>		
(1) strongly agree	0	0
(2) agree	5	7
(3) neutral	12	17
(4) disagree	42	58
(5) strongly disagree	13	18
<i>I can do about anything I really set my mind to.</i>		

(1) strongly agree	26	36
(2) agree	36	50
(3) neutral	8	11
(4) disagree	1	1
(5) strongly disagree	1	1
<i>I often feel helpless in dealing with the problems of life.</i>		
(1) strongly agree	2	3
(2) agree	9	13
(3) neutral	8	11
(4) disagree	38	53
(5) strongly disagree	15	21
<i>What happens to me in the future mostly depends on me.</i>		
(1) strongly agree	22	31
(2) agree	37	51
(3) neutral	8	11
(4) disagree	2	3
(5) strongly disagree	3	4
<i>There is little I can do to change many of the important things in my life.</i>		
(1) strongly agree	2	3
(2) agree	7	10
(3) neutral	7	10
(4) disagree	37	49
(5) strongly disagree	19	27

4.2.6 Implications of Study Population

In summary, the study population contained a much lower percentage of minors than the general New Jersey and US populations. There was a considerably higher black and Asian component but a markedly less Hispanic one. This study population was considerably more educated than the general populations. Among the study population, the level of asthma was not severe and was to a large degree controlled. A study population with only mild asthma might be expected to use less as would a study population that expressed high degrees of satisfaction with allopathic treatment. Subjects expressed high degrees of satisfaction with allopathic treatment.

All individuals who reported use of CAM by family members used CAM. All individuals given any referral to use CAM used CAM. Lack of trust in allopathic medical figures correlated with use of CAM. This result confirms expectations. It may not be a necessary factor in itself.

4.3 Testing of Hypotheses

Hypothesis 1: Religion will drive CAM usage for the treatment of asthma.

With this small subject population ($n=72$), significance (p 2-sided) was defined as 0.10. Responses to “Religion is important to me” (graded 1 to 5 on a Likert scale) tested for CAM usage yielded a chi-square of 12.155 with a p (2-sided) of 0.033. This is a significant and direct association.

Additionally, those answering “none” to the question of “Which religious group do you identify with?” were tested for association with CAM usage and yielded a chi-square of 3.122 with a p (2-sided) of 0.077. This was a strong negative association for this small population. Identification as Jewish and use of CAM was tested yielding a chi square of 3.309 and a p (2-sided) of 0.069 for a strong negative association. Christians who did not identify as either Catholic or Protestant were tested for CAM usage, revealing a chi square of 2.302 with a p (2-sided) of 0.219.

This hypothesis is supported. Religion drives CAM usage among those in this sample. Those who feel that “Religion is important to me” have a highly significant correlation with the use of CAM. Additionally, those who identify with one religious group, Jews, significantly correlated with not using CAM. Those who did not identify with any religious grouping did not use CAM.

Hypothesis 2: Personal characteristics will drive CAM usage for the treatment of asthma.

(A) CAM usage for asthma will increase with lack of trust

Lack of trust in the allopathic medical system was evaluated by four questions.

“Medical doctors know what health care is right for my family and me” was tested for CAM usage by the chi square test statistic giving a p (2-sided) of 0.174. This indicates an association between lack of trust in physicians and use of CAM.

“Dentists have provided competent care for me and my family” was tested for CAM usage yielding a chi square of 10.799 and a p (2 –sided) of 0.056. This indicates an association between lack of trust in dentists and use of CAM. “HMOs provide good financial support of patient care” was tested for CAM usage. The chi square was 1.506 with a p (2-sided) of only 0.912. “My local pharmacist has been a big help in providing advice about medication” was tested for CAM usage. The chi square was 3.421 with a p (2-sided) of 0.634. Therefore, of the four tests, one demonstrated a significant association between lack of trust and use of CAM. Three trended towards this association.

(B) Those using direct problem-focused coping have a higher likelihood of using CAM.

Three tests were utilized to evaluate the association between direct problem focused coping versus diversion and emotion focused coping mechanisms and the use of CAM. “I think about solutions to the problem, gather information about it or actually do something to try and solve it” was tested for association with the use of CAM. The chi square was 6.126 with a p (2-sided) of 0.190 indicating a trend between direct problem focused coping and the use of CAM. “I divert attention away from the problem by thinking about other things and engaging in some activity” (a non-

problem focused coping mechanism) was tested for association with CAM usage.

The chi square was 6.258 and the p (2-sided) was 0.181 indicating a trend between emotion focused coping and decreased use of CAM. “I express emotions in response to the problem to reduce tension, anxiety or frustration” was tested for association with the use of CAM. The chi square test was 6.445 with a p (2-sided) of 0.168 indicating again a trend between emotion focused coping and decreased use of CAM.

(C) Those exhibiting mastery have a higher likelihood of using CAM.

There were seven variables used to evaluate mastery and the use of CAM. All were tested for use of CAM with the chi square statistic. “There is little I can do to change many of the important things in my life” was associated with decreased use of CAM with a chi square of 9.934 and a p (2-sided) of 0.042. “I can do about anything I set my mind to” trended to increased CAM usage with a chi square of 4.927 and a p (2-sided) of 0.295. “What happens in the future mostly depends on me” varies significantly with increased CAM usage as the chi square was 9.090 and a p (2-sided) of 0.059. “There is really no way I can solve some of the problems I have” trended with decreased CAM usage with a chi square of 2.343 and a p (2-sided) of 0.673. Those who felt “I often feel helpless in dealing with the problems of life” exhibited no real trend. The chi square was 1.670 with the p (2-sided) of only 0.796.

Contrary to these results “I have little control over the things that happen to me” (a variable measuring non-mastery) significantly varies with increased CAM use. The chi square test was 8.493 with a p (2-sided) of 0.037. Also, another variable measuring non-mastery, “Sometimes I feel that I am being pushed around in life,” trended to increased CAM usage with a chi square of 2.390 and a p (2-sided) of 0.664.

CAM usage for asthma trended to increase with lack of trust. Lack of trust in the allopathic medical system was correlated to a degree with use of CAM. There was significant correlation between lack of trust in dentists and use of CAM. Lack of trust in physicians, in HMO's and pharmacists trended towards use of CAM.

Those using direct problem-focused coping also trended toward having a significantly higher likelihood of using CAM. On the contrary, those using diversion and those expressing emotion in response to a problem had a lower likelihood of using CAM.

It was not demonstrated that those exhibiting mastery had a higher likelihood of using CAM. Of the seven parameters tested, two involved mastery. Of these, one was significantly correlated with use of CAM, and one trended with increased CAM use. On the other hand, of the five variables involving lack of mastery, one correlated significantly with decreased use of CAM, one significantly with increased use of CAM, one trended with use of CAM, one trended with decreased use of CAM, and one showed no correlation.

Hypothesis 3: Referrals, especially from family members, will drive CAM usage for the treatment of asthma.

Two variables were used to test this hypothesis. Of 11 individuals given advice from a family member to use CAM, 11 (100 percent) used CAM. This compares to 36.1 percent of those not given family advice to use CAM actually having used CAM. The chi square test statistic for the relation between family advice to use CAM and use of CAM was 15.344 with a p (2-sided) of <0.001. Having received a referral to use CAM from any source (and not just from a family member) was tested for an association with CAM use. The chi square was 28.364 with a p (2-sided) of < 0.001.

Referrals from family members were significantly correlated with the use of CAM. Referrals in general were significantly correlated with the use of CAM. The hypothesis is supported.

4.4 Summary of Hypothesis Testing

In summary, a level of significance in this small study population was defined as 0.10. Hypothesis 1 is supported. In this population, religion drives CAM usage for the treatment of asthma ($p=0.033$). Hypothesis 2, “Personal characteristics will drive CAM usage for the treatment of asthma,” is correct only for coping. Hypothesis 2(A), “CAM usage for asthma will increase with lack of trust,” trended to association but achieved levels of significance with association for CAM use for only one of its four variables. It is suggested that a larger study would support this association. Hypothesis 2(B), “Those using direct problem-focused coping have a higher likelihood of using CAM,” trends toward an association between direct problem focused coping and use of CAM. It is again suggested that a larger study would beau out this association. All three variables approached significance in association with the use of CAM ($p= 0.190, 0.181, 0.168$ respectively). Hypothesis 2(C), “Those exhibiting mastery have a higher likelihood of using CAM,” can not be accepted. Four of the seven variables did not achieve levels of significance with use of CAM. Two variables involving mastery were significantly associated, but one variable involving lack of mastery was significantly associated with increased CAM use. Hypothesis 3, “Referrals especially from family members in this sample drive usage of CAM for the treatment of asthma” is supported. The significance was < 0.001 .

4.5 Logistic Regression

It would be advantageous for public health research to specify population catchments with likely increased CAM usage. It would also be clinically beneficial as patients frequently

do not inform physicians of CAM usage. As a screen to understand the relationship between the dependent variable (use of CAM) and independent variables, cross tabs were performed on variables versus CAM usage.

To explore potential associations, secondary or derivative variables were created by combination or division of the primary variables. For instance in order to probe for an association with the use of CAM, Afro-Americans and Africans were combined into Black. Those graduating college and those actually attending graduate school were combined into a new variable “smarts”. Those limited to at most an eighth grade education and those having attended graduate school were combined into a new variable “educational extremes”. Those receiving a referral to use CAM from at least one source were combined into a new variable, “Radvice from any source to use CAM.”

Table XIV- Results of Crosstabs for Variables Versus Use of CAM

Variables	X²	sig (2 sided)
<i>Demographics</i>		
Age	39.776	.525
Sex	1.960	.162
Eighth Grade or less	1.214	.545
High School	1.206	.547
Some College	1.214	.545
Graduated College	4.705	.095
Graduate School	9.245	.010
Age by scores	.612	.894
Black	1.532	.216
<i>Asthma Severity</i>		
Ever in ER for asthma	1.576	.209
Ever hospitalized for asthma	1.007	.316
Negative physical effect from asthma	2.063	.151
Negative psychological effect from asthma	2.302	.129

Sometimes have wheezing	3.960	.047
Sometimes have chest tightness	1.192	.275
In ER for asthma in last year	5.005	.025
Asthma medications does not control my asthma	2.732	.098
Use of Albuterol	2.239	.135
<i>Referral to use CAM</i>		
Family advised use of CAM	15.334	.000
Friends advised use of CAM	9.164	.002
Clergy advised use of CAM	1.198	.274
Doctors advised use of CAM	6.350	.119
<i>Pets</i>		
Pet Cat	1.510	.219
Pet Dog	.019	.891
<i>Religion</i>		
R Catholic	.024	.876
R Protestant	1.144	.285
<i>Miscellaneous</i>		
Family use of CAM	10.636	.001
Have you advised anyone else to use CAM	13.734	.001
<i>Redacted Variables</i>		
Smarts (graduated college or attended graduate school)	1.165	.280
Educational extremes (only eighth grade or graduate school)	5.193	.023
Radvice from any source to use CAM	28.364	.000

Referrals to use CAM are highly correlated with CAM use. So are family use of CAM and giving advice to others to use CAM. However, such mainstream religions as Catholicism and Protestantism are not correlated with use of CAM.

Crosstabs were evaluated as to chi square magnitude, significance, number of cases, cases per cell and prior importance in the literature. The question to be evaluated is the optimal predictive potential for an array of three to five variables (so as to create a model that simplifies predictions) to establish whether an individual candidate would utilize CAM. The

response or dependent variable (use of CAM) is dichotomous. The probability ranges from between zero and one. The appropriate method of analysis was therefore logistic regression. Unfortunately, because of the high number of variables and the low number of subjects in this study, logistic regression proved an ineffective tool for devising a model. There was also a problem with high levels of multi-collinearity. (see Appendix 11) For instance, being Jewish and receiving advice to use CAM has a correlation coefficient of -0.678 and graduating only college and considering religion to be important has a correlation coefficient of 0.617. Even more importantly, all eighteen individuals given referrals to use CAM did use CAM. As not one subject given advice to use CAM chose to not employ CAM, calculations for significance and standard error had to use zero. For instance, a forward-step conditional regression yielded a -2LL that dropped from 99.313 to 36.024. It utilized only 5 variables, one being radvise. The standard error for radvise, however, was 6335.991, and the significance was only 0.995. Essentially, the independent variable of receiving advice to use CAM is sufficient to predict the behavior of using CAM. One does not need a regression model to demonstrate this.

An epidemiologic technique used to evaluate screening was applied utilizing predictive value positive and predictive value negative to model the data. Two variables were demonstrated that had both a high predictive value positive and a high predictive value negative.

Thirty-three subjects utilized CAM. Ten variables were felt to have potentially high predictive positive values:

- Subjects strongly agree that religion is important to me
- Christian not identifying self as Catholic or Protestant
- Non-Jews

- Subject receiving advice from any source to use CAM.
- Ever gone to an emergency room for asthma
- Wheezing sounds in my breath
- Subject strongly disagreeing with “medical doctors know what healthcare is right for my family and me”
- Subject who strongly agrees with “I can do about anything I really set my mind to”
- Subject who strongly disagrees with “there is little I can do to change many of the important things in my life”
- Subjects who strongly agrees with “I think about solutions to the problem, gather information about it, or actually do something to try to solve it.”

Those receiving advice from any source identified 18 of 33 users of CAM with no false negatives. Those strongly agreeing that religion is important identified another 8 subjects using CAM, noted 8 subjects using CAM previously identified by having received advice to use CAM and demonstrated only 7 false positives. The best test was considered to be: having answered yes to “Have received advice” and (or) having answered strongly agreed with “Religion being considered important.”

Figure 2- Predictive Values

	Actually used CAM	
	Yes	No
Having received advice to use CAM and (or) strongly considered religion important.	26	7
	7	32

A	B
C	D

$PV+ = A / (A+B) = 26/33 = 78.8$ percent
 $PV- = D / (C+D) = 32/39 = 82.1$ percent

These two variables alone provide high predictability for both predictive value positive and predictive value negative. Researchers undertaking public health research on the use of CAM might achieve higher efficiency recruiting CAM users by concentrating efforts among those who received advice to use CAM. If a subject gave advice to others to use CAM, it is highly likely that those others use CAM. Additionally, such research could achieve efficiency in recruiting CAM users by working with population segments for whom “Religion is important.”

In the clinical realm, patients frequently do not inform physicians that they employ CAM. A clinician may entertain a high level of suspicion that a patient utilizes CAM if he/she admits to having received advice or a referral to use CAM or if the patient makes clear a significant level of religiosity.

Chapter 5: Discussion

5.1 Discussion

After verifying the effects of demographics driving the use of CAM for asthma and the effects of asthma severity, this study explored other determinants of CAM usage among asthmatic patients. It investigated the impact of religion, the impact of personal characteristics of trust, mastery and coping styles and the impact of referral sources. The study also determined the rate of CAM usage for the treatment of asthma in this population.

Based on previous studies, demographics were expected to have particular impacts: women will use CAM more often than males; CAM usage will increase with higher educational levels and incomes, among Caucasians, and with age. Overall, we expected at least forty percent of subjects would use CAM for asthma.

5.2 Demographic Evaluation

Females in the sample obtained for this study utilized CAM more than males for the treatment of asthma. Nineteen of 35 females (54.3 percent) used CAM, whereas only 14 of 36 males (37.8 percent) used CAM. Because of small numbers, the difference was not statistically significant. This was in accordance with the 2007 NHIS study¹, the 2002 NHIS study² and those of Ni et al³² and MacLennan et al²⁷ for the use of CAM in general. Eisenberg et al found no significant gender difference for the general use of CAM.²⁸

For the treatment of asthma, the findings of this study agreed with the trends reported by Braganza et al¹⁷ and Orhan et al²¹. Braganza noted that 18 out of 100 females used CAM for their asthma as opposed to 13 of 100 males. Orhan et al reported that 52.9 percent of females used CAM for their asthma versus 47.4 percent of males. Neither may have achieved significance because of the small numbers of subjects involved. Blanc et al did

report that females had an OR of 2.0 for CAM use aside from herbals or caffeine.⁵⁵ Marino et al reported that women used CAM slightly more than men (42 percent to 36 percent).²⁹

Ng et al reported that male use of CAM for asthma predominated over female use in Singapore.⁸² This isolated finding may possibly be culturally influenced. Multiple studies did not report on the effect of gender on CAM use for asthma.^{6,11,12,16,20,22,23,54,56,58,83-85}

None of the above studies on CAM use for asthma offered an explanation for why females tended to use CAM more often. It is possible that females have used CAM more often as a reaction to a male dominated allopathic medical system. Such lack of trust may be associated with increased use of CAM. The fact is that why females use CAM more often is simply not known for certain. CAM use might have been seen as empowering. It is also possible that females deciding on domestic financial outlays may have chosen CAM that is less expensive than allopathic medications. As Brink-Muinen et al emphasize, males trust the medical system more often (at least in the Netherlands) than females.⁶⁰

Contrary to many previous studies, CAM usage, in this study did not increase with higher educational levels. Of seven with only an eighth grade education, four (57.1 percent) used CAM. Of 14 with a high school education, seven (50.6 percent) used CAM, and of 20 who graduated college, thirteen (65 percent) used CAM. In contrast, of the 23 who attended graduate school, only five (21.7 percent) utilized CAM. For graduate school, this was significant ($p=0.01$). Eisenberg et al made a strong point that CAM use increases with education through college.¹ This is in accordance with the findings of MacLennan et al and the 2007 NHIS survey.^{3,28} The 2002 NHIS survey advanced the same finding except that 65.5 percent with a graduate degree used CAM as opposed to 66.7 percent with just a college degree.³² Marino and Shen found no association of CAM with education.²⁹

Among studies of CAM use for the treatment of asthma, Sidora-Arcoleo et al found that CAM use increased among children whose parents had more education, but education

only through college was reported.²⁰ Braganza et al noted that educational levels to predict CAM use were insignificant.¹⁷ Marino and Shen reported that CAM use did not differ significantly with education.²⁹

The small number of subjects in this study may skew the results with graduate education. It is possible that graduate education may serve as a marker for Jews and those identifying their religion as “none”. Of the 23 subjects in these two categories, 13 attended graduate school (55.0 percent), whereas of the 49 subjects not in these categories only 10 attended graduate school (20.4 percent). Jews and those identifying as “none” used markedly less CAM (see below). It could also be that Jews and none could serve as a marker for graduate school.

Contrary to the previous studies, CAM usage did not increase with higher income. Eight minors were not queried as to income. Looking at different age groups, the lowest percentage of those using CAM for the treatment of asthma were found among those making \$15,000 to less than \$25,000 (16.7 percent) those making \$75,000 to less than \$100,000 (36.4 percent) and those making at least \$100,000 (37.5 percent). There was no consistent variation with income. It should be noted that whereas 16 of 29 making less than \$75,000 (55.2 percent) used CAM, only 13 of 35 (37.1 percent) of those making at least \$75,000 used CAM. Therefore, CAM use does not appear to increase with higher income.

As CAM use may add an additional cost to allopathic treatment, those with higher incomes may have greater financial access to CAM use. On the other hand, for those who are poor and without insurance CAM use may prove more affordable. Perhaps because of its small numbers, this study could not contribute to the argument.

Directly opposed to most previous studies, this study demonstrated that self identification as white varied inversely with CAM use for asthma. Of 45 individuals who identified as white, 18 (40 percent) used CAM. Of 27 individuals not identifying as white,

15 (55.6 percent) used CAM. Of 15 blacks, nine (60 percent) used CAM. In this study white race did correlate with CAM usage but in an inverse fashion as compared to non-whites.

This finding contradicts that of most large general studies. Eisenberg et al, the 1999 NHIS survey and the 2007 NHIS survey all reported that whites use more CAM.^{1,2,26}

Among small studies of the use of CAM among asthmatics, blacks tended to use more CAM than whites. Sidora-Arcoleo et al noted that blacks used more CAM.²⁰ Braganza et al noted that 89 percent of Blacks and Hispanics used CAM and 83 percent of whites.¹⁷ Marino and Shen found little difference in the use of CAM for asthma by blacks or whites with a trend to increased use among blacks (44 percent to 38 percent).²⁹ George et al reported that 100 percent of blacks surveyed used CAM. There was not a white comparison group.¹²

This study was small scale but is in agreement with most of the small scale asthma studies above and Marino and Shen.²⁹ One possible explanation is that the 45 whites encompassed the 13 Jews who rarely used CAM.

Contrary to many previous studies CAM use for asthma in this study did not correlate with age. Most other studies including those of Eisenberg et al, the 1999 NHIS survey, and the 2007 NHIS survey found that CAM use increased with age until reaching an age of 50-65 when it declined.^{1,2,27} Only the 2002 NHIS survey did not find an eventual decline.³² Marino and Shen found no correlation with age.²⁹ The lack of correlation of CAM use with age in this study may be secondary to its small number of subjects.

Anderson and Newman predicted that disease severity would be associated with increased utilization of health services.²⁶ In the present study, wheezing, an indicator of asthma severity, was highly associated with increased use of CAM.

Many other measures of asthma severity at least trended towards increased CAM use. Having ever been in an emergency room for asthma was associated with increased CAM use

as was having been in the emergency room for asthma within the last year. Those claiming to be physically effected by asthma used more CAM while those claiming to have been psychologically effected by asthma also used more CAM. Those who claimed chest tightness used more CAM. Those claiming that asthma medications do not control their asthma used more CAM. Those who claim that they use their inhalers too much use more CAM. Those stating that asthma causes stress use more CAM. Finally, those who use daily medications for asthma use more CAM.

The only major marker of severity to correlate with decreased CAM use was daily use of Albuterol. It is possible that the daily Albuterol controls asthma minimizing any perceived need for CAM.

Marino and Shen²⁹, in a paper published towards the end of the completion of this study, found asthma severity to be significantly correlated with the use of CAM particularly among those with an ER visit in the last year, those reporting asthma disability days greater than 14 in the previous year and those reporting high levels of activity limitation due to asthma.²⁹

Orhan et al also found that CAM use significantly correlated with severity in particular with asthma treatments, asthma exacerbations and emergency room visits.²¹ Ernst reported that those with severe asthma used more CAM than those with mild asthma.⁸⁶ Sideora- Arcoleo et al also found a strong correlation between CAM usage and asthma severity.²⁰

No studies were found with an inverse correlation of asthma severity. Braganza did find that subjects with severe persistent asthma used CAM less than those with moderate persistent asthma.¹⁷ Perhaps those with the most severe asthma knowingly require very strong allopathic medications. Most researchers offered no findings as to severity. In summary, the findings of the present study conformed to those of past studies relative to

asthmatic severity. CAM use correlated with severity in accordance with the Anderson-Newman model which predicts that the more severe the illness is, the more health services will be utilized.

It might have been expected that intimate (home) exposure to powerful allergens would be correlated with increased CAM use. This was not the case in the current study. The presence of a pet cat was actually inversely correlated with the use of CAM. For these severe allergens (cat, dog, cockroaches, feathers, mice or rats), presence trended against the use of CAM. Only one individual had a pet bird. No studies on the use of CAM for asthma were found reporting on the presence of the above allergens. Perhaps it was those asthmatics with less severe asthma who were able to keep pet cats and dogs. This would explain the lower frequency of CAM usage.

It should be intuitively obvious that those individuals dissatisfied with allopathic care of their asthma would have an increased use of CAM. In this convenience study, not one individual expressed dissatisfaction with allopathic care although four stated they were satisfied only “some of the time.” Without offering statistics, Partridge et al reported that dissatisfaction with orthodox practitioners motivated patients to use CAM.⁵⁶ Similarly, Mansour and Braganza reported that concerns with long term allopathic medications drove subjects to using CAM. This study demonstrates that those least satisfied with allopathic physicians use CAM more often (all four of whom were satisfied some of the time used CAM).

5.3 Hypotheses

New contributions of this study to the knowledge of CAM use for the treatment of asthma were formulated as hypotheses.

Hypothesis 1: Religion will drive CAM usage for the treatment of asthma.

“Religion is important to me” correlates directly with CAM use. Those who regard religion as important may have a *Weltanschauung* that values what they regard as spirituality and tends to CAM usage. Those who answered “none” to the identification of their religion strongly but inversely correlated, as would be expected, with “religion is important to me.” Those who answered “none” to religion, use CAM at a markedly decreased frequency. Excluding those who answered none to the type of religion may account somewhat, therefore, for the high correlation of the use of CAM for asthma by those who claimed “religion is important to me.”

Dessio et al found that African-American women who used religion/spirituality for health reasons in the last year were at least twice as likely to use another form of CAM.⁷⁴ Findings of the present study that those who consider religion important have an increased use of CAM would seem to be in concordance with these findings.

Additionally, there are other findings in this study relative to religion. According to this study, Jews used CAM for asthma markedly less than non- Jews. Of 13 Jews, 3 (23.1 percent) used CAM. Among 59 non-Jews, 29 (47.6 percent) used CAM. This is an important finding in such a small group. Being Jewish in this study correlated strongly with graduate school. One may be a marker for the other.

Those ten answering “none” to the question of which religious group do you identify with utilized CAM less frequently than others. Only two (20 percent) among those answering “none” used CAM. Those answering “none” also correlated strongly with having attended graduate school.

None of the 13 Jews in this study dressed as or wore the religious paraphernalia of orthodox Jews. It is possible that non-orthodox Jews and those answering “none” as to religion share a critical attitude towards what they may regard as spiritual remedies or non-

scientific claims of authority. There is little literature concerning the use of CAM for asthma among Jews (at least outside of Israel).

Adams et al⁵³, Ang et al⁵⁴, Blanc et al⁵⁵, Braganza et al¹⁷, Ernst et al¹⁹, George et al¹², Lamb et al⁸³, Mansour et al⁸⁴, Marino et al²⁹, Mazur et al²³, Orhan et al²¹, Partridge et al⁵⁶, Reznik et al²², Rivera et al⁶, Sidora-Arcoleo et al²⁰ and Singh et al⁸⁵ offered no information as to the effect of religion on CAM use. Pactor did find that “espiritismo” was associated with increased CAM use. Of the 19 individuals who identified as Catholic, nine (47.4 percent) used CAM and of the six who identified as Protestant, four (66.7 percent) used CAM. Among all 41 Christians, 23 (56.1 percent) used CAM.

Apparently, Christians who did not identify as Catholics or Protestants used CAM more often. So did the very small number of Protestants. This study found that a high percentage of those Christians who did not identify as Catholic or Protestant used CAM. Of 16, 10 used CAM (62.5 percent). Of the 25 remaining Christians, 13 (52 percent) used CAM. Perhaps those that personalize their religion also prefer to personalize their medical therapy. For example, Astin reported that those subjects having a transformational experience had an OR for using CAM of 1.8.⁶³ Perhaps more Christians not identifying as Catholic or Protestant had such transformational experiences.

Hypothesis 2: Personality characteristics will drive CAM usage for the treatment of asthma.

A. CAM usage will increase with lack of trust.

Lack of trust in experts has been found to correlate with political activism.⁸⁷ Lack of trust in the medical system could be expected to drive medical activism. This study shows a trend between lack of trust in physicians and increased CAM use. However, not one individual gave a grade of four (disagree) or five (strongly disagree) with the statement that

“medical doctors know what health care is right for my family and me.” Not one individual actually distrusted their physician, however, lack of trust in dentists correlated with increased CAM use. For such small numbers, these p values appear to be important. Lack of trust in HMOs trended slightly toward increased CAM use as did lack of trust in pharmacists. Thus, lack of trust in the medical system does appear to correlate with increased CAM use. No prior studies looking specifically at trust and CAM usage for asthma have been found. The above findings seem to constitute a contribution to our knowledge of CAM use.

On the other hand, trust in a number of non-medical figures varied at least somewhat with increased CAM use. Trust in "future generations' ability to take care of themselves when facing risks imposed from today's technologies" varied with increased CAM use. Trust in one's own ability to control ones' health and trust in their elected representatives trended slightly with increased use of CAM. Trust in mayors trended only very slightly with increased CAM use, but lack of trust in neighbors was correlated with increased use of CAM ($p=0.058$). Trust or lack of trust in non-medical figures or situations may not correlate with increased likelihood of CAM use but lack of trust in medical figures trends to do so.

B. Those using direct active problem-focused coping have a higher likelihood of using CAM.

In the present study, those using direct active problem-focused coping trended to the increased use of CAM. Of those 64 who used “I think about solutions to the problem, gather information about it or actually do something to try and solve it”, 30 used CAM. Of four who were neutral, none used CAM. Those subjects using at least one major emotion focused coping mechanism “diverting attention away from the problem,” trended away from CAM usage. Those who “do not express emotion in response to the problem” use CAM at a significantly higher rate. These findings agree with those of Sollner who determined that active coping was associated with increased CAM use.⁷¹ He also noted that diversion was inversely related to increased CAM utilization.

Those who used problem focused coping used CAM more often. Those who used diversion as a coping mechanism trended to use less CAM. Subjects using CAM were not limited to the use of proactive coping mechanisms. Those who used "I try to see the problem in a different light that makes it more bearable" trended to the increased use of CAM. "I seek or find spiritual comfort and support" was significantly associated with increased CAM use ($p=0.020$). Those who claimed "I accept that the problem has occurred, but that nothing can be done about it" trended towards the increased use of CAM, as did those who did not use "I express emotions in response to the problem to reduce tension, anxiety or frustration." "I seek or find emotional support from loved ones, friends, or professionals" trended towards increased CAM use, however, "I do something with the intention of relaxation" was not associated with the increased use of CAM. In summary, it appears that pro-active coping and some non-proactive coping mechanisms were associated with increased CAM use.

C. Those exhibiting mastery have a higher likelihood of using CAM.

Seven variables were evaluated for the presence of mastery. Results varied. "I have little control over the things that happen to me" significantly varied with increased CAM use ($p=0.037$). Those who felt "Sometimes I feel that I am being pushed around in life" trended toward increased CAM usage but this was not statistically significant. Those who felt "I often feel helpless in dealing with the problems of life" did not vary with CAM use.

The three variables listed above point to a lack of mastery. Two other variables point to a lack of mastery but are associated with decreased CAM use. "There is little I can do to change many of the important things in my life" varies significantly but inversely with increased use of CAM ($p=0.042$). There is "really no way I can solve some of the problems I have trends slightly towards decreased CAM use. Two variables point to mastery and are associated with increased CAM use. Those who felt "I can do about anything I set my mind to" trended toward increased CAM usage but was not statistically significant. "What

happens in the future mostly depends on me” varied significantly with increased CAM use ($p=0.059$), whereas those who claimed “There is really no way I can solve some of the problems I have” trended somewhat inversely toward increased CAM use but not significantly so. Those who felt “I often feel helpless in dealing with the problems of life” slightly trended toward increased use of CAM. In summary, those exhibiting mastery could not consistently be demonstrated to use CAM more often.

Hypothesis 3: Referrals, especially from family members, will drive CAM usage for the treatment of asthma.

Both family advice to use CAM (referral) and family use of CAM varied significantly with subjects’ use of CAM. Of 11 individuals given advice from a family member to use CAM, all used CAM. Only 36.1 percent of those not given family advice to use CAM used CAM ($p < 0.001$). Only 15.3 percent of subjects were given advice by a family member to use CAM. They accounted for 11 of 33 subjects (33 percent) of those using CAM. This is more than twice the percentage that would be randomly expected.

Usage of CAM by a family member also varied significantly with increased CAM usage. All eight individuals with a family member who used CAM utilized CAM (100 percent). Only 39.1 percent of those without a family member who used CAM utilized CAM ($p= 0.001$). From the present study it appears that families may be a nexus or framework driving towards CAM utilization. Families may transmit cultural and religious values that lead to CAM usage. They may model behavior, transmit information and provide legitimization for CAM usage.

Interestingly, population segments that used CAM at very low rates had families that rarely used CAM and rarely gave advice to use CAM. Of 13 Jews, none had a family that used CAM. Only 1 Jewish individual (out of 13) had a family that advised CAM use. Of

those 10 individuals who chose “none” as their religion, none had a family that used CAM. Also none of these 10 had a family that advised use of CAM.

Previous research in the 2007 NHIS survey and Spiegelblatt et al, Birdee et al and Ottolini et al demonstrated that children of care takers who used CAM had an increased use of CAM (see above).^{2,76-78} Dessio et al found that African American women using religion/spirituality were considerably more likely to use other CAM and more than twice as likely as other CAM users to credit their use of CAM to having grown up with family that used CAM (53 percent to 24 percent; chi square of 32.14 and $p < 0.01$).⁷⁴

This study may be the first to contribute on the effect of family use of CAM to subjects’ use of CAM for asthma among non-minors. Also interestingly, referral to use CAM from any referral source (not just families) drove use of CAM. Advice from any referral source to use CAM was directly and highly correlated with CAM use ($p < 0.001$). No other study was found with this type of effect determining CAM use from any referral source.

Almost 46 percent of subjects in this study used CAM for the treatment of asthma. Eisenberg had found that 34 percent of subjects in the general population used CAM.¹ The 2007 NHIS survey reported that 38.3 percent of adults in the general population used CAM.² Marino and Shen reported that 39.6 percent of adult asthmatics used CAM.²⁹ This study found that a slightly higher percentage of subjects used CAM for their asthma. Perhaps, this was a result of the small numbers in the study. In previous studies, as cited above, percentages of CAM use among asthmatics ranged from 6 percent to 100 percent.

This study examined CAM use among asthmatics receiving allopathic medical care from asthma specialists. Virtually all individuals approached agreed to participate (72 of 74). A particularly interesting finding was the importance of receiving referrals of any type for use of CAM but especially from family members as a determinant of CAM use. All subjects receiving advice to use CAM used CAM. Family members provided a high percentage of

these referrals. Thirty-three percent of CAM users received such advice. Certain segments of the population only rarely received such advice (Jews and those answering “none” to religion). These segments rarely used CAM. Whether or not it’s because they did not receive family advice to use CAM can not be determined from this study. The family may constitute a matrix driving or not driving subjects to CAM use via provision of information, conference of values, legitimization or other cultural impacts.

Those individuals who regarded “religion as important” had an increased use of CAM. Christians who did not identify as Catholic or Protestant used CAM more frequently. They also identified “religion as important” more frequently. It can not be determined from this study, but, perhaps, the family matrix also confers a stress on whether religion is important or not.

Those exhibiting lack of trust in the medical system used CAM more frequently. Those who utilized active problems-focused coping trended to use CAM more frequently. Sense of mastery could not be correlated with CAM use.

5.4 Summary

Gordon Gauchat wrote that “technocratic authority undermines the democratization of modern institutions” and that “unfavorable attitudes toward science are symptoms of ... a legitimacy crisis that invoke public reservations about expert systems.”⁸⁸ This deligitimization of science and a tandem push to individual autonomy has challenged the authority of allopathic medicine and pushed CAM towards becoming a mass phenomenon.

From a public health standpoint it is important to identify the determinants of CAM use. This will aid the identification of populations dense in CAM use and thus facilitate targeted education and research on CAM use, CAM success and CAM side-effects from the

treatments of asthma. It will also help attending physicians determine which patients are utilizing CAM so as to formulate optimal treatment plans, prevent drug interactions, and improve physician-patient communication and trust. Variables that drove CAM use were demonstrated in this study and include: referrals for CAM use, feeling that religion is important, a severity marker of wheezing, and having received only a college education. Some of these variables may be of use in future public health research for identifying catchment populations dense in CAM usage.

For the physician, this study raises the importance not only of inquiring about a patients' CAM use but also about inquiring about the CAM use by a parent. If a parent uses CAM, it is more likely that a patient (even as an adult) would use CAM.

Even if a patient denies CAM usage a more rigorous attempt on the part of the physician to establish such usage may be advisable. Should a patient affirm family usage of CAM, indicate feelings that religion may be important or that they have been advised to use CAM, it would behoove the physician to inquire about specific forms of CAM therapy. Gentle probes might prove effective such as: do you use yoga or do you ever pray for relief of your asthma.

Importantly, and as indicated by this study, CAM usage is a mass phenomenon. Even in a population such as that in this study exhibiting low asthma severity and high trust in allopathic physicians, forty six percent of individuals utilized CAM. In medicine, such as with HIV, it is often preferable to adopt universal precautions. Because of the mass use of CAM, I would extrapolate benefit to explaining to all asthma patients that therapy often requires a wide spectrum of approaches including possible environmental avoidance measures and biomedical treatment. It would be worthwhile to explain that the use of CAM may interfere with biomedical therapy and that the patient should make the physician aware of any CAM usage so as he can take such interference into account. The patient should be

made aware that even such apparently innocuous approaches as prayer may prove dangerous if it pre-empts biomedical and other needed treatment.

The major limitations of this study are the small number of participants, the convenience nature of subject selection and the particular population examined. Only 72 subjects were able to be queried. All subjects were patients of allopathic asthma specialists in North-Central New Jersey. All spoke English. Income did not vary with education in this population. In fact, those with a graduate school education varied inversely with making over \$100,000. There was a high percentage of Jews (18 percent) and a low percentage of those who primarily identified themselves as Protestants (8 percent). Subjects exhibited a very high level of educational attainment with 20 (28 percent) having graduated college without attending graduate school and an additional 23 (32 percent) having attended graduate school. As only those receiving medical care from an allopathic specialist were queried, selection bias was likely and poses serious problems for generalization and external validation. Nevertheless, they may be valid for the population they represent. Especially for findings based on trend, much larger studies will be necessary.

CAM use can interfere with allopathic therapy, medications and compliance. It may, in some cases, offer amelioration for the condition treated. In any case, CAM use is, as confirmed by this study, a mass phenomenon. In 2001, Kessler et al wrote that “CAM therapies are perceived to be a force to be reckoned with for some time to come.”³ An editorial in *The New England Journal of Medicine* noted that for physicians the first step is to understand what our patients are up to.⁸⁹ Playing on a quote from Virchow one might say that “Public Health” is more than medicine on a grand scale. Nevertheless, the first step in public health is still to understand what our population is up to. Comprehending the phenomenon, the demographics and the drivers of CAM is an imperative of increasing importance.

Appendix 1

QUESTIONNAIRE (For Adults)

ID Number: _____

DIRECTIONS: Please answer all questions and check ALL the boxes that apply.

1. What is your age? _____
2. What is your gender? Male ☐ Female ☐
3. Do you live in a ☐ single family house ☐ multi-family unit (2-4 units)
☐ apartment house or complex (4+ units)
4. To help us develop a culturally sensitive asthma management program, please tell us your race or ethnic group. Check all that apply.
☐ Hispanic/Latino ☐ Haitian (Creole) ☐ Black/African-American ☐ Asian
☐ Native American ☐ White ☐ Portuguese
☐ Other, Please list _____
5. If you are Hispanic/Latino, where is your family from? Check all that apply.
☐ Cuba ☐ Dominican Republic ☐ Peru ☐ Mexico ☐ Puerto Rico
☐ Colombia ☐ Other, please list _____
6. What is the highest grade in school you completed?
☐ 8th grade or less
☐ High school or less
☐ Some college, technical training
☐ Graduated college
☐ Graduate school
7. What kind of medical insurance do you have? ☐ Medicaid ☐ Medicare ☐ Private ☐ None
8. My usual asthma doctor is in:
☐ private practice ☐ clinic practice ☐ emergency room
9. My usual asthma doctor is:
☐ an internist ☐ a family practitioner ☐ an asthma specialist ☐ don't know

QUESTIONNAIRE
(For Adults)

ID Number: _____

10. Do you have? Check all that apply.

☐ Asthma ☐ Hay fever ☐ Food allergies ☐ Skin allergies ☐ Eye allergies

In the last three years:

- | | | |
|--|------------------------------|-----------------------------|
| 11. Have you ever gone to an emergency room for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Have you ever been admitted to the hospital for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Have you ever been admitted to an Intensive Care Unit for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 14. Have you ever been placed on a breathing machine for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 15. Has asthma negatively impacted you physically? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 16. Has asthma negatively impacted you emotionally? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 17. Has asthma negatively impacted you socially? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 18. Has asthma negatively impacted you psychologically? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Do you agree with the following?

- | | | |
|---|------------------------------|-----------------------------|
| 19. When I walk or do simple chores, I have trouble breathing or I cough. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 20. When I perform heavier work, such as walking up hills and stairs or doing chores that involve lifting, I have trouble breathing or I cough. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 21. Sometimes I avoid exercising or taking part in sports (jogging, swimming, tennis, or aerobics) because I have trouble breathing or I cough. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 22. I have been unable to sleep through the night without coughing attacks or shortness of breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 23. Sometimes I cannot catch a good, deep breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 24. Sometimes I make wheezing sounds in my breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 25. Sometimes my chest feels tight. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 26. Sometimes I cough a lot. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 27. Dust, pollen and pets make my asthma worse. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 28. My asthma gets worse in cold weather. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

QUESTIONNAIRE
(For Adults)

ID Number: _____

29. My asthma gets worse when I am around tobacco smoke, fumes, and strong odors. ☐ Yes ☐ No
30. When I catch a cold, it often goes into my chest. ☐ Yes ☐ No
31. I made one or more emergency visits due to asthma or breathing problems last year. ☐ Yes ☐ No
32. I had one or more overnight hospitalizations due to asthma or breathing problems in the last year. ☐ Yes ☐ No
33. I feel like I use my asthma inhaler too often. ☐ Yes ☐ No
34. Sometimes I do not like the way my asthma medicine(s) make me feel. ☐ Yes ☐ No
35. My asthma medicine does not control my asthma. ☐ Yes ☐ No
36. My breathing problem or asthma controls my life more than I would like. ☐ Yes ☐ No
37. I feel tension or stress because of my breathing problems or asthma. ☐ Yes ☐ No
38. I worry that my breathing problem or asthma affects my health or may even shorten my life. ☐ Yes ☐ No
39. Are you on any daily medications for your asthma? ☐ Yes ☐ No

40. Are you on any of the following usual asthma therapies?

Check all that apply.

- ☐ Albuterol/Proventil/Ventolin/Foradil inhaler or nebulizer
- ☐ Advair inhaler ☐ Medrol ☐ Prednisone/Prednisolone
- ☐ Serevent inhaler ☐ Intal inhaler ☐ Theophylline
- ☐ Singulair ☐ Tilade inhaler ☐ Combivent inhaler
- ☐ Accolate ☐ Atrovent inhaler
- ☐ Pulmicort/Flovent/Azmacort/Qvar inhaler or nebulizer

41. How often are you satisfied with the care you receive for your asthma?

- ☐ Most of the time ☐ Sometimes ☐ Not often

QUESTIONNAIRE
(For Adults)

ID Number: _____

42. The following are **Other Forms of Therapy** which are sometimes used for asthma. Have you used **Other Forms of Therapy** for your asthma within the last year? Check all that apply.

Other Forms of Therapy for Asthma	Never	Once	More Than Once
Acupuncture			
Biofeedback			
Chiropractic Medicine			
Energy healing			
Folk medicine			
Homeopathy			
Hypnosis			
Imagery			

Other Forms of Therapy for Asthma	Never	Once	More Than Once
Massage			
Megavitamin therapy			
Prayer			
Relation techniques			
Santeria			
Spiritual healing			
Voudon (Voodoo)			
Yoga			

43. Did you use any **Other Forms of Therapy** not listed above for your asthma in the last year?

☐ Yes ☐ No

If so, what were they? _____

44. If you used **Other Forms of Therapy** for your asthma, how often were you satisfied?

☐ Almost always ☐ Some of the time ☐ Not often

45. To the best of your knowledge, has a family member (father, mother, uncle, aunt, cousin, son, daughter, husband or wife) used any **Other Forms of Therapy** to treat their own asthma or breathing problem before you did? ☐ Yes ☐ No

If so, who? _____

Which methods? _____

46. Who advised you to try **Other Forms of Therapy** for your asthma? (Check all that apply).

☐ Family member (father, mother, uncle, aunt, cousin, son, daughter, husband or wife)
☐ Friend
☐ Clergyman
☐ Pharmacist
☐ Doctor
☐ Health food store employee

QUESTIONNAIRE
(For Adults)

ID Number: _____

- ☐ Bodega employee
- ☐ TV, radio, magazine, newspaper
- ☐ Community leader
- ☐ Traditional healer
- ☐ Other (Please describe) _____

47. Have you advised anyone else to try **Other Forms of Therapy** for asthma or breathing problems?

☐ Yes ☐ No

48. The following people who are not medical doctors treat asthma with **Other Forms of Therapy**. Have you been treated by any of these **Other Asthma Treaters**?

Other Asthma Treaters	Never	Once	More Than Once
Acupuncturist			
Biofeedback specialist			
Chiropractor			
Crystal specialist			
Faith/Spiritual healer			
Herbal specialist			
Homeopathic specialist			
Hypnotist			
Magnet specialist			
Massage expert			
Nutritionist			
Yoga expert			
Other (specify below)			

49. If you used **Other Asthma Treaters** for your asthma, how often were you satisfied with their treatment? ☐ Almost always ☐ Some of the time ☐ Not often

50. To the best of your knowledge, has a family member (father, mother, uncle, aunt, cousin, son, daughter, husband or wife) used any of the above **Other Asthma Treaters**? ☐ Yes ☐ No

If so, who? _____

Which **Other Asthma Treaters**? _____

QUESTIONNAIRE
(For Adults)

ID Number: _____

51. Who advised you to try **Other Asthma Treaters**? Check all that apply.

- ☐ Family member (father, mother, uncle, aunt, cousin, son or daughter, husband or wife)
- ☐ Friend
- ☐ Clergyman
- ☐ Pharmacist
- ☐ Doctor
- ☐ Health food store employee
- ☐ Bodega employee
- ☐ TV, radio, magazine, newspaper
- ☐ Community leader
- ☐ Traditional healer
- ☐ Other (Please describe) _____

52. How often have you found **Other Asthma Treaters** helpful in controlling your asthma?

- ☐ Almost always ☐ Some of the time ☐ Not often

53. Have you advised anyone else to try **Other Asthma Treaters**? ☐ Yes ☐ No

54. Please indicate whether you agree, disagree, neither agree nor disagree, or do not use **Other Forms of Therapy** or **Other Asthma Treaters** by marking the appropriate box.

STATEMENT	AGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	DO NOT USE OTHER ASTHMA THERAPIES OR TREATERS.
Both Usual Forms of Therapy and Other Forms of Therapy are better for my asthma than using either one alone.				
Other Forms of Therapy are superior to Usual Forms of Therapy for my asthma.				

QUESTIONNAIRE
(For Adults)

ID Number: _____

STATEMENT	AGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	DO NOT USE OTHER ASTHMA THERAPIES OR TREATERS.
My Other Asthma Treater spends more time with me than does my Usual Asthma Doctor (medical physician).				
My Other Asthma Treater offers a more understandable and useful explanation of my asthma problems than my Usual Asthma Doctor (medical physician).				
My Other Asthma Treater is a better listener than my Usual Asthma Doctor (medical physician).				

The next two sections may not seem relevant to your asthma treatment but help us understand how you feel about and deal with problems. There are no correct or incorrect answers. Please be as honest as you can and answer according to your own feelings, not how you think you should answer.

55. How strongly do you agree or disagree with these statements?

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
I trust people I meet in my neighborhood.	1	2	3	4	5
HMOs provide good financial support of patient care.	1	2	3	4	5
My local pharmacist has been a big help in providing advice about medication.	1	2	3	4	5
I have little control over risk to my health.	1	2	3	4	5
Future generations can take care of them selves when facing risks imposed from today's technologies.	1	2	3	4	5
Medical doctors know what health care is right for my family and me.	1	2	3	4	5
Religion is important to me.	1	2	3	4	5
The mayor's office really cares about my neighborhood.	1	2	3	4	5
I trust officials elected to represent my neighborhood at the state level to protect our interests.	1	2	3	4	5
Dentists have provided competent care for me and my family.	1	2	3	4	5

QUESTIONNAIRE
(For Adults)

ID Number: _____

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
There is really no way I can solve some of the problems I have.	1	2	3	4	5
Sometimes I feel that I am being pushed around in life.	1	2	3	4	5
I have little control over the things that happen to me.	1	2	3	4	5
I can do about anything I really set my mind to.	1	2	3	4	5
I often feel helpless in dealing with the problems of life.	1	2	3	4	5
What happens to me in the future mostly depends on me.	1	2	3	4	5
There is little I can do to change many of the important things in my life.	1	2	3	4	5

56. How strongly do you agree or disagree with these statements about how you handle problems?

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
I divert attention away from the problems by thinking about other things or engaging in some activity.	1	2	3	4	5
I try to see the problem in a different light that makes it more bearable.	1	2	3	4	5
I think about solutions to the problem, gather information about it, or actually do something to try to solve it.	1	2	3	4	5
I express emotions in response to the problem to reduce tension, anxiety, or frustration.	1	2	3	4	5
I accept that the problem has occurred, but that nothing can be done about it.	1	2	3	4	5
I seek or find emotional support from loved ones, friends, or professionals.	1	2	3	4	5
I do something with the intention of relaxing.	1	2	3	4	5
I seek or find spiritual comfort and support.	1	2	3	4	5

The following questions focus on identifying some possible risk factors for asthma.

57. Do you have a carpet in your bedroom? ☐ Yes ☐ No
58. Do you have a feather (down) pillow or feather (down) comforter anywhere in your house or apartment? ☐ Yes ☐ No
59. Do you have an indoor pet cat? ☐ Yes ☐ No

QUESTIONNAIRE
(For Adults)

ID Number: _____

60. Do you have an indoor pet dog? ☐ Yes ☐ No
61. Do you have an indoor pet bird? ☐ Yes ☐ No
62. Are there any cockroaches in your house or apartment? ☐ Yes ☐ No
63. Do you find evidence of mice or rats in your house or apartment? ☐ Yes ☐ No
64. Are there obvious damp spots or mildew in your house or apartment? ☐ Yes ☐ No
65. Do you have forced air heating? ☐ Yes ☐ No
66. Do any of the people who live in your house or apartment smoke in the house or apartment? ☐ Yes ☐ No
67. Which religious group do you identify with?:
- ☐ Catholic ☐ Protestant ☐ Jewish ☐ Islam ☐ Buddhist ☐ Hindu
- ☐ Other _____ ☐ None
68. What is your annual household income:
- ☐ Less than \$14,999
- ☐ \$15,000 → \$24,999
- ☐ \$25,000 → \$49,999
- ☐ \$50,000 → \$74,999
- ☐ \$75,000 → \$99,999
- ☐ \$100,000+

Thank you for helping us understand your asthma and allergy treatment needs.

Appendix 2

QUESTIONNAIRE (For Parents or Guardians of Minors)

ID Number: _____

DIRECTIONS: Please answer all questions and check ALL the boxes that apply.

1. What is your child's age? _____
2. What is your child's gender? Male ☐ Female ☐
3. Do you live in a ☐ single family house ☐ multi-family unit (2-4 units)
☐ apartment house or complex (4+ units)
4. To help us develop a culturally sensitive asthma management program, please tell us your child's race or ethnic group.
Check all that apply.
☐ Hispanic/Latino ☐ Haitian (Creole) ☐ Black/African-American ☐ Asian
☐ Native American ☐ White ☐ Portuguese
☐ Other, Please list _____
5. If you are Hispanic/Latino, where is your child's family from? Check all that apply.
☐ Cuba ☐ Dominican Republic ☐ Peru ☐ Mexico ☐ Puerto Rico
☐ Colombia ☐ Other, please list _____
6. What is the highest grade in school your child completed?

<input type="checkbox"/> less than 1 st grade	<input type="checkbox"/> 5 th grade or less	<input type="checkbox"/> 10 th grade
<input type="checkbox"/> 1 st grade	<input type="checkbox"/> 5 th grade	<input type="checkbox"/> 11 th grade
<input type="checkbox"/> 2 nd grade	<input type="checkbox"/> 7 th grade	<input type="checkbox"/> 12 th grade
<input type="checkbox"/> 3 rd grade	<input type="checkbox"/> 8 th grade	<input type="checkbox"/> any college
<input type="checkbox"/> 4 th grade	<input type="checkbox"/> 9 th grade	
7. ----
8. Your child's usual asthma doctor is in:
☐ private practice ☐ clinic practice ☐ emergency room
9. Your child's usual asthma doctor is:
☐ an internist ☐ a family practitioner ☐ an asthma specialist ☐ a pediatrician ☐ don't know
10. Do you have? Check all that apply.
☐ Asthma ☐ Hay fever ☐ Food allergies ☐ Skin allergies ☐ Eye allergies

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

In the last three years:

- | | | |
|---|------------------------------|-----------------------------|
| 11. Has your child ever gone to an emergency room for asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Has your child ever been admitted to the hospital for asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Has your child ever been admitted to an Intensive Care Unit for asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 14. Has your child ever been placed on a breathing machine for asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 15. Has asthma negatively impacted him (her) physically? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 16. Has asthma negatively impacted him (her) emotionally? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 17. Has asthma negatively impacted him (her) socially? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 18. Has asthma negatively impacted him (her) psychologically? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Do you agree with the following?

- | | | |
|--|------------------------------|-----------------------------|
| 19. When your child walks or does simple chores, he (she) has trouble breathing or coughs. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 20. When your child performs heavier work, such as walking up hills and stairs or doing chores that involve lifting, he (she) has trouble breathing or coughs. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 21. Sometimes your child avoids exercising or taking part in sports (jogging, swimming, tennis, or aerobics) because he (she) has trouble breathing or coughs. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 22. Your child has been unable to sleep through the night without coughing attacks or shortness of breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 23. Sometimes your child cannot catch a good, deep breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 24. Sometimes your child makes wheezing sounds in his (her) breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 25. Sometimes his (her) chest feels tight. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 26. Sometimes your child coughs a lot. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 27. Dust, pollen and pets makes his (her) asthma worse. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 28. Your child's asthma gets worse in cold weather. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 29. Your child's asthma gets worse when he (she) is around tobacco smoke, fumes, and strong odors. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 30. When your child catches a cold, it often goes into his (her) chest. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 31. Your child made one or more emergency visits due to asthma or breathing problems last year. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

32. Your child had one or more overnight hospitalizations due to asthma or breathing problems in the last year. ☐ Yes ☐ No
33. Your child feels like he (she) use his (her) asthma inhaler too often. ☐ Yes ☐ No
34. Sometimes your child does not like the way his (her) asthma medicine(s) make him (her) feel. ☐ Yes ☐ No
35. Your child's asthma medicine does not control his (her) asthma. ☐ Yes ☐ No
36. Your child's breathing problem or asthma controls his (her) life more than you would like. ☐ Yes ☐ No
37. Your child feels tension or stress because of his (her) breathing problems or asthma. ☐ Yes ☐ No
38. Your child worries that his (her) breathing problem or asthma affects his (her) health or may even shorten his (her) life. ☐ Yes ☐ No
39. Is your child on any daily medications for his (her) asthma? ☐ Yes ☐ No

40. Is your child on any of the following usual asthma therapies?

Check all that apply.

- | | | |
|--|---|--|
| <input type="checkbox"/> Albuterol/Proventil/Ventolin/Foradil inhaler or nebulizer | | |
| <input type="checkbox"/> Advair inhaler | <input type="checkbox"/> Medrol | <input type="checkbox"/> Prednisone/Prednisolone |
| <input type="checkbox"/> Serevent inhaler | <input type="checkbox"/> Intal inhaler | <input type="checkbox"/> Theophylline |
| <input type="checkbox"/> Singulair | <input type="checkbox"/> Tilade inhaler | <input type="checkbox"/> Combivent inhaler |
| <input type="checkbox"/> Accolate | <input type="checkbox"/> Atrovent inhaler | |
| <input type="checkbox"/> Pulmicort/Flovent/Azmacort/Qvar inhaler or nebulizer | | |

41. How often is your child satisfied with the care he (she) receives for his (her) asthma?

- ☐ Most of the time ☐ Sometimes ☐ Not often

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

42. The following are **Other Forms of Therapy** which are sometimes used for asthma. Has your child used **Other Forms of Therapy** for his (her) asthma within the last year? Check all that apply.

Other Forms of Therapy for Asthma	Never	Once	More Than Once
Acupuncture			
Biofeedback			
Chiropractic Medicine			
Energy healing			
Folk medicine			
Homeopathy			
Hypnosis			
Imagery			

Other Forms of Therapy for Asthma	Never	Once	More Than Once
Massage			
Megavitamin therapy			
Prayer			
Relation techniques			
Santeria			
Spiritual healing			
Voudon (Voodoo)			
Yoga			

43. Did your child use any **Other Forms of Therapy** not listed above for his (her) asthma in the last year?

☐ Yes ☐ No

If so, what were they? _____

44. If your child used **Other Forms of Therapy** for his (her) asthma, how often was he (she) satisfied?

☐ Almost always ☐ Some of the time ☐ Not often

45. To the best of your knowledge, has a family member (father, mother, uncle, aunt, cousin, brother, sister) used any **Other Forms of Therapy** to treat their own asthma or breathing problem before your child did? ☐ Yes ☐ No

If so, who? _____

Which methods? _____

46. Who advised you to try **Other Forms of Therapy** for your child's asthma? (Check all that apply).

- ☐ Family member (father, mother, uncle, aunt, cousin, brother, sister)
- ☐ Friend
- ☐ Clergyman
- ☐ Pharmacist
- ☐ Doctor
- ☐ Health food store employee
- ☐ Bodega employee

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

- ☐ TV, radio, magazine, newspaper
- ☐ Community leader
- ☐ Traditional healer
- ☐ Other (Please describe) _____

47. Have you advised anyone else to try **Other Forms of Therapy** for asthma or breathing problems? ☐ Yes ☐ No

48. The following people who are not medical doctors treat asthma with **Other Forms of Therapy**. Has your child been treated by any of these **Other Asthma Treaters**?

Other Asthma Treaters	Never	Once	More Than Once
Acupuncturist			
Biofeedback specialist			
Chiropractor			
Crystal specialist			
Faith/Spiritual healer			
Herbal specialist			
Homeopathic specialist			
Hypnotist			
Magnet specialist			
Massage expert			
Nutritionist			
Yoga expert			
Other (specify below)			

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

49. If your child used **Other Asthma Treaters** for his (her) asthma, how often was he (she) satisfied with their treatment? ☐ Almost always ☐ Some of the time ☐ Not often

50. To the best of your knowledge, has any other family member (father, mother, uncle, aunt, cousin, brother, sister) used any of the above **Other Asthma Treaters**? ☐ Yes ☐ No

If so, who? _____

Which **Other Asthma Treaters**? _____

51. Who advised you to try **Other Asthma Treaters**? Check all that apply.

☐ Family member (father, mother, uncle, aunt, cousin, brother, sister)

☐ Friend

☐ Clergyman

☐ Pharmacist

☐ Doctor

☐ Health food store employee

☐ Bodega employee

☐ TV, radio, magazine, newspaper

☐ Community leader

☐ Traditional healer

☐ Other (Please describe) _____

52. How often ^{has} your child found **Other Asthma Treaters** helpful in controlling your child's asthma?

☐ Almost always

☐ Some of the time

☐ Not often

53. Has you advised anyone else to try **Other Asthma Treaters**? ☐ Yes ☐ No

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

54. Please indicate whether you agree, disagree, neither agree nor disagree, or do not use **Other Forms of Therapy** or **Other Asthma Treaters** by marking the appropriate box.

STATEMENT	AGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	DO NOT USE OTHER ASTHMA THERAPIES OR TREATERS.
Both Usual Forms of Therapy and Other Forms of Therapy are better for my child's asthma than using either one alone.				
Other Forms of Therapy are superior to Usual Forms of Therapy for my child's asthma.				
My child's Other Asthma Treater spends more time with him (her) than does my child's usual Asthma Doctor (medical physician).				
My child's Other Asthma Treater offers a more understandable and useful explanation of my child's asthma problems than my child's usual Asthma Doctor (medical physician).				
My child's Other Asthma Treater is a better listener than my child's Usual Asthma Doctor (medical physician).				

The next two sections may not seem relevant to your child's asthma treatment but help us understand how you feel about and deal with problems. There are no correct or incorrect answers. Please be as honest as you can and answer according to your child's own feelings, not how you think you should answer.

55. How strongly do you agree or disagree with these statements?

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
There is really no way my child can solve some of the problems he (she) has.	1	2	3	4	5
Sometimes my child feels that he (she) is being pushed around in life.	1	2	3	4	5
My child has little control over the things that happen to him (her).	1	2	3	4	5
My child can do about anything he (she) really set his (her) mind to.	1	2	3	4	5
My child often feels helpless in dealing with the problems of life.	1	2	3	4	5
What happens to my child in the future mostly depends on my child.	1	2	3	4	5
There is little my child can do to change many of the important things in his (her) life.	1	2	3	4	5

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

56. How strongly do you agree or disagree with these statements about how you handle problems?

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
My child diverts attention away from his (her) problems by thinking about other things or engaging in some activity.	1	2	3	4	5
My child tries to see the problem in a different light that makes it more bearable.	1	2	3	4	5
My child thinks about solutions to the problem, gathers information about it, and actually does something to try to solve it.	1	2	3	4	5
My child expresses emotions in response to the problem to reduce tension, anxiety, or frustration.	1	2	3	4	5
My child accepts that the problem has occurred, but that nothing can be done about it.	1	2	3	4	5
My child seeks or finds emotional support from loved ones, friends, or professionals.	1	2	3	4	5
My child does something with the intention of relaxing.	1	2	3	4	5
My child seeks or finds spiritual comfort and support.	1	2	3	4	5

The following questions focus on identifying some possible risk factors for asthma.

57. Does your child have a carpet in his (her) bedroom? ☐ Yes ☐ No
58. Does your child have a feather (down) pillow or feather (down) comforter anywhere in his (her) house or apartment? ☐ Yes ☐ No
59. Does your child have an indoor pet cat? ☐ Yes ☐ No
60. Does your child have an indoor pet dog? ☐ Yes ☐ No
61. Does your child have an indoor pet bird? ☐ Yes ☐ No
62. Are there any cockroaches in your child's house or apartment? ☐ Yes ☐ No
63. Does your child find evidence of mice or rats in his (her) house or apartment? ☐ Yes ☐ No
64. Are there obvious damp spots or mildew in your child's house or apartment? ☐ Yes ☐ No
65. ---

QUESTIONNAIRE
(For Parents or Guardians of Minors)

ID Number: _____

66. Do any of the people who live in your child's house or apartment smoke in
the house or apartment? ☐ Yes ☐ No

67. Which religious group does your child identify with?:

☐ Catholic ☐ Protestant ☐ Jewish ☐ Islam ☐ Buddhist ☐ Hindu
☐ Other _____ ☐ None

68. ---

Thank you for helping us understand your child's asthma and allergy treatment needs.

Appendix 3

QUESTIONNAIRE (For Minors)

ID Number: _____

DIRECTIONS: Please answer all questions and check ALL the boxes that apply.

1. What is your age? _____
2. What is your gender? Male ☐ Female ☐
3. Do you live in a ☐ single family house ☐ multi-family unit (2-4 units)
☐ apartment house or complex (4+ units)
4. To help us develop a culturally sensitive asthma management program, please tell us your race or ethnic group. Check all that apply.
☐ Hispanic/Latino ☐ Haitian (Creole) ☐ Black/African-American ☐ Asian
☐ Native American ☐ White ☐ Portuguese
☐ Other, Please list _____
5. If you are Hispanic/Latino, where is your family from? Check all that apply.
☐ Cuba ☐ Dominican Republic ☐ Peru ☐ Mexico ☐ Puerto Rico
☐ Colombia ☐ Other, please list _____
6. What is the highest grade in school you completed?
☐ 6th grade or less ☐ 10th grade
☐ 7th grade ☐ 11th grade
☐ 8th grade ☐ 12th grade
☐ 9th grade ☐ any college
7. ---
8. My usual asthma doctor is in:
☐ private practice ☐ clinic practice ☐ emergency room
9. My usual asthma doctor is:
☐ an internist ☐ a family practitioner ☐ an asthma specialist ☐ don't know

QUESTIONNAIRE
(For Minors)

ID Number: _____

10. Do you have? Check all that apply.

☐ Asthma ☐ Hay fever ☐ Food allergies ☐ Skin allergies ☐ Eye allergies

In the last three years:

- | | | |
|--|------------------------------|-----------------------------|
| 11. Have you ever gone to an emergency room for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Have you ever been admitted to the hospital for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Have you ever been admitted to an Intensive Care Unit for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 14. Have you ever been placed on a breathing machine for your asthma? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 15. Has asthma negatively impacted you physically? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 16. Has asthma negatively impacted you emotionally? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 17. Has asthma negatively impacted you socially? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 18. Has asthma negatively impacted you psychologically? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Do you agree with the following?

- | | | |
|---|------------------------------|-----------------------------|
| 19. When I walk or do simple chores, I have trouble breathing or I cough. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 20. When I perform heavier work, such as walking up hills and stairs or doing chores that involve lifting, I have trouble breathing or I cough. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 21. Sometimes I avoid exercising or taking part in sports (jogging, swimming, tennis, or aerobics) because I have trouble breathing or I cough. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 22. I have been unable to sleep through the night without coughing attacks or shortness of breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 23. Sometimes I cannot catch a good, deep breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 24. Sometimes I make wheezing sounds in my breath. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 25. Sometimes my chest feels tight. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 26. Sometimes I cough a lot. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 27. Dust, pollen and pets make my asthma worse. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 28. My asthma gets worse in cold weather. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

QUESTIONNAIRE
(For Minors)

ID Number: _____

29. My asthma gets worse when I am around tobacco smoke, fumes, and strong odors. ☐ Yes ☐ No
30. When I catch a cold, it often goes into my chest. ☐ Yes ☐ No
31. I made one or more emergency visits due to asthma or breathing problems last year. ☐ Yes ☐ No
32. I had one or more overnight hospitalizations due to asthma or breathing problems in the last year. ☐ Yes ☐ No
33. I feel like I use my asthma inhaler too often. ☐ Yes ☐ No
34. Sometimes I do not like the way my asthma medicine(s) make me feel. ☐ Yes ☐ No
35. My asthma medicine does not control my asthma. ☐ Yes ☐ No
36. My breathing problem or asthma controls my life more than I would like. ☐ Yes ☐ No
37. I feel tension or stress because of my breathing problems or asthma. ☐ Yes ☐ No
38. I worry that my breathing problem or asthma affects my health or may even shorten my life. ☐ Yes ☐ No
39. Are you on any daily medications for your asthma? ☐ Yes ☐ No

40. Are you on any of the following usual asthma therapies?

Check all that apply.

- ☐ Albuterol/Proventil/Ventolin/Foradil inhaler or nebulizer
- ☐ Advair inhaler ☐ Medrol ☐ Prednisone/Prednisolone
- ☐ Serevent inhaler ☐ Intal inhaler ☐ Theophylline
- ☐ Singulair ☐ Tilade inhaler ☐ Combivent inhaler
- ☐ Accolate ☐ Atrovent inhaler
- ☐ Pulmicort/Flovent/Azmacort/Qvar inhaler or nebulizer

41. How often are you satisfied with the care you receive for your asthma?

- ☐ Most of the time ☐ Sometimes ☐ Not often

QUESTIONNAIRE
(For Minors)

ID Number: _____

42. The following are **Other Forms of Therapy** which are sometimes used for asthma. Have you used **Other Forms of Therapy** for your asthma within the last year? Check all that apply.

Other Forms of Therapy for Asthma	Never	Once	More Than Once
Acupuncture			
Biofeedback			
Chiropractic Medicine			
Energy healing			
Folk medicine			
Homeopathy			
Hypnosis			
Imagery			

Other Forms of Therapy for Asthma	Never	Once	More Than Once
Massage			
Megavitamin therapy			
Prayer			
Relation techniques			
Santeria			
Spiritual healing			
Voudon (Voodoo)			
Yoga			

43. Did you use any **Other Forms of Therapy** not listed above for your asthma in the last year?

☐ Yes ☐ No

If so, what were they? _____

44. If you used **Other Forms of Therapy** for your asthma, how often were you satisfied?

☐ Almost always ☐ Some of the time ☐ Not often

45. To the best of your knowledge, has a family member (father, mother, uncle, aunt, cousin, brother, sister) used any **Other Forms of Therapy** to treat their own asthma or breathing problem before you did?

☐ Yes ☐ No

If so, who? _____

Which methods? _____

46. Who advised you to try **Other Forms of Therapy** for your asthma? (Check all that apply).

☐ Family member (father, mother, uncle, aunt, cousin, brother, sister)

☐ Friend

☐ Clergyman

☐ Pharmacist

☐ Doctor

QUESTIONNAIRE
(For Minors)

ID Number: _____

- ☐ Health food store employee
- ☐ Bodega employee
- ☐ TV, radio, magazine, newspaper
- ☐ Community leader
- ☐ Traditional healer
- ☐ Other (Please describe) _____

47. Have you advised anyone else to try **Other Forms of Therapy** for asthma or breathing problems?
- ☐ Yes ☐ No

48. The following people who are not medical doctors treat asthma with **Other Forms of Therapy**. Have you been treated by any of these **Other Asthma Treaters**?

Other Asthma Treaters	Never	Once	More Than Once
Acupuncturist			
Biofeedback specialist			
Chiropractor			
Crystal specialist			
Faith/Spiritual healer			
Herbal specialist			
Homeopathic specialist			
Hypnotist			
Magnet specialist			
Massage expert			
Nutritionist			
Yoga expert			
Other (specify below)			

49. If you used **Other Asthma Treaters** for your asthma, how often were you satisfied with their treatment? ☐ Almost always ☐ Some of the time ☐ Not often

QUESTIONNAIRE
(For Minors)

ID Number: _____

50. To the best of your knowledge, has a family member (father, mother, uncle, aunt, cousin, brother, sister) used any of the above **Other Asthma Treaters**? ☐ Yes ☐ No

If so, who? _____

Which **Other Asthma Treaters**? _____

51. Who advised you to try **Other Asthma Treaters**? Check all that apply.

- ☐ Family member (father, mother, uncle, aunt, cousin, brother, sister)
- ☐ Friend
- ☐ Clergyman
- ☐ Pharmacist
- ☐ Doctor
- ☐ Health-food store employee
- ☐ Bodega employee
- ☐ TV, radio, magazine, newspaper
- ☐ Community leader
- ☐ Traditional healer
- ☐ Other (Please describe) _____

52. How often have you found **Other Asthma Treaters** helpful in controlling your asthma?

- ☐ Almost always ☐ Some of the time ☐ Not often

53. Have you advised anyone else to try **Other Asthma Treaters**? ☐ Yes ☐ No

QUESTIONNAIRE
(For Minors)

ID Number: _____

54. Please indicate whether you agree, disagree, neither agree nor disagree, or do not use **Other Forms of Therapy** or **Other Asthma Treaters** by marking the appropriate box.

STATEMENT	AGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	DO NOT USE OTHER ASTHMA THERAPIES OR TREATERS.
Both Usual Forms of Therapy and Other Forms of Therapy are better for my asthma than using either one alone.				
Other Forms of Therapy are superior to Usual Forms of Therapy for my asthma.				
My Other Asthma Treater spends more time with me than does my Usual Asthma Doctor (medical physician).				
My Other Asthma Treater offers a more understandable and useful explanation of my asthma problems than my Usual Asthma Doctor (medical physician).				
My Other Asthma Treater is a better listener than my Usual Asthma Doctor (medical physician).				

The next two sections may not seem relevant to your asthma treatment but help us understand how you feel about and deal with problems. There are no correct or incorrect answers. Please be as honest as you can and answer according to your own feelings, not how you think you should answer.

55. How strongly do you agree or disagree with these statements?

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
There is really no way I can solve some of the problems I have.	1	2	3	4	5
Sometimes I feel that I am being pushed around in life.	1	2	3	4	5
I have little control over the things that happen to me.	1	2	3	4	5

QUESTIONNAIRE
(For Minors)

ID Number: _____

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
I can do about anything I really set my mind to.	1	2	3	4	5
I often feel helpless in dealing with the problems of life.	1	2	3	4	5
What happens to me in the future mostly depends on me.	1	2	3	4	5
There is little I can do to change many of the important things in my life.	1	2	3	4	5

56. How strongly do you agree or disagree with these statements about how you handle problems?

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
I divert attention away from the problems by thinking about other things or engaging in some activity.	1	2	3	4	5
I try to see the problem in a different light that makes it more bearable.	1	2	3	4	5
I think about solutions to the problem, gather information about it, or actually do something to try to solve it.	1	2	3	4	5
I express emotions in response to the problem to reduce tension, anxiety, or frustration.	1	2	3	4	5
I accept that the problem has occurred, but that nothing can be done about it.	1	2	3	4	5
I seek or find emotional support from loved ones, friends, or professionals.	1	2	3	4	5
I do something with the intention of relaxing.	1	2	3	4	5
I seek or find spiritual comfort and support.	1	2	3	4	5

The following questions focus on identifying some possible risk factors for asthma.

57. Do you have a carpet in your bedroom? ☐ Yes ☐ No
58. Do you have a feather (down) pillow or feather (down) comforter anywhere in your house or apartment? ☐ Yes ☐ No
59. Do you have an indoor pet cat? ☐ Yes ☐ No

QUESTIONNAIRE
(For Minors)

ID Number: _____

60. Do you have an indoor pet dog? ☐ Yes ☐ No
61. Do you have an indoor pet bird? ☐ Yes ☐ No
62. Are there any cockroaches in your house or apartment? ☐ Yes ☐ No
63. Do you find evidence of mice or rats in your house or apartment? ☐ Yes ☐ No
64. Are there obvious damp spots or mildew in your house or apartment? ☐ Yes ☐ No
65. ---
66. Do any of the people who live in your house or apartment smoke in the house or apartment? ☐ Yes ☐ No
67. Which religious group do you identify with?:
☐ Catholic ☐ Protestant ☐ Jewish ☐ Islam ☐ Buddhist ☐ Hindu
☐ Other _____ ☐ None
68. ---

Thank you for helping us understand your asthma and allergy treatment needs.

Appendix 4

CUESTIONARIO (Para Padres de Menores de Edad)

Núm. de Identificación: _____

INSTRUCCIONES: Favor de contestar todas las preguntas y marcar TODAS las cajas relevantes.

1. ¿Qué edad tiene su hijo(a)? _____
2. ¿Cuál es el sexo de él (ella)? Masculino ☐ Femenino ☐
3. Vive usted en ☐ una casa privada ☐ una unidad de 2 a 4 viviendas
☐ una unidad en un complejo de apartamentos o condominios (más de 4 viviendas)
4. Para ayudarnos a desarrollar un programa culturalmente sensible para el manejo del asma, favor de indicar la raza o etnicidad de su hijo(a). Marque todos los grupos relevantes.
☐ Hispano/Latino ☐ Haitiano (Creole) ☐ Moreno/Afro Americano ☐ Asiático
☐ Indígena/Indio ☐ Blanco ☐ Portugués
☐ Otro(s), identifíquelos _____
5. Si ustedes son Hispanos/Latínos, ¿de qué país es la familia de su hijo(a)? Marque todos los países relevantes.
☐ Cuba ☐ República Dominicana ☐ Perú ☐ México ☐ Puerto Rico
☐ Colombia ☐ Otro(s), identifíquelos _____
6. ¿Cuál es el último año de la escuela que ha completado su hijo(a)
☐ menos del 1^{er} grado ☐ 5^{er} grado o menos ☐ 10^{er} grado
☐ 1^{er} grado ☐ 5^{er} grado ☐ 11^{er} grado
☐ 2^{er} grado ☐ 7^{er} grado ☐ 12^{er} grado
☐ 3^{er} grado ☐ 8^{er} grado ☐ empezó la universidad
☐ 4^{er} grado ☐ 9^{er} grado
7. ---
8. El médico que normalmente le trata el asma a su hijo(a) trabaja en:
☐ una práctica privada ☐ una clínica ☐ una sala de emergencia
9. El médico que normalmente le trata el asma a su hijo(a) es:
☐ un internista ☐ un doctor de medicina familiar ☐ un especialista de asma ☐ un pediatra ☐ no sé
10. ¿Tiene su hijo(a)? Marque todos los relevantes.
☐ Asma ☐ Alergias a polen ☐ Alergias de alimentos ☐ Alergias de la piel ☐ Alergias de los ojos

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

En los últimos tres años:

- | | |
|--|---|
| 11. Debido al asma, ¿se ha ido su hijo(a) a una sala de emergencia? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 12. Debido al asma, ¿ha sido su hijo(a) admitido al hospital? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 13. Debido al asma, ¿ha sido su hijo(a) admitido a una unidad de cuidado intensivo? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 14. Debido al asma, ¿ha recibido su hijo(a) tratamiento de una máquina de respirar artificial? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 15. ¿Ha sido su hijo(a) afectado(a) físicamente por el asma? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 16. ¿Ha sido su hijo(a) afectado(a) emocionalmente por el asma? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 17. ¿Ha sido su hijo(a) afectado(a) socialmente por el asma? | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 18. ¿Ha sido su hijo(a) afectado(a) psicológicamente por el asma? | <input type="checkbox"/> Sí <input type="checkbox"/> No |

¿Está usted acuerdo con lo siguiente?

- | | |
|---|---|
| 19. Cuando su hijo(a) camina o hace tareas sencillas, le es difícil respirar o toser. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 20. Cuando su hijo(a) hace trabajos más fuertes, como subir una cuesta o unas escaleras o hace trabajos que incluyen alzar cosas, ha el/ella le es difícil respirar o toser. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 21. A veces su hijo(a) evita los ejercicios o no participa en deportes (como correr, nadar, jugar al tenis o hacer ejercicios aeróbicos) porque le es difícil respirar o toser mucho. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 22. Su hijo(a) no ha podido dormir la noche completa sin tener ataques de tos o estar corto de aliento. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 23. A veces su hijo(a) no puede tomar una buena respiración profunda. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 24. A veces su hijo(a) hace sonidos ruidosos cuando respira. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 25. A veces su hijo(a) siente el pecho apretado. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 26. A veces su hijo(a) tose mucho. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 27. El polvo, el polen y los animales le agravan el asma a su hijo(a). | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 28. A su hijo(a) el asma lo/la afecta más en tiempo de frío. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 29. El asma de su niño empeora cuando él/ella está alrededor de humo de tabaco, vapores, y olores fuertes. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 30. Cuando ha su niño(a) le da un resfriado, esto a menudo entra en su pecho. | <input type="checkbox"/> Sí <input type="checkbox"/> No |
| 31. En el último año su hijo(a) ha tenido que ir una o mas veces a la sala de emergencias debido al asma o otros problemas de respiración. | <input type="checkbox"/> Sí <input type="checkbox"/> No |

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

32. En el último año su hijo(a) ha estado hospitalizado(a) durante una o más noches, debido al asma o otros problemas de respiración. ☐ Sí ☐ No
33. Su hijo(a) cree que tiene que usar demasiado a menudo su inhalador. ☐ Sí ☐ No
34. A veces a su hijo(a) no lo/la gusta como la(s) medicina(s) de asma le hace(n) sentir. ☐ Sí ☐ No
35. A su hijo(a) la medicina para el asma no le controla el asma. ☐ Sí ☐ No
36. El problema de respiración de su niño(a) o el asma controlan su vida más de lo que ha usted gustaría. ☐ Sí ☐ No
37. Su hijo(a) siente tensión emocional debido a su problema de respiración o asma. ☐ Sí ☐ No
38. Su hijo(a) está preocupado(a) que su problema de respiración o asma le afecta la salud o le puede hasta acortar la vida. ☐ Sí ☐ No
39. ¿Toma su hijo(a) medicamentos todos los días para su asma? ☐ Sí ☐ No
40. ¿Utiliza su hijo(a) alguna(s) de las siguientes terapias comunes para su asma?

Marque todas que usted utiliza.

- | | | |
|---|---|--|
| <input type="checkbox"/> Inhalador o nebulizador Albuterol/Proventil/Ventolin/Foradil | | |
| <input type="checkbox"/> Inhalador Advair | <input type="checkbox"/> Medrol | <input type="checkbox"/> Prednisone/Prednisolone |
| <input type="checkbox"/> Inhalador Serevent | <input type="checkbox"/> Inhalador Intal | <input type="checkbox"/> Theophylline |
| <input type="checkbox"/> Singulair | <input type="checkbox"/> Inhalador Tilade | <input type="checkbox"/> Inhalador Combivent |
| <input type="checkbox"/> Accolate | <input type="checkbox"/> Inhalador Atrovent | |
| <input type="checkbox"/> Inhalador o nebulizador Pulmicort/Flovent/Azmacort/Qvar | | |

41. ¿Cuán a menudo está satisfecho(a) su hijo(a) con el tratamiento que recibe para su asma?
- ☐ La mayoría del tiempo ☐ A veces ☐ Pocas veces

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

42. A continuación están **Otros Modos de Terapia** que se usan a veces para el asma. ¿Ha recibido su hijo(a) **Otros Modos de Terapia** para su asma en el último año? Marque todos los que ha recibido.

Otros Modos de Terapia para el Asma	Nunca	Una Vez	Más de Una Vez	Otros Modos de Terapia para el Asma	Nunca	Una Vez	Más de Una Vez
Acupuntura				Masaje			
Biofeedback				Terapia de Megavitaminas			
Quiropráctica				Oración			
Sanación Energética				Técnicas de Relación			
Medicina folklórica				Santería			
Homeopatía				Sanación Espiritual			
Hipnosis				Vodú (Voodoo)			
Visualización				Yoga			

43. ¿En el último año, recibió su hijo(a) **Otros Modos de Terapia** que no está en la lista para su asma?

☐ Sí ☐ No

Si indicó "Sí" ¿Qué otras terapias recibió? _____

44. Si recibió **Otros Modos de Terapia** para su asma, ¿cuán a menudo estuvo su hijo(a) satisfecho?

☐ Casi Siempre ☐ A Veces ☐ Pocas veces

45. En lo mejor de su conocimiento, ¿ha usado un miembro de su familia (padre, madre, tío(a), primo(a), hermano(a)), algún

Otro Modo de Terapia para tratarse el asma o problema de respiración antes de que se lo hiciera a su hijo(a)? ☐ Sí ☐ No

Si indicó "Sí" ¿Quién(es) fue(ron)? _____

¿Qué terapias usó(aron)? _____

46. ¿Quién recomendó que usara **Otro Modo de Terapia** para el asma de su hijo(a)? Marque todas que son válidas.

- ☐ Familiar (padre, madre, tío(a), primo(a), hermano(a))
- ☐ Amigo(a)
- ☐ Clérigo
- ☐ Farmacólogo
- ☐ Médico
- ☐ Empleado de un Centro Dietético (Health food)
- ☐ Empleado de una bodega

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

- ☐ Televisión, radio, revista, periódico
- ☐ Líder Comunitario
- ☐ Sanador Tradicional
- ☐ Otro (Describa por favor) _____

47. ¿Le ha recomendado usted a otra persona que use **Otro Modo de Terapia** para el asma o problemas de respiración?

☐ Sí ☐ No

48. Las siguientes personas que no son médicos tratan el asma con **Otros Modos de Terapia**. ¿Ha recibido su hijo(a) tratamiento de alguno de estos **Otros Sanadores de Asma**?

Otros Sanadores de Asma	Nunca	Una Vez	Más de Una Vez
Acupunturista			
Especialista de Biofeedback			
Quiropráctico			
Especialista que usa piedras cristales			
Sanador Espiritual			
Especialista de Yervas Medicinales			
Especialista de Homeopatía			
Hipnotista			
Especialista de Terapia Magnética			
Masajista			
Nutricionista			
Maestro de Yoga			
Otros (especifique abajo)			

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

49. Si su hijo(a) usó **Otros Sanadores de Asma** para su asma, ¿cuán a menudo estuvo satisfecho con el tratamiento?

- ☐ Casi siempre ☐ A veces ☐ Pocas veces

50. ¿En lo mejor de su conocimiento, ha usado un miembro de su familia (padre, madre, tío(a), primo(a), hermano(a)) algún **Otro Sanador de Asma**? ☐ Sí ☐ No

En caso de "Sí", ¿quién fue el familiar? _____

¿Qué **Otro Sanador de Asma** usó? _____

51. ¿Quién recomendó que usaran **Otro Sanador de Asma** para su asma? Marque todas que son válidas.

- ☐ Familiar (padre, madre, tío(a), primo(a), hermano(a))
- ☐ Amigo(a)
- ☐ Clérigo
- ☐ Farmacólogo
- ☐ Médico
- ☐ Empleado de un Centro Dietético (Health food)
- ☐ Empleado de una Bodega
- ☐ Televisión, radio, revista, periódico
- ☐ Líder Comunitario
- ☐ Sanador Tradicional
- ☐ Otro (Describa por favor) _____

52. ¿Cuán a menudo encuentra que los **Otros Sanadores de Asma** ayudan a controlar el asma de su hijo(a)?

- ☐ Casi siempre ☐ A veces ☐ Pocas Veces

53. ¿Le ha recomendado usted a otra persona que use **Otro Sanador de Asma**? ☐ Sí ☐ No

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

54. Favor de marcar las cajas indicadas si usted está de acuerdo; no de acuerdo; ni de acuerdo ni en oposición o si usted no usa **Otros Modos de Terapia** ni **Otros Sanadores de Asma**.

DECLARACION	ESTOY DE ACUERDO	NO ESTOY DE ACUERDO	NI ESTOY DE ACUERDO NI ESTOY EN OPOSICION	NO USO OTROS MODOS DE TERAPIA NI OTROS SANADORES DE ASMA
Juntos, las Terapias Comunes y los Otros Modos de Terapia le controlan mejor el asma a mi hijo(a), que cada uno individualmente.				
Los Otros Modos de Terapia son mas superiores que las Terapias Comunes para controlar el asma de mi hijo(a).				
El Otro Sanador de Asma de mi hijo(a) me da más tiempo que el Médico que le Trata el Asma ha mi Hijo(a) Normalmente .				
El Otro Sanador de Asma me da explicaciones más comprensibles y más útiles que el Médico que le Trata el Asma ha mi Hijo(a) Normalmente .				
El Otro Sanador de Asma sabe escucharme mejor que el Médico que le Trata el Asma ha mi Hijo(a) Normalmente .				

Las próximas dos secciones pueden parecer de poca relevancia al tratamiento del asma de su hijo(a) pero nos ayudan a comprender cómo se siente usted y cómo enfrenta los problemas. No hay respuestas correctas o incorrectas. Por favor, responda usted honestamente de acuerdo a los sentimientos de su hijo(a) y no necesariamente de la forma que usted piensa que usted debe responder.

55. ¿Con qué intensidad está usted de acuerdo o no de acuerdo con las siguientes declaraciones?

DECLARACION	MUY DE ACUERDO	DE ACUERDO	NEUTRAL	NO DE ACUERDO	NADA DE ACUERDO
No hay ninguna forma que mi hijo(a) resuelva algunos de los problemas que tiene.	1	2	3	4	5
A veces mi hijo(a) se siente que la vida hace con el(ella) como le da la gana.	1	2	3	4	5
Mi hijo(a) tiene muy poco control sobre las cosas que le pasan.	1	2	3	4	5
Mi hijo(a) puede hacer casi cualquier cosa si se fija la mente.	1	2	3	4	5
Muchas veces mi hijo(a) se siente impotente cuando tiene que enfrentar los problemas de su vida.	1	2	3	4	5
Lo que le pasa a mi hijo en el futuro depende principalmente de mi hijo(a).	1	2	3	4	5
Hay muy poco que mi hijo(a) puede hacer para cambiar muchas de las cosas importantes de su vida.	1	2	3	4	5

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

56. ¿Con qué intensidad está usted de acuerdo o no de acuerdo con las siguientes declaraciones sobre cómo su hijo(a) enfrenta los problemas?

DECLARACION	MUY DE ACUERDO	DE ACUERDO	NEUTRAL	NO DE ACUERDO	NADA DE ACUERDO
Mi hijo(a) piensa en otras cosas o se envuelve en otra actividad para distraerme.	1	2	3	4	5
Mi hijo(a) trata de entender el problema de otra perspectiva para poderlo soportarlo mejor.	1	2	3	4	5
Mi hijo(a) piensa en las soluciones del problema, busca información y hace algo para resolver el asunto.	1	2	3	4	5
Mi hijo(a) se expresa emocionalmente sobre el problema para reducir la tensión, la ansiedad o la frustración.	1	2	3	4	5
Mi hijo(a) acepta que el problema ha ocurrido pero que no puede hacer nada en cuanto al problema.	1	2	3	4	5
Mi hijo(a) busca apoyo emocional de los seres queridos, de los familiares o de los profesionales.	1	2	3	4	5
Mi hijo(a) hace algo con la intención de relajarse.	1	2	3	4	5
Mi hijo(a) busca sostén y apoyo espiritual.	1	2	3	4	5

Las siguientes preguntas se enfocan en identificación de algunos factores de riesgo para el asma.

57. ¿Tiene su hijo(a) una alfombra en su dormitorio? ☐ Sí ☐ No
58. ¿Tiene su hijo(a) una almohada o un cubierto de plumas en alguna parte de su casa o apartamento? ☐ Sí ☐ No
59. ¿Tiene su hijo un gato doméstico que vive dentro de la casa? ☐ Sí ☐ No
60. ¿Tiene su hijo un perro doméstico que vive dentro de la casa? ☐ Sí ☐ No
61. ¿Tiene su hijo un pájaro doméstico que vive dentro de la casa? ☐ Sí ☐ No
62. ¿Hay cucarachas en la casa o el apartamento de su hijo(a)? ☐ Sí ☐ No
63. ¿Se encuentra evidencia de ratas o ratones en la casa o el apartamento de su hijo(a)? ☐ Sí ☐ No
64. ¿Hay lugares obviamente húmedos o molde en la casa? ☐ Sí ☐ No
65. ---

CUESTIONARIO
(Para Padres de Menores de Edad)

Núm. de Identificación: _____

66. ¿Fuma alguna persona que vive en la casa o apartamento de su hijo(a) dentro de la casa o apartamento?

☐ Sí

☐ No

67. ¿Con qué grupo religioso se identifica su hijo(a):

☐ Católico

☐ Protestante

☐ Judío

☐ Islam

☐ Budista

☐ Hindú

☐ Otro _____

☐ Ninguno

Gracias por ayudarnos a comprender mejor lo que su hijo(a) necesita para controlar su asma o sus alergias.

Appendix 5



**NEW JERSEY
MEDICAL SCHOOL**
University of Medicine & Dentistry of New Jersey

Department of Medicine
Division of Allergy & Immunology

CONSENT TO TAKE PART IN A RESEARCH STUDY

Dear Patient:

The Department of Allergy at UMDNJ, Newark is a leading academic center for the investigation and treatment of asthma. We are conducting a study to learn more about the complementary and alternative practices that people use to treat their allergies and asthma or their child's allergies and asthma. This study will help physicians better understand the uses of these treatments, and how they can be combined with the standard medical treatments they prescribe.

Your participation in this research is voluntary. If you are a patient and you do not wish to participate, it will in no way effect you or your child's medical treatment. If you do participate, you will be paid \$5 for the 15 to 20 minutes it will take you to complete the attached survey.

Your answers to the survey questions are confidential, that is, they will be put into a data set that will not contain your or your child's name, address, medical record number, or other personal identifiers. Your responses will be added to those of other participants and the information will be statistically analyzed. If you are a patient, the results of the statistical analysis will be reported back to your physician, but your individual information will not. If you are a patient and you wish to have a copy of the survey entered into your medical chart so that your physician can review it, you must indicate this at the end of this letter.

If you have questions about this research or wish to have a copy of the results of the survey when the research is completed, you may contact Dr. Leonard Bielory at The UMDNJ Asthma & Allergy Research Center at 973-972-2762 or Dr. Jay Blum at 732-846-7861. If you have any questions about your rights as a research subject, you can call:

Chair, Institutional Review Board
(973) 972-3608

and/or

IRB Director
(973) 972-0898

Thank you for considering participating in this important research.

Sincerely,

Jay Richard Blum, M.D.

THE USE OF COMPLEMENTARY & ALTERNATIVE TREATMENTS

You agree to participate in the research on complementary and alternative practices for allergies and asthma. You understand that you will be compensated \$5 for your participation in the survey and that your answers will be kept confidential.

Signature _____ Date _____

Please check one if you are a patient:

- ☐ You wish to have the completed survey entered into your medical chart.
- ☐ You do not wish to have the completed survey entered into your medical chart.

Dr. Leonard Bielory - Principal Investigator
Disparities in Outcome from CAM Treatment of Asthma (DOCTA)
Version One: May 6, 2008

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(consent)

Page 1

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Phone: 973-972-2762 • Fax: 973-972-2769 • Web Site: www.umdj.edu

The University is an affirmative action/equal opportunity employer

CONSENT TO TAKE PART IN A RESEARCH STUDY**TITLE OF STUDY: The Use of Complementary & Alternative Treatments for Asthma**

This consent form is part of an informed consent process for a research study and it will give information that will help you to decide whether you wish to volunteer for this research study. It will help you to understand what the study is about and what will happen in the course of the study.

If you have questions at any time during the research study, you should feel free to ask them and should expect to be given answers that you completely understand.

After all of your questions have been answered, if you still wish to take part in the study, you will be asked to sign this informed consent form.

The study doctor or another member of the study team will also be asked to sign this informed consent. You will be given a copy of the signed consent form to keep.

You should understand that you are not giving up any of your legal rights by volunteering for this research study or by signing this consent form.

Why is this study being done?

This study will determine differences in the use of Complementary and Alternative Treatments by different ethnic groups.

Why have you been asked to take part in this study?

You reside in the greater Newark area.

Who may take part in this study? And who may not?

Individuals between the age of 12 and 80 years old who are literate with English or Spanish and who can complete the survey form.

How long will the study take and how many subjects will participate?

1 year and 200 people.

What will you be asked to do if you take part in this research study?

Completion of a questionnaire.

What are the risks and/or discomforts you might experience if you take part in this study?

Answering a particular question might prove discomforting.

Are there any benefits for you if you choose to take part in this research study?

If you are a patient, you will be able to request that your questionnaire response be forwarded to your physician for inclusion on your medical file. There will be a \$5.00 payment for services for a completed questionnaire.

What are your alternatives if you don't want to take part in this study?

Not to participate in the study.

How will you know if new information is learned that may affect whether you are willing to stay in this research study?

N/A

Who will be allowed to look at your research records from this study?

In addition to key members of the research team, the following people will be allowed to inspect parts of your medical record and your research records related to this study:

The Institutional Review Board (a committee that reviews research studies)

Officials of the University of Medicine and Dentistry of New Jersey

The Department of Health and Human Services, Office for Human Research Protections (OHRP) (a regulatory agency that oversees human subject research)

By taking part of this study, you should understand that the study collects demographic data and data on your health. This data will be recorded by the study doctor/investigator who may store and process your data with electronic data processing systems. The data will be kept as long as the study is being conducted and for 7 years.

Dr. Leonard Bielory - Principal Investigator
Disparities in Outcome from CAM Treatment of Asthma (DOCTA)
Version One: May 8, 2008

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(Consent)

Your personal identity, that is your name, address, and other identifiers, will be kept confidential. You will have a code number and your actual name will not be used. Only your study doctor will be able to link the code number to your name and will keep this information for 7 years.

Your data may be used in scientific publications. If the findings from the study are published, you will not be identified by name. Your identity will be kept confidential. The exception to this rule will be when there is a court order or when a law exists requiring the study doctor to report communicable diseases. In this case, you will be informed of the intent to disclose this information to the state agency. Such a law exists in New Jersey for diseases such as cancer, infectious diseases such as hepatitis, HIV, viruses and many others.

The study doctor/investigator will be allowed to examine the data in order to analyze the information obtained from this study, and for general health research.

If you do not sign this approval form, you will not be able to take part in this research study.

You can change your mind and revoke this approval at any time. If you change your mind, you must revoke your approval in writing. Beginning on the date that you revoke your approval, no new personal health information will be used for research. However, the study doctor/investigator may continue to use the health information that was provided before you withdrew your approval.

You have the right to look at your study data at your study doctor's office and to ask for corrections of any of your data that is wrong.

Will there be any cost to me to take part in this study?

No.

Will you be paid to take part in this study?

Upon completion of the questionnaire, you will be paid \$5.00 for your time and effort.

What will happen if you do not wish to take part in the study or if you later decide not to stay in the study?

You understand that you may choose not to be in the study. If you do choose to take part it is voluntary. You may refuse to take part or may change your mind at any time.

If you do not want to enter the study or decide to pull out of the study, your relationship with the study staff will not change, and you may do so without penalty and without loss of benefits to which you are otherwise entitled.

Participation is over upon completion of the survey.

Who can you call if you have any questions?

If you have any questions about taking part in this study, you can call:

Jay Blum, M.D. at (732) 846-7861

If you have any questions about your rights as a research subject, you can call:

Chair, Institutional Review Board and/or
(973) 972-3608

IRB Director
(973) 972-0898

What are your rights if you decide to take part in this research study?

You understand that you have the right to ask questions about any part of the study at any time. You should understand that you should not sign this form unless you have had a chance to ask questions and have been given answers to all of your questions.

You have read this entire form, or it has been read to me, and you believe that you understand what has been discussed. All of your questions about this form and this study have been answered.

You agree to take part in this research study.

Subject Name: _____

Subject Signature: _____ Date: _____

Signature of Reader/Translator If the Subject Does Not Read English Well:

The person who has signed above, _____, does not read English well. You read English well and am fluent in _____ (*name of the language*), a language that the subject (his/her parent(s)/legal guardian) understands well. You understand the content of this consent form and you have translated for the subject (his/her parent(s)/legal guardian) the entire content of this form. To the best of your knowledge, the subject (his/her parent(s)/legal guardian) understands the content of this form and has had an opportunity to ask questions regarding the consent form and the study, and these questions have been answered (his/her parent(s)/legal guardian).

Reader/Translator Name: _____

Reader/Translator Signature: _____ Date: _____

Witness Name: _____

Witness Signature: _____ Date: _____

Signature of Investigator or Responsible Individual:

To the best of your ability, you have explained and discussed the full contents of the study, including all of the information contained in this consent form. All questions of the research subjects and those of his /her parent(s) or legal guardian have been accurately answered.

Investigator/Person Obtaining Consent: _____

Signature: _____ Date: _____

Appendix 6



**NEW JERSEY
MEDICAL SCHOOL**
University of Medicine & Dentistry of New Jersey

Department of Medicine
Division of Allergy & Immunology

CONSENT FOR CHILD TO TAKE PART IN A RESEARCH STUDY

Dear Parent or Guardian:

The Department of Allergy at UMDNJ, Newark is a leading academic center for the investigation and treatment of asthma. We are conducting a study to learn more about the complementary and alternative practices that people use to treat their allergies and asthma or their child's allergies and asthma. This study will help physicians better understand the uses of these treatments, and how they can be combined with the standard medical treatments they prescribe.

Participation in this research is voluntary. If you are a patient and you do not wish to participate, it will in no way effect you or your child's medical treatment. If you do participate, you will be paid \$5 for the 15 to 20 minutes it will take you to complete the attached survey.

Your answers to the survey questions are confidential, that is, they will be put into a data set that will not contain your or your child's name, address, medical record number, or other personal identifiers. Your responses will be added to those of other participants and the information will be statistically analyzed. If you are a patient, the results of the statistical analysis will be reported back to your child's physician, but your child's individual information will not. If you are a patient and you wish to have a copy of the survey entered into your child's medical chart so that your child's physician can review it, you must indicate this at the end of this letter.

If you have questions about this research or wish to have a copy of the results of the survey when the research is completed, you may contact Dr. Leonard Bielory at The UMDNJ Asthma & Allergy Research Center at 973-972-2762 or Dr. Jay Blum at 732-846-7861. If you have any questions about your rights as a research subject, you can call:

Chair, Institutional Review Board
(973) 972-3608

And/or

IRE Director
(973) 972-0898

Thank you for considering participating in this important research.

Sincerely,

Jay Richard Blum,
M.D.

THE USE OF COMPLEMENTARY & ALTERNATIVE TREATMENTS FOR ASTHMA

You agree to your child's participation in the research on complementary and alternative practices for allergies and asthma. You understand that you will be compensated \$5 for your participation in the survey and that your answers will be kept confidential. Your child's name is _____

Signature _____ Date _____

Please check one if you are a patient:

- ☐ You wish to have the completed survey entered into your child's medical chart.
- ☐ You do not wish to have the completed survey entered into your child's medical chart.

Dr. Leonard Bielory - Principal Investigator
Disparities in Outcome from CAM Treatment of Asthma (DOCTA)
Version One: May 6, 2008

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(Consent for child)

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**NEW JERSEY
MEDICAL SCHOOL**
University of Medicine & Dentistry of New Jersey

Department of Medicine
Division of Allergy & Immunology

CONSENT FOR CHILD TO TAKE PART IN A RESEARCH STUDY

TITLE OF STUDY: The Use of Complementary & Alternative Treatments for Asthma

This consent form is part of an informed consent process for a research study and it will give information that will help you to decide whether you wish to volunteer for this research study. It will help you to understand what the study is about and what will happen in the course of the study.

If you have questions at any time during the research study, you should feel free to ask them and should expect to be given answers that you completely understand.

After all of your questions have been answered, if you still wish to take part in the study, you will be asked to sign this informed consent form.

The study doctor or another member of the study team will also be asked to sign this informed consent. You will be given a copy of the signed consent form to keep.

You should understand that you are not giving up any of your child's legal rights by volunteering for this research study or by signing this consent form.

Why is this study being done?

This study will determine differences in the use of Complementary and Alternative Treatments by different ethnic groups.

Why have you been asked to take part in this study?

Your child resides in the greater Newark area.

Who may take part in this study? And who may not?

Individuals between the age of 12 and 80 years old who are literate with English or Spanish and who can complete the survey form.

How long will the study take and how many subjects will participate?

1 year and 200 people.

Dr. Leonard Bielory - Principal Investigator
Disparities in Outcome from CAM Treatment of Asthma (DOCT A)
Version One: May 6, 2008

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(Consent for Child)

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What will your child be asked to do if your child takes part in this research study?

Completion of a questionnaire. What are the risks and/or discomforts your child might experience if you take part in this study?

Answering a particular question might prove discomforting.

Are there any benefits for you if you choose for your child to take part in this research study?

You will be able to request that your child's questionnaire response be forwarded to your child's physician for inclusion on your child's medical file. There will be a \$5.00 payment for services for a completed questionnaire.

What are your alternatives if you don't want to take part in this study?

Not to participate in the study.

How will you know if new information is learned that may affect whether you are willing to stay in this research study?

N/A

Who will be allowed to look at your child's research records from this study?

In addition to key members of the research team, the following people will be allowed to inspect parts of your child's medical record and your child's research records related to this study:

The Institutional Review Board (a committee that reviews research studies)
 Officials of the University of Medicine and Dentistry of New Jersey
 The Department of Health and Human Services, Office for Human Research Protections (OHRP) (a regulatory agency that oversees human subject research)

By taking part of this study, you should understand that the study collects demographic data and data on your child's health. This data will be recorded by the study doctor/investigator who may store and process your child's data with electronic data processing systems. The data will be kept as long as the study is being conducted and for 7 years.

Your child's personal identity, that is your child's name, address, and other identifiers, will be kept confidential. Your child will have a code number and your child's actual name will not be used. Only your child's study doctor will be able to link the code number to your child's name and will keep this information for 7 years.

Your child's data may be used in scientific publications. If the findings from the study are published, you will not be identified by name. Your child's identity will be kept confidential. The exception to this rule will be when there is a court order or when a law exists requiring the study doctor to report communicable

diseases. In this case, you will be informed of the intent to disclose this information to the state agency. Such a law exists in New Jersey for diseases such as cancer, infectious diseases such as hepatitis, HIV, viruses and many others.

The study doctor/investigator will be allowed to examine the data in order to analyze the information obtained from this study, and for general health research.

If you do not sign this approval form, your child will not be able to take part in this research study.

You can change your mind and revoke this approval at any time. If you change your mind, you must revoke your approval in writing. Beginning on the date that you revoke your approval, no new personal health information will be used for research. However, the study doctor/investigator may continue to use the health information that was provided before you withdrew your approval.

You have the right to look at your child's study data at your study doctor's office and to ask for corrections of any of your child's data that is wrong.

Will there be any cost to me to take part in this study?

No.

Will you be paid to take part in this study?

Upon completion of the questionnaire, you will be paid \$5.00 for your time and effort.

What will happen if you do not wish for your child to take part in the study or if you later decide not to stay in the study?

You understand that you may choose not to be in the study. If you do choose to take part it is voluntary. You may refuse to take part or may change your mind at any time. If you do not want to enter the study or decide to pull out of the study, your relationship with the study staff will not change, and you may do so without penalty and without loss of benefits to which you are otherwise entitled.

Participation is over upon completion of the survey.

Who can you call if you have any questions?

If you have any questions about taking part in this study, you can call:

Jay Blum, M.D.
732-846-7861

If you have any questions about your child's rights as a research subject, you can call:

Chair, Institutional Review Board
(973) 972-3608

and/or

IRB Director
(973) 972-0898

What are your rights if you decide for your child to take part in this research study?

You understand that you have the right to ask questions about any part of the study at any time. You should understand that you should not sign this form unless you have had a chance to ask questions and have been given answers to all of your questions.

You have read this entire form, or it has been read to me, and you believe that you understand what has been discussed. All of your questions about this form and this study have been answered.

You agree to take part in this research study.

Subject Name: _____

Subject Signature: _____ Date: _____

Signature of Reader/Translator If the Subject Does Not Read English Well:

The person who has signed above, _____, does not read English well. You read English well and am fluent in _____ (*name of the language*), a language that the subject (his/her parent(s)/legal guardian) understands well. You understand the content of this consent form and you have translated for the subject (his/her parent(s)/legal guardian) the entire content of this form. To the best of your knowledge, the subject (his/her parent(s)/legal guardian) understands the content of this form and has had an opportunity to ask questions regarding the consent form and the study, and these questions have been answered (his/her parent(s)/legal guardian).

Reader/Translator Name: _____

Reader/Translator Signature: _____ Date: _____

Witness Name: _____

Witness Signature: _____ Date: _____

Signature of investigator or Responsible Individual:

To the best of your ability, you have explained and discussed the full contents of the study, including all of the information contained in this consent form. All questions of the research subjects and those of his /her parent(s) or legal guardian have been accurately answered.

Investigator/Person Obtaining Consent: _____

Signature: _____ Date: _____

Appendix 7



**NEW JERSEY
MEDICAL SCHOOL**
University of Medicine & Dentistry of New Jersey

Department of Medicine
Division of Allergy & Immunology

ASSENT TO TAKE PART IN A RESEARCH STUDY

THE USE OF COMPLEMENTARY & ALTERNATIVE TREATMENTS FOR ASTHMA

I agree to participate in the research on complementary and alternative practices for allergies and asthma. I understand that I will be compensated \$5 for my participation in the survey and that my answers will be kept confidential.

Signature _____ Date _____

Please check one if you are a patient:

- ☐ I wish to have the completed survey put into my medical chart.
- ☐ I do not wish to have the completed survey put into my medical chart.

If you have any questions about your rights as a research subject you can call:

Chair, Institutional Review Board
(973) 972-3608

and/or

IRB Director
(973) 972-0898

Dr. Leonard Bielory - Principal Investigator
Disparities in Outcome from CAM Treatment of Asthma (DOCT A)
Version One: May 6, 2008

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(Assent)

ASSENT TO TAKE PART IN A RESEARCH STUDY**TITLE OF STUDY: The Use of Complementary & Alternative Treatments for Asthma**

You are being asked to agree to be part of a study to learn more about Asthma.

Why is this study being done?

To understand different types of treatment for asthma.

What will I be asked to do if I take part in this research study?

Answer questions. You can refuse to answer if you are uncomfortable.

What are the risks and/or discomforts I might experience if I take part in this study?

Answering a particular question might prove discomforting.

Are there any benefits for me if I choose to take part in this research study?

If you are a patient, you will be able to request that your answers be included as part of your medical record. There will be a \$5.00 payment for services for a completed questionnaire.

What are your alternatives if you don't want to take part in this study?

Not to participate in the study.

Who will be allowed to look at your research records from this study?

The study doctors/investigator will be allowed to look at your answers in order to analyze the information obtained from this study, and for general health research.

If you do not agree to sign this approval form, you will not be able to take part in this research study.

You can change your mind and take away your approval at any time as long as you do so in writing. However, the study doctor /investigator may continue to use answers you previously gave. I have the right to look at my answers at my study doctor's office and to ask for corrections of any of my data that is wrong

Will there be any cost to me to take part in this study?

No.

Will I be paid to take part in this study?

Individuals who complete the questionnaire will be given \$5.00 for services rendered.

What will happen if I do not wish to take part in the study or if I later decide not to stay in the study?

I understand that I may choose not to be in the study. I may refuse to take part or may change my mind at any time.

If you do not want to be part of the study or decide to pull out of the study, your relationship with the study staff will not change, and you may do so without penalty.

Participation is over upon completion of the survey questions.

Can I ask questions?

Yes, the doctor will answer any questions you have about being in the study before you begin.

If you have any questions about your rights as a research subject, you can call:

Chair, Institutional Review Board	and/or	IRB Director
(973) 972-3608		(973) 972-0898

What are my rights if I decide to take part in this research study?

I understand that I have the right to ask questions about any part of the study at any time. I understand that I should not sign this form unless I have had a chance to ask questions and have been given answers to all of my questions.

I have read this entire form, or it has been read to me, and I believe that I understand what has been discussed. All of my questions about this form and this study have been answered.

I agree to take part in this research study.

Subject Name: _____

Subject Signature: _____ Date: _____

Signature of Reader/Translator if the Subject Does Not Read English Well:

The person who has signed above, _____, does not read English well. I read English well and am fluent in _____ (*name of the language*), a language that the subject (his/her parent(s)/legal guardian) understands well. I understand the content of this consent form and I have translated for the subject (his/her parent(s)/legal guardian) the entire content of this form. To the best of my knowledge, the subject (his/her parent(s)/legal guardian) understands the content of this form and has had an opportunity to ask questions regarding the consent form and the study, and these questions have been answered (his/her parent(s)/legal guardian).

Reader/Translator Name: _____

Reader/Translator Signature: _____ Date: _____

Witness Name: _____

Witness Signature: _____ Date: _____

Signature of Investigator or Responsible Individual:

To the best of my ability, I have explained and discussed the full contents of the study, including all of the information contained in this consent form. All questions of the research subjects and those of his/her parent(s) or legal guardian have been accurately answered.

Investigator/Person Obtaining Consent: _____

Signature: _____ Date: _____

Appendix 8



**NEW JERSEY
MEDICAL SCHOOL**
University of Medicine & Dentistry of New Jersey

Department of Medicine
Division of Allergy & Immunology

CONSENTIMIENTO PARA PARTICIPAR EN UN ESTUDIO CIENTIFICO

Querido Paciente:

El Departamento de Alergia en UMDNJ localizado en Newark es un centro academico principal para la investigacion y el tratamiento del asma. Nosotros estamos conduciendo un estudio para aprender mas sobre las practicas complementarias y alternativas que la gente suele usar para tratar sus alergias y asma o las alergias de su niño y asma. Este estudio ayudara a los doctores a entender mejor los usos de estos tratamientos, y como estos tratamientos pueden ser combinados con los tratamientos médicos que ellos prescriben.

La participación en este estudio es voluntaria. Si usted participa usted recibirá 5 dolares en efectivo por los 15 a 20 minutos que le tomara para completar el cuestionario incluido.

Sus respuestas en el cuestionario alas preguntas son confidenciales, es decir, que las respuestas serán puestas en una base de datos que no contendrá su nombre o el nombre de su niño(a), dirección, numero medico de registro, u otros identificadores personales. Sus respuestas serán integradas a aquellas de otros participantes y la información será analizada. Si usted es un paciente, los resultados del análisis estadístico de todo el grupo de participantes serán reportados a su medico, pero la información individual no va a ser reportada. Si usted es un paciente y usted desea tener una copia del cuestionario en su expediente medico para que su medico pueda examinarlo, usted debe indicarlo al final de esta carta.

Si usted tiene preguntas sobre este estudio o desea tener una copia de los resultados del cuestionario cuando el estudio sea completado, usted puede ponerse en contacto con el doctor Leonard Bielory en el Centro de Investigacion de Alergia y Asma en UMDNJ al 973-972-27620 con el doctor Jay Blum al 732-846-7861. Si usted tiene alguna pregunta sobre sus derechos como participante en este estudio, usted puede llamar a:

Presidenta, Comité Examinador Institucional y/o
(973) 972-3608

Director de IRB
(973) 972-3608

Gracias por su consideración en participar en este importante estudio.

Sinceramente,

Jay Richard Blum, M.D.

EL USO DE TRATAMIENTOS COMPLEMENTARIOS Y ALTERNATIVOS

Usted esta de acuerdo de participar en este estudio científico sobre practicas complementarias y alternativas para las alergias y el asma. Usted entiende que usted será compensado 5 dólares en efectivo por su participación en el cuestionario y que sus respuestas serán guardadas confidencialmente.

Firma _____ Fecha _____

Por favor marque si usted es un paciente:

- ☐ Usted desea que el cuestionario completo sea incluido en el expediente medico de su niño(a).
- ☐ Usted no desea que el cuestionario completo sea incluido en el expediente medico de su niño(a).

Versión - Uno:
May 6, 2008

Página 1 de 5

Doctors Office Center • 90 Bergen Street, Suite 4700 • PO Box 1709, Newark, NJ 07101-1709
Phone: 973-972-2762 • Fax: 973-972-2769 • Web Site: www.umdj.edu

The University is an affirmative action/equal opportunity employer

CONSENTIMIENTO DE PARTICIPAR EN UN ESTUDIO DE CIENTÍFICO

TÍTULO DE ESTUDIO: El Uso de Tratamientos Complementarios y Alternativos para el Asma

Este consentimiento es parte de un proceso de consentimiento informado para un estudio científico y este documento le dará la información que le ayudará a decidirse si usted desea participar como voluntario(a) en este estudio científico. Esto le ayudará a entender sobre de lo qué se trata el estudio y lo que sucederá durante el estudio.

Si usted tiene preguntas en cualquier momento durante el estudio científico, usted debería sentirse libre de hacer las preguntas y debería esperar recibir las respuestas de una manera que usted entienda completamente.

Después de que todas sus preguntas hayan sido contestadas, si usted todavía desea participar en el estudio, le pedirán firmar este documento de consentimiento informado.

También se le pedirá al doctor del estudio u otro miembro del equipo de estudio firmar este documento de consentimiento. Usted recibirá una copia del documento para sus archivos personales.

Usted debe comprender que usted no está renunciando a ninguno de sus derechos legales si usted deciden participar como voluntario(a) en este estudio científico o si usted firma este documento de consentimiento.

¿Por qué se está haciendo este estudio?

Este estudio determinará diferencias en el uso de Tratamientos Complementarios y Alternativos por diferentes grupos étnicos.

¿Por qué le han pedido que usted participe en este estudio?

Usted reside en el área mayor de Newark.

¿Quién puede participar en este estudio? ¿Y quién no puede?

Individuos entre la edad de 12 y 80 años quienes hablan inglés o español y quienes pueden completar el cuestionario.

¿Por cuánto durará el estudio y cuántos sujetos participarán?

1 año y 200 personas.

¿Qué se le pedirá a usted hacer si usted participa en este estudio científico?

Completar un cuestionario.

¿Cuáles son los riesgos y/o incomodidades que usted podría experimentar si usted participa en este estudio?

La contestación de una particular pregunta podría causarle descomfortamiento.

¿Existe alguna ventaja para usted si usted decide participar en este estudio científico?

Usted podrá solicitar que las respuestas de su cuestionario de su sean compartidas con su doctor para que sean incluidos en su expediente médico. Habrá un pago de 5.00 dólares para sus servicios por completar el cuestionario.

¿Cuáles son sus alternativas si usted no quiere participar en este estudio?

No participar en el estudio.

¿Cómo sabrá usted si nueva información es aprendida que puede afectar si usted quiere continuar en este estudio científico?

N/A

¿A quién se le permitirá ver sus archivos de investigación de este estudio?

Además de miembros claves del equipo de investigación, se permitirá que las siguientes personas inspeccionen partes de su registro médico y archivos de su investigación relacionados con este estudio:

- El Comité Examinador Institucional (un comité que examina estudios de investigación)
- Funcionarios de la Universidad de Medicina y Odontología de Nueva Jersey
- La oficina para Protecciones de Investigaciones Humanas (OHRP) (agencia reguladora que supervisa la investigación con sujetos humanos)

Por su participación en este estudio, usted debe entender que el estudio colecciona datos demográficos y datos sobre su salud. Estos datos serán registrados por el doctor/investigador de estudio y el/ella los puede almacenar y procesar sus datos con sistemas de procesamiento electrónico. Los datos serán guardados mientras el estudio está siendo conducido y durante 7 años más.

Su identidad personal, como su nombre, dirección, y otros identificadores, será guardada confidencialmente. Usted tendrá un código y su nombre actual no será usado. Sólo el doctor de estudio podrá unir el código con su nombre y guardará esta información durante 7 años.

Sus datos pueden ser usados en publicaciones científicas. Si las conclusiones del estudio son publicadas, usted no será identificado con su nombre. Su identidad será guardada confidencialmente. La excepción a esta regla será cuando hay una orden judicial o cuando una ley existe requiriendo al doctor de estudio reportar enfermedades comunicables. En este caso, usted será informado de la intención de reportar esta información a la agencia estatal. Tal ley existe en Nueva Jersey para enfermedades como el cáncer, enfermedades infecciosas como hepatitis, virus de inmunodeficiencia humano, virus y muchos otros.

Se permitirá que el doctor/investigador de este estudio examine los datos a fin de analizar la información obtenida en este estudio, y para la investigación de salud general.

Si usted no firma este documento de consentimiento usted no podrá participar en este estudio científico.

Usted puede cambiar de opinión y revocar su consentimiento en cualquier momento. Si usted cambia de opinión, usted debe revocar su consentimiento por escrito. Comenzando con el día que usted revoca su consentimiento, ninguna nueva información de salud personal será usada para el estudio. Sin embargo, el doctor/investigador de este estudio puede seguir usando la información de salud que fue proporcionada antes de que usted retirara su consentimiento.

Usted tiene el derecho de ver sus datos de estudio en la oficina de su doctor del estudio y pedir correcciones a cualquiera de sus datos que no estén correctos.

¿Existirá algún costo para mí por participar en este estudio?

No

¿Recibirá usted un pago por participar en este estudio?

Cuando el cuestionario es completado, usted recibirá 5.00 dólares por su tiempo y esfuerzo.

¿Qué pasará si usted no desea participar en el estudio o si usted más tarde decide no continuar en el estudio?

Usted comprende que usted puede decidir no participar en el estudio. Si usted decide realmente participar es voluntariamente. Usted puede decidir no participar o puede cambiar de opinión en cualquier momento.

Si usted no quiere entrar en el estudio o decide dejar de participar en el estudio, su relación con el personal de estudio no cambiará, y usted puede hacerlo sin una penalidad y sin la pérdida de ventajas a las cuales usted por otra parte tiene derecho.

- Su participación termina cuando el cuestionario es completado.

¿A quién puede usted llamar si usted tiene alguna pregunta?

Si usted tiene cualquier pregunta sobre la participación en este estudio, usted puede llamar a:

Jay Blum, M.D.
732-846-7861

Si usted tiene alguna pregunta sobre sus derechos como un sujeto de investigación, usted puede llamar a:

Presidenta, Comité Examinador
Institucional
(973) 972-3608

y/o

Director de IRB
(973) 972-3608

¿Cuáles son sus derechos si usted decide participar en este estudio científico?

- Usted comprende que usted tiene el derecho de hacer preguntas sobre cualquier parte del estudio en cualquier momento. Usted debe entender que usted no debe firmar esta documento a menos que usted haya tenido una posibilidad de hacer las preguntas y respuestas hayan sido dadas a todas sus preguntas.

Usted ha leído este documento por completo, o me ha sido leído, y usted cree que usted entiende lo que ha sido discutido. Todas sus preguntas sobre este documento y este estudio han sido contestadas.

- Usted está de acuerdo en participar en este estudio científico.

Nombre del Participante: _____

Firma del Participante: _____ Fecha: _____

FIRMA DEL LECTOR/TRADUCTOR SI EL SUJETO NO LEE EL INGLÉS BIEN:

La persona que ha firmado anteriormente, no lee el inglés bien. Yo leo el inglés bien y soy fluente en _____ (nombre del lenguaje), una lengua que el sujeto (su padre/madre / guardián legal) entiende bien. Yo entiendo el contenido de esta forma de consentimiento y Yo he traducido para el sujeto (su padre/madre / guardián legal) el contenido entero de esta forma. En lo mejor de mi conocimiento, el sujeto (su padre/madre / guardián legal) entiende el contenido de esta forma y ha tenido una oportunidad de hacer preguntas en cuanto a la forma de consentimiento y el estudio, y estas preguntas han sido contestadas (su padre/madre / guardián legal).

Nombre del Lector/Traductor: _____

Firma del Lector/Traductor: _____ Fecha: _____

Nombre del Testigo: _____

Firma del Testigo: _____ Fecha: _____

FIRMA DEL INVESTIGADOR O PERSONA RESPONSABLE:

En lo mejor de mi conocimiento el participante ha asimilado el contenido entero de la forma anterior de consentimiento, y entiende bien el estudio y sus riesgos. Todas las preguntas de los participantes y aquellos de su padre/madre o preguntas de los guardianes legales han sido contestadas.

Nombre del Investigador/Persona obteniendo el consentimiento: _____

Firma: _____ Fecha: _____

Appendix 9



NEW JERSEY
MEDICAL SCHOOL

University of Medicine & Dentistry of New Jersey

Department of Medicine

Division of Allergy & Immunology

CONSENTIMIENTO PARA QUE SU NIÑO(A) PARTICIPE EN UN ESTUDIO CIENTÍFICO

Querido Padre/Madre o Guardián Legal:

El Departamento de Alergia en UMDNJ localizado en Newark es un centro académico principal para la investigación y el tratamiento del asma. Nosotros estamos conduciendo un estudio para aprender más sobre las prácticas complementarias y alternativas que la gente suele usar para tratar sus alergias y asma o las alergias de su niño y asma. Este estudio ayudará a los doctores a entender mejor los usos de estos tratamientos, y como estos tratamientos pueden ser combinados con los tratamientos médicos que ellos prescriben.

La participación en este estudio es voluntaria. Si usted participa usted recibirá 5 dólares en efectivo por los 15 a 20 minutos que le tomará para completar el cuestionario incluido.

Sus respuestas en el cuestionario a las preguntas son confidenciales, es decir, que las respuestas serán puestas en una base de datos que no contendrá su nombre o el nombre de su niño(a), dirección, número médico de registro, u otros identificadores personales. Sus respuestas serán integradas a aquellas de otros participantes y la información será analizada. Si usted es un paciente, los resultados del análisis estadístico de todo el grupo de participantes serán reportados al médico de su niño, pero la información individual de su niño no va a ser reportada. Si usted es un paciente y usted desea tener una copia del cuestionario en el expediente medico de su niño(a) para que el médico de su niño(a) pueda examinarlo, usted debe indicarlo al final de esta carta.

Si usted tiene preguntas sobre este estudio o desea tener una copia de los resultados del cuestionario cuando el estudio sea completado, usted puede ponerse en contacto con el doctor Leonard Bielory en el Centro de Investigación de Alergia y Asma en UMDNJ al 973-972-2762 o con el doctor Jay Blum al 732-846-7861. Si usted tiene alguna pregunta sobre sus derechos como participante en este estudio, usted puede llamar a:

Presidenta, Comité Examinador Institucional
(973) 972-3608

y/o

Director de IRB
(973) 972-3608

Gracias por su consideración en participar en este importante estudio.

Sinceramente,

Jay Richard Blum, M.D.

EL USO DE TRATAMIENTOS COMPLEMENTARIOS Y ALTERNATIVOS

Usted está de acuerdo con la participación de su niño(a) en el estudio científico sobre prácticas complementarias y alternativas para las alergias y el asma. Usted entiende que usted será compensado 5 dólares en efectivo por su participación en el cuestionario y que sus respuestas serán guardadas confidencialmente. El nombre de su niño(a) es:

Firma _____ Fecha _____

Por favor marque si usted es un paciente:

- ☐ Usted desea que el cuestionario completo sea incluido en el expediente medico de su niño(a).
☐ Usted no desea que el cuestionario completo sea incluido en el expediente medico de su niño(a).

Versión- Fecha:

Iniciales del Participante: Doctors Office Center • 90 Bergen Street, Suite 4700 • PO Box 1709, Newark, NJ 07101-1709
 Phone: 973-972-2762 • Fax: 973-972-2769 • Web Site: www.umdny.edu

Página 1 de 5

The University is an affirmative action/equal opportunity employer

CONSENTIMIENTO DE PARTICIPAR EN UN ESTUDIO DE CIENTÍFICO

TÍTULO DE ESTUDIO: El Uso de Tratamientos Complementarios y Alternativos para el Asma

Este consentimiento es parte de un proceso de consentimiento informado para un estudio científico y este documento le dará la información que le ayudará a decidirse si usted desea participar como voluntario(a) en este estudio científico. Esto le ayudará a entender sobre de lo qué se trata el estudio y lo que sucederá durante el estudio.

Si usted tiene preguntas en cualquier momento durante el estudio científico, usted debería sentirse libre de hacer las preguntas y debería esperar recibir las respuestas de una manera que usted entienda completamente.

Después de que todas sus preguntas hayan sido contestadas, si usted todavía desea participar en el estudio, le pedirán firmar este documento de consentimiento informado.

También se le pedirá al doctor del estudio u otro miembro del equipo de estudio firmar este documento de consentimiento. Usted recibirá una copia del documento para sus archivos personales.

Usted debe comprender que usted no está renunciando a ninguno de los derechos legales de su niño(a) si usted decide participar como voluntario(a) en este estudio científico o si usted firma este documento de consentimiento.

¿Por qué se está haciendo este estudio?

Este estudio determinará diferencias en el uso de Tratamientos Complementarios y Alternativos por diferentes grupos étnicos.

¿Por qué le han pedido que usted participe en este estudio?

Su niño(a) reside en el área mayor de Newark.

¿Quién puede participar en este estudio? ¿Y quién no puede?

Individuos entre la edad de 12 y 80 años quienes hablan inglés o español y quienes pueden completar el cuestionario.

¿Por cuánto durará el estudio y cuántos sujetos participarán?

1 año y 200 personas.

¿Qué se le pedirá a su niño(a) hacer si su niño(a) participa en este estudio científico?

Completar un cuestionario.

¿Cuáles son los riesgos y/o incomodidades que su niño(a) podría experimentar si usted participa en este estudio?

La contestación de una particular pregunta podría causarle descomfortamiento.

¿Existe alguna ventaja para usted si usted decide para su niño(a) participe en este estudio de científico?

Usted podrá solicitar que las respuestas del cuestionario de su niño(a) sean compartidas con el doctor de su niño para que sean incluidos en el expediente médico de su niño(a). Habrá un pago de 5.00 dólares para sus servicios por completar el cuestionario.

¿Cuáles son sus alternativas si usted no quiere participar en este estudio?

No participar en el estudio.

¿Cómo sabrá usted si nueva información es aprendida que puede afectar si usted quiere continuar en este estudio científico?

N/A

¿A quién se le permitirá ver los archivos de investigación de su niño(a) de este estudio?

Además de miembros claves del equipo de investigación, se permitirá que las siguientes personas inspeccionen partes de registro médico de su niño(a) y archivos de investigación de su niño(a) relacionados con este estudio:

- El Comité Examinador Institucional (un comité que examina estudios de investigación)
- Funcionarios de la Universidad de Medicina y Odontología de Nueva Jersey
- La oficina para Protecciones de Investigaciones Humanas (OHRP) (agencia reguladora que supervisa la investigación con sujetos humanos)

Por su participación en este estudio, usted debe entender que el estudio colecciona datos demográficos y datos sobre la salud de su niño(a). Estos datos serán registrados por el doctor/investigador de estudio y el/ella los puede almacenar y procesar los datos de su niño(a) con sistemas de procesamiento electrónico de datos. Los datos serán guardados mientras el estudio está siendo conducido y durante 7 años más.

La identidad personal de su niño(a), como el nombre de su niño, dirección, y otros identificadores, será guardada confidencialmente. Su niño(a) tendrá un código y el nombre actual de su niño no será usado. Sólo el doctor de estudio de su niño(a) podrá unir el código con el nombre de su niño y guardará esta información durante 7 años.

Los datos de su niño pueden ser usados en publicaciones científicas. Si las conclusiones del estudio son publicadas, usted no será identificado con su nombre. La identidad de su niño será guardada confidencialmente. La excepción a esta regla será cuando hay una orden judicial o cuando una ley existe requiriendo al doctor de estudio reportar enfermedades comunicables. En este caso, usted será informado de la intención de reportar esta información a la agencia estatal. Tal ley existe en Nueva Jersey para enfermedades como el cáncer, enfermedades infecciosas como hepatitis, virus de inmunodeficiencia humano, virus y muchos otros.

Se permitirá que el doctor/investigador de este estudio examine los datos a fin de analizar la información obtenida en este estudio, y para la investigación de salud general.

Si usted no firma este documento de consentimiento, su niño(a) no podrá participar en este estudio científico.

Usted puede cambiar de opinión y revocar su consentimiento en cualquier momento. Si usted cambia de opinión, usted debe revocar su consentimiento por escrito. Comenzando con el día que usted revoca su consentimiento, ninguna nueva información de salud personal será usada para el estudio. Sin embargo, el doctor/investigador de este estudio puede seguir usando la información de salud que fue proporcionada antes de que usted retirara su consentimiento.

Usted tiene el derecho de ver los datos de estudio de su niño(a) en la oficina de su doctor del estudio y pedir correcciones a cualquiera de los datos de su niño(a) que se equivoca.

¿Existirá algún costo para mí por participar en este estudio?

No

¿Recibirá usted un pago por participar en este estudio?

Cuando el cuestionario es completado, usted recibirá 5.00 dólares por su tiempo y esfuerzo.

¿Qué pasará si usted no desea que su niño(a) participe en el estudio o si usted más tarde decide no continuar en el estudio?

Usted comprende que usted puede decidir no participar en el estudio. Si usted decide realmente participar es voluntariamente. Usted puede decidir no participar o puede cambiar de opinión en cualquier momento.

Si usted no quiere entrar en el estudio o decide dejar de participar en el estudio, su relación con el personal de estudio no cambiará, y usted puede hacerlo sin una penalidad y sin la pérdida de ventajas a las cuales usted por otra parte tiene derecho.

- Su participación termina cuando el cuestionario es completado.

¿A quién puede usted llamar si usted tiene alguna pregunta?

Si usted tiene cualquier pregunta sobre la participación en este estudio, usted puede llamar a:

Jay Blum, M.D.
732-846-7861

Si usted tiene alguna pregunta sobre los derechos de su niño(a) como un sujeto de investigación, usted puede llamar a:

Presidenta, Comité Examinador Institucional y/o
(973) 972-3608

Director de IRB
(973) 972-3608

¿Cuáles son sus derechos si usted decide que su niño(a) participe en este estudio científico?

Usted comprende que usted tiene el derecho de hacer preguntas sobre cualquier parte del estudio en cualquier momento. Usted debe entender que usted no debe firmar esta documento a menos que usted haya tenido una posibilidad de hacer las preguntas y respuestas hayan sido dadas a todas sus preguntas.

Usted ha leído este documento por completo, o me ha sido leído, y usted cree que usted entiende lo que ha sido discutido. Todas sus preguntas sobre este documento y este estudio han sido contestadas.

Usted esta de acuerdo en participar en este estudio científico.

Nombre del Participante: _____

Firma del Participante: _____ Fecha: _____

FIRMA DEL LECTOR/TRADUCTOR SI EL SUJETO NO LEE EL INGLÉS BIEN:

La persona que ha firmado anteriormente, no lee el inglés bien. Yo leo el inglés bien y soy fluente en _____ (nombre del lenguaje), una lengua que el sujeto (su padre/madre / guardián legal) entiende bien. Yo entiendo el contenido de esta forma de consentimiento y Yo he traducido para el sujeto (su padre/madre / guardián legal) el contenido entero de esta forma. En lo mejor de mi conocimiento, el sujeto (su padre/madre / guardián legal) entiende el contenido de esta forma y ha tenido una oportunidad de hacer preguntas en cuanto a la forma de consentimiento y el estudio, y estas preguntas han sido contestadas (su padre/madre / guardián legal).

Nombre del Lector/Traductor: _____

Firma del Lector/Traductor: _____ Fecha: _____

Nombre del Testigo: _____

Firma del Testigo: _____ Fecha: _____

FIRMA DEL INVESTIGADOR O PERSONA RESPONSABLE:

En lo mejor de mi conocimiento el participante ha asimilado el contenido entero de la forma anterior de consentimiento, y entiende bien el estudio y sus riesgos. Todas las preguntas de los participantes y aquellos de su padre/madre o preguntas de los guardianes legales han sido contestadas.

Nombre del Investigador/Persona obteniendo el consentimiento: _____

Firma: _____ Fecha: _____

Appendix 10



NEW JERSEY
MEDICAL SCHOOL

University of Medicine & Dentistry of New Jersey

Department of Medicine
Division of Allergy & Immunology

ASSENT TO TAKE PART IN A REASEARCH STUDY

EL USO DE TRATAMIENTOS COMPLEMENTARIOS Y ALTERNATIVOS

Yo estoy de acuerdo en participar en el estudio científico sobre practicas complementarias alternativas para las alergias y el asma. Yo comprendo que seré compensado(a) con 5 dolares en efectivo por mi participación en el cuestionario y que mis respuestas serán guardadas confidencialmente.

Firma _____ Fecha: _____

Por favor marque si usted es un paciente:

- ☐ Yo deseo que el cuestionario completo sea incluido en mi expediente medico.
- ☐ Yo no desea que el cuestionario completo sea incluido en mi expediente medico.

Si usted tiene alguna pregunta sabré sus derechos como participante en este estudio, usted puede llamar a:

Presidenta, Comité Examinador
Institucional
(973) 972-3608

y/o

Director de IRB
(973) 972-3608

Versión- Uno:
May 6 2008

Doctors Office Center • 90 Bergen Street, Suite 4700 • PO Box 1709, Newark, NJ 07103-1709
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Página 1 de 4

ASSENT TO TAKE PART IN A RESEARCH STUDY

TÍTULO DE ESTUDIO: El Uso de Tratamientos Complementarios y Alternativos para el Asma

Ha usted le estamos pidiendo si esta de acuerdo en participar en un estudio para aprender más sobre el Asma.

¿Por qué se esta haciendo este estudio?

Este estudio se esta haciendo para comprender mejor diferentes tratamientos para el Asma.

¿Qué me pedirán hacer si participo en este estudio científico?

Contestar preguntas. Usted puede rehusar contestar si usted se siente incómodo(a).

¿Cuáles son los riesgos y/o incomodidades que usted podría experimentar si usted participa en este estudio?

La contestación de una particular pregunta podría causarle descomfortamiento.

¿Existe alguna ventaja para usted si usted decide participar en este estudio de científico?

Usted podrá solicitar que las respuestas de su cuestionario de su sean compartidas con su doctor para que sean incluidos en su expediente médico. Habrá un pago de 5.00 dólares por sus servicios por completar el cuestionario.

¿Cuáles son sus alternativas si usted no quiere participar en este estudio?

No participar en el estudio.

¿A quién se le permitirá ver sus archivos de investigación de este estudio?

Se permitirá que el doctor/investigador de este estudio examine los datos a fin de analizar la información obtenida en este estudio, y para la investigación de salud general.

Si usted no firma este documento de consentimiento usted no podrá participar en este estudio científico.

ASSENT TO TAKE PART IN A RESEARCH STUDY

Usted puede cambiar de opinión y revocar su consentimiento en cualquier momento. Si usted cambia de opinión, usted debe revocar su consentimiento por escrito. Sin embargo, el doctor/investigador de este estudio puede seguir usando la información de salud que fue proporcionada antes de que usted retirara su consentimiento.

Usted tiene el derecho de ver sus datos de estudio en la oficina de su doctor del estudio y pedir correcciones a cualquiera de sus datos que no estén correctos.

¿Existirá algún costo para mí por participar en este estudio?

No

¿Recibirá usted un pago por participar en este estudio?

Cuando el cuestionario es completado, usted recibirá 5.00 dólares por su tiempo y esfuerzo.

¿Qué pasará si usted no desea participar en el estudio o si usted más tarde decide no continuar en el estudio?

Yo comprendo que Yo puedo decidir no participar en el estudio. Yo puedo decidir no participar o puedo cambiar de opinión en cualquier momento.

Si usted no quiere entrar en el estudio o decide dejar de participar en el estudio, su relación con el personal de estudio no cambiará, y usted puede hacerlo sin una penalidad.

- Su participación termina cuando el cuestionario es completado.

¿Puedo hacer preguntas?

Sí, el doctor contestará cualquier pregunta que usted tiene si desea participar estudio antes de que usted comience.

Si usted tiene alguna pregunta sobre los derechos como un sujeto de investigación, usted puede llamar a:

Presidenta, Comité Examinador,
Institucional
(973) 972-3608

y/o

Director de IRB
(973) 972-3608

¿Cuáles son sus derechos si usted decide que su niño(a) participe en este estudio científico?

Usted comprende que usted tiene el derecho de hacer preguntas sobre cualquier parte del estudio en cualquier momento. Usted debe entender que usted no debe firmar esta documento a menos que usted haya tenido una posibilidad de hacer las preguntas y respuestas hayan sido dadas a todas sus preguntas.

Usted ha leído este documento por completo, o me ha sido leído, y usted cree que usted entiende lo que ha sido discutido. Todas sus preguntas sobre este documento y este estudio han sido contestadas.

Página 3 de 4

ASSENT TO TAKE PART IN A RESEARCH STUDY

Usted esta de acuerdo en participar en este estudio científico.

Nombre del Participante: _____

Firma del Participante: _____ Fecha: _____

FIRMA DEL LECTOR/TRADUCTOR SI EL SUJETO NO LEE EL INGLÉS BIEN:

La persona que ha firmado anteriormente, no lee el inglés bien. Yo leo el inglés bien y soy fluente en _____ (*nombre del lenguaje*), una lengua que el sujeto (su padre/madre / guardián legal) entiende bien. Yo entiendo el contenido de esta forma de consentimiento y Yo he traducido para el sujeto (su padre/madre / guardián legal) el contenido entero de esta forma. En lo mejor de mi conocimiento, el sujeto (su padre/madre / guardián legal) entiende el contenido de esta forma y ha tenido una oportunidad de hacer preguntas en cuanto a la forma de consentimiento y el estudio, y estas preguntas han sido contestadas (su padre/madre / guardián legal).

Nombre del Lector/Traductor: _____

Firma del Lector/Traductor: _____ Fecha: _____

Nombre del Testigo: _____

Firma del Testigo: _____ Fecha: _____

FIRMA DEL INVESTIGADOR O PERSONA RESPONSABLE:

En lo mejor de mi conocimiento el participante ha asimilado el contenido entero de la forma anterior de consentimiento, y entiende bien el estudio y sus riesgos. Todas las preguntas de los participantes y aquellos de su padre/madre o preguntas de los guardianes legales han sido contestadas.

Nombre del Investigador/Persona obteniendo el consentimiento: _____

Firma: _____ Fecha: _____

Appendix 11

To obtain an overview, logistic regression was first done with all 38 variables that included over ten subjects, with a chi square greater than 1.900 and a significance level (2sided) of less than 0.2. Utilizing a forward -step conditional approach, only 1 variable was selected:

- Satisfied sometimes with CAM

This yielded a - 2LL that dropped from 99.313 to 21.615. The beta coefficient was - 22.239. The S.E. was 4831.355. The Wald was .000 and the "P" was .996 with an OR =.000

Variables in the Equation

		B beta	S.E.	Wald	df	Sig	Exp (beta)
Step 1 ^a	satalways	-21.838	4617.593	.000	1	.996	.000
	Constant	2.565	.599	18.327	1	.000	13.000
Step 2 ^b	satalways	-7.874	7124.910	.000	1	.999	.000
	satsometim	-7.803	7652.486	.000	1	.999	.000
	Constant	2.565	.599	18.327	1	.000	13.000
Step 3 ^b	satsometim	-22.239	4831.355	.000	1	.996	.000
	Constant	2.565	.599	18.327	1	.000	13.000

a. Variable(s) entered on step 1: satalways.

b. Variable(s) entered on step 2: satsometim.

The variables "satisfied always with CAM" and "satisfied sometimes with CAM" were felt to be cross-correlated as to be satisfied with CAM presumes use of CAM. These were therefore eliminated. Thirty-one independent variables remained. All had a chi square of greater than 1.900, a significance level less than 0.2, and more than 10 cases with the variable characteristics. The following variables likely express reactions to CAM use or use of CAM specialists. They do not necessarily predict CAM use. They also confuse cause-effect with effect-cause as they are not time independent. Thus, they were also dropped:

Satisfied almost always with CAM.

Satisfied sometimes with CAM.

Both usual forms of therapy and other forms of therapy are better than either one alone.

Other forms of therapy are superior to my usual forms of therapy for my asthma.

Other asthma treaters spend more time with me than does my usual asthma doctor.

My other asthma treater offers a more understandable and useful explanation for my asthma than does my usual asthma doctor.

My other asthma treater is a better listener than my usual asthma doctor.

Another forward step conditional regression using only five variables yielded a -2LL that dropped from 99.313 to 36.024. These were:

RAdvice from any source

RReligion important

RJewish

RGraduated college

White male non-Christian-other

Variables in the Equation

		B	S.E	Wald	df	Sig.	Exp(B)
Step 1 ^a	radvise	-20.948	6085.632	.000	1	.997	.000
	Constant	.956	.304	9.891	1	.002	2.600
Step 2 ^b	rreligionimpt	-.834	.326	6.557	1	.010	.434
	radvise	-21.219	6045.622	.000	1	.997	.000
Step 3 ^c	Constant	4.095	1.358	9.095	1	.003	60.068
	rjewish	18.883	4945.984	.000	1	.997	1.588E8
	rreligionimpt	-.904	.357	6.410	1	.011	.405
	radvise	-37.520	7242.507	.000	1	.996	.000
Step 4 ^d	Constant	4.048	1.468	7.599	1	.006	57.289
	rjewish	19.392	4772.107	.000	1	.997	2.641E8
	rreligionimpt	-1.081	.397	7.437	1	.006	.339
	rgradcollege	-1.953	.943	4.292	1	.038	.142
	radvise	-38.611	7043.643	.000	1	.996	.000
Step 5 ^e	Constant	5.250	1.739	9.119	1	.003	190.535
	whmalnonchot	-2.939	1.482	3.934	1	.047	.053
	rjewish	20.255	4212.933	.000	1	.996	6.258E8
	rreligionimpt	-1.188	.441	7.247	1	.007	.305
	rgradcollege	-2.931	1.349	4.719	1	.030	.053
	radvise	-42.027	6335.991	.000	1	.995	.000
	Constant	11.262	3.987	7.977	1	.005	77792.132

a. Variable(s) entered on Step 1: radvise.

b. Variable(s) entered on Step 2: rreligionimpt.

c. Variable(s) entered on Step 3: rjewish.

d. Variable(s) entered on Step 4: rgradcollege.

e. Variable(s) entered on Step 5: whmalnonchot.

There were marked co-linearities noted on the correlation matrix.

R Graduated college and R Religion important = .617
 R Jewish and R advise = -.665
 R Graduated college and white male
 non- Christian other = .539

The following four were then dropped as amorphous:

Whites non-Christian other
 White males non-Christian other
 Whites not on prednisone
 Different religions

Specifically, different religions conflates Hindus, Buddhists, Muslims, Mormons, Quakers, Unitarian, Universalists. The variable “whites not on prednisone” encompassed all non-blacks including self identified Hispanics and Asians not taking prednisone. Only three used prednisone, and the variable appears gerrymandered. The variable “white non-Christian other” includes self-identified white Jews, Catholics, Protestants and Quakers. “White male non-Christian other” includes white males in all the above groups. After these were eliminated, a logistic regression with a forward step conditional method yielded a -2LL of 42.232 utilizing the following four variables:

RAdvise
 RJewish
 RReligion Important
 RGrad college

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	radvise	-20.948	6085.632	.000	1	.997	.000
	Constant	.956	.304	9.891	1	.002	2.600
Step 2 ^b	rreligionimpt	-.834	.326	6.557	1	.010	.434
	radvise	-21.219	6045.622	.000	1	.997	.000
Step 3 ^c	Constant	4.095	1.358	9.095	1	.003	60.068
	rjewish	18.883	4945.984	.000	1	.997	1.588E8
	rreligionimpt	-.904	.357	6.410	1	.011	.405
	radvise	-37.520	7242.507	.000	1	.996	.000
Step 4 ^d	Constant	4.048	1.468	7.599	1	.006	57.289
	rjewish	19.392	4772.107	.000	1	.997	2.641E8
	rreligionimpt	-1.081	.397	7.437	1	.006	.339
	rgradcollege	-1.953	.943	4.292	1	.038	.142
	radvise	-38.611	7043.643	.000	1	.996	.000
	Constant	5.250	1.739	9.119	1	.003	190.535

- a. Variable(s) entered on Step 1: radvise.
- b. Variable(s) entered on Step 2: rreligionimpt.
- c. Variable(s) entered on Step 3: rjewish.
- d. Variable(s) entered on Step 4: rgradcollege.

There were again strong colinearities:

$$RJewish \text{ and } RAdvise = -.678$$

To resolve the issue of colinearity, a logistic regression was performed under the “enter” method utilizing only R Religion important, R graduated college and R advise (i.e.

eliminating R Jewish) yielded a $-2LL = 50.377$. The highest correlation was a .274 between R graduated college and R religion important. It should be noted that eliminating Radvise instead of Rjewish produced A $-2LL$ of only 78.355.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	radvise	-20.948	6085.632	.000	1	.997	.000
	Constant	.956	.304	9.891	1	.002	2.600
Step 2 ^b	rreligionimpt	-.834	.326	6.557	1	.010	.434
	radvise	-21.219	6045.622	.000	1	.997	.000
	Constant	4.095	1.358	9.095	1	.003	60.068
Step 3 ^c	rreligionimpt	-.928	.340	7.445	1	.006	.395
	radvise	-21.198	5959.783	.000	1	.997	.000
	rgradcollege	-1.651	.816	4.101	1	.043	.192
	Constant	4.896	1.491	10.780	1	.001	133.737

a. Variable(s) entered on Step 1: radvise

b. Variable(s) entered on Step 2: rreligionimpt

c. Variable(s) entered on Step 3: rgradcollege

The model utilizing the three variables Radvise, Rgraduated College and Rreligion important does appear to be a viable model. Nevertheless, there is a problem. All eighteen of those subjects receiving advice from any source to use CAM, utilized CAM. There are zero subjects in the cells characterized by receiving advise to use CAM but not using CAM. Radvise in the logistic regression equation has a standard error 5959.783, a Wald value of .000 and a significance of .997.

A second model was postulated as an alternate. Dichotomous variables that had cell counts of zero were eliminated. These were:

Rfamily advised use of CAM

Rdoctor advised use of CAM

Radvise from any source to use CAM

A forward step conditional Logistic Regression was performed utilizing the remaining 24 variables. The -2LL was reduced from 99.313 to 79.512 with two variables:

Rreligionimpt

Rgradschool

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	rreligionimpt	-.694	.277	9.354	1	.002	.499
	Constant	2.712	.892	9.240	1	.002	15.054
Step2 ^b	rreligionimpt	-.732	.240	9.312	1	.002	.481
	rgradshool	1.700	.629	7.303	1	.007	5.474
	Constant	2.347	.922	6.479	1	.011	10.454

- a. Variable(s) entered on Step 1: rreligionimpt.
b. Variable(s) entered on Step 2: rgradschool.

As the models were not efficient predictors, alternative methods to logistic regression were pursued.

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