

# **Got Asthma?**

SOUTHEAST ASIANS LIVING WITH ASTHMA IN PROVIDENCE, R.I.:

A STUDY OF SOUTHEAST ASIAN  
AWARENESS, PERCEPTIONS, AND MANAGEMENT OF ASTHMA

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## TABLE OF CONTENTS

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INTRODUCTION

1

METHODOLOGY

4

CHAPTER I

The Long and Winding Road:  
The Research Process

7

CHAPTER II

Mucous, Meds, and Money:  
The Impact of Asthma

13

CHAPTER III

“Hot” vs. “Cold” as Old World Meets New World:  
A Review of the Current Literature on Southeast Asian Perceptions of Illness

20

CHAPTER IV

Taking a Closer Look:  
Southeast Asian Populations in Providence, R.I.

28

CHAPTER V

Interview Results, Findings, and Conclusions:  
Intra and Intercommunity Comparisons

31

CHAPTER VI

Recommendations

44

CONTACT INFORMATION, BIBLIOGRAPHY,  
AND APPENDICES FOLLOW RECOMMENDATIONS

## LIST OF APPENDICES

---

### Appendix A

Comparative Table of Data Between Cambodian and Laotian Respondents  
A1

### Appendix B

Question 2: How much do you feel you know about asthma?  
Personal Perception of Knowledge About Asthma - Cambodian Respondents  
B1

Question 6A: What things trigger your (or your child's) asthma and make it worse?

What Triggers Asthma? - Cambodian Respondents

B2

Question 6B: What things help to make your asthma better?  
What Helps to Control Asthma? - Cambodian Respondents  
B3

Question 8: Are You Currently Taking Medicine for Your Asthma? If so, What Kind?  
Types of Medicines – Cambodian Respondents  
B4

Question 9: How effective is the medication in treating asthma?

Effectiveness of Medicines - Cambodian Respondents  
B5

Question 11: How often have you been to the ER because of your asthma?  
Number of ER Visits Per Year - Cambodian Respondents  
B6

Question 12: Do You Know of any Home Remedies for Asthma?  
Traditional Home Remedies- Cambodian Respondents  
B7

## **Appendix C**

Question 2: How much do you feel you know about asthma?  
Personal Perception of Knowledge About Asthma - Laotian Respondents  
C1

Question 6A: What things trigger your (or your child's) asthma and make it worse?  
What Triggers Asthma? - Laotian Respondents  
C2

Question 6B: What things help to make your asthma better?  
What Helps to Control Asthma? - Laotian Respondents  
C3

Question 8: Are You Currently Taking Medicine for Your Asthma? If so, What Kind?  
Types of Medicines – Cambodian Respondents  
C4

Question 9: How effective is the medication in treating asthma?  
Effectiveness of Medicines - Laotian Respondents  
C5

Question 11: How often have you been to the ER because of your asthma?  
Number of ER Visits Per Year - Laotian Respondents  
C6

Question 12: Do You Know of any Home Remedies for Asthma?  
Traditional Home Remedies - Laotian Respondents  
C7

## **Appendix D**

Sample Interview Questions  
D1

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There are so many people whom I need to give thanks to for helping me along the way with my project. I know that without each person's help and guidance I would not have been able to complete my project.

First and foremost I have to give a hearty thanks to Harold Ward who has not been only my thesis advisor this year, but also has been my advisor throughout my four years here at Brown University. He has kept me on target each week for the past 28 or so weeks so that I could not stray from my thesis. He has been both my advisor and my friend, and for that I am most grateful to him. Thank you Harold.

The best class I have taken in my four years at Brown University has been "Public Perception of the Environment", better known at the CES as "ES126", a class on ethnographic study of people and their environment, taught by Christina Zarcadoolas. It was because of Chris' class that I discovered my love for ethnography and propelled me to work with people in my thesis. Chris was there in the beginning of my thesis research, helping to me find the background literature I needed to read and understand before jumping into the research scene. Thank you Chris.

The Draw A Breath Program originally helped my project to develop, and I have Catherine Mansell to thank for her enthusiasm for and dedication to her work. Cathy has always been an encouraging figure throughout my research, helping me through the little hurdles that came along the way, and I know that the Draw A Breath Program will flourish with her leadership and guidance. Thank you Cathy.

Of all the incredible people I have met throughout my research, I have to say I am so very thankful to Savanh Chantharangsy, Sokvann Sam, and Sing Yang, my three

contact people from the Laotian, Cambodian, and Hmong communities, respectively. Savanh's endless generosity with his time and efforts has continuously amazed me, as he not only found participants for me, but also accompanied me to numerous home visits and served as my translator. Sokvann, better known as "Mr. Sam", is a man with a heart of gold. He does everything and anything for the enrichment of his community. He has introduced me to so many figures in the Cambodian community, and has served as my liaison at community settings such as the Cambodian temple and Society meeting. And I would not have had the fortune of meeting such wonderful people as Savanh and Sokvann if I had not met Sing Yang, who tried his best to recruit Hmong participants for me, despite many obstacles in the road. To all three men, I give my utmost thanks.

In the later half of my research process, I was able to attain many interviews at the Providence Community Health Centers with help from Mary Jean Francis, Chris Camillo, and the numerous nurses at Capitol Hill Health Center, Central Health Center, and Allen Barry Health Center. I want to thank Mary Jean for believing in my research and giving it the support it needed to continue, and I want to thank Chris and the nurses at all three health centers for going out of their way each week to help me with my research, even when they were often busy with their own jobs.

On that note, I would like to give my deepest thanks to the Cambodian, Laotian, and Hmong people in their respective communities for opening their hearts, their doors, and their mouths and sharing with me their specific cases of asthma. Without their cooperation there would be nothing to write. Thank you all.

Last, but not least, I want to thank my family and friends, whom I cherish dearly for their love and encouragement at my most stressful and delirious times.

I dedicate this thesis to my parents,  
*Ken Tau and Tuyet Le,*  
without whose love and support I would not be here today.

## EXECUTIVE SUMMARY

Although available, information concerning asthma awareness and management is not reaching the Southeast Asian communities in Providence Rhode Island, where 15,000 children are afflicted with the chronic disease. Asthma education programs, such as the Draw A Breath program, receive low participation rates from these communities, and interviews with respondents from each community support the concern that knowledge to mitigate asthma is not well known in these populations.

Findings from a total of 31 interviews obtained at home visits, community visits, and the Providence Community Health Centers (13 from the Cambodian community, 15 from the Laotian community, and 3 from the Hmong community) show that the Southeast Asian communities do not differentiate between control and quick relief medications, grouping both medicines as “inhalers”, and furthermore, respondents did not know the specific role of each type of medication in treating their asthma. No Cambodian respondents related dust, cockroaches, or extreme emotions as triggers of asthma, and these respondents also took little preventative measures for their asthma. Laotian respondents were able to identify a greater variety of triggers and also showed that respondents took preventative actions, such as keeping their homes clean and avoiding pets, smoke and excessive physical activity (27%, N=4).

Since it was observed that the main reason why parents are unlikely to participate in the Draw A Breath program was that parents simply did not have the time in their days for a three hour education session, recommendations for the Draw A Breath program include sending home the asthma education materials to the families instead through the

children afflicted with asthma, in the form of asthma information packets in the families' translated languages. Information packets should address asthma triggers and prevention, as well as have information that differentiates between control and quick relief medicines. The packets will also include asthma activity sheets for children to learn about their triggers and proper methods for using their inhalers. To ensure that these information packets reach the parents, children should bring back to school signed forms by their parents indicating that they have received the information packet. Follow up telephone calls should be made by people fluent in each Southeast Asian language to parents.

Recommendations for the Providence Community Health Centers include having information flyers available at the clinics to be handed to patients as they come and wait for their appointments. It was observed that patients usually did nothing as they waited for their appointment, and this time can be used to spread asthma education among the Southeast Asian patients. Flyers should be translated into the specific Southeast Asian languages, listing common triggers of asthma, as well as the difference between control and quick relief medicines and their individual parts in asthma treatment.

Suggestions for general research groups who wish to work with these populations include contacting a community leader or respected figure that could help to establish access into the community. It is important however to do preliminary research regarding each community's culture and traditions before meeting with the community leader, and then clearly explaining the objective of the research and why it is important to that community, in order to build trust between the researcher and the community leader.

Through greater awareness of asthma triggers and preventative measures, I hope the findings and recommendations from this research project will help mitigate asthma in the Southeast Asian communities in Providence, helping people to live healthier and better lives.

## INTRODUCTION

In 1998 asthma affected an estimated 18 million Americans with \$11.3 billion in total monetary costs for the disease.<sup>1</sup> Each year, asthma causes over 1.5 million emergency room visits, about 500,000 hospitalizations, and over 5,500 deaths, and for the past 20 years the prevalence of and mortality due to asthma has been on the increase, especially in children.<sup>2</sup> When I first approached the issue of asthma as a health concern due in part to the urban environment, my original goal was to alleviate asthma among those Southeast Asian school children in Providence who are afflicted with the chronic disease by increasing the number of Southeast Asian participants in asthma education programs. This became important to me as I learned that asthma is the number one cause of school absenteeism due to chronic illness and that participation in asthma education programs by Southeast Asian families in Providence was among the lowest in numbers. Furthermore, one study found that children with asthma lose an extra 10 million school days each year, and their working parents lose an estimated \$1 billion in lost productivity.<sup>3</sup> Since then my original goal has undergone a metamorphosis as I learned that in order to achieve my original goal, I first had to understand the cultures of the target populations and their individual approaches to asthma. With this knowledge, I hope to inform asthma education programs and community health centers so that they may utilize this information to help each Southeast Asian population (Hmong, Laotian, and Cambodian) alleviate asthma.

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<sup>1</sup> Asthma Statistics, National Institutes of Health (NIH) - National Heart, Lung, Blood Institute (NHLBI) Data Fact Sheet, January 1999.

<sup>2</sup> Ibid.

My research project is divided into two parts. Part one involves identifying cultural influences in the Southeast Asian population in Providence. Through background research on identified barriers in minority health studies, observations and one-on-one interviews with Southeast Asians afflicted with asthma in various locations such as the Providence Community Health Centers, community temples, homes and workplaces, I hope to bridge the gap between the knowledge and understanding of the respiratory disease and the Southeast Asian communities in Providence. With a more thorough picture of each population's cultural perception, approach, and management of asthma, I hope to bring greater awareness about the illness to these communities, as well as make recommendations to health providers and educators so that they can accommodate the cultural influences that may be present in each community.

Part two is a partial study of the effectiveness of one particular asthma education program in Providence, the Draw A Breath Program (DAB), which aims at improving knowledge about asthma, promoting asthma self-management skills for both parents and children with asthma, and identifying environmental triggers associated with asthma attacks. Through observations and analysis of the DAB program, in conjunction with the knowledge gained from each Southeast Asian community, I hope to help the program, as well as other asthma education programs and health clinics, become more culturally sensitive to each community so that they can better accomplish their goal of helping Southeast Asian populations in Providence mitigate the chronic illness. Therefore, through the sharing of the knowledge gained as a result of this research project with the Draw A Breath program and the Providence Community Health Centers, the objective of

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<sup>3</sup> Asthma: A Concern for Minority Populations, National Institutes of Health (NIH) – National Institute of Allergy and Infectious Diseases (NIAID) Fact Sheet, August 1996.

my thesis project is to help the Southeast Asian communities in Providence increase their awareness and knowledge of asthma and the solutions that exist, so that those affected by the disease may live healthier and more manageable lives.

## METHODOLOGY

In general, my methods were a combination of secondary research, primary ethnographies, and qualitative research that included observation and interviews.

*A. Background Research:* Identifying previous studies that address Southeast Asian perceptions and approaches to illness and “Western” medicines is important in beginning to understand how the Providence Southeast Asian communities manage asthma. General knowledge about asthma and asthma statistics and trends within the past few decades are also imperative in order to show the significance of the disease in the United States and the importance in alleviating it. Studies regarding health barriers within Southeast Asian communities, and strategies and solutions tested for overcoming cultural and linguistic barriers, contributed a better understanding of how each Southeast Asian population operates when dealing with disease and outside intervention.

*B. Interviews:* My main method of obtaining data was through interviews with people from the Cambodian, Hmong, and Laotian communities in Providence who have asthma or have children with asthma. (Please refer to the sample interview sheet in the Appendices) Some interviews were voice-recorded, if the participant gave permission. Interviews were conducted in person or over the phone. Translators were used for interviews with participants who were not proficient in English. Phone interviews were conducted at the request of the respondents for comfort and time convenience due to their busy schedules. Conference calling was used for phone interviews when a translator was needed, so that all parties heard each other. When the interviews were conducted in person, informed consent forms were given to each participant and confidentiality issues

were explained in English and in the respondent's traditional language via the translator. For telephone interviews, the informed consent form was verbally read and explained (or translated if need be) to the respondents, and their verbal agreement was sought.

The interview sheet contained 12 questions, which probe to understand respondents' perceptions, awareness, and management of asthma. For example, questions 5 and 11 were asked in order to compare the accuracy of respondents' perceptions of severity and how many times they have visited the Emergency Department in the past year. Question 6 is aimed at understanding respondents' awareness of asthma triggers and knowledge of prevention. Question 10 was asked to understand respondents' reactions to an asthma attack, and question 9 is another question that probes the respondents' perceptions of the effectiveness of control and quick relief medicines, depending on which medication the respondents' medications.

Some access to participants was through the Providence Community Health Centers that work with particular Southeast Asian communities. For example, some Cambodian participants in this project were reached through Providence's Central Health Center. Likewise, some Hmong patients were found in the Allen Berry Health Center and some Laotian participants were found at the Capitol Hill Health Center because these are the health centers with which these populations are identified. More often than not, the time and place of the interview was dependent on the participants' daily schedules. Therefore, at times I found myself interviewing people in their homes late in the evening after their workday, or at their homes in the early afternoon before they left to work the late shift. One interview was conducted at a participant's workplace, because it was the

only time available. I also collected interviews at annual community meetings and at weekend temple visits.

The Draw A Breath (DAB) after school asthma program was another important component in this project. Observing the program, specifically its mechanisms for serving its target populations, was also important. Through an analysis of the program, I wanted to identify issues that are not addressed within the program or make recommendations to help the program recruit more Southeast Asian families in order to spread asthma education into the Southeast Asian communities in Providence.

*C. Analysis:* I obtained a total of 31 interviews: 15 interviews from the Laotian community, 13 from the Cambodian community, and three from the Hmong community. After all data were collected, specific analysis of the data was conducted to better understand each community's approach to and understanding of asthma. An analysis of the Draw A Breath (DAB) program was also based on observations and interviews.

## CHAPTER I

### The Long and Winding Road:

#### The Research Process

##### A. *“Where Do I Begin?”—Getting Started:*

It has been quite an interesting road since September of 2000. When I first entered Harold’s office that warm autumn morning, I had no conception of what was in store for me. I recall brainstorming with him for a thesis idea; I knew that I did not want my thesis to sit on the shelf collecting dust, that I wanted my work to have a positive impact, an immediate impact, and I wanted to work with people and health issues that needed addressing. And now, months later, all those original goals really seem to have taken shape.

Harold suggested that I work with the Southeast Asian communities in Providence, since, he said, “no one’s really been able to tap into that population.” But I needed to find out if there was a health concern (environmentally related, of course) within the population that needed attention. Harold suggested that I talk with Kris Hermanns of the Swearer Center, and Kris recommended that I speak with a woman named Catherine Mansell who manages asthma education program in Providence Public schools. That next week I met with Cathy Mansell for the first time and we discussed the Draw A Breath Program, and its goal of spreading asthma education and awareness out into the Providence community. Cathy explained to me the importance of asthma and its impact on personal lives as well as the nation as a whole, all of which I had been oblivious and it all astounded me. During our chat Cathy also mentioned the low

participation rates the Draw A Breath Program received that previous year from Southeast Asians in Providence. It did not take much convincing after speaking with Cathy that addressing the issue of asthma awareness and Southeast Asians in Providence was what I wanted to do for my senior honors thesis project.

*B. The Draw A Breath Program:*

The Draw A Breath program originated in 1997 as an education program at the Hasbro Children's hospital that invited all referred families but succeeded in recruiting mostly middle-class families. In 1999 it added a school-based component and targeted lower-income families in Providence. In 2000 the program and the Providence School Partnership received funding from a grant from the Robert Wood Johnson Foundation. The grant enabled the program to expand and to provide more asthma education opportunities for families. Some current plans include support groups with representative advocates for each population (Black, Latino, and Southeast Asians), and training of school nurses about asthma. The program itself is an after-school educational session that covers all Providence public elementary schools at least once a year. A handful of schools are given two visits.

Recruitment of participants is done with help from school nurses, who, with each family's permission, identify children with asthma in the schools. Volunteers then telephone the children's families to explain about the program and to ask some basic questions about the child's asthma. Confirmation of parents' intentions to attend is usually requested two weeks before the scheduled education session at the child's school. This information is then used to identify families as they check in at the start of the program.

The education sessions themselves last from 3:00pm to 6:30pm (including dinner and a raffle for the families) and are broken into two sections; one with parents and family of the children, and the other a separate education class for the children. Two asthma education professionals teach the parents in Spanish and English separately, and the children are taught in English by a specially trained child psychologist. The education involves basic asthma definitions and symptoms, identification of triggers to asthma, ways in which to avoid them, what medications are available, distinguishing controller and quick-relief medicines, what side effects exist for each type of medication, and correct usage of peak flow meters and spacers. After the education at the school, there are 3, 6, and 12-month telephone follow-ups to assess the family's progress with asthma.

*C. Taking Off! (Or so I thought)—My Slow and Bumpy Start:*

Once I had a topic in mind, I immediately planned out step-by-step what I would do, mistakenly assuming that all was to go as planned. I desperately needed access into the Southeast Asian population, specifically the Cambodian, Laotian and Hmong communities. My only referred contact person at the time was the director of the Socio-Economic Development Center (SEDC), Joseph Le, who, as I learned, was very difficult for me to contact. My main avenues for obtaining interviews with Southeast Asians were through the Thursday Draw A Breath Sessions and through the “front door” so-to-speak by way of the SEDC. Unfortunately, neither of these avenues was promising. The Draw A Breath program proved to really have a problem recruiting Southeast Asian people to participate in the program. I recall that for the first two months of education sessions,

there was only one Southeast Asian mom who came to the after school education program, and she had just moved to the city.

At the same time as I was having trouble obtaining interviews, I learned that I had another hurdle to reckon with: I needed to go through the Brown University Internal Review Board (better known as the IRB process) before I could even think of asking questions of any to my (nonexistent) interview respondents. The process was tedious and long.

*D. Finally On the Road—Cruising Along:*

By the beginning of November I had no idea that the majority of my interviewing would come through another avenue—the community route. By pure chance in a conversation with the principal of the William D’Abate elementary school, Lucille Furia, mentioned a Hmong man, Sing Yang, whom she knew and said was the person to contact if there were any issues related to the Hmong community that needed addressing. And after meeting with Sing Yang, I received the names of my Laotian and Cambodian contacts, Savanh Chantharangsy and Sokvann Sam, respectively.

I met with Savanh and Sokvann separately, briefly explaining who I was and what my thesis research entailed. It took some persuasion at first because they were both wary of any positive or negative impacts my research would have on their respective communities, which was very understandable. Both questioned the importance of the research on their communities, and what effects were to come out of their cooperation. Apparently there has been a history of surveys and studies conducted in each community by “outside” health organizations that have ultimately resulted in no feedback to the communities after the study ended, and they wanted to make certain that this was not

going to be another one of those studies. I ensured them that I had no intentions of allowing the research to end up on a shelf, that at the conclusion of my research, I would make recommendations to education programs like Draw A Breath, as well as health clinics, that would hopefully have immediate improvement on awareness and management levels of asthma in each Southeast Asian community.

I was also very careful to be respecting of their concerns, and I recall that Savanh wanted to review a few Laotian customs when greeting elderly people, as well as have a mock interview at the very start just to ensure that Laotian people did not perceive the questions as intrusive or offensive. I followed this example when I met with Sokvann later, as we also went through the interview questions. After initial introductions and explanations, I was grateful when they all said they would do their best to help me gain access into their communities, recruit people to interview, and act as my translator when needed. And I knew that I finally received the break for which I was searching and waiting.

*E. The End of the Road (Or is it?):*

It took a lot of flexibility, but I was able to adapt to the schedules of both my translators and my participants. It was very lucky for me that all of my translators are respected members of their communities, because it made access into their communities that much easier. Recruitment of participants in each community varied greatly; participants in the Laotian community were found mainly through personal connections and referrals between people in the community; and recruitment in the Cambodian community was done in community settings. And once I passed a separate IRB process for the Providence Community Health Center and received their support with help from

Mary Jean Francis, I was able to interview Hmong patients, as well as collect more Cambodian and Laotian interviews, at the various Providence Community Health Centers.

If I learned nothing else from my thesis process, it was to be open minded, adaptable to change, patient, but at the same time, and perhaps above all, to be persistent. In the end, I stuck to my original thesis goals; it just so happened that I went through an altogether different path than originally planned. But instead of relying upon what I thought were my initial two best avenues into the Southeast Asian communities, that is, the Draw A Breath Program and the SEDC, it turned out that my main access into these communities was from an alternative route—the internal route, which happened to work much better.

## CHAPTER II

### Mucous, Meds, and Money:

#### The Impact of Asthma

In order to evaluate the importance of effectively communicating and managing asthma, I first needed a basic understanding of how the disease operates and how it impairs those who are afflicted with it. In this section I will present the characteristics associated with asthma as well as some statistics regarding its severity in the United States.

##### *A. Characteristics:*

Asthma is a chronic inflammatory disease of the airways, caused either by genetic predisposition or environmental factors. Having asthma is different from having asthma attacks. A person may have the disease, but if they are not exposed to their asthma triggers and have managed their asthma well, they may rarely encounter an asthma attack. People often mistaken not having asthma attacks as being free of the disease. Asthma is a chronic disease, and therefore is not curable. However it is manageable with daily care, and asthma attacks are preventable. Environmental triggers of asthma attacks include dust, dust mites, cockroaches, tobacco smoke, strong odors, environmental pollutants, pollen, extreme temperature changes, mold, mildew, and animals. Other triggers include colds and fevers, exercise, and extreme emotions. Risk factors that the National Institute of Allergy and Infectious Diseases have identified that correlate with increased asthma attacks and/or deaths include poverty, substandard housing that results in increased exposure to certain indoor allergens, lack of education,

inadequate access to health care, and the failure to take appropriate medications.<sup>4</sup> Symptoms of an asthma attack include coughing, wheezing, shortness of breath, and tightness of the chest. During an asthma attack, the lungs are inflamed, mucous clogs the airways, the muscles around the airways tighten, and the airways become “hyperactive.”<sup>5</sup>

*B. Treatment:*

Although asthma is an incurable disease, it is manageable if treatment is provided continuously and correctly. Asthma sufferers may be able to avoid the triggers of their asthma attacks once they have identified them, and can take their medications regularly. There are two types of asthma medications: long-term control medication and quick relief medication. Long-term control medications work to decrease inflammation in the airways, and should be taken daily. These include oral steroids, inhaled steroids, cromolyns, theophyllines, leukotriene modifiers, and long-term bronchodilators. There are multiple types of controller medications that may be taken in pill form or with an inhaler. Some common trade names and their container descriptions include Flovent (orange inhaler), Vanceril (pink inhaler), Intal (white inhaler with black mouthpiece), Serevent (blue-grey inhaler) and Tilade (white inhaler), as well as pills of Singulair and Theophylline. These medications are to be taken two or three times daily, and also have various side effects that may range from mood and weight changes caused by the oral steroids to tremors and headaches caused by the bronchodilators. Quick relief medications are short acting bronchodilators. These include common medications such as Albuterol (white), Ventolin (grey), and Proventil (yellow). These medicines are to be taken whenever needed. Many people with asthma misperceive the effectiveness of both

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<sup>4</sup> Asthma: A Concern for Minority Populations, National Institutes of Health (NIH) - National Heart, Lung, Blood Institute (NHLBI) Fact Sheet, August 1996.

medications, judging that the quick relief medicine is more important to take because they are able to feel the effects of the medication immediately when taken, and therefore they neglect to take their controller medication because they don't feel the medication working promptly, not understanding that the controller medication could prevent their asthma attacks, while their quick-relief medication only works to calm the attack once it has occurred.

*C. Prevalence and Mortality:*

The prevalence of and mortality due to asthma has increased in the past two decades for all age, sex, and racial groups, affecting an estimated 18 million Americans in 1998 (that number is expected to have increased since then). Data from the National Health Interview Survey show that the overall age-adjusted prevalence of asthma rose from 30.7 per 1,000 population in 1980 to a two-year average of 53.8 per 1,000 in 1993-94, representing an increase of 75 percent. The prevalence among children (ages 5 to 14) increased at the same rate as the general population, but prevalence increased at more than double this rate (160 percent) among children up to 4 years of age.<sup>6</sup> (See Figure 1—Trends in Asthma Prevalence by Age) The rate of age-adjusted mortality for asthma has also increased steadily over the past two decades for all races, increasing from 0.93 per 100,000 in 1979-1980 to 1.49 per 100,000 in 1993-95.<sup>7</sup> (See Figure 2—Trends in Asthma Mortality by Race) These data sets make it evident that it is crucial for school-aged children and their parents to be educated about asthma and how to prevent asthma

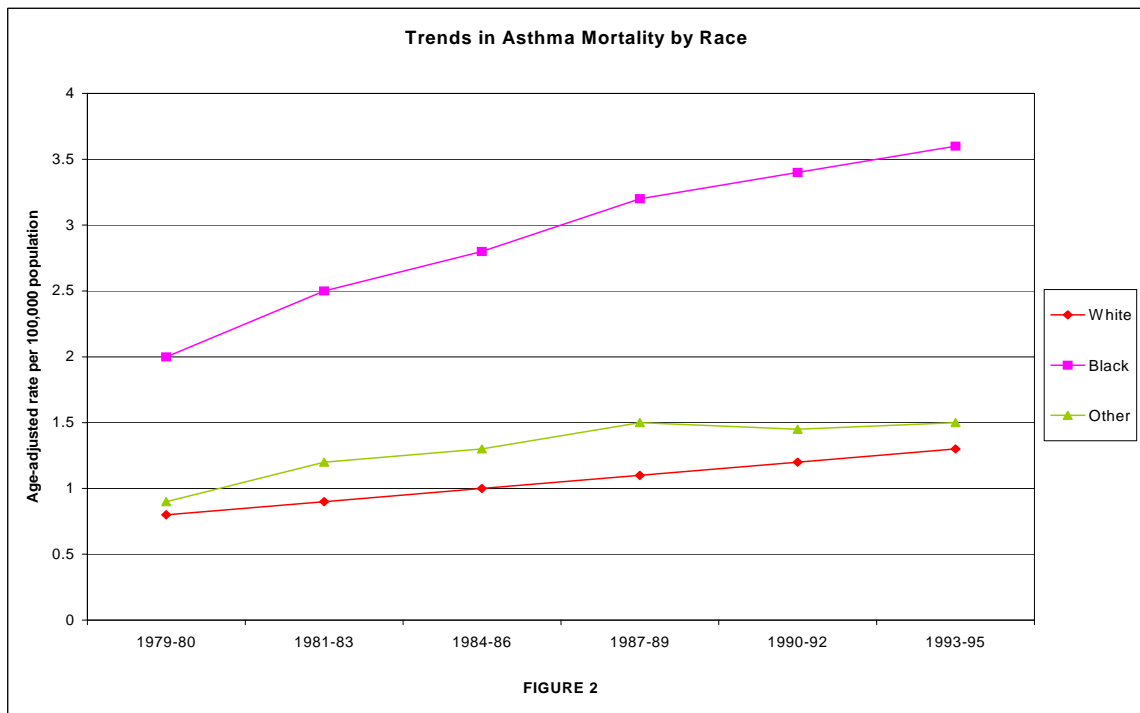
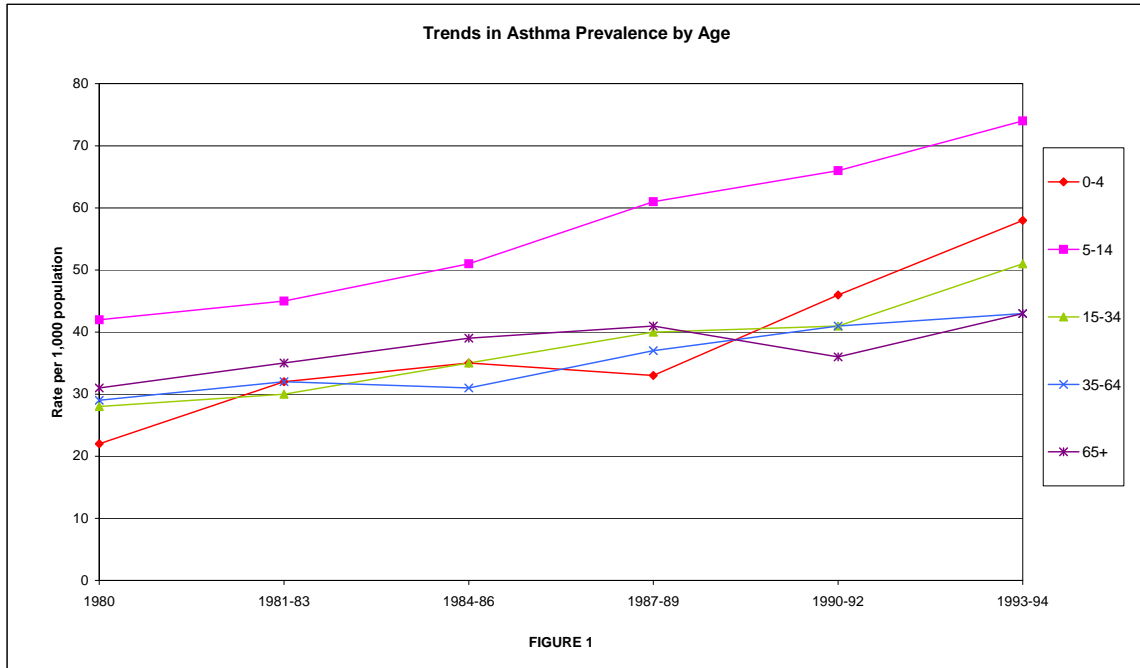
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<sup>5</sup> Draw A Breath Program Information Packet, 1999.

<sup>6</sup> National Health Interview Survey, National Center for Health Statistics, cited in Asthma Statistics, National Institutes of Health (NIH, NHLBI) Data Fact Sheet, January 1999.

<sup>7</sup> Vital Statistics of the United States, National Center for Health Statistics, cited in Asthma Statistics, National Institutes of Health (NIH, NHLBI) Data Fact Sheet, January 1999.

attacks, in order to decrease mortality due to asthma. With increased asthma prevalence and mortality, there are increased costs associated with the disease.



#### *D. Costs of Asthma:*

Emergency care visits and hospitalizations for asthma result in \$7.5 billion in direct monetary costs per year. Asthma causes over 1.5 million emergency department visits and about 500,000 hospitalizations yearly in the United States, and these numbers are increasing steadily according to data from the National Hospital Ambulatory Medical Care Survey. (See Figure 3—Trends in Emergency Department Visits by Sex) Hospitalizations account for the single largest portion in direct costs for asthma.<sup>8</sup> (See Figure 4—Trends in Asthma Hospitalizations by Race) According to the October 1997 NIH publication by the National Heart, Lung, and Blood Institute, *Practical Guide for the Diagnosis and Management of Asthma*, asthma is the third leading cause of preventable hospitalizations in the United States.<sup>9</sup> Because asthma is the second most important respiratory condition as a cause of home confinement for adults, and because it causes more than 18 million days of restricted activity and millions of visits to physician's offices, there is \$3.8 billion in indirect costs of asthma each year.<sup>10</sup> This includes the \$1 billion in lost productivity for working parents of children with asthma who, according to a recent study, lose an extra 10 million school days each year. In addition, asthma-related health care cost the United States \$6.2 billion in 1990.<sup>11</sup> These data show that if for no other reason than the \$11.3 billion in total cost, there is a need to decrease the incidence of asthma attacks.

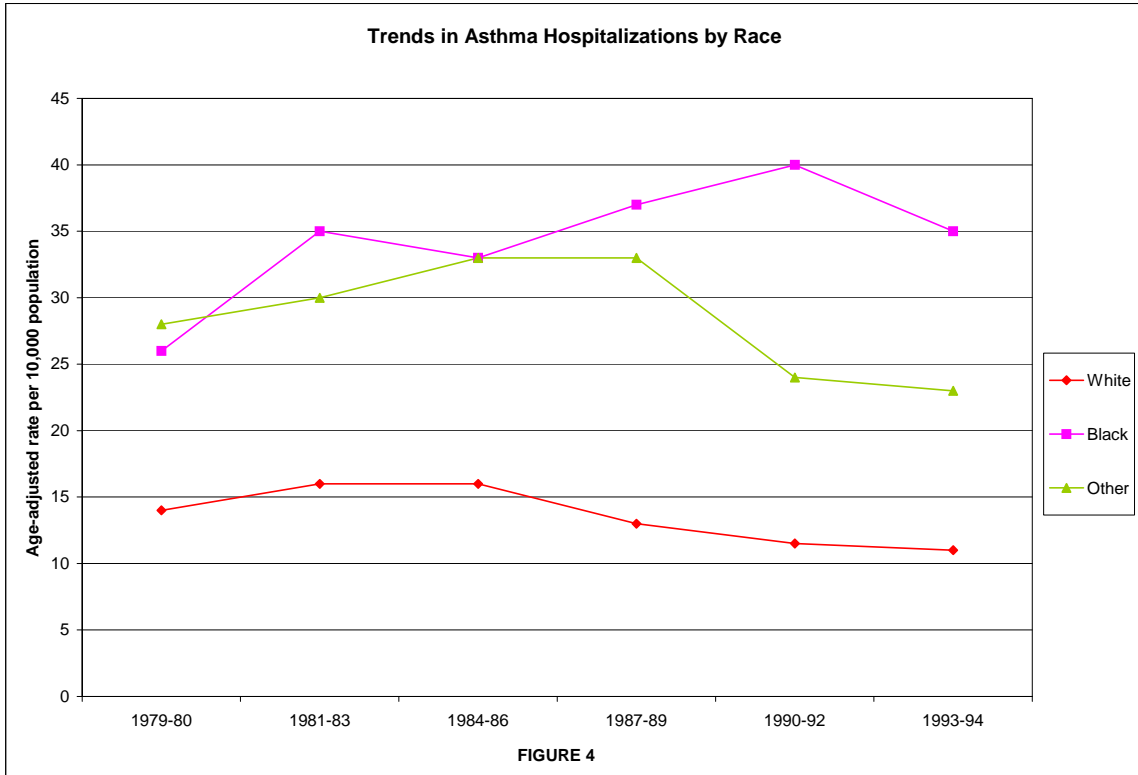
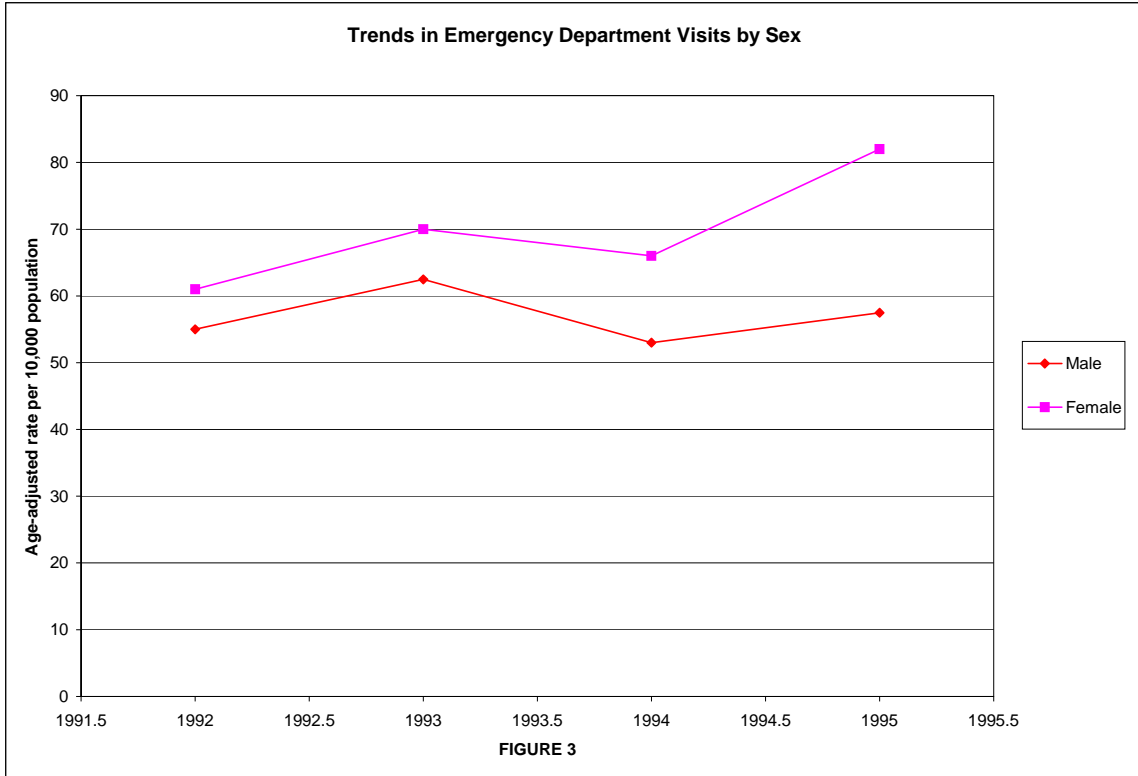
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<sup>8</sup> Asthma Statistics, National Institutes of Health (NIH, NHLBI) Data Fact Sheet, January 1999.

<sup>9</sup> *Practical Guide for the Diagnosis and Management of Asthma*, National Institutes of Health (NIH) - National Heart, Lung, Blood Institute (NHLBI) Publication, October 1997.

<sup>10</sup> *Asthma: A Concern for Minority Populations*, National Institutes of Health (NIH) - National Heart, Lung, Blood Institute (NHLBI) Fact Sheet, August 1996.

<sup>11</sup> *Ibid.*



*E. Other studies on asthma:*

There are multiple studies that show increased incidence of asthma in inner-city children due to exposure to cockroaches and other asthma triggers in the home environment. The National Institute of Allergy and Infectious Diseases demonstrated that the combination of cockroach allergy and exposure to the insects in inner-city homes was important in causing asthma-related illnesses and hospitalizations among children in the United States.<sup>12</sup> Another recent study in March of 2001 identified asthma residential risk factors as exposure of environmental tobacco smoke, use of a gas stove or oven for heat, and the presence of a dog in the household, confirming animal dander as an asthma trigger. The study concluded that the elimination of these risk factors would result in a 39 percent decrease in asthma among US children less than six years of age.<sup>13</sup>

One study of 392 families living in Washington, DC and Baltimore, Maryland tested the effectiveness of school-based asthma education interventions, community-based asthma health workers' programs, and their combination on children involved in the study, and showed that except for cigarette smoking, other factors in the home were changed to decrease incidence of asthma attacks.<sup>14</sup> For example, there were decreased reported numbers of emergency room visits among families that placed mattress covers on beds. The study proved that knowledge of home risk factors lead to greater asthma prevention.

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<sup>12</sup> DL Rosenstreich, et al. "The Role of Cockroach Allergy and Exposure to Cockroach Allergen in Causing Morbidity Among Inner-City Children with Asthma", *New England Journal of Medicine* 1997;336:1356-63.

<sup>13</sup> BP Lanphear, Aligne CA, Auinger P, Weitzman M, Byrd RS. "Residential Exposure Associated with Asthma in US Children", *Pediatrics* 2001 Mar;107(3):505-11.

<sup>14</sup> K Huss, Rand CS, Butz AM, Eggleston PA, Murigande C, Thompson LC, Schneider S, Weeks K, Malveaux FJ, "Home Environmental Risk Factors in Urban Minority Asthmatic Children", *Ann Allergy* 1994 Feb;72(2):173-177.

## CHAPTER III

### “Hot” vs. “Cold” as Old World Meets New World:

#### A Review of the Current Literature on Southeast Asian Perceptions of Illness

Central to my study was growing an appreciation and respect for each Southeast Asian culture’s perception of illness and apprehensions with “Western medicine” is important to better understanding how to help each population alleviate asthma. Understanding that communities have varying practices depending on their geographical location, and what is discovered of one Southeast Asian community in one area may not necessarily apply to a community of the same Southeast Asian ethnicity located in a different area of the United States, I still believe that this knowledge serves as an important common ground from which to begin when identifying ways to approach each population. I hope that the general background knowledge drawn from these studies, as well as the results and conclusions of my own research project discussed later, will lead to a better understanding of Southeast Asian communities.

Although this chapter does not give an exhaustive discussion of Southeast Asian perceptions of illness, publications regarding cultural competency when working with different Southeast Asian communities show many similar and some different behavioral characteristics amongst them. In general Southeast Asian cultures value politeness, respect for authority figures, and the avoidance of shame.

##### *A. The Cambodian Perception:*

One study of Cambodian refugees in Texas found that Cambodian people, or the Khmer, believe that illness is attributed to an imbalance in natural forces within the

body.<sup>15</sup> More specifically, the Khmer believe that illness stems from “wind” or “kchall” influencing blood circulation, creating states of “hotness” or “coldness” within the body. These “hot” and “cold” states do not necessarily refer to body temperature but instead to the likelihood of getting sick. The study also identified various reasons why the Khmer delay seeking health care, including such reasons as their own acceptance of the illness, difficulty accessing public or private health providers, difficulty traversing the healthcare system, and other factors related to culture, language, and poverty. Major issues in providing quality care to Cambodian patients are accurate and complete assessments of the illness, compliance with medications and treatment, and a reluctance to be involved in preventative measures. Noncompliance may be due to the patient not believing that he or she has properly communicated the problem to the health provider and therefore he or she has little faith in the solution. Another possibility of noncompliance is that the patient may discontinue medications once symptoms disappear. Although reducing communication barriers may solve some of these issues, the study warned of the possibility of translator rejection by the patient for reasons of gender, age, social status, or past relationship incompatibilities.

According to one study of the Cambodian community in Seattle, Washington, asthma is a recognized disease in Cambodia.<sup>16</sup> The study used questionnaires to explore Cambodian translations and terminology, ideas of disease causation, recognition of symptoms and signs, and experience with healers, treatments, and home remedies. The Cambodian word for asthma is pronounced /jum’ng huurt/, in which /jum’ng/ means

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<sup>15</sup> Charles Kemp and Lance Rasbridge, “Cambodian Refugees and Health Care in an Inner-City Setting”, <[http://www.baylor.edu/~Charles\\_Kemp/asian\\_health.html](http://www.baylor.edu/~Charles_Kemp/asian_health.html)>, last updated in December 2000.

<sup>16</sup> Lenna Liu, M.D. “Cambodian Asthma Cultural Profile”, <<http://healthlinks.washington.edu/clinical/ethnomed/cam-asth.html>>, last updated in January 1996.

disease, and /huurt/ roughly translated means “hot” or the feeling of exhaustion, fatigue, and shortness of breath that occurs after running or excessive activity. Although there is no concise Cambodian word for “wheezing”, the Cambodian medical dictionary defines the word /kraet’kraut/ to mean “the sound of tight breathing,” however not a single respondent in the study knew the term. Instead, one patient in the study described wheezing as “a cat’s cry.” In regard to perceptions of asthma triggers, the same study showed that Cambodians believe that “not eating, cold temperatures, changes in weather, and emotions” worsen asthma and most suggested that asthma was inherited.<sup>17</sup> No one reported a relationship between asthma and smoking. People in that study did not report using home remedies except for herbal teas to dispel asthma.

Respondents to another study of traditional health practices in the Seattle Cambodian population reported that Western health care is confusing and overwhelming because of language and cultural barriers, crowded waiting areas, multiple interviews, mysterious procedures, and somewhat abrupt behavior of the personnel.<sup>18</sup> Preventative health care is a new concept to Cambodians who typically only visit doctors when they are ill. When they do go to a doctor, they expect to receive medication, as this makes them feel that something is being done. This medication may then be shared among friends and family. A study conducted in Scottsdale, Arizona on older Cambodian women attributed low participation rates in cancer screening to “lack of knowledge about cancer, shyness at physical examination, lack of transportation, fear of a large, technical

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<sup>17</sup> Liu, Ibid.

<sup>18</sup> Linda Wetzel, RN, and Jennifer Huong, Community Reader, <<http://www.hslib.washington.edu/clinical/ethnomed/cambcp.html#us>>, last updated in January 1995.

medical center, and individual appointments.”<sup>19</sup> After interventions to reduce these barriers, which included community informational programs in the Cambodian language, group screening appointments, provisions of transportation, and the use of interpreters in informal clinic settings, the screening rates for Cambodian women increased 5 times.

*B. The Hmong Perception:*

Interviews of members of the Wisconsin Hmong population show that Hmong patients and their US-trained health care providers have different health belief systems.<sup>20</sup> Problems were identified in linguistic and cultural translations between care providers and Hmong patients. An overwhelming number of patients identified kind, caring, and positive attitudes as important provider characteristics. Providers noted difficulties in understanding Hmong conceptions of acute versus chronic diseases, illness prevention, and pain, both physical and psychological. Suggestions for improvement given by respondents in the Wisconsin study included improving “cultural competency”, that is, awareness of the traditions and beliefs within each Southeast Asian community, having patient, kind, and positive approaches towards patients, avoiding negative statements or assumptions, improving translation quality, explaining medical terms using visual aids, respecting Hmong family-centered decision making, increasing the time allotted for translated clinical encounters, and training Hmong health care providers. This study shows a need for addressing basic relation issues between clinicians and Hmong patients if health care communication is to be improved. Because this study serves as a good foundation for learning what Hmong people look for when interacting with health

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<sup>19</sup> A.W. Kelly et al., “A Program to Increase Breast and Cervical Cancer Screening for Cambodian Women in a Midwestern Community,” *Mayo Clinic Proceedings*, Vol.71, Issue 5, 1996, pp.437.

<sup>20</sup> B Barrett, Shadick K, Schilling R, Spencer L, del Rosario S, Moua K, Vang M, “Hmong/medicine interactions: improving cross-cultural health care”, *Family Medicine* 1998 Mar;30(3):179-84.

providers, I believe that the recommendations given by the Hmong participants should be kept in mind when approaching the Hmong community in Providence.

One study of traditional Hmong people shows that they perceive sickness as wrath from the gods.<sup>21</sup> They view the physician as a priest who negotiates with the gods to remove the sickness and feel that a person's lifespan is predetermined, and therefore efforts to prolong one's life are futile. In addition, they also feel that minor illnesses are organic but serious illnesses are supernaturally caused. The study states that although the conversion to Christianity and urban living have lessened these traditional beliefs, Hmong people still believe in external causes of sickness and resist invasive techniques. Supporting this theory that the Hmong believe that sickness is a part of the natural process of life, another study about Hmong perception of the disease dementia found that "dementia was perceived as a natural part of the life cycle, rather than as a devastating disease that robs individuals of their autonomy."<sup>22</sup> The study identified this perception as the reason why treatment was not sought for dementia among the Hmong population in Wisconsin. The results of this study show how traditional Hmong beliefs about illness may affect behavior with illnesses in the United States. However, another study based on how Hmong people perceive measles found that responses indicating their understanding of the disease and the ways in which they cared for children with the measles spanned the range between Hmong animistic cosmology and Western theories of disease.<sup>23</sup> Therefore, as these studies show, there are various degrees of acculturation and therefore varying traditional beliefs to keep in mind when approaching the Hmong population in

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<sup>21</sup> Pamela LaBorde, M.D., "Vietnamese Cultural Profile", <<http://www.hslib.washington.edu/clinical.ethnomed/vietnamesecp.html#us>>, last updated in July 1996.

<sup>22</sup> MC Olson, "The heart still beat, but the brain doesn't answer—Perception and experience of old-age dementia in the Milwaukee Hmong community", *Theor Med Bioeth* 1999 Jan;20(1):85-95.

Providence. This topic of acculturation and its relevance to the Southeast Asian communities in Providence, Rhode Island is discussed later in Chapter IV.

*C. The Laotian Perception:*

A study of Laotian people in Texas identified barriers to obtaining and effectively utilizing health and other services included language and cultural barriers that lead to feelings of isolation and cultural depersonalization.<sup>24</sup> Culturally, Laotian people value privacy in personal matters, with special vulnerability to issues relating to family and illness. In the Texas study, participants generally looked first to their family and community for traditional treatments for an illness before seeking treatment at a clinic or hospital.<sup>25</sup>

Similar to the Cambodian culture, Laotians also believe that the source of illness is through “hot” and “cold” states, and when an illness occurs, it is because of a “wind” trapped within the body. Therefore, methods of coining or cupping are used to extract the wind from the body; hence helping to ease the illness. For treating “hot” states of the body (when there is an illness), traditional herbs are used. The traditional medicines are classified as “cool” agents to sickness, as opposed to Western medicines that are classified as “hot” agents to sickness. Therefore, depending on whether the person views his or her sickness as a “hot” or “cold” state, the medicine chosen should counteract with the current state. This may be one reason why some Laotian people do not take or finish their prescribed medications. In general Laotian perceptions and approaches to illness

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<sup>23</sup>RR Henry, “Measles, Hmong, and metaphor: culture change and illness management under conditions of immigration”, *Med Anthropol Q* 1999 Mar;13(1):32-50

<sup>24</sup>Charles Kemp and Lance Rasbridge, “Health Care Beliefs and Practices of Laotians Living in America”, <[http://www.baylor.edu/~Charles\\_Kemp/asian\\_health.html](http://www.baylor.edu/~Charles_Kemp/asian_health.html)>, last updated in December 2000.

<sup>25</sup> Ibid.

are similar to that of the Cambodian culture, and therefore similar approaches may be appropriate.

*D. The Issue of Chronicity:*

Southeast Asian perception of disease chronicity is another important issue to address because it directly affects Southeast Asian behaviors towards disease. Chronicity may be a difficult concept for some Southeast Asians to grasp, especially if, as in the case of asthma, symptoms come and go during a person's lifetime. For example, if some Southeast Asians believe that asthma is not chronic, they may discontinue use their preventative medicine. In general, the issue of chronicity is valuable to keep in mind when evaluating Southeast Asian behaviors to disease, specifically in the case of asthma.

*E. Other studies on Southeast Asians:*

Some strategies implemented and suggested in other studies to overcome linguistic and cultural "barriers" and to reach out to the Southeast Asian communities included: bilingual/bicultural providers of health care, bilingual/bicultural community health workers, employee language banks, and professional interpreters at the health centers, health departments, hospitals, and managed care organizations.<sup>26</sup> A recent study in California examining outreach strategies to Southeast Asians in that area found that:

The challenge of educating Southeast Asian populations include language barriers, differences in cultural and/or religious beliefs, geographic location, and unfamiliarity with and/ or mistrust of Western health care systems. In addition, outreach workers must consider the great diversity of ethnicity, language, literacy, and education levels, and degree of acculturation to the US within the Asian/Southeast Asian groups. It is crucial before embarking on any outreach campaign to understand the

history and make-up of the target audience, including ethnic minorities and dialects, to translate written materials into appropriate languages or audio formats, and to have a group of trained interpreters for events.<sup>27</sup> Sending written translated materials in each native language to homes is also beneficial in spreading awareness about disease, and having the written material available at a common meeting area such as an Asian supermarket, as one study tested, also may prove successful.<sup>28</sup> The supermarket study found that “low incidence of some diseases” may be an attributable problem for creating awareness among the Southeast Asian populations because it may “lull [Southeast Asians] and their health care providers into complacency about the value of health education and screening for diseases of comparatively low incidence.”<sup>29</sup>

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<sup>26</sup> Sherry Riddick, “Improving Access for Limited English-Speaking Consumers: A Review of Strategies in Health Care Settings,” *Journal of Health Care for the Poor and Underserved*.

<sup>27</sup> J Choy, Foote D, Bojanowski J, Yamashita R, Vichinsky E, “Outreach strategies for Southeast Asian communities: experience, practice, and suggestions for approaching Southeast Asian immigrant and refugee communities to provide thalassemia education and trait testing,” : *J Pediatr Hematol Oncol* 2000 Nov-Dec;22(6):588-92.

<sup>28</sup> Georgia Robins Sadler PhD, France Nguyen BS, Quyen Doan, Hong Au, and Anne Goldzier Thomas BS, “Strategies for Reaching Asian Americans With Health Information,” *American Journal of Preventive Medicine* 1998 April;20(3): 224-228.

<sup>29</sup> *Ibid.*

## CHAPTER IV

### Taking a Closer Look:

#### Southeast Asian Populations in Providence, R.I.

##### *A. Demographic Information:*

Of the 4.8 million children in the United States that are afflicted with asthma, 15,000 live in the state of Rhode Island.<sup>30</sup> According to the Office of Minority Health, Rhode Island Department of Health, as of the 1996 population estimates, there are 21,328 Asian people living in Rhode Island.<sup>31</sup> Almost half are of Southeast Asian origin: Cambodians (Khmer) at 20%, Laotians at 14%, and Hmong at 5%. These percentages have changed, as there has been migration in the past few years of Hmong people out-of-state, and hopefully with the Asian population census data for 2000 (which is projected to be available in the summer of 2001) a more accurate breakdown of each Southeast Asian population will be available. However, the data currently available 2000 census data shows that of the 281.4 million people in United States, 3.6 percent (10.2 million) are Asian.<sup>32</sup> The data from the Office of Minority Health also show that about 93% of Asians living in Rhode Island live in urban areas such as Cranston, Providence, and Woonsocket. As of 1990, there were 9,547 Asian people living in the city of Providence, nine times as many Asians as any other city in Rhode Island.<sup>33</sup> The Office of Minority Health also reports that Asians in Rhode Island are four times as likely to live in poverty

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<sup>30</sup> Draw A Breath Program Information Packet, 1999. AND from Asthma In America website at URL: <http://www.asthmainamerica.com/statistics.htm#1>

<sup>31</sup> "Southeast Asian Culture and Health", Office of Minority Health, Rhode Island Department of Health, [http://www.health.state.ri.us/omh/asi\\_cul.htm](http://www.health.state.ri.us/omh/asi_cul.htm).

<sup>32</sup> US Census Bureau, Census 2000, [www.census.gov](http://www.census.gov)

<sup>33</sup> "Rhode Island Population by Race and Ethnicity by City and Town 1990", OMH RIDOH, [http://www.health.state.ri.us/omh/pop\\_race.htm](http://www.health.state.ri.us/omh/pop_race.htm).

as the general population (26.5% vs. 6.8%). This has great implications on asthma and environmental factors leading to asthma attacks in children.

Demographic data on Providence elementary schools obtained from the Health & Education Leadership for Providence (HELP) partnership, in conjunction with data collected thus far in the Draw A Breath program, shows that in most of the schools that are scheduled for visitation in 2000/2001, the number of asthmatic Southeast Asian children whose families have participated in the after school program so far is inadequate to spread asthma education among the community. Of the schools that reported from 10 to 41 Asian students with asthma, there would often be none or only a few participating Asian families from that pool at the Draw A Breath program. This comparison of data shows that there is a need for recruiting these families by methods other than the phone interviews currently being conducted. It also implies that there are language or cultural barriers that need to be addressed, including possible scheduling conflicts with family work schedules and the time interval of the program.

*B. Acculturation:*

Acculturation is another important issue to address, as varying degrees of acculturation may influence the level of awareness and knowledge of asthma within each Southeast Asian community in Providence. Acculturation is the term used to describe changes within a culture that result from contact among various societies over time. That is, new immigrants to the United States may have dissimilar perceptions on certain issues from older immigrants who have been in the country for some time. The degree of acculturation plays a significant role in understanding each respondent.

Specifically to Rhode Island, the Cambodian and Laotian communities share similar immigration patterns, although Hmong immigration patterns may have followed likewise. The first wave of immigration occurred in the mid to late 1970s for both populations. Cambodian immigrants at that time were mostly well-educated professionals from Cambodia. The second major wave of immigration occurred in the mid 1980s, from 1984 to 1986, and this time included rural agrarian Cambodian families as well. In both waves of immigration, Laotian immigrants consisted mostly of rural agrarian families. In fact, when Savanh Chantharangsy's family came to Rhode Island in the mid 1970s, there were only four Laotian families here at the time. Large influxes of immigrants from both communities dwindled at the start of the 1990s.

## CHAPTER V

### Interview Findings:

#### Intra and Intercommunity Comparisons

I conducted a total of 15 interviews from people within the Laotian community, 13 interviews from people within the Cambodian community, and 3 interviews from people in the Hmong community who all either have asthma or have family members with asthma. I believe that I have been least able to arrange interviews with people who are afflicted with asthma in the Hmong community because, of the one percent of Southeast Asian people living in Rhode Island (out of the total population according to the 1990 census), there is a much lower percentage of Hmong people (5%) compared to the Laotian and Cambodian populations (14% and 20% respectively). Furthermore, since many Hmong families are rumored to have migrated to a larger Hmong community in Minnesota since 1990, the percentage of Hmong residents in Rhode Island may have decreased significantly and thus this may explain the low number of interviews obtained.

##### *A. The Cambodian Population:*

Contrary to my initial fears that there would be negative or no response from the Southeast Asian communities in Providence, and that the respondents would be afraid to “lose face” and would therefore safe-guard their illnesses, I found only positive reception from those I met in the Cambodian community. With Sokvann Sam’s help, I visited their temple, and their Cambodian Society meeting. I was warmly greeted with shy smiles and approving nods as Sokvann introduced to the community members. Individual responses to my interviews were not reserved, but rather explicit in describing aspects of their

asthma attacks to me directly or through a translator. In the Providence Cambodian community, the word for asthma is /jum'ng hurt/, which translated means “disease of shortness of breath.”<sup>34</sup> From the data collected through the interviews within the Cambodian community, significant findings are as follows:

- Trust: Surprisingly, there is a much greater trust in Western medicines in comparison to traditional medicines to treat asthma. In accordance with traditional Cambodian beliefs of “hot” verses “cold” body states, most respondents said that the “cold” was a source that worsened their asthma (69%, N=9). Western medicines may be as trusted as it is because it is considered “hot” medicine that is used to counterbalance with the “cold” state. Of the few respondents who knew of some traditional means of treating asthma (31%, N=4), none chose to try them. Most traditional home remedies included herbs from Cambodia and Chinese herbal medicines. One respondent even stated that she was told to take a hornet’s nest (which she described as a “bee-type insect” that made its home outside her front door), cook it in white wine, and drink it to help with her asthma. She thought the suggestion, which was given to her by some elders, odd and has never tried it. However, most respondents either have never heard or do not know of any traditional Cambodian remedies for asthma (69%, N=9).

- Asthma Triggers: At first I debated whether or not I wanted to list known triggers in my interview question and have respondents pick from the list, but I decided to leave the question open-ended in order to evaluate respondents’ awareness of triggers. Although no respondent ever mentioned the word “trigger”, they did list many causes that “worsened” their asthma. Among those listed, the most popular response was the “cold”

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<sup>34</sup> Sokvann Sam, Previous President of Cambodian Society in Providence (199X-2001), taken from interview on November 28, 2000.

(69%, N=9), followed by “smoke” (62%, N=8), exercise of any kind (39%, N=5), strong odors (15%, N=2), and single responses that listed foods, coughs, pets, and humidity. There was one respondent who did not know what triggered her asthma. Overall, no respondent related dust, pollen, cockroaches, or extreme emotions, all of which are leading triggers listed in the current literature, with their asthma attacks.

- Prevention: I found it very surprising and unfortunate that while many respondents listed various triggers of their asthma attacks, there were few answers that showed that respondents took preventative measures with their asthma, and among those responses only one primary preventative action was taken (39%, N=5). Hardly any respondents stated that they avoid the factors that worsened their asthma, or that avoidance of these triggers was helpful with managing their asthma. Furthermore, the majority of respondents stated that only their medications were helpful with their asthma (46%, N=6), even when they were asked specifically to list factors apart from their medication that were beneficial to their asthma. Following the belief shared by many Cambodian people, that “cold” body states lead to asthma attacks, many respondents stated that they often “wear warmer clothes” or “keep [their bodies at] warm temperatures” to manage their asthma (39%, N=5). Only two respondents said that nothing helped prevent their asthma attacks at all, while only one respondent demonstrated a preventative action, saying that she kept her sons away from “smoke” to avoid their asthma attacks.

- Response: When asked how they initially respond to an asthma attack, that is, whether they “take medicines for it right away, try home remedies, call the doctor, or go

<sup>35</sup>, most answered that their first step was to take their medication (92%, N=12). The remaining respondents stated that they call their doctors first. No respondents listed visitation to the ER as their first response to an asthma attack, although 31 percent (N=4) said they would visit the ER if the medications were ineffective in easing the asthma attack. No respondents listed more than two options as actions they would take in response to an asthma attack. Interestingly enough, 15 percent of respondents (N=2) who listed ER visitation as their second choice of action during an asthma attack also said that they had “never” had to visit the ER because of their asthma. Conversely, 67 percent (N=4) of those who listed a second action but did not list ER visitation as that action, responded in a following question that they visit the ER from two to as many as seven times per year on average. No one stated that they tried any home remedies other than relaxing or drinking liquids.

- Perceptions of Severity: Cross referencing respondents’ answers on how severe they perceive their asthma with the number of ER visitations per year due to their asthma, of the five respondents who perceived their asthma as “severe”, four visited the ER that year. Only one respondent, who said she did not consider her daughter’s asthma severe, stated also that they visit the ER three to five times a year. Twenty-three percent of respondents (N=3) have been to the ER more than three times a year because of their asthma, while another twenty-three percent (N=3) have visited the ER less than three times a year because of their asthma. More than half of the respondents have never visited the ER because of their asthma (54%, N=7).

- Medicine: Most respondents did not differentiate between controller and quick relief medicines. Furthermore, respondents were not familiar with the words

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<sup>35</sup> Question 10 on Interview Sheet. See Appendix D

“control medicine” or “quick relief medicine” throughout the interviews. Instead they referred to both groups together as “inhalers”. Most respondents could not recall the names of their medications without seeing them, but most did have their medication with them. Thirty-nine percent of respondents used both control medicine and quick relief medicine, although respondents did not recognize the difference between the two medications. Forty-six percent of respondents took only one kind of medication, the majority having only quick relief medicine. There were also respondents who did not know their medication at all but only called their treatment “the machine”, indicating the use of a nebulizer and albuterol (15%). Almost all respondents (85%) are currently seeing one or more doctors annually regarding their asthma, and those who do not regularly see a doctor gave their current good standings with their asthma as an explanation.

- Perceptions of Asthma: Many respondents did not realize that asthma is a chronic disease. One respondent believed that people can “grow out of asthma”, and also associated asthma with the United States, saying that asthma was not known of until entrance into the United States, and that asthma did not exist in Cambodia. Sixty-nine percent of respondents (N=9) had children less than 13 years of age with asthma, for whom they were answering the interviews. Thirty-eight percent of respondents (N=5) believed that asthma is hereditary, while 62 percent of respondents (N=8) believed that asthma occurs in single-case incidences, independent of genetics. When asked how much they believed they knew about asthma, that is, whether they knew a lot, had some knowledge, or knew a little, no one replied that they knew a lot. There were almost equal

Only two of my interviews with the Cambodian respondents needed translation. One interview was conducted over the phone, and 12 interviews were conducted in person. Unfortunately, I did not ask the respondents how long they have been in the United States, but from my own observations during the interviews, and from the Cambodian immigration information, I would guess that most of the respondents, save one or two, have been in the United States for more than ten years. This is important in understanding the degree of acceptance and trust of Western medicine as well as “outside” intervention with regards to health matters that most of the respondents shared.

*B. The Laotian Population:*

Again my initial fears of encountering barriers when first interviewing the Laotian community in Providence proved to be wrong. I was received with great open-mindedness and cooperation. Many respondents welcomed me into their homes to conduct my interviews, taking time out of their busy lives. Home interviews were conducted either in the early afternoons before respondents left to pick up their children from school and then leave to work the late shift, or in the evening when they have just returned from a long day’s work. In one case, Savanh Chantharangsy, who served as my translator for the Laotian community, and I interviewed a woman while she was at work. It is certain that the Laotian community in Providence was much more approachable because Savanh and his family are well known and respected by many others in the community.

The word for asthma within the Laotian community in Providence is pronounced /huh jay food/.<sup>36</sup> There were many distinct differences between the Cambodian and the Laotian communities in their perception and management of asthma, as the following findings will show. In general I noticed a greater variety of responses and beliefs than was observed in the Cambodian interviews. One interesting finding is that more than half of Laotian respondents said that they were diagnosed with their asthma in the ER (53%, N=8), and that of this percentage, none of them have been back to the ER since that first time.

- Trust: While many respondents trusted their Western medicine to treat their asthma, a surprisingly large percentage of respondents (62%) knew of alternative treatments for asthma, most of which were traditional remedies derived from East Asia. Two respondents said that their Western medicines did not work, so they resorted to traditional methods that did work. Both claimed that they were “cured” of their asthma with these traditional methods. This finding is interesting in that both respondents, not related to each other, were much older than the other respondents in the community. However there was a difference between the traditional treatments, with one being more practical and the other more spiritual. One respondent used herbs and pills from Cambodia, whereas the other respondent, who also used herbs, said that she had to believe spiritually in her treatment in order for it to cure her asthma. Traditional methods ranged from mashing up traditional herbs and roots to drinking “tiger’s milk” from Laos. Popular herbs included lemongrass and something the respondents pronounced as “keen”,

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<sup>36</sup> Savanh Chantharangsy, Member of the Laos Association in Providence, R.I., taken from an interview on November 21, 2000.

both of which were ground to a fine pulp and mixed with milk or juice and ingested. This was to be done twice a week to help with asthma.

- Asthma Triggers: There were more triggers identified by respondents in the Laotian community than by any other Southeast Asian community interviewed. These included dust, plants, cockroaches, and extreme emotions, none of which were mentioned by respondents in the Cambodian community. The most mentioned trigger among the respondents was “smoke”(60%), followed by dust (47%), “heat” (40%), “cold” and “exercise” (33%), “pets” and “strong odors” (27%), foods (20%), “extreme emotions” and “cockroaches” (13%), and lastly “plants” and “allergies”(7%). Many respondents related their asthma attacks with their allergy attacks. As in the Cambodian community, Laotian respondents also never mentioned the word “trigger”.

- Prevention: In contrast to Cambodian respondents, Laotian respondents knew or had some knowledge of precautionary measures to avoid their asthma attacks, other than just relying on their medicines. Contrary to the view shared by many Cambodian respondents that the “cold” is the major trigger of asthma, Laotian respondents used the “cold” as a remedy for threatening asthma attacks. Many said they try to keep “cool”, or expose themselves to “cold air” when they feel an asthma attack is coming on (40%, N=6). Some 27 percent (N=4) said they found keeping their homes clean helped with their asthma, while others avoided pets, smoke, and excessive physical activity (27%, N=4). This finding greatly contrasts with the lack of preventative measures taken by the Cambodian respondents.

This greater awareness of triggers and preventative actions of the Laotian respondents was not a result of the length of time they had asthma since respondents from

both communities were generally afflicted with asthma for about the same amount of time. That is, of the Cambodian respondents who are afflicted with asthma, 31 percent had the disease for less than two years ago, and an almost equal percentage (33%) of Laotian respondents also were afflicted with asthma for less than two years ago, and 47 percent of Laotian respondents presently have asthma for more than five years, while 39 percent of Cambodian respondents also have asthma for more than five years.

Questions arose such as: Is this contrast in asthma awareness and prevention between the Cambodian and Laotian respondents related to external factors such as visits to the doctor or public education; or it merely an effect of personal observation among the individual respondents in each community? Can the difference in knowledge and asthma awareness be related to the structure of each Southeast Asian community?

- Doctor Visits: Could doctor visitation be related to the difference in knowledge and asthma awareness? The data show there is actually a smaller percentage (60%) of Laotian respondents who are currently seeing a doctor for their asthma than Cambodian respondents (77%). Furthermore, of those seeing a doctor, 27 percent of Laotian respondents said they do not visit their doctors regularly, while only eight percent of Cambodian respondents do not regularly visit their doctor. This indicates more frequent or regular doctor visitations do not appear to account for the greater awareness of triggers and precautionary actions observed in the Laotian population, and other explanations must be sought.

- Response: When asked how they first respond to an asthma attack, most Laotian respondents said they take their medicine right away (67%, N=10). The remaining singular responses included to “wait and sit” to see if the attack “goes away”,

- Medicine: Similar to the Cambodian community, Laotian respondents did not differentiate between controller and quick relief medicines, referring to both groups as “inhalers”. Likewise, respondents who use nebulizers knew only to refer to them as “machines” (13%, N=2). However, one difference between both communities is that some Laotian respondents were able to name some of their medicines, such as “Albuterol” and “Ventolin”. Thirty-three percent of Laotian respondents (N=5) use both control and quick relief medicines, while 47 percent (N=7) and 13 percent (N=2) use only quick relief or control medicine, respectively. Of those respondents who take quick relief medicine, most said that their medicine was “very effective” (73%, N=11), and one respondent said that the medicine helped the “lungs [to] open”. Twenty percent of respondents (N=3) said that their medicine was only “somewhat effective”. Two of these respondents were using only quick relief medicine, and the third respondent was using

- Perceptions of Severity: Cross referencing respondents' answers on how severe they perceive their asthma with the number of ER visitations per year due to their asthma, the data shows that of the five respondents who described their asthma as severe, four have been to the ER more than once a year. Twenty-seven percent of respondents (N=4) have been to the ER more than three times a year because of their asthma, which is slightly greater than the Cambodian population (23%, N=3). (Please refer to comparative table in Appendices). Most have only been to the ER once (53%, N=8), and 20 percent have never been to the ER because of their asthma. Of the respondents who used to frequently visit the ER (33%, N=5), all have said that they have less of a reliance on their medicines and have not visited the ER in the past three to ten years because they have managed to avoid their triggers.

- Perceptions of Asthma: A majority of respondents did not know that asthma is a chronic disease, and 33 percent of respondents believed that their asthma is now

My interviews with Laotian respondents were the most varied in type with 47 percent (N=7) of interviews conducted over the phone, 40 percent (N=6) at home visits, and one at the respondent's work place. Of those interviews, 67 percent (N=10) required translation. Again, as with the Cambodian community, I did not ask the Laotian respondents how long they have lived in the United States, but it seemed that most of the respondents have been in the United States for more than ten years, which may explain why they were so knowledgeable about their asthma and their preventative measures.

*C. The Hmong Population:*

Due to the fact that I was only able to obtain three interviews from people in the Hmong community who have asthma or have children with asthma, I can draw only tentative conclusions. Therefore, I will give general trends extrapolated from these three interviews rather than percentage values as I have done with interviews with other Southeast Asian communities. Although all respondents were familiar with the disease, there is no word in the Hmong language for asthma. The reason given by respondents is that the disease never existed before their entry into the United States.

All three respondents reported that their asthma is or was very serious, and that they do not know of, nor have they tried, any traditional remedies for treating asthma. Two of the three respondents had a good grasp on their asthma triggers, identifying foods, odors, dust, smoke, and exercise as main triggers of their asthma. One respondent did not remember when he was diagnosed with asthma, and did not know what triggers his asthma. Respondents took no concrete preventative actions; two respondents said that

only their medicines helped with their asthma. No respondents mentioned the words “controller” or “quick relief” medicine although all three take both medicines.

In general, Hmong patients seemed more reserved about the details of their asthma. Many did not go into detailed descriptions of their asthma, but gave instead short answers. Perhaps this is because respondents were of older age, and did not feel comfortable sharing their personal information with a younger person. It seems that the Hmong population may be less open to intervention from outside their community, but this is only conjecture and may be proven incorrect.

## CHAPTER VI

### Recommendations

To review, my key findings are as follows:

- Respondents in both communities were very open about their asthma.
- Respondents in both communities did not differentiate between “control” and “quick relief” medicines, referring to both as “inhalers”.
- Laotian respondents had greater awareness of asthma than Cambodian respondents, although no one mentioned the word “trigger”.
- Laotian respondents took more preventative measures than Cambodian respondents.
- Frequency of doctor visitation does not seem to affect knowledge of asthma.
- Parents simply do not have the time to attend education sessions.

Based on these key findings, recommendations target the Draw A Breath asthma education program, the Providence Community Health Centers, and any similar groups working with the Southeast Asian communities in Providence Rhode Island. They are based on background literature involving other education strategies targeting Southeast Asian populations, information gathered from interviews with participants from each community, and any other observations obtained during the research process. I hope that these recommendations will assist in reaching Southeast Asians in Providence with specific information about asthma and have some broader implications for the process of providing other health information in these communities.

#### *A. Recommendations to the Draw A Breath Program:*

When I began this research project, one of my main objectives was to increase the number of Southeast Asian participants in the Draw A Breath Program as well as heighten awareness of asthma among the Southeast Asian communities. I found that the

greatest reason why Southeast Asian parents were not attending these after-school education sessions was because they simply did not have the time. During my research process, I interviewed people at various times of the day because their work schedules were all so different. Parents usually have their weekends free only, which they prefer to spend with family and friends.

Since it is nearly impossible for Draw A Breath to accommodate to the different work schedules, I suggest sending home asthma information packets to each of the children who are identified as having asthma, in the family's native language.

Since the research shows that respondents from all communities did not differentiate between control and quick relief medicines and each medicine's purpose in treating asthma, the information packet should have information and colored pictures of each inhaler showing their different types and purposes. Furthermore, since the research also shows that respondents did not have a thorough knowledge of all possible asthma triggers, it is wise to include a list of these triggers in the packet as well. This may help the family gain awareness of the triggers around their homes and increase their preventative measures. For the children, have some asthma activity sheets within the packet that will help them to identify triggers and show them the proper method of taking their medicines and using their inhalers, as is taught in the regular education sessions. Although this information packet would ideally be in the appropriate languages, it is important to note that it should not be assumed that this would negate the cultural differences identified in both communities.

To ensure that the parents have looked over the information, have the children return with signed forms by their parents. Another possible method of ensuring that the

packet is read is to have someone who speaks the family's native language make a follow-up call to the parents, asking them if they have any questions regarding the information packet.

If the Draw A Breath program still wishes to recruit participants to the after-school session, recruitment of participants would be more successful if the program has a contact person within each of the Southeast Asian communities. In this case, contact should be established with a representative person from the program and a community leader from each community. For further suggestions in this regard, please see Section C—General Recommendations later in this chapter. Or the program may wish to spread awareness through setting up information booths at community temples, especially during the Laotian and Cambodian New Years festivities, when their temples are usually crowded with people, from the months of April to September. This may be beneficial if done in conjunction with the Providence Community Health Centers.

If the program is successful in recruiting more Southeast Asian participants to the after-school program, having translators who are fluent in each Southeast Asian language available to explain the aspects of the lesson and help answer any questions from participants is extremely important, as well as making follow-up telephone calls to track the child's progress with asthma.

*B. Recommendations to the Providence Community Health Centers:*

While conducting my interviews at each Providence Community Health Center, I observed that patients usually have nothing to do as they are waiting for their appointment. I suggest that each clinic have information flyers available regarding asthma in the Cambodian, Hmong, and Laotian languages, and hand them out to each

patient as they come in for appointments or have them readily available in the waiting area. I favor the option of handing each flyer out individually as it ensures that the patient will have the flyer in his or her possession. The flyers may include basic information regarding triggers and the different roles that control and quick relief medicines have in treating asthma, as the research shows that respondents from all communities did not have this knowledge and awareness.

I also observed that the patients who came to the clinics who did not speak English well usually had their own family member who acted as a translator accompanying them. This takes the burden off of the health centers to hire translators to assist Dr. Block or any other doctor in communicating with the patients, however it may not ensure that proper translation, and therefore communication, is provided.

Perhaps, if it is possible, the health centers could arrange to have translators present at appointments with patients whom they would ask when the appointment is made, if they spoke English fluently. Be careful not to ask if the patient needed a translator, as the patient may say no because they have a family member accompanying them, which will defeat the purpose. However, having a translator that is not a family member present may also run the risk of shyness or discomfort on the patient's part, which could lead to inaccurate responses. A previous study warned that it might be possible that the translator may know the patient if the community is fairly small or organized.

The PCHC could also benefit from spreading asthma awareness through the same venue as the Draw A Breath program, that is, setting up information booths at community temples during their busiest months between April and September. And perhaps they

would benefit in conducting an information booth together, with one representative from each group.

*C. General Recommendations (to research groups or programs):*

Researchers wishing to work with the Southeast Asian communities should contact the community leaders, or strong figures within the communities, in order to gain access and trust. Community leaders want to know the effects the research may have on their specific community and why the research is important to their community. In other words, “why should they cooperate with the research?” Community leaders need to trust you and have a thorough knowledge of the research project before they can explain it to their community for approval and acceptance.

Having said that, trust and understanding may be established upon first meeting. Therefore, it is important to conduct background research on the customs of each Southeast Asian community before meeting with the community leader, and it may be wise to review the customs of that community with the community leader before interviewing or meeting others of the community, as the community leader would usually know what correct body and verbal languages to use. For example, what are the proper mannerisms within each community? Or what actions are viewed as offensive within each community?

It is also very beneficial to have the community leader introduce you to the community members. This allows trust to build between you and the community, and will greatly help in the research process. If it is possible, have a translator available to build better communication and comfort, which help community participants feel at ease and give honest responses.

In general, be courteous and understanding of the cultural differences that may exist between yourself and the community you are researching. Be yielding, patient, and respectful of the customs of each Southeast Asian culture, as what may not seem offensive to you may be perceived as such to them.

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**APPENDIX A**  
**COMAPARATIVE TABLE**

Q2: How Much Do You Think You Know About Asthma?		Q6a: What Makes Your Asthma Worse?	
Laosian Respondents	Cambodian Respondents	Laosian Respondents	Cambodian Respondents
some	some	hot humid weather	cold air; strong odors; smoke; carpet
a lot	some	smoke, dust, roaches, running, allergies, weather	exercise; weather changes
a lot	some	cold weather dust, excitement, exercise, leaving the chest open.	winter; cold; exercise smoke,
some	some	humidity, "hot winds", "heat"	winter; cold; exercise smoke,
a little	a little	smoke	smoke; foods, salty sour foods
some	a little	rainy days, smoke, dark and cold weather. phlem develops=asthma.	running, smoke, cold
some	a little	breathing cold air, dust	smoke; cold; pets
a lot	a little	cooking, smoke, pets, heating system, perfumes, plants	smoke; doesn't really notice for herself
some	a little	doesn't know, roaches, smoke, dust, cooking odors, temps.	cold, smoke
none	some	dust, cat	odors; cold; heat
none	some	dust, cat	lifting heavy things; cold weather
a lot	a little	peanut butter, smoke, fattening foods, sweets, heat, exercise	cold; coughs
a lot	a little	food, pets, emotions, cooking odors, smoke, perfumes, chemicals,	sports; smoke
none		exercise, dust, smoke.	
a lot		steam from rice cooker; oily foods, smoke; cold; exercise; alcohol	

<b>Q6b: What Helps To Make Your Asthma Better?</b>		<b>Q8: What Medicines Are You Currently Taking?</b>	
Laotian Respondents	Cambodian Respondents	Laotian Respondents	Cambodian Respondents
cold air	meds and warm temp	took Ventolin before; (never took controller)	Serevent; albuterol
keep cool	warm clothes and moderating body temp	machine; Intal-mild Ventollin-severe Vanceril-daily	only nebulizer- "machine"
keeping the body warm, and cleaning the rooms.	keep away from smoke; stay warm	Azmacort only when needed	albuterol
cool weather, "cold wind"	keep away from smoke; stay warm	Albuterol Ventolin	albuterol when needed
fresh air	only meds	Albuterol	Serevent; flovent; Preson
only meds.	dressing warmly	machin, albuterol, now controller pills	4 inhalers: albuterol, tilade.
covering the face, inhaler	just meds	Ventolin	albuterol; cromylne
clean	just meds	pills, liquids, inhaler	albuterol
doesn't know	nothing; doesn't know	3 inhalers: Tilade Ventolin, Albuterol	albuterol; pulmicort; on "machine"
clean house, no pets	nothing; doesn't know	Ventolin--blue	serevent; pills; vanceril; ventolin.
clean house, no pets	mostly meds	Ventolin--blue	albuterol, but uses nothing now
fresh air, AC in the summer	mostly meds	Thodor, Ventolin--now only taken when needed	albuterol, but uses nothing now
fresh air, cool air, inhaler.	taking meds on time every day	Vanceril and 2 shots/yr	3 inhalers, and Singulair
deep breathing, taking it easy.		Ventolin--light blue	
keep warm, no exer, avoids smoke		inhaler-- doesn't remember color	

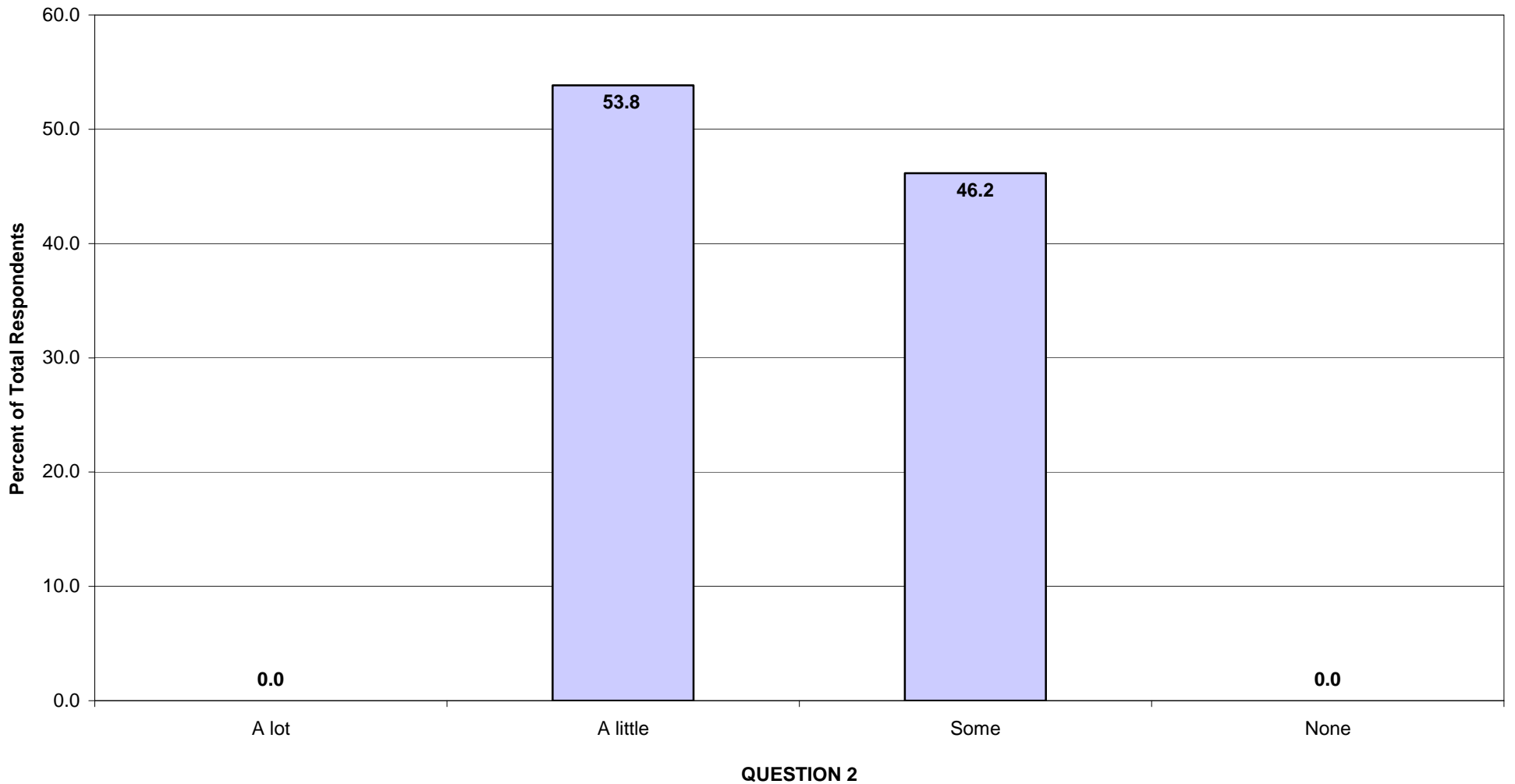
<b>Q9: How Effective Is Your Medicine In Treating Asthma?</b>	
Laotian Respondents	Cambodian Respondents
very effective	very effective
very effective	very effective
very effective-- "lungs open"	very effective
very effective	very effective
somewhat effective	very effective
very effective	not very effective
very effective	somewhat effective
somewhat effective-- doesn't want to rely on it too much	somewhat effective
very effective	somewhat effective
very effective	somewhat effective
very effective	very effective--stops coughs
very effective-- but avoiding triggers more effective now	very effective
very effective--some more effective than others-- lungs open up	very effective
somewhat effective for a little while	
not effective--tried for 2 weeks but threw away and stop going to doctor b/c wasn't helping	

<b>Q11: How Often Have You Been To the ER Because of Asthma?</b>	
Laotian Respondents	Cambodian Respondents
once--school fire	2x
3-4x/year	3-5x/yr
1/yr before, but now no ER for 2-3 yrs	never
never	never
never	very often; 6-7x/yr.
once when diagnosed	very often; 1-2x/yr
once when diagnosed	never
very often 2x/wk before:	never
once when diagnosed	very often; 3-4x/yr
once when diagnosed	sometimes; 1x/yr
once when diagnosed	never
very often before; no visits for last 5 yrs.	never
2-4x/wk before; but not now for 10 years b/c aware of triggers	never
never	
once when diagnosed	

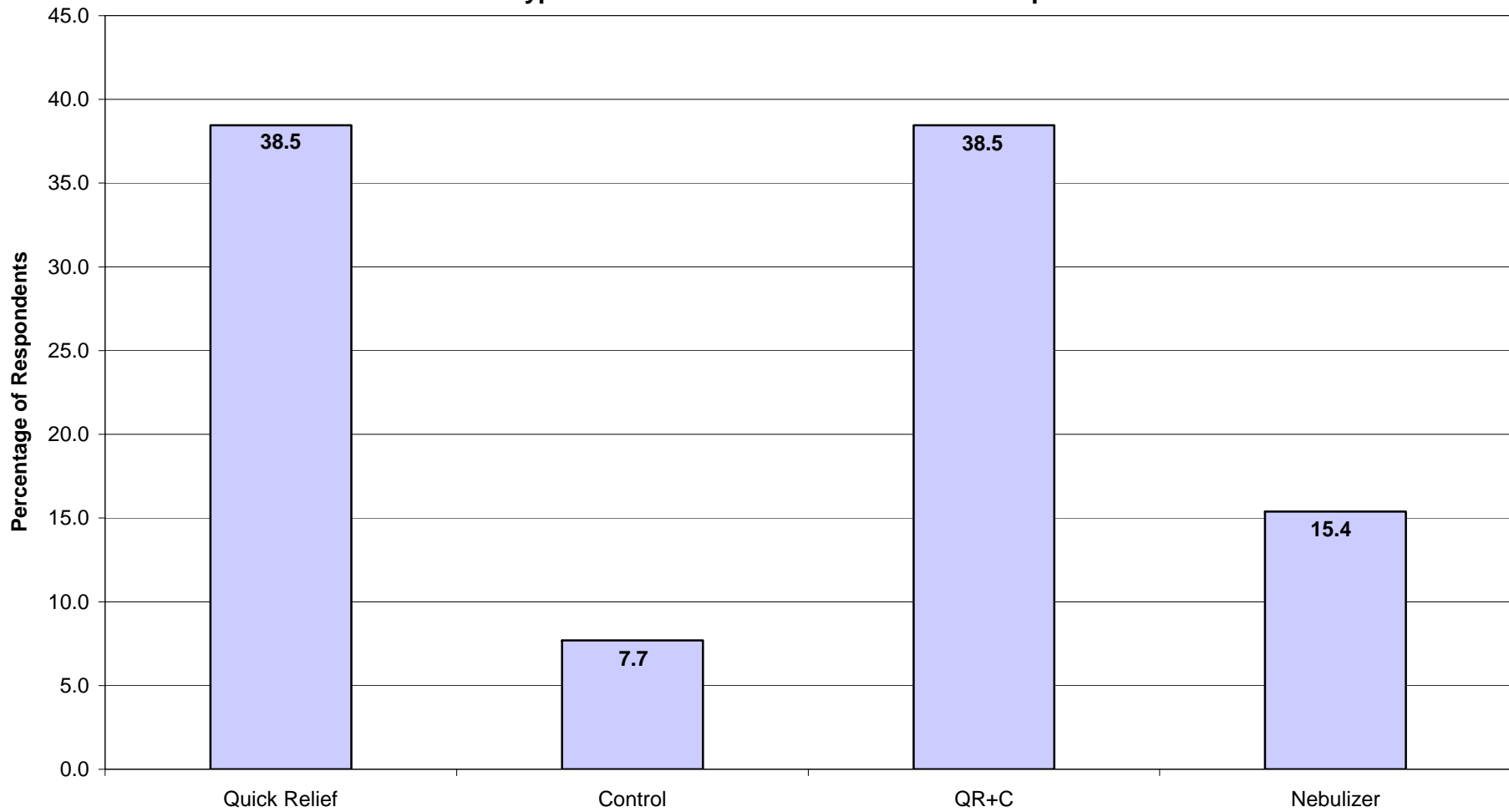
<b>Q12: Do You Know of Any Home Remedies Used to Treat Asthma?</b>	
Laotian Respondents	Cambodian Respondents
no--Tiger Balm	some chinese herbs; french meds
"keen" not to use when meds; smash it up for juice and drink it.	cooked hornet's nest; never tried it
doesn't know	never heard of any
herbs; anything bitter	never heard of any
herbs; anything bitter	traditional herbs; never tried it.
expensive powder; tiger's milk in Laos.	no-don't know of any
boiling pot; lemon slices; lemongrass; and inhale steam.	not for asthma
grind roots=cure. Western meds don't help; roots from Laos cured it.	not for asthma
no; suggestions given but didn't listen.	NA
know no one with asthma	No b/c never had asthma in Cambodia
doesn't know anyone with asthma	no
NA	no
no.	herbs from mom in Cambodia
no.	
for 2 years, when to accupunture in Chinatown, but didn't help asthma. pills form Cambodia cured it.	

**APPENDIX B  
CAMBODIAN DATA**

**How Much Do You Feel You Know About Asthma?  
Personal Perception of Knowledge About Asthma - Cambodian Respondents**

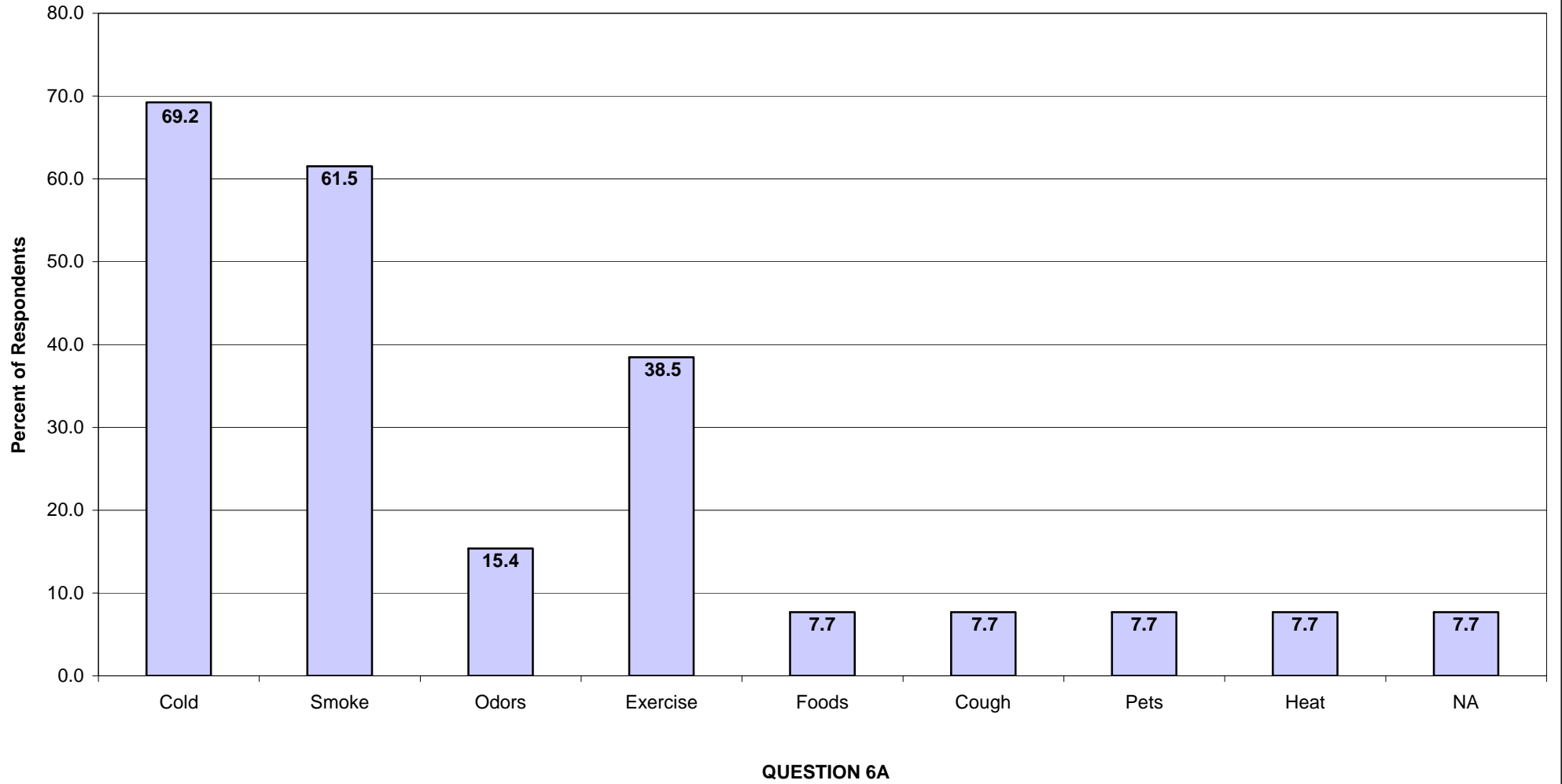


**What Medicines Are You Currently Taking?  
Types of Medicines Used - Cambodian Respondents**

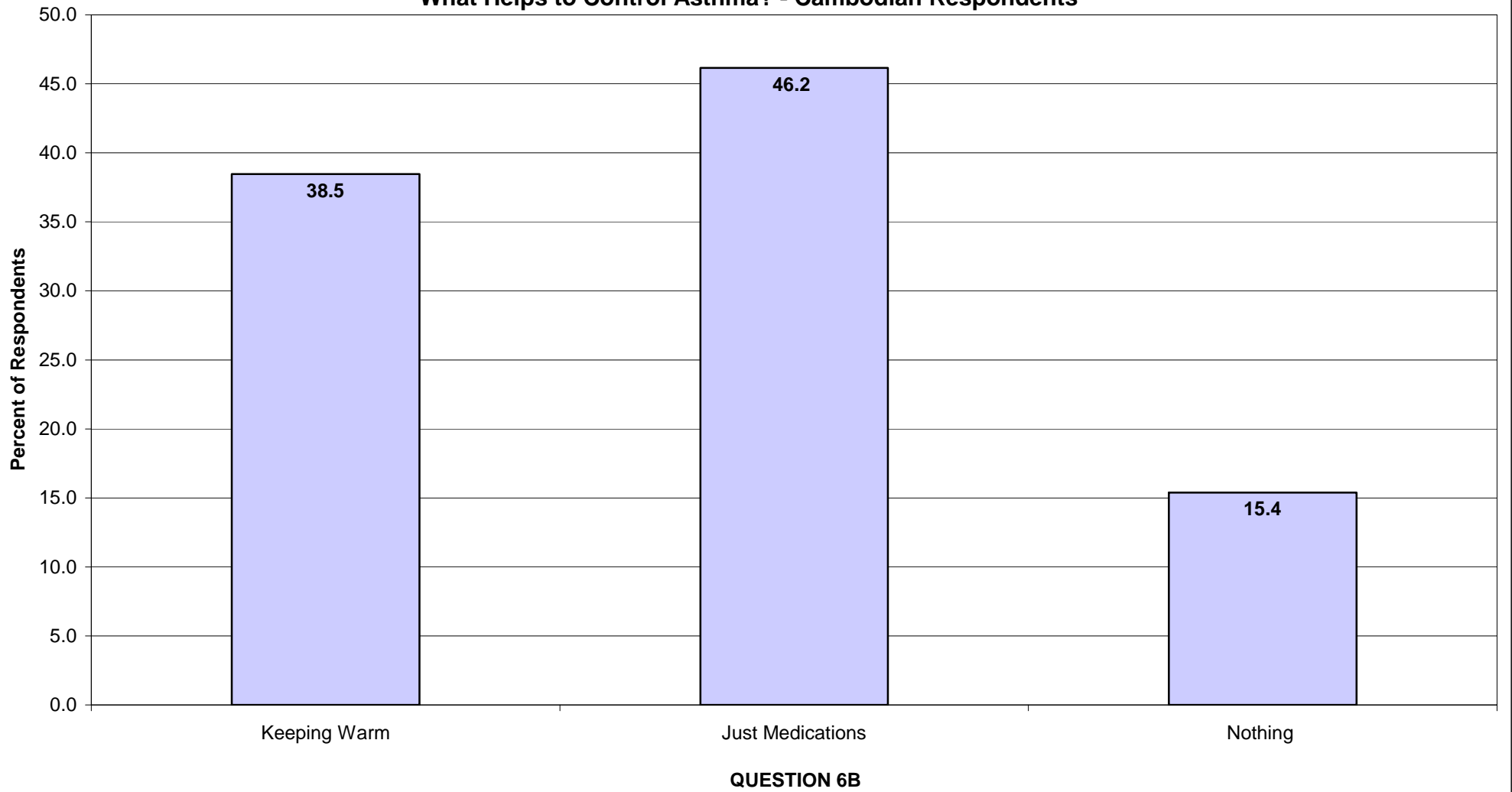


**QUESTION 8**

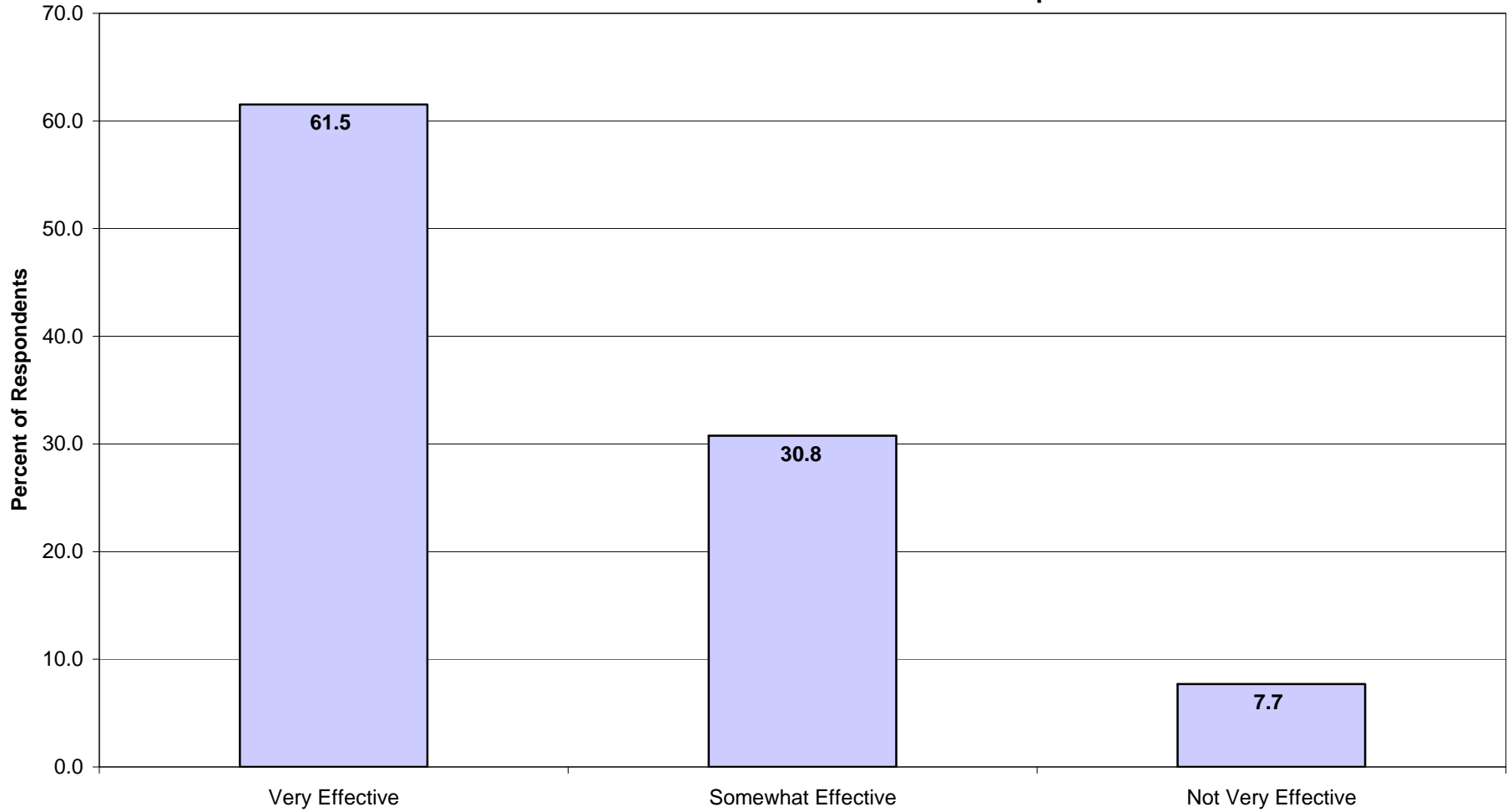
**What Makes Your Asthma Worse?  
Asthma Triggers - Cambodian Respondents**



**What Helps to Make Your Asthma Better?**  
**What Helps to Control Asthma? - Cambodian Respondents**

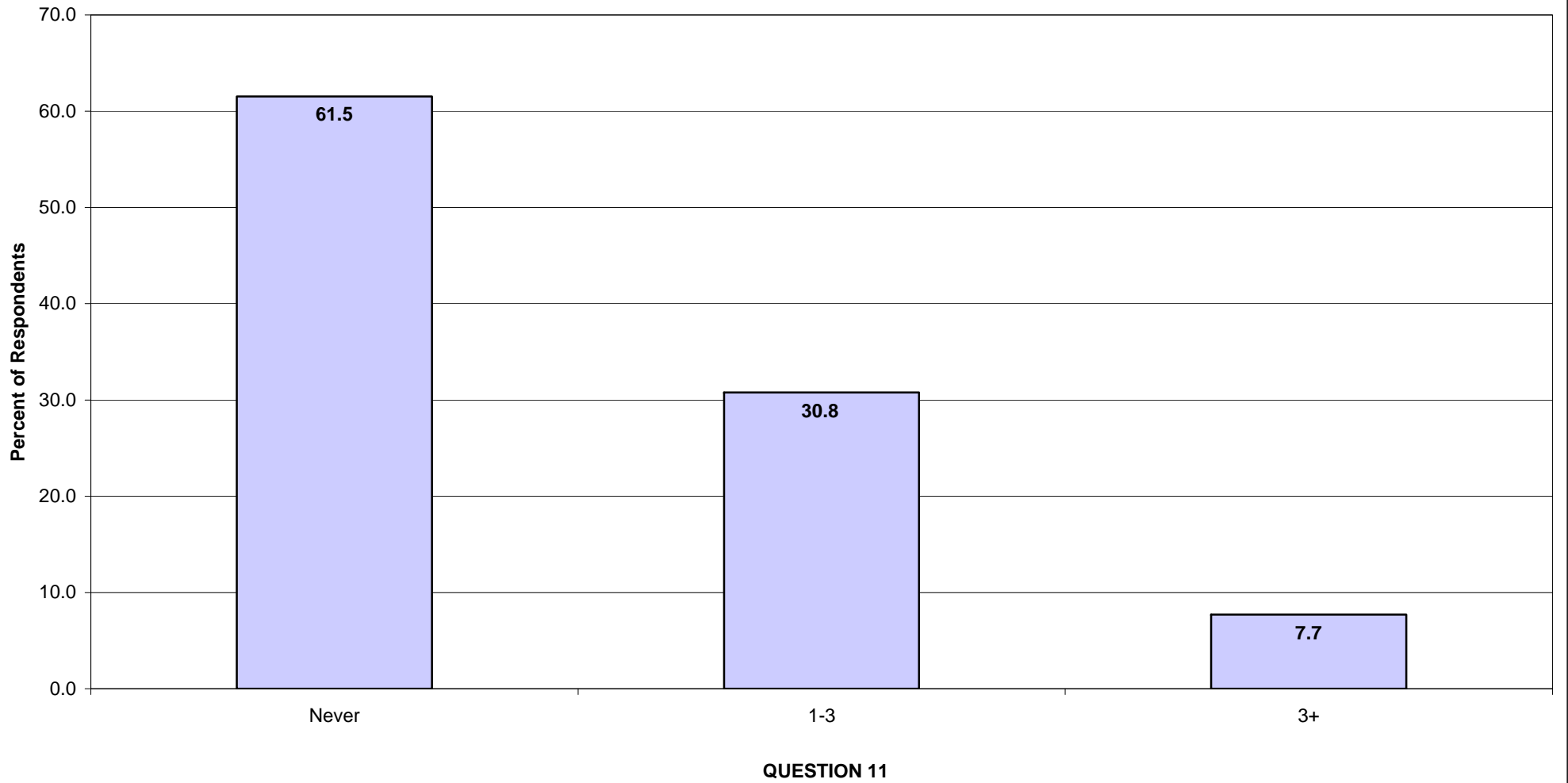


**How Effective is Your Medicine in Treating Asthma?  
Effectiveness of Medicines- Cambodian Respondents**

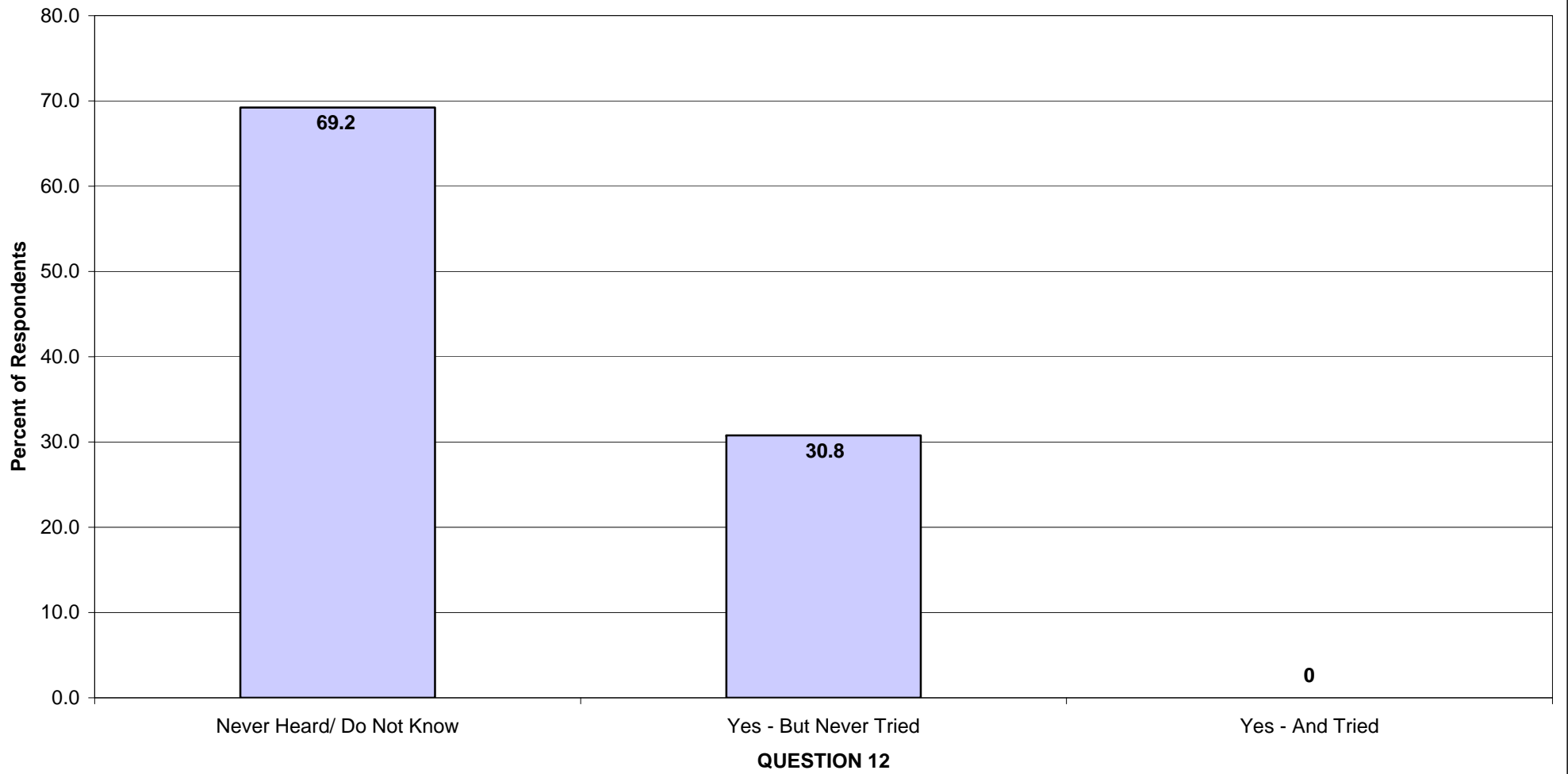


**QUESTION 9**

**How Often Have You Been to the ER Because of Your Asthma?  
Number of ER Visits Per Year - Cambodian Respondents**

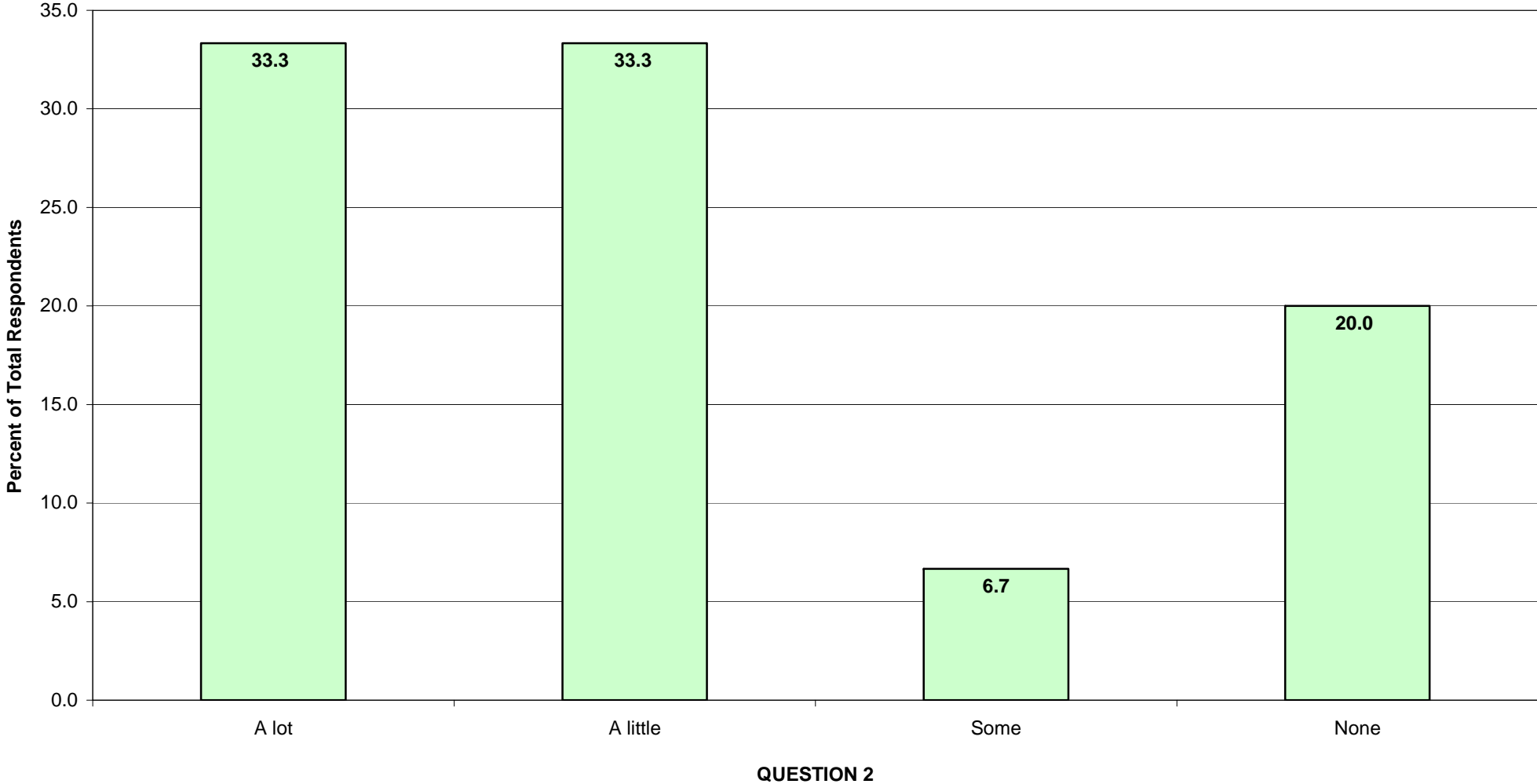


**Do You Know of any Home Remedies Used to Treat Asthma?  
Traditional Home Remedies- Cambodian Respondents**

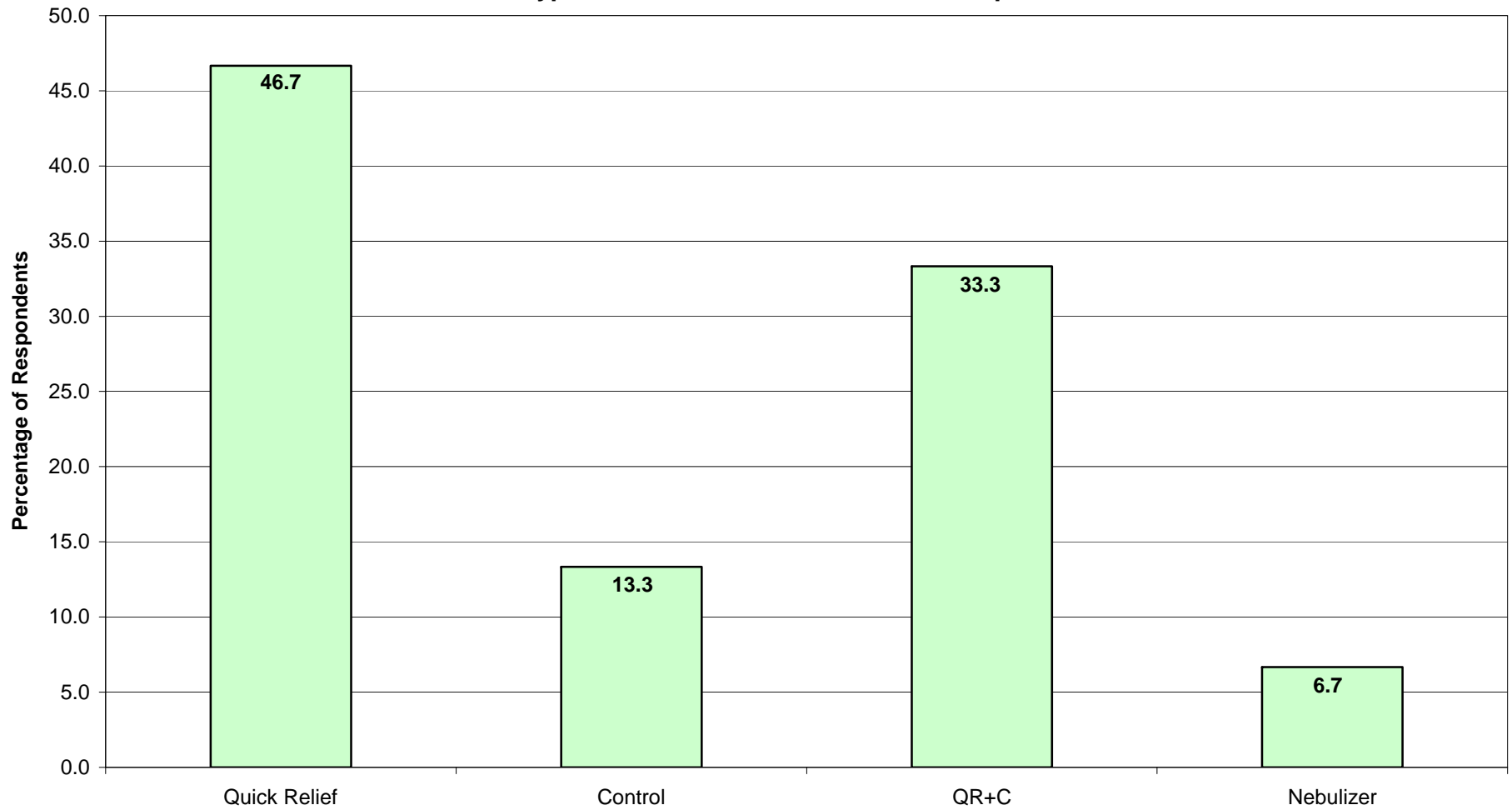


**APPENDIX C  
LAOTIAN DATA**

**How Much Do You Feel You Know About Asthma?**  
**Personal Perception of Knowledge About Asthma - Laotian Respondents**

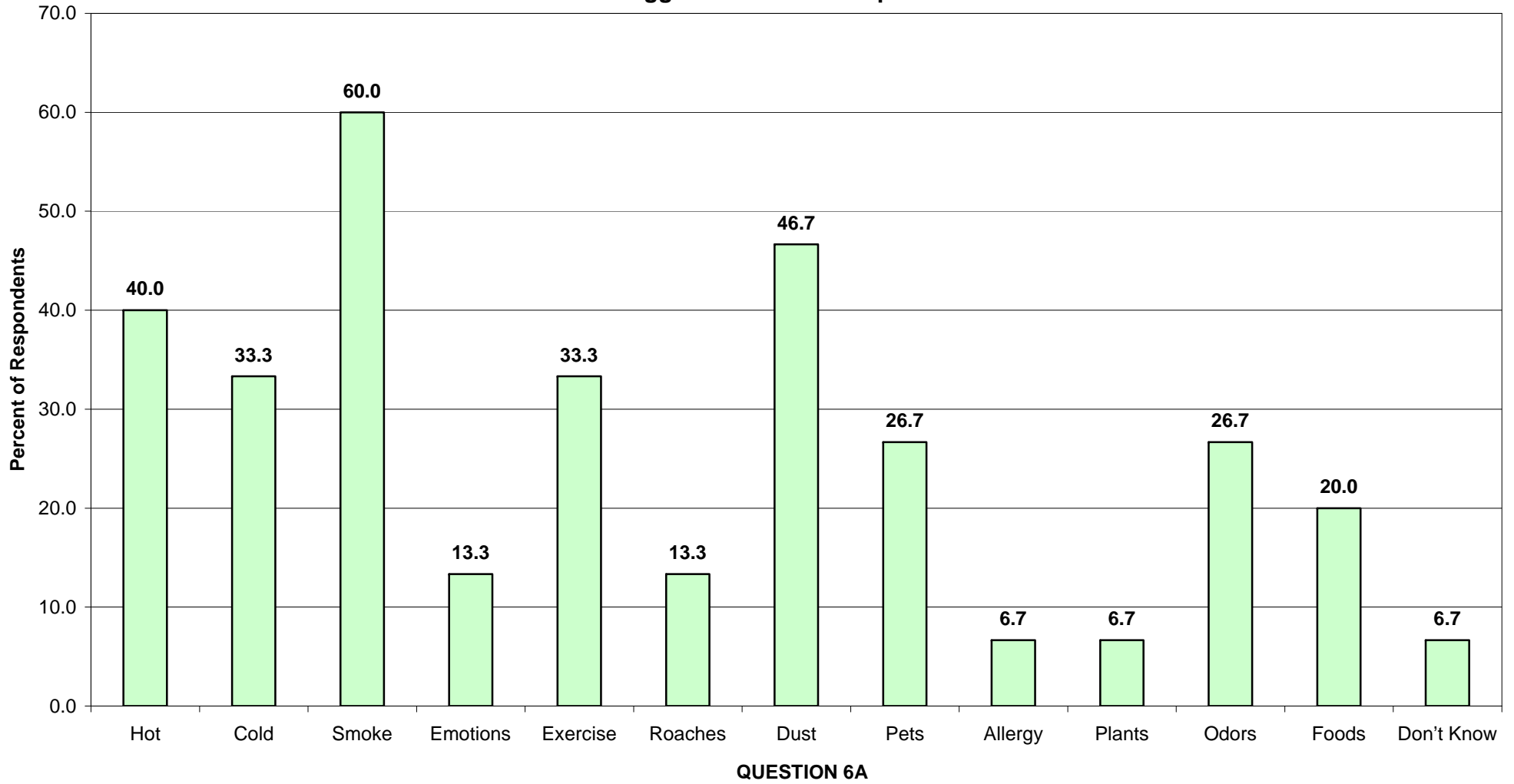


**What Medicines are You Currently Taking?  
Types of Medicines Used - Laotian Respondents**

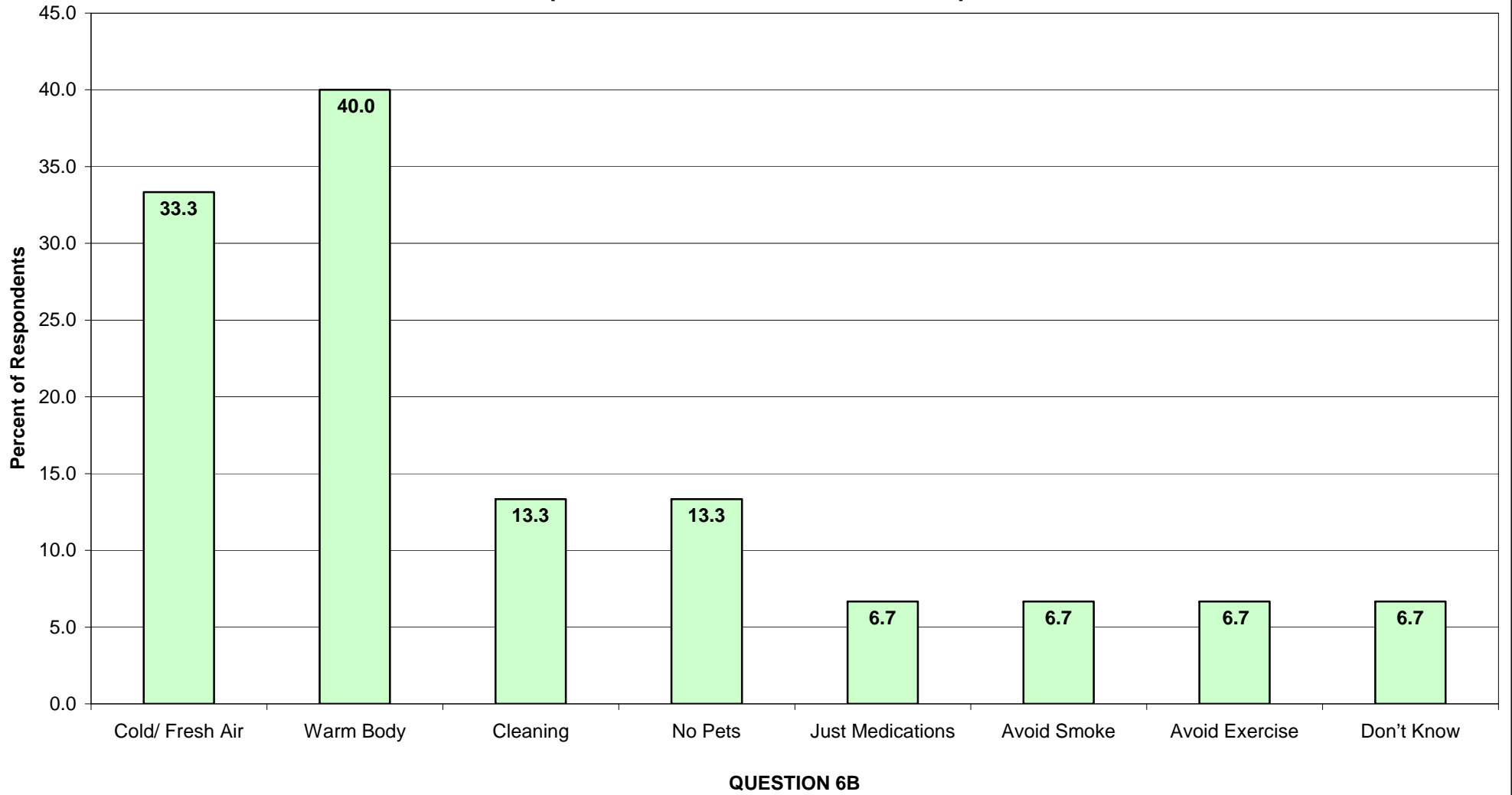


**QUESTION 8**

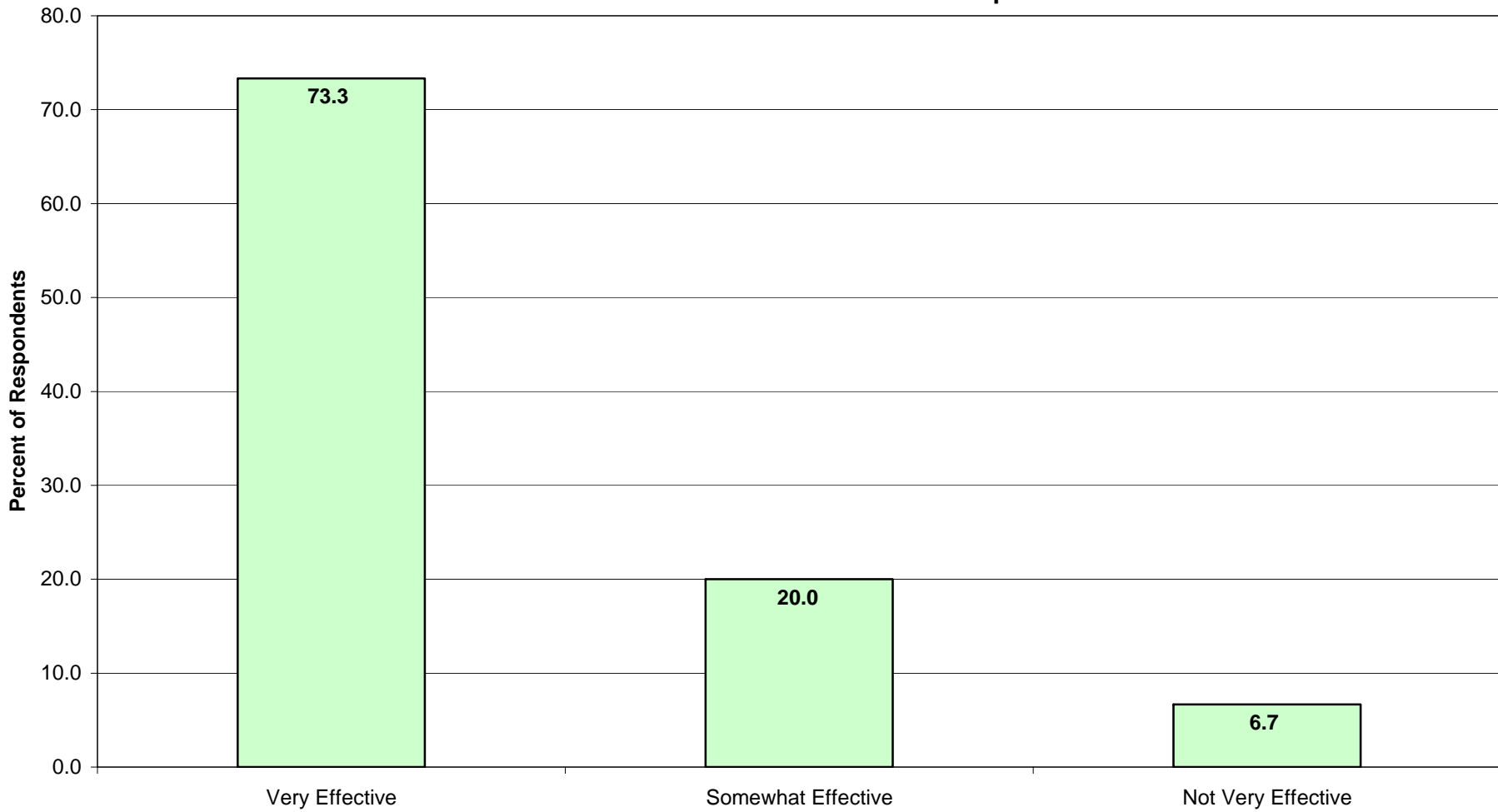
### What Makes Your Asthma Worse? Asthma Triggers? - Laotian Respondents



**What Helps to Make Your Asthma Better?**  
**What Helps to Control Asthma? - Laotian Respondents**

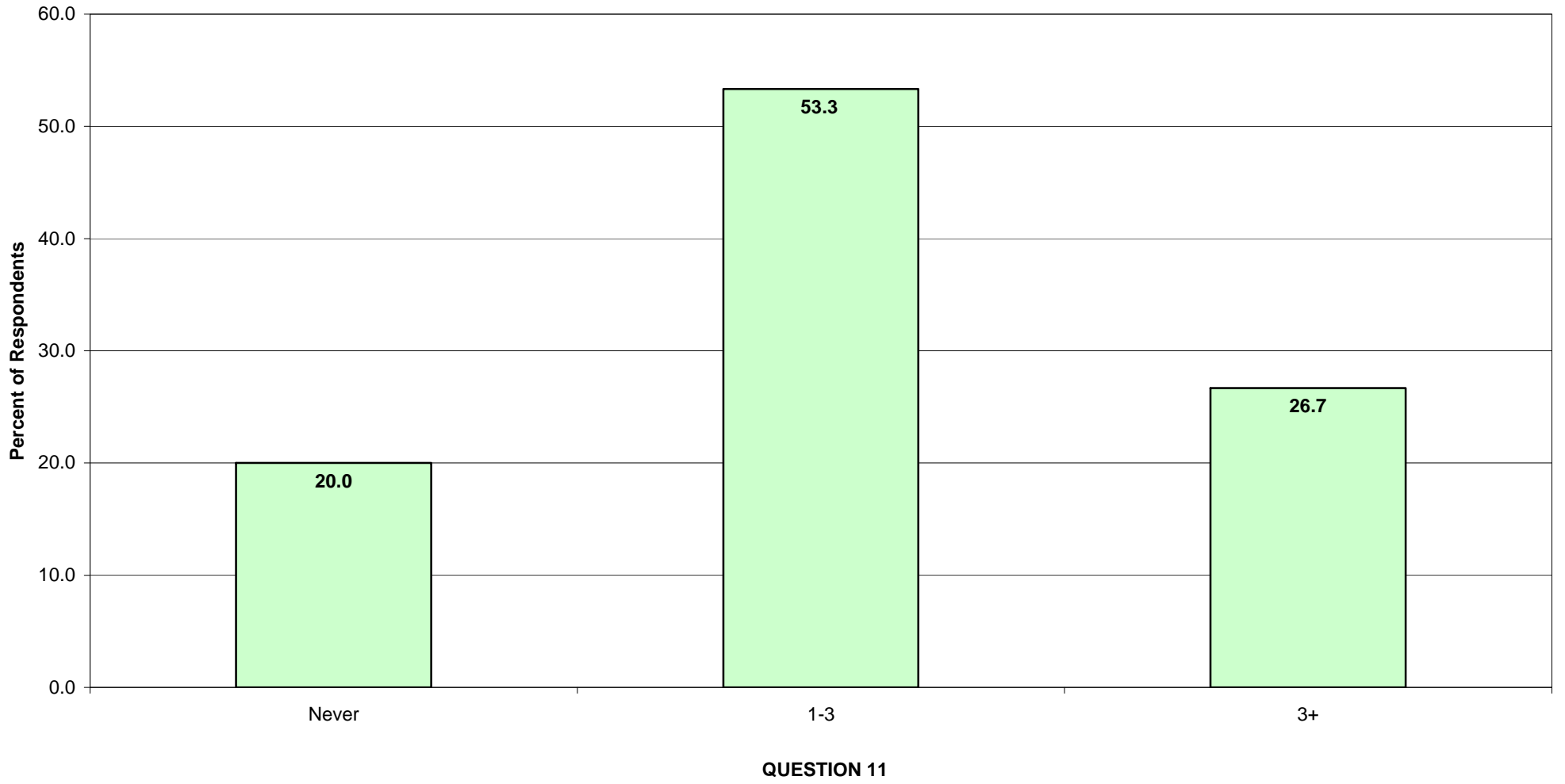


**How Effective is Your Medicine in Treating Asthma?  
Effectiveness of Medicine- Laotian Respondents**

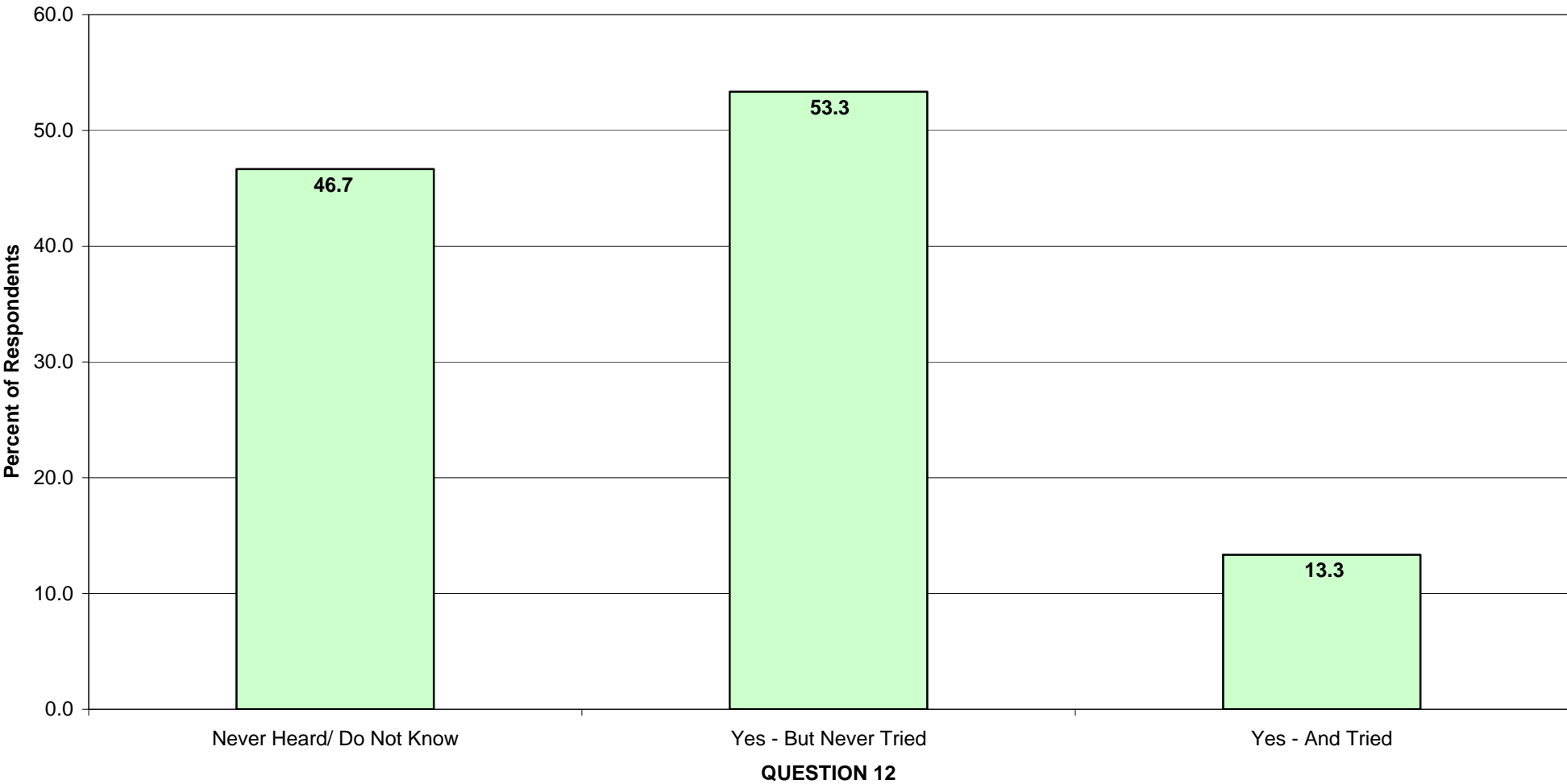


**QUESTION 9**

**How Often Have You Been to the ER Because of Your Asthma?  
Number of ER Visits Per Year - Laotian Respondents**



**Do You Know of any Home Remedies Used to Treat Asthma?  
Traditional Home Remedies- Laotian Respondents**



**APPENDIX D**  
**INTERVIEW QUESTIONS**

## Thesis Research Project Interview Questions

PI: Nguyet Tau

**NOTE:** All interviews will be conducted at a friendly conversational tone. Information will be collected through note-taking and audio recording. The introduction will be given in both settings—I and II. Interviews at settings outside of the DAB program will be conducted in the presence of volunteered translators who hold highly respected positions in each SEA community.

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**INTRODUCTION:** Hi, my name is Nguyet Tau and I'm a senior at Brown University. I'm currently researching on the relationship between South East Asians and their approach to and management of asthma. I hope that through a better understanding, I could then make recommendations to asthma education programs to better bridge the gap between SEAs and the asthma education programs, by increasing participation and learning in these programs. I understand that each SEA community in Providence deals with asthma in different ways. In trying to better understand each SEA community's experience with asthma, the following questions serve to better understand how different SEA communities approach and manage asthma, and through this understanding to help decrease the effects of asthma. Your participation in this interview will greatly help reach this goal. Your participation is voluntary and will not benefit or harm you in any way. The interview itself should last ten minutes at most. The information gathered will be kept confidential. Should there be anything during the course of the interview that makes you uncomfortable, please do not hesitate to let me know.

**I.** For SEA people with asthma and/or have children with asthma (in settings outside of the DAB education session):

1. Are you familiar with the term 'asthma'?
  - o If yes: In your native language (Cambodian, H'mong, Laotian, Vietnamese), is there a word or phrase that people use for asthma? \_\_\_\_\_
2. How much do you feel you know about asthma?  
a lot / some knowledge / a little
3. Who in your family has asthma?
4. When were you (or your child) diagnosed with asthma?
5. How serious or severe do you consider your (or your child's) asthma?
6. What things trigger your (or your child's) asthma and make it worse? What helps to make it better?
7. Are you currently seeing a doctor for the asthma?
8. Are you (or your child) currently under medication for the asthma? If so, what kind of medication?
9. How effective is the medication in treating asthma?  
very effective / somewhat effective / not very effective
10. How do you first respond to an asthma attack? Probe: do you take medicines for it right away, try home remedies, call your doctor, go to the ER right away?
11. How often have you been to the ER because of your (or your child's) asthma?  
Very often / often / sometimes / never
12. Do you know of any traditional home remedies that are used to treat asthma? Do you or others you know use these remedies?