

# The Health Care Experiences of U.S. Retirees Living Abroad

By

Sandra Clark

A Master's Paper submitted to the faculty of  
the University of North Carolina at Chapel Hill  
in partial fulfillment of the requirements for  
the degree of Master of Public Health in  
the Public Health Leadership Program

Chapel Hill

2012

---

***Advisor***

---

***Date***

---

***Second Reader***

---

***Date***

## Contents

1) [Abstract](#)

2) [Master's Paper](#)

[Background](#)

[Methods](#)

[Results](#)

[Discussion](#)

3) [References](#)

4) [Tables](#)

5) [Copy of Survey](#)

6) [Literature Search](#)

**Abstract:**

**Background:** Increasing numbers of Americans are choosing to retire in Mexico and Central America. In doing so, they leave behind not only their communities, but also their regular sources of preventive medical care. The present study explores the health care experiences of American retirees living in Mexico, including access to and use of cancer prevention services. We gathered information using a mixed-methods approach.

**Methods:** We developed a 44-question online survey and sent it to two areas with large numbers of U.S. retirees: San Miguel de Allende, Mexico, and the Lake Chapala area in Mexico. To gather more detail and generate additional hypotheses, we followed the survey with face-to-face interviews in Mexico with a sample of survey participants. Questions for both the survey and the interviews were centered around social support in the host country, satisfaction with health care, the extent to which retirees receive preventive care services, and retirees' plans to stay in Mexico should they become ill.

**Results:** Participants completed 80 online surveys, and agreed to 28 face-to-face interviews. Retirees average 67 years of age and had a four year mortality of less than 4%. Though most of those eligible retained their Medicare, over half (58%), had not received any medical care in the U.S. in the previous year. A significant percentage of those surveyed, 39%, did not have international or Mexican health insurance. Mexican providers do not generally initiate conversations regarding preventive services. In spite of this, 76% of participants were up to date on their colorectal screening. Over half (55%), of retirees, would use skilled nursing services in Mexico if it became necessary. Interviews suggest that retirees are satisfied with the amount of time Mexican providers spend with them, though they frequently voiced concerns about the quality of care available.

**Discussion.** Lifestyle and affordability bring a lot of Americans south of the border to retire. A large percentage of these retirees plan to stay in Mexico permanently. Future research needs to address the lack of good preventive care education, the need for more consistent quality of care, and the need for improved insurance options for this population.

## **Master's Paper**

An increasing number of United States (U.S.) citizens are choosing to retire outside of the country, for a variety of reasons. For those making the decision to retire abroad, access to high quality and affordable health care is an important consideration, complicated by the fact that Medicare does not pay for health care rendered outside the U.S.. The goal of this investigation was to study the health behaviors of retired U.S. citizens living outside the country. Specifically, this study sought to better understand how retirees pay for medical care outside the U.S., the decisions they make regarding preventive care services, and their future plans for staying abroad should they develop a long-term illness.

### **Background**

Three of the most popular destinations for U.S. retirees are Mexico, Panama, and Costa Rica. Estimates vary on the number of U.S. retirees living in these countries due to lack of accurate census data. Two major reasons account for this lack of accuracy: the U.S. census does not keep track of Americans living abroad, and some Americans are illegally living abroad by overstaying a tourist visa or not registering with immigration.<sup>1</sup> The Mexican Census, on the other hand, does not distinguish between Americans of Mexican ancestry who return to live in Mexico and U.S. retirees with no such connection, two very different demographics. Nevertheless, it is estimated that between 4-6 million Americans live outside the U.S., well over a million of whom reside in Mexico. Panama and Costa Rica each are home to approximately another 20,000 Americans.<sup>2</sup> These numbers are expected to grow with the aging of the baby boomers (persons born between 1946-1964) who are just beginning to turn 65, and constitute about 26% of the population.<sup>3</sup>

Several studies have examined the push-pull factors that cause older Americans to move abroad. Push factors, or factors that propel Americans to leave the U.S., include the rising costs of both retirement living and health care in the U.S., as well as frustration with an American culture that is perceived by some to be too fast-paced and isolating. Pull factors, or factors that attract Americans to Central America, include its warm sunny climate, and the possibility of a more social and often luxuriant lifestyle, which they might not otherwise afford in the U.S.<sup>4</sup> In addition, many areas in Central America, particularly Panama, actively promote immigration from the U.S. with generous tax breaks and discounts for seniors.<sup>2</sup>

The Retirement Confidence Survey (RCS) is an annual telephone survey of 1258 randomly selected individuals 25 years or older.<sup>5</sup> In 2011 the percentage of workers not at all confident about having a comfortable retirement was 27%, the highest since the RCS began in 1982. Among the subset of current retirees the level was 17%, up from 11% in 2001. As for medical expenses, 30% of current retirees responded that they were not confident in the ability to pay for medical expenses, and 50% responded in a similar manner when asked about paying for long-term care expenses. Furthermore, Americans are saving less for retirement: 46% of workers had less than \$10,000 in savings and investments, and 20% expect to work beyond retirement age

Adding to this bleak picture is the 2007 Commonwealth Fund Biennial Health Insurance Survey, another telephone survey, conducted on 3501 adults.<sup>6</sup> This survey documents that in 2007, 41% of the working-aged American population struggled to pay medical bills and were accumulating medical debt even though 61% had medical insurance at the time care was provided. In addition, 7 million, or 19% of adults 65 years or older struggled with medical debt. A separate study by David Himmelstein found that 61% of all bankruptcies in 2007 were due to

medical expenses, based on the debtors stated reason for filing.<sup>7</sup> Remarkably, almost 80% of debtors listing medical as the main reason for bankruptcy were insured at the beginning of their illness. Rising medical debt is largely due to the high level of cost-sharing that most insurance plans require, and the recent economic recession. As a result of medical debt, an increasing number of Americans have less savings, higher credit card debt, and struggle to pay their food, rent, and other bills.

As mentioned earlier, pull factors to Mexico and Central America include a lower cost of living; a warm, sunny climate; and an enhanced lifestyle. A sampling of blogs and real estate websites for Mexico, Panama, and Costa Rica boast of monthly living expenses (excluding rent or mortgage) of \$2000.00 for the more thrifty retirees, and up to \$5000 for those who opt for a more luxurious lifestyle.<sup>8-10</sup> Daily cleaning services and a gardener usually cost a few hundred dollars per month. In a 2007 study of U.S. retirees in Mexico, 54% of participants agreed or strongly agreed that the main reason they moved to Mexico was economic, and 91% stated their income allows for more leisure spending in Mexico. Once there, retirees interviewed were inclined to remain in Mexico because they felt accepted by the people in their host country.<sup>4</sup>

The health care system of Mexico is representative of Central America. It has three tiers: a social security system of employer-based insurance jointly financed by employer and employee payroll taxes plus legally mandated government contributions; a private out-of-pocket system; and Seguro Popular, a health care program begun in 2003 for the uninsured poor with the goal, not yet attained, of insuring all Mexicans.<sup>11-12</sup> At the time of its implementation, approximately half of the Mexican population was uninsured.<sup>13</sup> Costa Rica and Panama also have a three-tiered health system, but both countries have been more successful at attaining almost universal coverage, and have a smaller private sector than Mexico.<sup>14</sup>

The largest of the social security organizations, the Mexican Social Security Institute, or IMSS, is available to U.S. retirees. The IMSS operates like a Health Maintenance Organization, with limited choice in providers and a hospital system of varying quality. It costs around \$300.00 per year. Retirees to Costa Rica similarly have the option to buy into the country's health care program, the Caja Costarricense Seguro Social. A number of private and international health plans are also available to retirees in Mexico, Costa Rica and Panama. Plans become more restrictive and expensive after age 65 but premiums are usually less than those of Medicare, with significantly fewer out of pocket expenses for medicines, laboratory tests, and imaging studies.

One study that explores the issue of health insurance use among U.S. retirees in Central America is the international Community Foundation (ICF) study.<sup>15</sup> This study consisted of a cross sectional survey of 1000 U.S. retirees 50 years and older in the northwestern coastal areas of Mexico in 2010, including Baja Sur and Los Cabos Mexico. Most residents in this survey (73%) kept their U.S. medical insurance and 57% of respondents continued to return to the U.S. for health care. Not surprisingly those who lived farthest from the border were more likely to be uninsured (2.9% in Rosarita/ Ensenada vs 17.5% in Riviera Maya), and less likely to return to the U.S. for health care (72% in Rosarita/ Ensenada vs 39.7% in Riviera Maya/ Puerta Vallarta). Sixty percent of respondents reported that the quality of health care in Mexico was similar to the care they received in the U.S., though few chose to purchase IMSS.

It is well established that immigrants, particularly undocumented immigrants and non-English speaking immigrants in the U.S., have a higher rate of being uninsured and have less access to medical care.<sup>16-18</sup> Furthermore, there is a strong link between having insurance and obtaining preventive health services.<sup>19</sup> U.S. retirees in Central America represent a more



affluent, educated demographic than the average immigrant to the U.S.. How this group will insure themselves and utilize health care services in their host country is an area of increasing interest, and represents a research gap that needs to be addressed.

### **Methods**

**Setting:** The study took place over the Spring and Summer of 2012 in two areas of Mexico known for their large American populations: San Miguel de Allende in the state of Guanajuato Mexico, and the Lake Chapala area in the state of Jalisco Mexico. According to the Migration Policy Institute in 2000, U.S. born residents in Guanajuato, Mexico numbered 15, 982; and U.S. born residents in Jalisco numbered 41, 764. <sup>2</sup> Informal sources state that Americans now account for 10% of the population in San Miguel de Allende.

**Subjects and Sampling Procedures:** The University of North Carolina Institutional Review Board (IRB) approved the protocol for consenting and recruiting patients. Retirees gave consent at the time of the survey, and for those who agreed to an interview, again at the time of the interview. Subject recruitment took place on-line through the San Miguel Civil List, and the Chapala.com web board, creating a self-selected convenience sample. As an added inducement to participate, we entered all survey participants into a drawing for a three night stay at a local beach. For those agreeing to a face-to-face interview, we entered them twice into the drawing. This netted 25 interviews with 28 people, as three of the interviews were with couples.

To be eligible for the study, a participant had to be a U.S. citizen 50 years or older living in and around San Miguel de Allende or the Lake Chapala area and have access to a computer. As part of the survey, we invited all participants to an interview in Mexico. We then contacted all those agreeing to an interview to make arrangements for a convenient location and time.

The San Miguel Civil list, a Yahoo group with a subscription of 7, 320 members (as of October 2012), served as the main source of recruitment for the survey, accounting for all but three of the online surveys, including those from Lake Chapala area residents. A total of 83 retirees responded to the survey and 75 completed the survey. We removed the results of three surveys from analysis: two were too young and one was no longer a U.S. citizen

**Survey and development** We developed and distributed an IRB approved 44-question online survey using Qualtrics software (Appendix). The survey and the interviews centered around three areas of inquiry: socialization into the host country, preventive health care practices, and long-term care preferences. In addition, we asked questions from the Lee index to help estimate the overall health of the respondents.<sup>20</sup> The Lee index is designed to give a 4-year mortality estimate. The questions that compose the Lee index center around co-morbidities such as diabetes and lung disease as well as functionality, such as ability to walk several blocks and manage finances. Points are assigned to the questions based on their weight in the predictive model, and these are tallied to give a total score, which is compared with results in the model to produce a four year mortality percentage. The index is validated, with a *c* statistic of 0.84 in the development cohort and 0.82 in the validation cohort. This compares well with other prognostic indexes. For example the Charlson Deyo has an index discrimination of 0.60-0.78.

The survey questions were reviewed by a sociologist and health services researcher and then piloted among American retirees. We adjusted the questionnaire after each of three rounds based on feedback from survey takers.

**Qualitative interview development:** To gather a fuller picture about the process and context of health care decision-making, as well as to understand the social forces that drive and maintain

migration Mexico, we added a qualitative component to our investigation. We developed five interview questions based on the results of our literature search and our survey results.

### **Questions for In-Depth Interview**

- (1) Tell me your migration story
- (2) Tell me about your social activities in Mexico
- (3) Tell me about your experiences with the health care system in Mexico
- (4) Who initiates preventive health care conversations when you see a doctor?
- (5) What would you do if you were to become sick or disabled in Mexico?

We conducted a total of twenty five interviews. We encouraged spouses to join the interview if they wished; three chose to participate. In addition to our interviews in Mexico, we also interviewed one couple living part-time in San Miguel, and part-time in Chapel Hill, North Carolina. Interviews took place in a variety of settings including cafés, restaurants, libraries and personal homes. Jacqueline Hagan PhD and Sandra Clark MD conducted all the interviews. We made every attempt to choose seating in areas that would maintain privacy. After obtaining permission, we recorded all interviews.

**Analysis:** We performed univariate analysis of the qualitative data using Qualtrics survey software and STATA, version 12.1 software. By using both software programs we were able to identify inconsistencies and correct them. For incomplete surveys we entered data up to the point of termination of the survey; for surveys with only a few answers were missing, the answers were entered as blank. If surveys left Lee score questions blank, we calculated a partial score and entered that score into STATA. We decided on this approach when it appeared that most of the missing data came from the participants with higher Lee index scores; and that deleting the data altogether would bias the data towards the healthy participants. In all, we created 53 variables from the 44 questions. We analyzed continuous data using quartile summaries to look for outlying data points. We performed limited bivariate analysis using Chi2 to test differences between categorical variables.

Eight interviews were transcribed and analyzed for this paper: five single women: two from the Lake Chapala area, and three from San Miguel; one single man from San Miguel; one married couple from the Lake Chapala area; and one U.S. trained Mexican physician living and working in San Miguel. We performed qualitative data analysis by color coding the transcribed interviews by major themes, which we derived in an inductive manner

## **Results**

**Demographics:** There were a total of 80 respondents to the online survey. The average age of the participants was 67 years (SD=8.0) ([Table 1](#)). Forty five percent were male and 51 percent were married. Most of the single retirees were women (65%). They were a well-educated group of participants, with over 94% reporting more than a high school education. More than half, or 56%, had an income of less than \$3000.00 per month. About 71% of single women had less than \$3000 a month income versus 49% of married couples and single men (p=.08).

**Social Integration:** Of the 80 respondents, 85% had lived in Mexico for more than half of the previous three years ([Table 2](#)). The majority of the participants (57%) had most of their close friends in Mexico, and this was dependent on time lived in Mexico: 64% of those living in Mexico more than half of the last three years had most of their close friends in Mexico, while only 25% of those living in Mexico less than half of the last three years did ( $p=0.01$ ). Twenty four percent of participants had more than one Mexican friend in Mexico. Language fluency was rated on average 4.7 ( $SD=2.4$ ) on a scale of 1 to 10. Seventy percent of participants plan to vote in the next U.S. Presidential election.

**Reasons for Retiring in Mexico.** Lifestyle was the main reason cited for retiring to Mexico, with 95% of respondents either agreeing or strongly agreeing to this question ([Table 3](#)).

Likewise, 87% of respondents strongly agreed or agreed that affordable retirement was an important factor in their decision. Slightly more than half of respondents (52%) strongly agreed or agreed that affordable health care was an important factor for moving to Mexico. Far fewer respondents strongly agreed or agreed that work (10%) or joining a family member (10%) were important factors in their decision to live in Mexico.

**Baseline Health Characteristics:** Questions taken from the Lee mortality index give some baseline health characteristics of the participants. Average BMI for participants was  $26 \text{ kg/m}^2$ , the upper limit of normal BMI ([Table 4](#)). Twenty one percent of the participants were diabetic, and 14% had been diagnosed in the past with malignancy other than skin cancer. Sixteen percent of the respondents had smoked in the last week, 5% admitted to chronic lung disease, and 3% suffered with heart failure. Almost 20% of patients had difficulty walking several blocks, and 13% of patients had problems pushing or pulling large objects. The average Lee score for the

group was 4.8 which yields a four year mortality of less than 4%, though there was a large spread, with one scores as high as 14, signifying a 65% 4-year mortality.

**Health Care:** Sixty percent of respondents stated they were happy with their health care in Mexico, and 8 % were unhappy with their medical care ([Table 5](#)). The remainder of the respondents fell somewhere between these two opinions. Of all the participants eligible for Medicare, 76% have some form of Medicare, even though Medicare is not accepted in Mexico. In spite of this, 58% of respondents had not received any health care in the U.S. in the previous year, and, on average, respondents used the Mexican health care system at twice the rate of the U.S. health care system, averaging 2 medical visits a year (excluding dental) in the U.S. (SD=2.8) versus 4 visits in Mexico (SD=4.8). A significant percentage of retirees surveyed, 39%, had not purchased insurance, either Mexican or International, to use in Mexico (this obviously excludes Medicare). Furthermore, those without insurance for Mexico tended to be retirees with less income (48% of those with income less than \$3000.00 per month had no insurance they could use in Mexico vs 27% with income greater than \$3000.00 per month,  $p=.07$ ) Spanish language was a barrier to health care some or all of the time for 40% of participants. Most respondents (65%) use some type of alternative medicine, defined as yoga, meditation, curandero use ( local faith healer), homeopathy, acupuncture , or herbal remedies.

**Preventive Health Care:** Using accepted criteria of colonoscopy within 10 years, sigmoidoscopy within 5 years or fecal occult blood testing within a year, 76% of retirees were up-to-date for colon cancer screening ([Table 6](#)). Within the last year 90% had a blood pressure checked, 63% had a fasting cholesterol check, and 57% had a fasting blood sugar checked. Within a four year period those numbers increased to 95%, 79%, and 69% respectively ([Table 7](#)). Twenty two percent of respondents admitted to never having had a fasting blood sugar, and 16%

had never had a fasting cholesterol checked. For the male participants, 83% had PSA testing in the last 4 years; among the women, 70% had a mammogram with the last 4 years, and 67% of those with a cervix had received a PAP smear. Over half respondents (59%) took daily aspirin. There was no statistical difference between the percentage of men versus that of women taking aspirin.

**Location of Preventive Health Care:** With the exception of endoscopy, which occurred more frequently in the U.S., and blood pressure checks, which occurred more frequently in Mexico, respondents on average had their most recent screenings performed equally in the U.S. and Mexico ([Table 8](#)).

**Long Term Care Preferences:** We asked survey participants to anticipate whether they would stay in Mexico should they develop severe disability, should they require treatment for cancer, or if they had a stroke that left them with disability ([Table 9](#)). For all three scenarios, more participants chose to stay in Mexico than leave: 53% agreed or somewhat agreed they would stay with severe disability, 49% should they require cancer treatment, and 59% should they have a stroke with disability. A significant percentage remained unsure in all three scenarios as well. We also asked participants if they would stay in Mexico should they require in-home services for activities of daily living (cooking, cleaning, bathing) or nursing home care. A large percentage, 87%, agreed or somewhat agreed they would stay if they needed in-home help; 72% agreed or somewhat agreed that they would stay should they require nursing home care.

**Results of Qualitative analysis:** Five major themes related to health care resulted from the in-depth interviews: (1) Preventive services are not a priority in the Mexican health care system;

(2) There is a wide range of experience with the Mexican health care system, from very good experiences to bad experiences that led to poor health outcomes; (3) Insurance options within Mexico are problematic; (4) A significant percentage of retirees plan to stay in Mexico, even if they become ill; (5) Economics is an important driving factor for retirement to Mexico

**Preventive health care:** Most retirees interviewed indicated that they must initiate conversations regarding preventive health care screening in Mexico. Other retirees indicated that they wait until they are in the U.S. to have preventive care services. JM is a 57 year old former nurse practitioner living in San Miguel de Allende. [S is the interviewer]

*S: For your preventive health care do you initiate testing? Or do physicians here tell you?*

*JM: No, not really, no. If my cholesterol is a little high, you can go in and get your labs here.*

*You don't have to have a prescription or an order. You pay. So if it's a little high they may say check it in six months or something. But I wouldn't say that they come back and tell me to do it in six months. I just mark it on my calendar. You're much more responsible. And they don't have a computer system you know, that can track. And you're also really responsible for your own records. I mean minimally they keep some chart notes that are written*

**Health care quality.** Experiences with the health care system in Mexico tended to vary a great deal. Most retirees agreed that care in the larger cities, such as Guadalajara and Queretero, was of much higher quality than care obtained locally. Most chose their local doctor by word of mouth. Some preferred younger doctors with more recent training, and others preferred older doctors that had a wider network of specialists to whom they referred patients. A U.S. trained Mexican physician working in San Miguel, RM, confirmed that most local physicians do not attend continuing medical education activities, and are not current on best practices.



*RM: They just receive their paper thing and you're a doctor and they will never go back, they open up their office and that's it. They don't do anything else.... I just had a patient last night in my office, huge shortness of breath. One year she has seen 10 or 15 doctors and not one has diagnosed, done an echo or a cat scan of her chest. How can that be? No, those things should not happen even with a GP. And what's worse is that the GP is not recognizing that it has limitations and that it should refer to the specialist, and they're not doing that, and that's even worse.*

Two narratives illustrate bad experiences with the health care system in Mexico. MB is a 72 year old retired pediatric psychiatrist from Wisconsin living in the Lake Chapala area, and BF is a 68 year old living in San Miguel.

*MB. .. And he introduced me to his doctor that was working with him, who was a woman, who was supposedly a physician in nutrition... I checked on her, but in the interim, I came back to the clinic. The doctor had prescribed me some things for my kidneys. And they had told me that she had left a prescription for me for my legs, because I have infections on my legs. And I'm like, what kinda prescriptions. So I looked them up. One was a homeopathic prescription which is not allowed to be prescribed in the U.S., and the other was a lotion, because I had sores on them. I checked it out. It had such high levels of carbolic acid that I probably would have burned off the top layer of my skin. In the meantime she had said to me " oh, and you know I can really help you with the lymphedema. Well we're doing cell transplants." And I said" oh, you're doing cell transplants?" And she said," yeah, we're doing fetal cell transplants". And I said, "where are you getting the cells from?", and she said," from the mortuary".*

---

*BF ...So about 3 am I finally called emergency, they took me up to hospital general. In San Miguel, I had a house mate, we got up to hospital general. Even though my EKG was all over the place my blood panel did not have the insights indicated. So they said did you vomit, have diarrhea? Well, yeah. Oh you've just got a stomach problem. I don't think the hospital even has a defibrillator in it, to be honest with you. So about they treated me, IV, aspirin. I think a couple of other things, I don't remember which. The interns came, doctors came by for morning rounds. They said no, we think this woman needs a little more attention than what she's getting. Doctor, I call him Doctor Angel. He's an American doctor that works at the hospital on Tuesdays and Thursdays as a volunteer, to make sure that American patients and non Mexican patients, let me put it that way, are receiving and understanding the care that they're getting. And the funny part of all of this, I was dozing, he comes taps me on the shoulder, and he's got a black turtleneck and a gray jacket .He says hi I'm doctor K and I said I don't need a minister, and I rolled over. He's the one that said you're in serious condition and got doctor Alvarez, who is the only cardiologist in town, in spite of what anybody else may say. Doctor Alvarez came, getting ready to transport me to Queretaro, which has a first class, several first class hospitals. And as we were preparing me, I coded. The defibrillator we used came from the ambulance, so, you know, we've got them in town but those doctors at general are not trained to recognize or treat cardiac or stroke. And that's true of the other hospital we have, which is barely a hospital. So, I was revived. I was taken down to Queretaro. The care there was magnificent. He hops out of the ambulance, they take me into the Cardiac/Cath lab, everybody is there waiting for me. They do an angioplasty*

*and I have a stent. I was in the hospital for three days, something like that. Single, private room at 150 dollars per day. Then I took a whole 6 month cardiac rehab after that.*

Several interviewees, on the other hand, had very positive experiences with Mexican health care. KC and AC are a retired couple from the Midwest living in the Lake Chapala area. Both are in their mid-50's.

*KC ... Came down here, and didn't bother telling her [his wife] that I'd had this biopsy on this mole on my leg that had been bleeding for about a week. So we were here for 10 days and the physician called up and said you have to come back right now, it's malignant, yada yada yada. And he didn't believe...*

*S: Melanoma?*

*KC: Yes. He didn't believe that we could get quality medical care in Mexico. But we knew enough people down here who had tuned us in on who to talk to and what not and I was 10 days post op before I would have gotten in for evaluation in Cleveland. So I had my surgery down here.*

*AC: He got here on the 18<sup>th</sup>, we got the news from the doctor about ten days later, the end of June. He had his surgery, they set it all up, in Guadalajara at a little boutique hospital. He had his surgery on July 10<sup>th</sup>, and the dermatologist up north was not very happy because he really wanted Ken to come back and see the guys at Cleveland Clinic. But he couldn't get Ken an appointment until the end of July. You know, and here it was July 10<sup>th</sup>. And he was reluctant to send us all of the medical information and the lab reports and everything from the biopsies. But he did, and it was difficult because back then it took a couple of tries to get the fax through, and*

*there were only three places you could get faxes through. Not everyone had a phone here, not everyone had internet, so it was really different than it is now. And this doctor was very upset about it. But the surgery went well, they did everything they were supposed to, all the dyes and everything.*

*KC: Well when we got back, we were delayed a month because of recovery which was a little more extensive than I thought it was going to be. And when we got back and were evaluated at the clinic the first young man who evaluated me said he wasn't going to have anything to do with me because I had been treated in a third world country. The chairman of his department when we contacted him, said come on in. He took a look at everything, he was non plussed about everything, looked at all that had been done. In Mexico they give you the records. So I had everything with me, including slides and samples. Took a look at it and said, they did everything we would have done here.*

**Experience with insurance in Mexico.** Obtaining good insurance coverage was a concern for many of the retirees interviewed. Most payed out-of-pocket for the majority of their health care, though some had Mexican insurance for emergency situations. International insurances tended to be expensive, especially for those with pre-existing health conditions, and Mexican insurance limited where you could seek care, often with long waiting times.

*MB: I don't have insurance*

*S: So you don't have medicare?*

*M: No, I don't have medicare here, can't use it, and it costs \$200.00 a month for it. The reason I retired, is that it's cheaper to retire here. You have to remember I worked for the government*

*and non-profits all my life. I'm not retiring with millions of dollars. If I had something really major I guess I could go to the States. Although I have had friends who have gone to Guad, a friend with emergency appendectomy, cost him what 10,000 dollars A [daughter]?*

*A: it was about \$10,000 for a week in the hospital after his emergency appendectomy*

*MB .... \$10,000 is nothing. That probably would have cost him \$250,000 in the States. So most people prefer to pay. Now there is the IMSS which is available for US citizens. It's designed for poor Mexican people, but they allow you to join. You can't have it if you are over 72. You can't have a preexisting condition...*

*S: Have you looked at International insurance?*

*MB: Yeah, but I have too many preexisting conditions. I had cancer, I have diabetes, I have high blood pressure. They would laugh at me. I did get a quote, just without giving them any disclosure, and the quote without any preexisting conditions was about \$385-450 a month. But once I disclose, I'm sure first of all that they wouldn't take me, but if they did it would probably be ridiculous. Now a quote for someone like A who is reasonably healthy would be about \$400. So when you consider what you're spending out of pocket, it really isn't worth it. Now if we could ... and there's a group trying to see if they can get medicare here. If they can do that, it would be wonderful.*

**Long term plans:** The majority of the US retirees interviewed voiced their desire to stay in Mexico for the long-term, even in the face of severe illness such as cancer or stroke. Several qualified this sentiment, saying they continued to pay for Medicare “just in case” they needed to return to the U.S. for illness with disability. HB is a 65 year old single man living in San Miguel de Allende. [ JH is the interviewer].

*JH: So what are your long term plans?*

*HB: I think we would stay here.*

*JH: If you needed home health care would you stay here?*

*HB: I would stay here. Because here we [referring to partner] have a house, it's affordable here to have a person to live with you and we have the place to do it. It would be our first choice. We have Medicare as a back-up, if that didn't work, I would use it.*

*JH: Say you needed heart surgery, and you had to go to the states and spend 6, 7 weeks there, where would you go? Where would you stay?*

*HB: Just probably to San Antonio, and I would bring my partner, and find a place to live for a few months. About a year ago I had a stent implant here in Queretaro and it was like in and out. Go in one day, get the stent, they check on you and you leave. For ten thousand dollars..... stent implant in the states is about 80,000 dollars. And I did it here, in a private room, my partner could stay with me in my room and television, internet.... My first choice would be to stay [in Queretaro] for heart surgery, San Antonio next.*

**Economics as a motivator for retiring to Mexico:** Though lifestyle and love of Mexico were strong pull factors to retire south of the border, some retirees stressed that economics also factored into their decision to retire in Mexico. In the interviews this trend was more pronounced for the single women interviewed. MA is a 74 year old single woman living in San Miguel de Allende.

*JH: Do you think a lot of the women come down here because they can't afford to live in the States?*

*MA: Yes. You have a very wide variety of people here. Many come as tourists, and might come here for two weeks and buy a house before they leave. It happens all the time. But there are*

*many people here in my income group. People just aren't really as aware of it because even in my income group I can go to concerts and plays and lectures and so forth. If I can't afford the ticket price I go and volunteer. You're not so aware of the big disparity because the people who have the lower income are doing the same activities as the people with the big incomes.*

## **Discussion**

This study builds on previous work done to characterize U.S. citizens who choose to retire abroad, particularly in the areas of preventive and long-term health care. The picture that emerges from this data is that of a group of Americans straddling two cultures and two health care systems. Though they embrace some aspects of Mexican health care, many still maintain their American insurance, including Medicare, and return to the U.S. for preventive care and elective surgeries. Others are forgoing American insurance, and, in a significant number of cases, Mexican insurance as well, leaving themselves at risk for financial harm and poor health outcomes. In addition, increasing numbers of U.S. retirees are considering the possibility of staying in Mexico permanently, even in the face of long-term illness.

U.S. retirees in Mexico are in relatively good health overall, with an average 4 year mortality of less than 4 percent; therefore most should benefit from preventive health care services. Moreover, the finding that most retirees surveyed are getting preventive health services, either in the U.S. or Mexico, attests to their desire to have these services. However, most retirees admitted that requests for preventive health care services in Mexico were largely self-initiated. A variety of reasons might explain why Mexican providers do not generally advocate for preventive care services, including a lack of training in preventive medicine, and a

lack of good medical record systems that track preventive health care. Regardless of the reason, the consequences of not engaging in informed discussions on prevention screening include inadequate as well as inappropriate screening, both of which could lead to poor health outcomes.<sup>21</sup>

U.S. retirees expressed ambivalence towards the quality of health care they receive in Mexico. Though most retirees are happy with the time and attention that Mexican doctors provide, several voiced concerns that care was not always as good as what they were accustomed to receiving in the U.S., and still others gave examples of missed or delayed diagnoses that led to premature death or poor health outcomes. Most agreed that health care was better in the larger cities of Mexico. The large differences in quality of care are in part explained by a lack of ongoing training after completion of medical school, particularly for general practitioners, coupled with a lack of legal accountability. Medical malpractice is practically unheard of in Mexico.

A significant percentage of U.S. retirees plan to stay in Mexico should they become ill, even in situations that would require intensive services such as in-home assistance or nursing home placement. Our findings differ from those of the International Community Foundation (ICF) Study, which found that only about a third of retirees were considering assisted-living as an option in Mexico, compared to approximately half of the respondents in our survey. This difference in findings is possibly explained by the fact that the ICF study was done in the the Baja California area, which is closer to the U.S. border.<sup>15</sup> Retirees provided several reasons for their desire to remain in Mexico, including the availability of affordable and high quality nursing and in-home care, their wish to avoid burdening their children living in the U.S., and their desire



to remain close to their social network in Mexico. Even so, many retirees continue to pay for Medicare in case they decide to move back to the U.S. for long-term care.

Both survey and interview results confirm that finances play a large role in retiree's decision to live abroad, particularly for single women. However, health care expenses could cause significant financial harm to the 39% of retirees surveyed who do not have health insurance that can be used in Mexico.<sup>21</sup> Interviews with retirees revealed a number of reasons why they tend to be underinsured. Many of the private international insurances are too expensive, especially for retirees with pre-existing conditions. Other retirees do not qualify for Mexican health insurance, or choose to forgo it because there are limits placed on whom they can see and where they can go for health care. Though health care costs are in general significantly lower in Mexico, some retirees expressed fear at having to pay for a health care crisis, particularly one requiring an operation or a prolonged hospital stay.

Limitations of this study include the fact that participants were self-selected, potentially creating bias in the findings. Self-selected participants might be those with the most egregious, or satisfactory interactions with health care in Mexico. Or they may represent a more altruistic and social group of retirees who tend to volunteer for more activities, including surveys, in general. As discussed earlier, there is no good census or demographic data on U.S. retirees in Mexico, making it hard to know how representative our survey participants are. Many participants who agreed to an interview admitted to "survey fatigue", a fact which may explain why this survey had low participation, and serves as further evidence that this population is of growing interest to private companies and academics alike.

Future research and intervention for U.S. retirees living abroad needs to address the quality of care that retirees receive, and the availability of adequate long-term care facilities and

services for them. Improved options for the provision of health insurance to this growing population, including the possibility of expanding Medicare into parts of Mexico <sup>23</sup>, need to be further explored. Additionally, this research exposed the need for education of both Mexican providers and retirees regarding the need for and the frequency of preventive health services. Solutions should take advantage of the social networks U.S. retirees develop in Mexico, employing, for example, an intervention with lay health advisors. Alternatively, an intervention could take advantage of the fact that most retirees living abroad are skilled in computer-based technologies.

## References

1. Croucher, S. *The Other Side of the Fence*. Austin: University of Texas Press; 2009.
2. Papademetriou D, Murray J, Dixon D. America's Emigrants: US Retirement Migration to Mexico and Panama. [http://www.migrationpolicy.org/pubs/americas\\_emigrants.pdf](http://www.migrationpolicy.org/pubs/americas_emigrants.pdf)
3. Barry, D." Boomers Hit New Self-Absorption Milestone: Age 65" [internet] December 31, 2010.[internet] cited 09/17/2011, Available from [www.nytimes.com/2011/01/01/usboomers.html](http://www.nytimes.com/2011/01/01/usboomers.html).
4. . Sunil T, Bradley D. United States' International Retirement Migration: the Reasons for Retiring to the Environs of Lake Chapala, Mexico. *Aging and Society*. 2007;27:489-510.
5. Helman R, Copeland C. The 2011 Retirement Confidence Survey: Confidence drops to record lows, reflecting "the new normal". *EBRI Issue Brief*. 2011; (355):1-39.
6. Doty M, Edwards J, et al. Seeing red: Americans driven into debt by medical bills. Results from a National Survey. *Issue Brief (Commonwealth Fund)*. 2005; (837):1-12.
7. Himmelstein D, Thorne D. Medical Bankruptcy in the United States, 2007: results of a national study. *Am J Med*. 2009; 122(8):741-746.
8. Your Panama.[internet]Available from: [www.yourpanama.com](http://www.yourpanama.com). Cited 10/12/11.

9. SolutionsAbroad.com. .[internet]Available from: <http://www.solutionsabroad.com/> Cited 01/16/2012.
10. Panamatotal.com.[internet]Available from:www.panamatotal.com. Cited 10/25/2011.
11. Knaul F, Frenk J. Health insurance in Mexico: achieving universal coverage through structural reform. Health Aff(Millwood). 2005;24(6):1467-1476.
12. Gakidou E, Lozano R, et al. Assessing the effect of the 2001-06 Mexican health reform: an interim report card. Lancet.2006;368(9550):1920-1935.
13. Barraza-Llorens M, Gonzalez-Pier E, Gutierrez P. Addressing Inequity in Health and Health Care in Mexico. Health Affairs. May/June 2002:47-56.
14. Mesa-Lago. Social Security in Latin America: Pension and Health Care Reforms in the Last Quarter Century. Latin American Research Review. 2007. 42(2):190-201.
15. Kly R, McEnany A. Health Care and Americans Retiring in Mexico. US Retirement in Mexico Research Series. International Community Foundation. .[internet]Available from: <http://www.icfdn.org/publications/healthcare/RRA-2-FINAL.pdf>.
16. Berk M, Schur C, et al. Health care use among undocumented Latino immigrants. Health Aff(Millwood). 2000;19(4):51-64.
17. Derosé K, Baker D. Limited English proficiency and Latinos' use of physician services. Med Care Res Rev. 2000;57(1):76-91.
18. Ku L, Matani S. Left out: immigrants'access to health care and insurance. Health Aff(Millwood). 2001;20(1):247-256.
19. DeVoe J, Fryer G, Phillips R, Green L. Receipt of Preventive Care Among Adults: Insurance Status and Usual Source of Care. American Journal of Public Health. May 2003; 93(5):786-791.

- 20.** Lee S, Lindquist K, et al. Development and validation of a prognostic index for 4-year mortality in older adults. *JAMA*. 2006; 295(7):801-808.
- 21.** Starfield B, Shi L, Macinko J. Contribution of Primary Care to Health Systems and Health. *Milbank Quarterly*. 2005; 83(3):457-502.
- 22.** Xu K, Evans DB, Carrin G, Aguilar-Rivera AM, Musgrove P, Evans T. Protecting households from catastrophic health spending. *Health Aff*.2007; 26: 972-83
- 23.** Warner DC. Getting What You Paid for-Extending Medicare to Eligible Beneficiaries in Mexico. Austin: The Lyndon B. Johnson School of Public Affairs. 1999. [internet]Available from: [http://uts.cc.utexas.edu.libproxy.lib.unc.edu/~healthp/Medicare\\_files/US-Mexico\\_PRP\\_98-99.pdf](http://uts.cc.utexas.edu.libproxy.lib.unc.edu/~healthp/Medicare_files/US-Mexico_PRP_98-99.pdf). Cited 10/25/2012.

## Tables

**Table 1: Basic Demographics Survey Participants (N=75 to 80)**

	Percent
Mean age (sd)	67 (8.0)
Less than or equal to 54 years	2.5
55-64	31.3
65-74years	52.5
75-84 years	12.5
Greater or equal to 85 years	1.3
Male (n=80)	45
Married (n=80)	50
Single Female	32.5
Single Male	17.5
Income less than \$3000.00 per month(n=75)	56
More than High School Education (n=80)	94

**Table 2: Social Integration (N=78-80)**

	Percent
Most close friends in Mexico (n=80)	57
No close friends in Mexico	25
1 close friend in Mexico	5
2 close friends in Mexico	14
3 close friends in Mexico	21
4 close friends in Mexico	18
5 close friends in Mexico	18
More than one close Mexican friend (n=78)	24
Lived in Mexico more than half of the last 3 years (n=79)	85
Plan to vote next U.S. Presidential election (n=80)	70
Mean Self-rated Spanish fluency * (n=78) (sd)	4.7 (2.4)

**Table 3: Reasons for Retiring to Mexico \***

	Strongly agree	Agree	Neutral	Disagree	Strongly Agree	n
Lifestyle	48	26	2	2	0	78
Affordable Retirement	52	17	7	2	1	79
Affordable Healthcare	20	20	25	5	7	77
Work	4	3	12	7	44	70
Joining Family	3	4	8	7	50	72

\*Absolute Numbers, not percent. Participants could answer more than once

**Table 4: Baseline Health Characteristics: (N=66-80)**

	Percentage
Average BMI (SD) (n=66)	26 (5.3)
Underweight (less than 18.5)	0
Normal weight (18.5-24.9)	41
Overweight (25-29.9)	45
Obese (30 or more)	14
Diabetes (n=80)	21
Smoked in last week (n=80)	16
Malignancy other than skin cancer (n=80)	14
Chronic lung disease (n=79)	5
Congestive heart failure (n=80)	3
Difficulty bathing (n=77)	1
Difficulty managing money (n=78)	0
Difficulty walking several blocks (n=78)	19
Difficulty pulling or pushing large objects (n=78)	13
Average Lee Score (SD) (n=78)	4.8 (2.5)
<4 % risk of death at 4 years	67
15% risk of death at 4 years	28
42% risk of death at 4 years	4
64% risk of death at 4 years	1

**Table 5: Health Care Statistics (N=49-80)**

	Percentage
Spanish a barrier to health care some or all the time (n=80)	40
No medical visits to U.S. in the past year (n=77)	58
Eligible and have medicare (n=49)	76
No medical insurance in Mexico (n=76)	39
Number of medical visits in U.S. * (n=77)	2 (2.8)
Number of medical visits in Mexico *(n=78)	4 (4.8)
Use alternative medicine	65
Happy with health care in Mexico	59
( n=74)	
Agree	59
Somewhat Agree	19
Unsure	8
Somewhat Disagree	5
Disagree	8

\*average (SD)

**Table 6: Colon Cancer Screening (N=61-74)**

	Percent
Colonoscopy in last 0-1 years (n=74)	15
Colonoscopy in last 2-5 years	35
Colonoscopy in last 6-10 years	16
Colonoscopy in more than 10 years	9
Never	24
Sigmoidoscopy in last 0-1 years (n=61)	5
Sigmoidoscopy in the last 2-5 years	8
Sigmoidoscopy in last 6-10 years	2
Sigmoidoscopy in more than 10 years	15
Never had Sigmoidoscopy	70
Hemoccult Cards last 0-1 year (n=67)	37



Hemoccult Cards last 2-4 years	21
Hemoccult Cards last 5-7 years	9
Hemoccult Cards last 8-10 years	6
Hemoccult Cards more than 10 years	7
Never had hemoccult cards	19
*Up to Date Colon Cancer Screening	76

\*FOBT within one year, sigmoidoscopy within 5 yrs, colonoscopy within 10 years

**Table 7: Preventive Screening Intervals\***

	0-1 years	2-4 years	5-7 years	8-10 years	More than 10 years	Never	N
Fasting Cholesterol	48	12	4	0	0	11	75
Fasting Blood Sugar	42	9	3	2	2	15	73
Blood Pressure	69	4	2	0	1	0	76
PSA test in Men	20	10	1	0	1	3	35
Pap testing in Women with a Uterus	13	7	8	1	1	0	30
Mammogram in Women	19	9	5	3	3	1	40

\*Absolute numbers

**Table 8: Location of Preventive Health Care**

	Percent in Mexico
Sigmoidoscopy (n=15)	13
Colonoscopy (n=53)	33
Hemoccult (n=51)	45
Mammogram (n=38)	45
Pap (n=28)	50
Fasting Blood Sugar (n=53)	51
Cholesterol (n=57)	56
Prostate Specific Antigen (n=30)	57
Blood Pressure (n=68)	68

**Table 9: Long Term Plans for Staying in Mexico with Long-Term Illness \***

	Agree	Somewhat agree	Unsure	Somewhat Disagree	Disagree	n

If diagnosed with cancer	28	9	17	2	19	75
With stroke	30	14	16	3	12	75
With Severe Disability	32	8	21	2	12	75
Requiring Nursing Home level care	40	14	8	4	9	75
Requiring help with Activities of Daily Life	55	10	7	0	3	75

\*Absolute numbers

## Copy of Survey

U.S. Retiree

Q1 Health Care Practices and Social Support Systems of United States Retirees in Mexico and Central America We invite you to participate in our survey. This survey concerns the medical care that you are receiving in Mexico, particularly preventive health care and your decisions regarding long term health care. We also want to know about how social support systems develop in the context of your life in Mexico. Information from this survey could lead to a better understanding of the issues facing U.S. citizens who choose to live abroad. Knowledge gained from this research could be used to design a larger study, to design a health intervention, or to advocate for better health care for U.S. retirees living abroad. If you take the survey you will be entered into a drawing to spend two nights in a home on the coast of Mexico. Your name will be entered twice if you also agree to a face-to-face interview with one of our research team members in your town of residence in Mexico this summer. The survey should take 20 minutes and the face-to-face interview will last around 30 minutes. Information from this survey and from the interviews will be used as research. Your name (or any information that could identify you) will never be used in any way when the research is published. At the completion of the study, all emails, names, addresses and phone numbers will be destroyed. If you want a copy of the results of the study, we will be happy to arrange for that. Please feel free to use an alias if you wish. This survey should not cause you any discomfort, however you can refuse to answer any question or stop the survey at any time. There are three of us from the University of North Carolina at Chapel Hill involved in this study: Sandra Clark MD in the department of Social Medicine, Jacquelyn Hagan PhD in the department of Sociology, and Philip Sloane MD in the department of Family Medicine. Please contact Sandra Clark at sandrac@email.unc.edu with any questions. You are also free to contact the Institutional Review Board at UNC by phone: 919-966-3113 or by email at IRB\_subjects@unc.edu. The IRB number for this study is 12-0434.

- I consent to participate in this study. (1)
- I do not consent (2)

Q2 Please indicate your gender:

- Male (1)
- Female (2)

Q3 How old are you in years? (please fill in)

Q4 In the past three years, how many months have you lived in Mexico?

- 0-6 Months (1)
- 7-12 Months (4)
- 13-18 Months (5)
- 19-24 Months (6)

Q5 What is your highest level of education?

- High school (1)
- Any college (2)
- Post college (3)



Q6 With whom do you live? (you can answer more than one):

- Alone (1)
- Spouse (2)
- Other family member (3)
- Friend (4)
- Other (5)

Q7 What was your primary motivation for moving to Mexico? (please answer all options)

	Strongly agree (1)	Agree (2)	Neutral (3)	Disagree (4)	
Lifestyle (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affordable retirement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affordable health care (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joining family (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Of your five closest friends how many live in Mexico? (please fill in)

Q9 Of your five closest friends in Mexico, how many are Mexican? (please fill in)

Q10 Of your five closest family members how many live in Mexico? (please fill in)

Q11 Do you plan to vote in the next U.S. Presidential election?

- Yes (4)
- No (5)
- Unsure (6)

Q12 When you have a major medical decision to whom do you turn? (check all that apply)

- Family in Mexico (1)
- Friends in Mexico (2)
- Family in the United States (3)
- Friends in the United States (4)
- My doctor (5)
- I make my own decisions without help (6)

Q13 How would you rank your Spanish skills on a scale of 1 to 10, 1 being no Spanish and 10 being fluent in Spanish (please use your cursor to move the slide)

\_\_\_\_\_ Spanish fluency (1)

Q14 How often are your Spanish skills a barrier to accessing health care in Mexico?

- All of the time (1)
- Some of the time (4)
- Never (5)

Q15 How many visits to a doctor's office have you made in the past year in Mexico, excluding dental care (please fill in)

Q16 How many visits to a doctor's office have you made in the past year in the United States, excluding dental care (please fill in)

Q17 Do you use alternative health care services in Mexico? (you may check more than one)

- Homeopathy (1)
- Accupuncture (2)
- Curandero (Mexican healer) (3)
- Yoga (4)
- Meditation (5)
- Herbal remedies (6)
- Other (7)

Q18 What is your most recent weight in pounds? (please fill in)

Q19 What is your most recent height in inches? (please fill in)



Q20 Please answer the following questions

	Yes (1)	No (2)
Has a doctor ever told you that you have diabetes or high blood sugar? (2)	<input type="radio"/>	<input type="radio"/>
Has a doctor ever told you that you have cancer or a malignant tumor other than minor skin cancers? (3)	<input type="radio"/>	<input type="radio"/>
Do you have chronic lung disease that limits your usual activities or makes you need oxygen at home? (4)	<input type="radio"/>	<input type="radio"/>
Has your doctor told you that you have congestive heart failure? (5)	<input type="radio"/>	<input type="radio"/>
Have you smoked cigarettes in the past week? (6)	<input type="radio"/>	<input type="radio"/>

Q21 Because of a health or memory problem do you have any difficulty with bathing or showering?

- Yes (1)
- No (2)

Q22 Because of a health or memory problem do you have difficulty managing your money?

- Yes (1)
- No (2)

Q23 Because of a health problem do you have any difficulty with walking several blocks?

- Yes (1)
- No (2)

Q24 Because of a health problem do you have any difficulty with pulling or pushing large objects like a living room chair?

- Yes (1)
- No (2)

Q25 When and where did you last have the following screening tests?

	When?					Where?	
	0-1years (1)	2-5 years (2)	6-10 years (3)	more than 10 years (4)	never (5)	United States (1)	Mexico (2)
Colonoscopy (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sigmoidoscopy (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 When and where did you last have the following screening tests?

	When?						Where?	
	0-1 year (1)	2-4 years (2)	5-7 years (3)	8-10 years (4)	More than 10 years (5)	Never (6)	United States (1)	Mexico (2)
Fasting cholesterol (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fasting blood sugar (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hemoccult (stool) cards (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blood pressure (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q27 Do you take daily aspirin?

- Yes (1)
- No (2)

Q28 Have you ever had a test to look for an abdominal aortic aneurysm?

	Click to write Column 1	Where?	
	Answer 1 (1)	United States (1)	Mexico (2)
Yes (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not sure what this is (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Please indicate your gender: Male Is Selected

Q29 When and where did you have your last prostate specific antigen test? (PSA)

	When?						Where?	
	0-1 years (1)	2-4 years (2)	5-7 years (3)	8-10 years (4)	More than 10 years (5)	Never (6)	United States (1)	Mexico (2)
Last PSA (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Please indicate your gender: Female Is Selected

Q30 Have you had a hysterectomy?

- Yes (1)
- No (2)

Answer If Have you had a hysterectomy? No Is Selected And Please indicate your gender: Female Is Selected

Q31 When and where was your last Pap smear?

	When?						Where	
	0-1 year (1)	2-4 years (2)	5-7 years (3)	8-10 years (4)	More than 10 years (5)	Never (6)	United States (1)	Mexico (2)
Pap smear (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Please indicate your gender: Female Is Selected

Q32 When and where was your last Mammogram?

	When?						Where?	
	0-1 year (1)	2-4 years (2)	5-7 years (3)	8-10 years (4)	More than 10 years (5)	Never (6)	United States (1)	Mexico (2)
Last Mammogram (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q33 Please answer the following questions

	Agree (1)	Somewhat agree (2)	Unsure (3)	Somewhat disagree (4)	Disagree (5)
I am happy with my health care in Mexico (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I were diagnosed with cancer I would remain in Mexico for treatment (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had a stroke with disability I would remain in Mexico for treatment (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had severe disability I would remain in Mexico (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I required nursing home care I would remain in Mexico (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I required home help with cooking , cleaning and bathing I would remain in Mexico (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q34 What medical insurance(s) do you currently have. You may mark more than one

- Medicare (1)
- Mexican health insurance (2)
- International health insurance (3)
- Tricare (4)
- Other (5)
- None (6)

Q35 What is your monthly income?

- 0-\$1000 (1)
- \$1000-3000 (2)
- More than \$3000 (3)

Q36 Would you be willing to have a 20-30 minute face- to- face interview this summer for a second chance to win two nights at a house on the Mexican coast?

- Yes (1)
- No (2)

Answer If Would you be willing to have a 20-30 minute face- to- fac... Yes Is Selected

Q37 Please provide a name (may be alias!) an email address and telephone number so that we may contact you ! (Most likely in June of 2012)

Answer If Would you be willing to have a 20-30 minute face- to- fac... No Is Selected

Q38 Please provide us with an email address and a name (or alias) alone for the drawing.

**Literature search:**

There is very little research on United States retirees living abroad, and even less that pertains to their medical care. Pub Med searches were not particularly helpful and their database did not include most of the articles that I ultimately used in my paper. My literature search was therefore not conventional. My search began with a book that was recommended by a migration expert in the sociology department at UNC Chapel Hill: *The Other Side of the Fence* by Sheila Crouch. This book is an ethnography written by an academic who lived in both San Miguel and the Lake Chapala area for eight months. My initial research was based on information and references gleaned from her book, and further articles were found using references from those articles, and so on, in an iterative fashion. Most of my background research came from cross sectional and survey data. Some of this data is national, such as the Retirement Confidence Survey, with high external validity; and some is more regional, such as the article by T.S. Sunil, which was done in the Lake Chapala area, and that authored by R Kly , which was confined to north Mexico. These regional surveys have moderate external validity for the rest of Mexico, as each region has its own health care system, adapted for U.S. retirees to varying degrees.

Most of the health policy papers written on expats in Mexico concern the movement to have Medicare accepted in Mexico. I decided to not pursue much discussion of this topic in my paper because most researchers who do work in this area, as well as most retirees living in Mexico are, for the most part, not optimistic that this will happen any time soon. This is due both to the huge obstacle created by the need for hospital and physician credentialing, and the reality of low political will on the part of U.S. legislators.

