



The Central America Diabetes Initiative (CAMDI)

Survey of Diabetes, Hypertension and Chronic Disease Risk Factors

Belize, San José, San Salvador (Santa Tecla),
Guatemala City (Villa Nueva), Managua and
Tegucigalpa



**Pan American
Health
Organization**

Regional Office of the
World Health Organization



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Introduction

Most developing countries of Latin America are in a stage of epidemiologic, demographic, and nutritional transition. Changes in lifestyle are associated with mass migration from the rural areas to the urban areas, the phenomena of globalization, and exchanges between cultures (1). These changes are occurring rapidly in Central America; consequently, protein-calorie malnutrition is observed most frequently in conjunction with obesity, hypertension, diabetes mellitus, and hypercholesterolemia (2).

The health situation in Central America is evolving from one in which the epidemiologic profile is dominated by infectious diseases and nutritional deficiencies to an elevation of the importance of chronic non communicable diseases (NCD) as principal causes of morbidity. For example, data from around the year 2002 demonstrated that among women in Central America of 20-59 years the first cause of death is cancer of the uterus, with diabetes, stroke, and ischemic heart disease being the third, fourth and fifth causes respectively (2). During the same period, among those of age 60 years and older in both genders, ischemic heart disease and stroke were the first and second causes of death, respectively, while congestive heart disease and diabetes were among the five main causes of deaths (4). Furthermore, the ratio of mortality due to non communicable and communicable causes in Central America rose from 1.0 to 3.1 between the periods of 1980-1985 and 1990-1995, respectively.

Despite the importance of NCD in the health profile of Central America, information on the prevalence of major chronic diseases such as diabetes and hypertension and their risk factors are not available. Obesity, physical inactivity and diet are considered major factors in the etiology of diabetes mellitus and hypertension. Obesity can contribute significantly to heart disease and resulting disabilities. For this reason, the present study examined the effects of epidemiologic transition on the health profile of various populations of Belize, Costa Rica, El Salvador, Honduras, Guatemala and Nicaragua.

Objectives

- Determine the prevalence of diabetes mellitus and hypertension in people 20 years of age and older in a sample taken from six Central American populations (urban areas of San José, Costa Rica; Santa Tecla, San Salvador, El Salvador; Villanueva, Guatemala City, Guatemala; Tegucigalpa, Honduras; and Managua, Nicaragua; and the national population of Belize).
- Determine the prevalence of major risk factors diabetes and hypertension in six Central American populations.

Variables and indicators

Blood pressure was classified using the criteria of the Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (4). Diabetes mellitus was diagnosed in accordance with the criteria established by the World Health Organization (5).

The primary variables and respective indicators are:

Classification of Blood Pressure	Systolic Blood Pressure mmhg		Diastolic Blood Pressure mmHg
Normal	<120	and	<80
Normal High (Prehypertension)	120–139	or	80–89
Stage 1 Hypertension	140–159	or	90–99
Stage 2 Hypertension	≥160	or	≥100

Classification of Glucose	Fasting Plasma Glucose		Oral Glucose Tolerance Test
Normal	<100 mg/dl y	and	<140 mg/dl
Impaired fasting glucose (IFG)*	100–125 mg/dl		
Impaired glucose tolerance (IGT)*			140–199 mg/dl
Diabetes mellitus	≥126 mg/dl	or	≥200 mg/dl

*IFG or IGT are frequently referred as pre diabetes

The secondary variables and respective indicators are:

Variables	Indicators
Body Mass Index (BMI) (6):	
Normal	
Overweight	18.50-24.99 kg/m ²
Obesity:	25.00-29.99 kg/m ²
Grade I	30.00-34.99 kg/m ²
Grade II	35.00-39.99 kg/m ²
Grade III	≥ 40.00 kg/m ²
Waist:	
Normal or no risk	Men < 94 cm; Women < 80 cm
Increased risk	Men ≥ 94 cm < 102 cm; Women ≥ 80 cm < 88 cm
Substantially increased risk	Men ≥ 102 cm; Women ≥ 88 cm
Total cholesterol (7):	
Desirable	< 200 mg/dl
Borderline high	200-239 mg/dl
High	≥ 240 mg/dl
Triglycerides (7):	
Normal	< 150 mg/dl
Borderline high	150-199 mg/dl
High	≥ 200
Smoking habit	
	Current smokers: Smokers of 1 or more cigarettes/day
Alcohol consumption	
	5 or more drinks/day in the last 4 weeks once 5 or more drinks/day in the last 4 weeks twice or more
Sociodemographic data	
	Educational level Illiteracy Current employment Ethnic group Marital status

Note: Indicators referring to BMI are based on the ratio of weight in kilograms divided by the square of height in meters

Methodology

Survey design

In this cross-sectional descriptive study, 10,822 men and women of six Central American populations (urban areas of San José, Costa Rica; Santa Tecla, San Salvador, El Salvador; Villanueva, Guatemala City, Guatemala; Tegucigalpa, Honduras; and Managua, Nicaragua; and the national population of Belize) were surveyed out of a total of 13,138 pre-selected people. Prospective participants were selected by multi stage random sampling stratified into three age groups (20 to 39 years, 40 to 64 years, and 65 or more years).

Site	Sample Size	Surveyed	Percentage (%) of Sample	Tested	Percentage (%) of those Surveyed
Belize *	2,635	2,439	93	1,622	67
San José	2,133	1,427	67	1,139	80
San Salvador	2,000	1,870	93	1,156	62
Guatemala City	1,700	1,397	82	966	69
Tegucigalpa	2,400	1,696	71	1,237	73
Managua	2,400	1,993	83	1,694	85
TOTAL	13,138	10,822	82	7,814	72

* National survey

The sampling frame was based on population censuses conducted in 2000 in Belize, Costa Rica; 1992 in El Salvador and Guatemala; 2001 in Honduras; and 1993 in Nicaragua. For Belize, the national electoral registry was used. Older census data such as the one in El Salvador, Guatemala and Nicaragua were updated for the field work by visiting the selected sectors and houses.

In each population, census segments were the Primary Sampling Units (PSU). A list of the census segments and the number of dwellings of each urban area of interest was prepared. Primary sampling units (PSU) were selected systematically with a probability proportional to population size, as measured by the respective number of dwellings. Out of the 6,708 census segments into which the target populations were divided, 212 were selected. Maps of the selected segments were updated because the information obtained was outdated.

Once the map of the selected census segments was updated, it was divided into compact segments (CS), or groups of 11 to 12 dwellings. Two CSs of each segment were then randomly selected. In each country approximately 100 CSs were selected. A census was taken of the dwellings in all the CSs. All individuals in the CSs who met the selection criteria were included in the sample, independent of whether or not the dwelling was inhabited by more than one family. For the purposes of this study, a family was defined as the group of cohabitants who eat at the same table. All family members were visited to be informed about the survey and the importance of participating. Those who agreed to participate signed a consent form after having read it with the interviewer. No substitutions of any sector, sub-unit, dwelling, or interviewee were allowed.

Every person selected was visited at home, where a structured 45 to 60 minute interview was conducted and blood pressure and waist circumference were measured. On the same visit, the person was scheduled for another visit (usually the next day or within the next seven days). Subjects were instructed to come to a specific site (health post or center, community center, school, neighbor's house, etc.) on an empty stomach after fasting to have body weight and height measured, undergo a glucose tolerance test, and have blood drawn to measure their lipid profile. All measurements and tests were expected to take approximately 3 hours. At the end of the second session, each participant was given a snack, their most important results, and several health related recommendations. Anyone who had one of the health problems studied was referred to a health center. A country-specific manual of procedures describing every stage of the survey was prepared and followed strictly by each interviewer. Field work and interviews took place between 2003 and 2006.

Population and sample

Of the 13,268 people selected, 10,822 gave complete interviews (82% response rate). Of the respondents, 7,814 underwent biochemical analyses and measurements of body weight and height (72% of all respondents). Response rates for the interview were 93% in both Belize and San Salvador, 67% in San José, 82% in Guatemala City, 71% in Tegucigalpa, and 83% in Managua. For the laboratory test and anthropometry, responses rates were 67% in Belize, 80% in San José, 62% in San Salvador, 69% in Guatemala City, 73% in Tegucigalpa, and 85% in Managua. Surveys conducted in San José, Managua, and Tegucigalpa are representative of the capital city populations of Costa Rica, Honduras and Nicaragua respectively; while surveys in Guatemala City and San Salvador are representative of the municipalities of Villa Nueva and Santa Tecla respectively; and the Belizean survey is representative of the national population.

Exclusion criteria

Persons of 20 years or more residing in the survey areas were eligible to be included in the sample, unless they were:

- Pregnant at the time of the interview,
- Had delivered a baby within the three previous months, or
- Had a severe mental disability that made it too difficult to communicate or respond to the questionnaire.

Methods

Questionnaire

A questionnaire was administered that was a modification of others used by PAHO and the Institute of Nutrition of Central America and Panama (INCAP) in previous studies, and from the Behavioral Risk Factor Surveillance System (BRFSS) and National Health and Nutrition Examination Survey (NHANES) surveys conducted by CDC. The questions addressed demographic data, health status, risk factors such as physical inactivity and eating habits, and access to health care, treatment and drugs. All countries included similar prevalence questions (core) and other questions they considered relevant. A sample of the questionnaire can be found in the Guatemala CAMDI national reports (1) and also appears in Appendix C.

Blood pressure

Blood pressure was measured three consecutive times, with the subject seated and the left arm resting on a flat surface at the height of the heart. The first measurement was taken at least 5 minutes after the person sat down and the following measurements, every 5 minutes thereafter. If a difference of more than 10 mmHg was found between the second and third measurement, a fourth measurement was taken. The average of the second and third measurements was reported. In cases in which a fourth measurement was necessary, the two closest values were averaged.

Glucose tolerance test

All sites except San Salvador used a 2-hour Glucose Tolerance Test for the diagnosis of diabetes mellitus. This test consisted of taking a blood sample, after a minimum fast of 12 hours, to measure plasma glucose concentration. After obtaining the first sample under fasting conditions, the person drank a beverage containing exactly 75 g of glucose (anhydrous glucose). At exactly two hours, a second blood sample was obtained to measure plasma glucose concentration again. Venous blood samples obtained before and after the glucose load were placed in tubes with sodium fluoride (an anticoagulant that reduces glucose metabolism by blood cells). All glucose tests were performed in national certified laboratories. In San Salvador, only fasting glucose was taken and the samples were tested in a HemoCue glucose analyzer (HemoCue AB, Ängelholm, Sweden).

Lipid profile

An additional blood sample was obtained under fasting conditions and placed in tubes without anticoagulant to measure serum total cholesterol, triglycerides, LDL and HDL cholesterol

Anthropometric measurements

The following measurements were taken in duplicate: body weight, height, and waist and hip circumferences, following the guidelines described by Lohman et al (3). A third measurement was taken in the event that the difference between the first two measures was greater than 0.5 units.

The average of the two values obtained was reported (the two closest values when a third measurement was necessary). Weight was measured using a digital scale (Health-O-Meter, model 840D-01, Illinois), with the subject wearing his or her usual clothes, shoeless, and without any objects in the pockets. The measurement was taken with a precision of 100 grams. Scales were calibrated weekly against a high precision digital scale (Toledo, model 2136, Division of Reliance Electronic, Ohio) in Guatemala City and by using calibrating weights in all other sites. In the Guatemala sample, from the body weight of each person, 1.5 kilograms was subtracted, which is the average weight of the usual clothing worn in that country.

Height was measured by placing the person, barefoot and with feet together and centered, against a metric scale attached to the wall. The heels, calves, buttocks, shoulder blades, and head were in contact with the wall. A wooden drafting triangle was placed on the head of the person, pressing against the hair. The reading was made to the closest millimeter. The circumference of the waist was measured at the height of the most prominent part of the abdominal wall (usually at the level of the navel), to the closest millimeter. Hip circumference was measured at the height of the great trochanters, to the closest millimeter.

Data collection and training of interviewers

Questions used to estimate the prevalence of diseases (diabetes, hypertension and high cholesterol) and the main risk factors (obesity, smoking, physical activity and alcohol use) were similar across surveys. All interviewers and anthropometrists received the same training provided by the same official from INCAP. Data collection for anthropometry and blood tests appears in Appendix D.

Data management and statistical analysis

All the information obtained in the survey was coded and reviewed by the same interviewer and then by the supervisor of the field work. The forms reviewed were computerized using Epi Info (CDC-WHO, version 6.01). All information was entered in duplicate and entries were checked for errors. Subsequently, the maximum, minimum and mean values permitted for each variable were reviewed to detect anomalous values and revise them in the originals with the respective correction.

Sample weights for the interview were constructed based on selection probability, the non-response rates at the various stages such as (sectors, compact segments, household, individuals) and the composition by age and sex of the population residing in the selected sites. A second weight calculation was done for those who had blood sample and anthropometrics measures using the same methodology. The prevalence of undiagnosed diabetes was calculated using the blood sample weights. The total prevalence of diabetes was calculated by combining participants with diagnosed diabetes (interview weights) and all participants whose diabetes status was assessed by the lab (blood sample weights).

Databases were merged and cleaned in a central location at the Centro de Investigación en Demografía y Salud (CIDS) from the Universidad Autónoma de Nicaragua at Leon (UNAN Leon). CIDS is the regional data center for CAMDI. The prevalence of the primary variables (diabetes and hypertension) and associated major risk factors (obesity, hypercholesterolemia) was calculated by age and sex groups. Prevalence was adjusted for the proportion of non responses and standardized by the age and sex stratification of the target population for the most recent year available.

The analyses of the data included descriptive statistics of the variables stratified by age and sex. For continuous variables, the average and standard error (SE) are reported. For prevalence or proportions, tests of the analysis of variance (ANOVA) and χ^2 were made to identify possible differences between groups and associations between variables. All prevalence estimates include a 95% confidence interval (CI). The standard error was adjusted to take into account the design of the survey by clusters. The statistical analysis was carried out using Stata 9 (Stata Corporation, Texas, USA) and SPSS 15.0 for Windows (SSPS, Inc., Illinois, USA).

Results

Mean age was lower in Guatemala City (37.2 years) and higher in San José (41.5 years). Guatemala City had the highest proportion of young adults (age 20 to 39 years) in the sample (65.9%) while the lowest proportion of young adults was found in San José (52.5%) (Table 1). San Salvador and Tegucigalpa reported the highest proportion of people of age 65 or more years (10.1% respectively).

San José and San Salvador did not include race in their survey questionnaire. Among those sites reporting race, the proportion of Blacks was highest in Belize (19.5%), Mestizos were most common in Guatemala City (98.2%) and Whites were most common in Nicaragua (22.7%). In all six sites most interviewees were classified as married. The highest proportion of singles was reported in San Salvador (37.6%) and the lowest in Guatemala City (14.7%).

Overall approximately the same proportion (38%) was classified with primary or secondary education. In Belize, San José, Guatemala City and Tegucigalpa the highest proportion of participants were classified as having only a primary education while San Salvador and Managua had higher proportion of people with high school. The highest proportion of people with no education was reported in Guatemala (7.4%) while university education was more common San Salvador (39.8%). The highest proportion of working participants was reported in Guatemala City (71.3%) and the lowest in Belize and Managua (47% respectively). Most participants owned their houses (73.4% overall). The proportion of home owners was the highest in Managua (84.3%) and the lowest in Guatemala City (62.9%).

Overall 37.2% and 87.6% of participants reported that they had been tested for diabetes and hypertension respectively (Table 4). The proportion of people ever tested for diabetes was higher in San José men and women (51% and 62% respectively) and lower among men and women from Guatemala City (24% and 31% respectively). The proportion of people that reported that their blood pressure had been taken was highest among San Salvador's men and women and the lowest among Belize's men and women. Overall the prevalence of diagnosed self-reported diabetes and hypertension was 5.1% and 15.0% respectively.

Overall the prevalence of diagnosed diabetes was similar among males and women (4.9% versus 5.3% respectively). Belize reported a higher prevalence of diagnosed diabetes among women than among men (10.5%, 95%-CI=3.6-6.0 versus 4.5%, 95%-CI=8.6-12.7 respectively); this difference was statistically significant as demonstrated by the confidence intervals. The overall prevalence of diagnosed hypertension was higher among women (19.0%, 95%-CI=16.9-21.4) than among men (10.9%, 95%-CI=9.6-12.5). The higher prevalence of diagnosed hypertension among women than men was consistent across sites but statistically significant in Belize, San José, Tegucigalpa and Managua.

The mean age for starting smoking was 17.5 years; it was the lowest in Guatemala City (17.1 years) and the highest in Belize (19.0 years) (Table 5). Males' mean age for starting smoking was lower than females' in all sites. The overall prevalence of current smokers was 17.9% and varied from 10.5% in Belize to 20.4% in Managua. Males' prevalence of smoking was higher than females' in all six sites. The highest prevalence of smoking among males was reported in Guatemala City (35.2%) and among women in San José (12.5%). Country specific prevalence of smoking was the highest among the

youngest and decreased with age among males from Costa Rica, Guatemala City, Tegucigalpa, and Managua. Belize and San Salvador presented higher rates among men of 40 to 64 years of age (Table 6).

Overall there was no difference in the prevalence of smoking by race, education or house ownership (Tables 7-9). Singles and those reporting to be working were more likely to report smoking. Whites were significantly at higher risk for smoking in Belize. Singles had a higher prevalence of smoking in San José, while those working reported higher prevalence than those unemployed in all sites except San Salvador. Among males in the overall sample, singles were more likely to report smoking than those married. Site specific rates did not differ among different categories of race, marital status, education, work situation or housing. Among females, those reporting university education were significantly more likely to report smoking than those without any education. Single females were more likely to report smoking than married females in Belize.

In the combined sample, there was no significant difference in tobacco use by different categories of diabetes or triglycerides status, while those with normal to high blood pressure had significantly higher prevalence of smoking than those with normal blood pressure or known hypertension (Tables 10-12). Those with normal BMI, waist circumference or cholesterol were significantly at higher risk of smoking than those in other risk categories. Alcohol users were 3 times more likely to also report to be smokers. This was seen across sites and genders. Those with newly diagnosed hypertension reported higher prevalence of smoking than those found to have normal blood pressure in Belize and Guatemala City.

Approximately 50% of participants reported drinking alcohol once or more during the month previous to the interview. This proportion was higher among men (58%) than women (38%) (Table 16). The proportion of drinking alcohol in the previous month was much higher among men than among women residents of Tegucigalpa. Managua reported a higher proportion of participants referring having 5 or more drinks in one, and in two and more occasions among both men and women.

The prevalence of current smokers peaked at younger ages and decreased with age among men and women in all sites except in Belize, where the prevalence peaked among those 40-64 years of age. Reporting having 5 or more drinks once or more during the previous month was more frequent among the younger ages in San José, Tegucigalpa, Guatemala and Nicaragua and decreased with age; while it was equal among those 20-39 and 40-64 years of age and decreased among those of age 65 years and greater. A similar pattern was found among men and women. No women over 64 year of age reported drinking 5 or more drinks in one or more occasion during the previous four weeks among participants from San Salvador, Guatemala City, or Tegucigalpa.

There was no significant difference in the prevalence of binge drinking by race, marital status, education or housing in the combined total sample (Tables 18, 19 and 20). However those reporting to have a paid job also significantly reported a higher prevalence of binge drinking than those who reported not to have a paid job. This was seen in both genders combined among participants from San José and Tegucigalpa and also among San José men and Tegucigalpa women. In the overall sample, those at the lower risk category for waist circumference and those with triglycerides of 200 mg dl and greater were found to have higher prevalence of binge drinking (Table 21, 22 and 23). To be a current smoker increases the risk of binge drinking; this was seen in both genders in the six sites.

Overall 7,954 participants underwent laboratory testing, anthropometric and blood pressure measures (Table 27, 28 and 29). The biggest number of examinees was reported by Managua (1,704) and the smallest by Guatemala City (1,034). The proportion of males and females were almost equal in Belize, San José, Guatemala City and Managua. In San Salvador females outnumbered male participants and the opposite was reported by Tegucigalpa. Natives or mestizos predominated in all four sites exploring race. Most participants were married across sites.

Most participants reported having a high school education in all sites except San José and Belize. In San José the proportion of participants with primary or high school was almost equal while most participants in Belize reported having only primary school. Most participants reported they were working at the time, except in Belize and Managua where the proportion of participants not working predominated. Data related to age, race, marital status, education and housing among males and females (Tables 28 and 29) showed a similar distribution. The proportion of females reporting to be working was considerably lower than among males across sites. There were no significant differences between the interview and laboratory samples for any of the demographic characteristics (age, gender, race, education, marital status, work or housing situation) (Table 30).

Mean age indicated that the oldest participants were in San José (mean age 41.7 years) and youngest in Managua (mean age 37.7 years) (Table 31). Mean weight and height were the highest among participants from Belize and San José respectively. Mean waist and hip circumferences as well as BMI were higher in Belize. Fasting blood glucose was the highest among those from El Salvador while participants from Managua reported the highest mean 2 hour blood glucose test.

The highest mean cholesterol and triglycerides were reported for Tegucigalpa and Guatemala City respectively. Mean age for men and women was 39.5 and 39.6 years respectively. Mean weight, height and BMI were higher among men than among women in all sites. Mean waist circumference was comparable among males and females. Mean hip circumference was bigger among females than males. Mean fasting and 2 hour glucose tests were higher among women than among men, while the opposite was seen for mean cholesterol and triglycerides.

Overall 5.1 % of participants reported diagnosed diabetes while 3.4% were found to have newly diagnosed diabetes, for a total prevalence of 8.5% (Table 32). An additional 18.6% were reported to have pre-diabetes (IFG and/or IGT). The prevalence of previously or newly diagnosed diabetes and pre-diabetes was comparable in men and women. The prevalence of known diabetes was considerably higher among women from Belize than among any other site. The prevalence of known and newly diagnosed diabetes was the lowest among participants from Tegucigalpa (2.5% and 2.9% respectively).

The lowest prevalence of pre-diabetes was found among participants from Managua (12.4%). The prevalence of known diabetes was the highest among males from San José and females from Belize respectively, while newly diagnosed diabetes was highest in Managua and Belize respectively (Tables 33-36). The prevalence of IFG/IGT was highest among males from San Salvador and females from Guatemala City respectively. The ratio newly diagnosed DM to know DM was the highest in Tegucigalpa (1.1) while the lowest was reported by San José (0.4). The prevalence of both Known and Newly Diagnosed DM was significantly higher among females than males among participants from Belize. In all other 5 sites the prevalence of Known or Newly Diagnosed diabetes was comparable among males and females. The prevalence of IFG/IGT was similar among males and females except in Tegucigalpa where males were significantly more affected than females.

Among the total sample, and also among male and female participants, there was no significant difference in the prevalence of diabetes by race (Table 37, 38 and 39). Those reporting being divorced or widowed, with no education, unemployed or owning a house, were found to have a significantly higher prevalence of diabetes.

Known hypertensive individuals presented higher prevalence of diabetes (Table 40, 41 and 42). In the same way, the prevalence of diabetes increased with increasing risk of BMI, waist circumference, cholesterol and triglyceride levels. The prevalence of diabetes did not vary among different categories of alcohol or tobacco use.

The overall prevalence of Stage 1 and 2 hypertension were 2.4% and 7.5% respectively; 15.5% of participants reported known hypertension while 27.4% were found to have pre-hypertension (Table 46). The prevalence of Stage 1-2, and pre-hypertension was higher among males than among females while the contrary was observed for diagnosed hypertension. The prevalence of stage 1-2 and known hypertension was higher among participants from Belize and lowest among those from Guatemala. The prevalence of pre-hypertension was higher among men from Guatemala and women from Managua, and lower among men and women from San Salvador.

Overall 25.3% of participants were found to have hypertension (Table 47, 48 and 49). The prevalence of hypertension was similar among males and females. There was no statistical difference between the prevalence of hypertension in different ethnic groups, as can be noted by the overlapping confidence intervals. Married or divorced participants presented higher prevalence of hypertension than singles. Those reporting no education presented higher prevalence of hypertension than those with primary, secondary or university education. In the same way, the prevalence of hypertension was higher among those not reporting a paid work situation. Those owning a house were more likely to have hypertension than those reporting not to own their houses.

The prevalence of hypertension was higher among those presenting diagnosed or undiagnosed diabetes or pre-diabetes than among those with normal glucose tolerance (Table 50, 51 and 52). The prevalence of hypertension was higher among those with higher BMI, waist circumference, cholesterol, or triglycerides. Those reporting smoking were found to have higher prevalence of hypertension than non smokers. There was no difference between groups of alcohol users with respect to the prevalence of hypertension. The overall prevalence of hypertension was 25.8% was similar among men and women and increased with age in both genders (Tables 53-56). The total prevalence of hypertension was the highest among men and women from Belize and the lowest among men from Guatemala City and women from Tegucigalpa.

Overall those with hypertension were older (mean age 49.4 years), had higher BMI (29.3 Kg/m²) and had higher fasting glucose (100 mg/dl), 2 hour glucose tolerance (115 mg/dl), cholesterol (198.8 mg dl) and triglycerides (194.1 mg/dl) than those classified as not having hypertension. The breakdown by gender showed a similar distribution (Table 57, 58 and 59).

Overall the largest proportion of participants was classified in the BMI category of normal (37%) or overweight (36%) (Table 60). The highest proportion of those with a BMI less than 18.5 KG/m², and obesity grades I, II or III were each found in Belize. The highest proportion of those classified as extremely obese (BMI=40+) were found in Belize among both males and females.

The prevalence of overweight did not vary by age and it was comparable among men and women (Tables 61, 62 and 63). Overweight/obesity decreased with age in both men and women and peaked among those 40–64 years. The prevalence of overweight/obesity was significantly higher among those with diagnosed or undiagnosed diabetes, IFG/IGT, known or newly diagnosed hypertension, and increased or substantially increased waist circumference (Tables 64, 65 and 66). There was an increasing prevalence of overweight/obesity with increasing cholesterol, or triglycerides. Those reporting to be non smokers had lower prevalence of overweight/obesity than those reporting to be smokers. There was no apparent relation between binge drinking and the prevalence of overweight/obesity. A similar pattern was seen among males and females.

Those with overweight/obesity were older, had higher mean of fasting glucose, 2h-OGTT, cholesterol and triglycerides (Tables 70, 71 and 72).

Overall 35% of sampled individuals were found to have substantially increased risk waist circumference; an additional 21% were classified at increased risk (Table 73). The proportion at substantially increased risk was greater among Belizeans and lowest among those from Managua. Women were more likely than men to be at the highest risk category of waist circumference. There was no difference in the prevalence of increased risk by age (Tables 74, 75 and 76). Among men the prevalence of substantially increased waist circumference increased from those 20–39 years to those with 40–64 years to then decline among those 65+ years. Among women the prevalence increased with age and peaked among 65+ years.

There was not a clear pattern of the distribution of this risk factor by the demographic characteristics of the studied population (Tables 77, 78 and 79). In general those affected by diabetes, hypertension, hypercholesterolemia, or high triglycerides presented higher prevalence of body fat accumulation than those not affected by those diseases (Tables 80, 81 and 82). Non smokers presented significantly higher prevalence of body fat accumulation than non smokers, while the prevalence did not have a consistent pattern among those abusing or not abusing of alcohol. Those with body fat accumulation were older, had higher mean of fasting glucose, 2h-OGTT, cholesterol and triglycerides than those without body fat accumulation (Tables 83, 84 and 85).

Overall 12% of participants were found to have high cholesterol (≥ 240 mg/dl), while 25% were classified as having intermedium total cholesterol (200–239.9 mg/dl) (Table 86). Men and women had comparable prevalence of high or intermedium cholesterol. The prevalence of high cholesterol was the highest among men and women from Tegucigalpa. The prevalence of the three categories of total cholesterol increased with age among men and women (Tables 87, 88 and 89). Men and women had comparable prevalence of the different categories of total cholesterol.

Overall the prevalence of borderline/high cholesterol did not vary with respect to different demographic characteristics among either total population, men or women (Tables 90, 91 and 92). Those with chronic diseases such as diabetes and hypertension had higher prevalence of borderline/high cholesterol than those not affected by those diseases, but did not have a clear pattern when breakdown by different categories of risk factors such as BMI, smoking or alcohol use (Tables 93, 94 and 95). This was also valid for men and women. Those with borderline/high cholesterol were older, had higher mean BMI, waist circumference, fasting glucose, 2h-OGTT and triglycerides than those without normal cholesterol (Tables 96, 97 and 98).

Overall 25% of participants were classified as having high triglycerides while an additional 21% were classified as having intermedium triglycerides (Table 99). There was no significant difference between men and women in the prevalence of the different categories of triglycerides. The highest prevalence of high triglycerides was reported among males from San José and women from San Salvador. Participants from Belize had lower prevalence of high triglycerides than those from other sites, particularly among men. The prevalence of both risk categories of triglycerides was lower among the younger (Tables 100, and 101). There was no significant difference in the prevalence of borderline/high triglycerides by demographics (Tables 102, 103 and 104).

In general, those affected by diabetes, hypertension, obesity, high and cholesterol were found to have higher prevalence of high triglycerides (Tables 105, 106 and 107). There was no significant difference in the prevalence of high triglycerides by smoking status, but those reporting binge drinking twice or more during the previous four weeks were found to have higher prevalence of high triglycerides. Those with high triglycerides were older, had higher mean BMI or waist circumference, fasting glucose, 2h-OGTT, and cholesterol than those without normal triglycerides (Tables 108, 109 and 110).

Discussion

The present report is the first epidemiological study on the prevalence of diabetes mellitus and hypertension in Central America with a representative sample of a geographic area of each participating country. We found a combined prevalence of diabetes mellitus of 8.5% and hypertension of 25.3%, half of which were undiagnosed.

The prevalence of diabetes and hypertension were the highest in Belize, while Tegucigalpa and Guatemala City had the lowest prevalence of diabetes and hypertension respectively. The combined prevalence of diabetes in participating sites was comparable to the prevalence reported in the United States (3) (8.1%) and Mexico City (4) in 2000 (8.4%), and higher than the prevalence reported in four Bolivian cities in 1998 (5).

The national prevalence of diabetes in Belize is comparable to prevalence of diabetes reported in Jamaica (6) in 1999 and New York (7) (12.5%) in 2008. The CARMELA study for example, reported prevalence of diabetes between 4.4% in Lima and 8.9% in Mexico City (8). The proportion of cases of diabetes diagnosed in the combined sample (5%) was comparable to that reported in the United States (5%) in 2000 and Bolivia (5.2%) in 1998. The proportion of undiagnosed cases of diabetes was higher in Belize and Managua than in the other sites.

Diabetes and hypertension occurred most frequently among people over 39 years of age, particularly among women. These results correspond with the greater prevalence of risk factors found in these population groups, such as overweight, large waist circumference, sedentary life style, and hypercholesterolemia.

In the United States, a prevalence of hypertension lower than that reported in the combined sample (25%) has been reported (9). Cuba has recently reported hypertension prevalences of 22.4% and 24.2% in men and women of African origin, respectively (10). The prevalence of overweight/obesity in Central America (61%) was similar to the prevalence reported in Bolivia in 1998 (5) and the United States (66.3%) in 2000-2001 (11). The CARMELA study reported prevalence of obesity ranging from 16.3% in Quito to 31.0% in Mexico City (8). The prevalence of obesity (34.9%) or overweight/obesity (66.3%) reported here for Belize was higher than that reported for the Mexico City (8) and equal to the United States (7) respectively.

The higher prevalence of diabetes mellitus and hypertension in people with a lower level of education and income is consistent with findings from the U.S. as well as other areas of the Americas, including Bolivia (5). In New York people with reported annual income <\$20,000 were more likely to be found with diabetes than those with income of \$20,000 and greater (17.0% vs. 9.1% respectively) (14). This phenomenon may be related to a reduced availability of and access to information, education, health services, and access to healthy food.

The high prevalence of diabetes observed across cities in Central America has important implications for the health status of the population of these countries, particularly in light of the relatively young age structure of the population in the sampled areas. Diabetes leads to numerous microvascular complications, making it a major cause of blindness, non-traumatic amputation, and end-stage

renal disease. Diabetes also more than doubles the risk of coronary heart disease, stroke, and peripheral vascular disease. The collective impact of these complications erodes quality of life and imposes a substantial direct and indirect economic burden.

Because of the complexity of effectively managing diabetes, along with the diverse burden created by the disease, a multi-disciplinary public health response is needed to reduce its impact. Diabetes education is considered essential to ensure that people with diabetes engage in preventive health behaviors and adequate diabetes self-management. The development of integrated health systems that systematically encourage clinical guidelines, track levels of care, provide feedback to patients and clinicians, and then continuously improve the quality of care delivery, is considered essential to reducing risk of diabetes complications.

Numerous randomized clinical trials now indicate that diabetes can be prevented or delayed by applying multi-disciplinary lifestyle modification to people with impaired glucose tolerance. These data provide justification for health systems, communities, and ministries of health to provide wide scale education about the risk factors and effective interventions to prevent diabetes. In addition, these data point to a need to develop community programs to facilitate exercise and diet improvement among high risk people in the community.

These surveys were conducted in or near capital cities and cannot necessarily be generalized to the nationwide populations of these countries. People living in rural areas are likely to have lower prevalence levels. However, there has been a steady urbanization in countries of Central America, so that 40% to 55% of the population now lives in urban areas. Nevertheless, the fact that these urban estimates may overestimate prevalence of the country indicates a need for follow-up surveillance efforts applied more broadly to the countries.

In conclusion, the prevalence of diabetes mellitus and hypertension found in the combined Central America sample was higher than the prevalence reported in most countries of Latin America. It is particularly important that, despite having a younger population, Central America had a prevalence of diabetes similar to the prevalence in the United States. The data presented indicate that diabetes affects people with a lower educational level, which suggests that the poorest people bear the greatest burden. This means that in the future there will be an important increase in the prevalence of diabetes as the population ages, unless preventive strategies are introduced.

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Table 1. Demographic characteristics of male and female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
N	2,439	1,427	1,870	1,397	1,696	1,993	10,822
Age (Mean, SE)	39.2 (0.2)	41.5 (0.6)	40.1 (0.8)	37.2 (0.8)	39.0 (0.8)	37.6 (0.4)	39.4 (0.3)
Age Group (years)*							
20–39	61.2	52.5	58.5	65.9	62.7	65.2	60.0
40–64	30.0	37.6	31.4	29.2	27.3	29.0	31.6
65+	8.7	9.9	10.1	4.9	10.1	5.8	8.4
Gender*							
Male	50.3	48.6	44.8	49.0	54.4	48.5	49.8
Female	49.7	51.4	55.2	51.0	45.6	51.5	50.2
Race*							
Whites	0.3			0.1	4.0	22.7	11.5
Black/Mulatto	19.5			0.0	1.3	1.8	3.9
Mestizo/Native	55.5			98.2	93.8	74.9	81.9
Garifuna	12.0				0.7	0.5	1.3
Others	12.8				0.0		1.4
Marital Status							
Single	26.7	28.1	37.6	14.7	24.3	32.7	28.1
Married	66.6	59.5	55.4	71.1	65.2	61.1	62.2
Widow	3.7	5.7	3.9	4.1	4.4	3.5	4.5
Divorced	3.0	6.7	3.1	10.1	6.1	2.7	5.2
Education							
None	4.4	1.8	1.8	7.4	7.2	6.1	4.7
Primary	61.9	35.1	16.0	42.4	47.8	29.3	37.7
Secondary	25.7	34.7	42.4	35.0	34.0	47.5	37.9
University	7.9	28.4	39.8	15.1	11.0	17.1	19.7
Work situation							
Working	47.0	55.6	63.4	71.3	57.5	47.1	54.4
Not working	53.0	44.4	36.6	28.7	42.5	52.9	45.6
Housing							
Owned	81.4	69.6	64.8	62.9	67.5	84.3	73.4
Rented	11.6	25.1	26.9	27.4	21.5	7.0	18.5
Borrowed	4.2	5.0	4.2	4.5	8.6	5.8	5.9
Others	2.9	0.3	4.1	5.2	2.4	2.9	2.1

Table 2. Demographic characteristics of male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Males	999	523	625	455	644	1,024	4,270
Age (Mean, SE)	39.5 (0.3)	41.3 (0.8)	40.2 (1.2)	37.0 (0.6)	39.4 (0.7)	37.0 (0.5)	39.3 (0.4)
Age Group (years)							
20–39	60.1	52.2	57.1	68.2	61.6	65.0	59.6
40–64	31.3	38.5	33.7	26.4	28.2	28.7	31.9
65+	8.6	9.3	9.3	5.4	10.2	6.2	8.4
Race							
Whites	0.3			0.1	3.3	21.3	10.3
Black/Mulatto	20.7				1.3	2.2	4.3
Mestizo/Native	55.1			98.6	94.2	75.8	82.8
Garifuna	11.9				0.9	0.7	1.3
Others	12.1			1.3	0.2		1.3
Marital Status							
Single	30.0	27.1	35.0	17.8	23.4	35.4	28.5
Married	65.1	65.4	61.7	72.3	70.5	61.8	65.9
Widow	2.4	4.8	1.5	1.1	2.3	1.5	2.8
Divorced	2.6	2.6	1.8	8.8	3.7	1.4	2.9
Education							
None	4.0	1.5	0.4	6.6	7.1	6.3	4.6
Primary	60.0	33.6	11.0	34.5	50.0	23.8	35.9
Secondary	26.4	37.3	39.9	36.7	31.1	51.3	38.9
University	9.7	27.5	48.7	22.1	11.7	18.6	20.6
Work Situation							
Currently working	67.2	77.4	73.5	89.9	73.2	60.7	71.7
Working	32.8	22.6	26.5	10.1	26.8	39.3	28.3
Housing							
Owned	81.2	72.0	66.7	65.1	68.7	83.5	74.3
Rented	11.7	22.8	27.3	26.8	21.6	7.2	17.9
Borrowed	4.2	5.0	4.6	3.8	7.6	6.7	6.0
Others	2.9	0.2	1.4	4.4	2.0	2.7	1.8

Table 3. Demographic characteristics of female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Females	1,440	904	1,245	942	1,052	969	6,552
Age (Mean, SE)	39.0 (0.2)	41.7 (0.7)	40.0 (0.8)	37.4 (1.4)	38.5 (1.0)	38.1 (0.5)	39.5 (0.4)
Age Group (years)							
20–39	62.4	52.8	59.6	63.7	63.9	65.5	60.3
40–64	28.8	36.8	29.6	31.9	26.2	29.2	31.3
65+	8.9	10.4	10.8	4.4	9.9	5.4	8.4
Race							
Whites	0.3				4.8	24.1	12.8
Black/Mulatto	18.3			0.1	1.2	1.5	3.4
Mestizo/Native	55.9			97.7	93.4	74.1	80.9
Garifuna	12.0				0.4	0.4	1.3
Others	13.6			2.2	0.1		1.5
Marital Status							
Single	23.4	29.0	39.7	11.7	25.4	30.1	27.7
Married	68.1	53.9	50.3	69.9	58.9	60.5	58.5
Widow	5.1	6.5	5.8	7.0	6.8	5.4	6.2
Divorced	3.4	10.6	4.2	11.3	8.9	4.0	7.6
Education							
None	4.9	2.0	3.1	8.1	7.3	5.9	4.8
Primary	63.8	36.6	20.3	50.0	45.2	34.4	39.5
Secondary	25.1	32.2	44.4	33.4	37.4	43.9	36.8
University	6.2	29.2	32.2	8.4	10.1	15.8	18.8
Work situation							
Working	26.6	34.9	55.3	53.4	38.7	34.4	37.1
Not working	73.4	65.1	44.7	46.6	61.3	65.6	62.9
Housing							
Owned	81.5	67.4	63.2	60.8	66.0	85.2	72.5
Rented	11.4	27.2	26.5	28.1	21.4	6.8	19.2
Borrowed	4.3	4.9	4.0	5.1	9.8	4.9	5.8
Others	2.7	0.5	6.3	6.0	2.9	3.1	2.5

Table 4. Prevalence of Self-Reported Diabetes and Hypertension by Gender and Site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Males & Females							
Ever Tested for DM ¹	41.3 (2.0)	53.9 (2.2)	45.2 (2.8)	29.2 (3.9)	25.2 (2.7)	26.7 (1.4)	37.2 (2.2)
Self-Reported DM ²	7.6 (6.5–8.8)	6.3 (4.8–8.3)	5.6 (4.4–7.1)	4.3 (3.1–6.1)	2.5 (1.4–4.6)	5.3 (4.2–6.6)	5.1 (4.1–6.3)
Ever Had BP taken ¹	71.0 (2.8)	92.3 (1.2)	95.9 (0.6)	92.3 (1.2)	90.8 (0.7)	81.2 (1.9)	87.6 (1.0)
Self-Reported HTN ²	16.6 (14.6–18.9)	15.6 (13.7–17.7)	17.6 (14.7–21.0)	10.2 (7.7–13.3)	11.1 (8.7–14.0)	17.6 (15.4–20.0)	15.0 (13.5–6.6)
Males							
Ever Tested for DM ¹	41.4 (1.8)	51.2 (2.6)	43.5 (4.8)	24.0 (5.1)	24.1 (3.0)	26.0 (1.8)	34.8 (2.1)
Self-Reported DM ²	4.7 (3.6–6.0)	6.9 (4.5–10.4)	6.7 (4.7–9.6)	4.2 (2.5–6.9)	2.5 (1.1–5.6)	4.9 (3.6–6.6)	4.9 (3.7–6.6)
Ever Had BP taken ¹	67.5 (2.6)	92.5 (1.8)	94.7 (1.1)	86.4 (1.7)	87.4 (1.3)	74.7 (2.7)	81.3 (1.5)
Self-Reported HTN ²	12.4 (10.1–15.1)	12.6 (10.3–15.4)	16.0 (11.2–22.4)	7.6 (4.5–12.6)	8.1 (6.5–10.1)	11.0 (8.6–14.1)	10.9 (9.6–12.5)
Females							
Ever Tested for DM ¹	56.3 (2.8)	62.3 (2.7)	51.1 (2.0)	30.7 (4.0)	31.9 (2.4)	35.8 (1.9)	45.5 (2.3)
Self-Reported DM ²	10.5 (8.6–12.7)	5.8 (4.3–7.7)	4.6 (3.3–6.4)	4.5 (2.9–6.9)	2.6 (1.5–4.4)	5.7 (4.3–7.5)	5.3 (4.3–6.4)
Ever Had BP taken ¹	84.0 (3.4)	95.2 (0.5)	97.4 (0.7)	95.3 (0.7)	95.1 (0.6)	90.5 (1.9)	92.5 (0.7)
Self-Reported HTN ²	21.0 (18.4–23.8)	18.4 (15.8–21.4)	18.9 (15.8–22.4)	12.6 (9.5–16.7)	14.6 (10.9–19.3)	23.7 (19.6–28.4)	19.0 (16.9–21.4)

¹ % (SE)² % (95%–CI)

Table 5. Self-Reported Tobacco Use by Gender and Site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Males & Females							
Age Started Smoking (years) ³	19.0 (0.4)	17.1 (0.2)	18.4 (0.4)	17.1(0.4)	17.9 (0.4)	17.9 (0.4)	37.2 (2.2)
Cigarettes per day ³	10.5 (1.1)	10.7 (0.8)	7.2 (0.6)	5.8 (0.7)	11.3 (0.9)	11.3 (0.9)	5.1 (4.1–6.3)
Current Smokers ²	10.5 (8.7–12.6)	18.8 (16.8–21.0)	13.9 (10.5–18.3)	19.5 (14.4–25.8)	16.4 (13.7–19.5)	20.4 (18.2–22.7)	17.9 (16.7–19.2)
Mailes							
Age Started Smoking (years) ³	18.9 (0.4)	16.3 (0.3)	17.4 (0.5)	16.5 (0.4)	24.1 (3.0)	26.0 (1.8)	16.8 (0.2)
Cigarettes per day ³	10.2 (1.1)	12.1 (1.0)	7.2 (0.5)	6.0 (0.7)	2.5 (1.1–5.6)	4.9 (3.6–6.6)	10.4 (0.5)
Current Smokers ²	19.1 (15.7–23.0)	25.4 (22.2–28.8)	24.3 (18.5–31.3)	35.2 (26.0–45.7)	27.2 (22.5–32.5)	33.2 (29.3–37.2)	28.0 (26.0–30.1)
Females							
Age Started Smoking (years) ³	20.3 (1.3)	18.8 (0.4)	20.6 (0.7)	20.3 (0.7)	21.5 (0.7)	21.3 (0.9)	19.9 (0.3)
Cigarettes per day ³	13.8 (4.2)	7.5 (0.9)	7.5 (1.4)	4.4 (0.8)	6.6 (0.9)	14.0 (3.4)	9.4 (1.2)
Current Smokers ²	1.7 (1.1–2.6)	12.5 (10.6–14.8)	5.5 (3.9–7.7)	4.4 (2.8–6.8)	3.4 (1.8–6.3)	8.4 (6.3–11.0)	7.9 (6.5–9.6)

² % (95%–CI)

³ Mean (SE)

Table 6. Prevalence (%; 95%-CI) of current smokers by age, gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group (years)							
Both Gnders							
20–39	9.1 (7.1–11.6)	22.3 (18.7–26.3)	16.2 (11.3–22.7)	22.0 (14.5–32.1)	18.4 (15.7–21.5)	22.1 (19.3–25.2)	20.1 (18.5–21.8)
40–64	14.1 (11.1–17.7)	16.4 (13.2–20.2)	11.8 (8.3–16.5)	14.7 (9.6–22.0)	14.3 (10.6–18.9)	18.5 (14.8–23.0)	16.1 (14.3–18.0)
65+	7.7 (4.9–11.7)	9.1 (5.5–14.7)	7.4 (3.1–16.5)	14.0 (6.4–27.8)	9.3 (7.0–12.3)	10.3 (6.5–15.8)	9.3 (7.5–11.7)
Males							
20–39	17.4 (13.5–22.1)	29.8 (23.8–36.6)	28.9 (21.1–38.3)	39.9(27.4–53.9)	32.3 (27.3–37.7)	36.5 (31.6–41.7)	32.1 (29.3–35.1)
40–64	24.0 (18.9–30.1)	21.3 (15.9–28.0)	19.3 (12.2–29.1)	25.5 (15.1–39.6)	21.1 (15.9–27.5)	29.6 (22.3–38.1)	23.6 (20.5–27.0)
65+	13.3 (8.4–20.5)	17.1 (9.6–28.7)	14.2 (4.7–35.8)	24.2 (10.9–45.7)	13.4 (8.7–20.1)	15.1 (9.0–24.2)	15.5 (11.8–20.0)
Females							
20–39	1.0 (0.5–2.3)	15.2 (12.1–19.0)	6.3 (4.3–9.3)	3.7 (2.1–6.6)	2.5 (1.1–5.5)	8.7 (5.9–12.6)	8.3 (6.4–10.6)
40–64	3.1 (1.7–5.6)	11.6 (9.0–14.9)	4.9 (3.0–8.0)	6.2 (3.7–10.2)	5.5 (3.1–9.5)	8.2 (5.8–11.5)	8.5 (7.0–10.2)
65+	2.1 (0.9–5.0)	2.3 (0.9–5.9)	2.6 (0.9–7.2)	1.8 (0.4–7.6)	4.2 (1.4–11.9)	5.0 (1.6–14.3)	3.3 (1.9–5.5)

Table 7. Prevalence (%; 95%-CI) of current smoker by demographic characteristics of male and female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	19.1 (15.7–23.1)	25.4 (22.2–28.9)	24.3 (18.4–31.3)	35.2 (26.0–45.7)	27.2 (22.3–32.7)	33.2 (29.3–37.3)	28.0 (26.0–30.1)
Female	1.7 (1.1–2.6)	12.5 (10.6–14.8)	5.5 (3.9–7.7)	4.4 (2.8–6.8)	3.4 (1.8–6.5)	8.4 (6.3–11.0)	7.9 (6.6–9.5)
Race*							
Whites	42.1 (11.8–79.9)			–	8.6 (2.1–29.3)	16.8 (13.2–21.1)	15.8 (12.5–19.8)
Black/Mulatto	12.3 (9.3–16.1)			–	10.6 (3.2–30.1)	20.5 (10.4–36.6)	14.2 (10.2–19.4)
Mestizo/Native	8.5 (6.5–11.0)			19.5 (14.4–25.9)	16.8 (13.8–20.3)	21.5 (18.9–24.4)	18.4 (16.7–20.2)
Garifuna	14.3 (11.9–17.0)			–	–	–	14.3 (11.9–17.0)
Others	12.2 (6.2–22.8)			–		–	13.0 (6.6–23.9)
Marital status							
Single	10.9 (8.2–14.3)	23.9 (19.0–29.5)	17.9 (10.0–30.1)	25.3 (16.6–36.6)	19.3 (16.6–22.4)	24.1 (20.2–28.5)	21.9 (19.6–24.3)
Married	10.4 (8.1–13.1)	15.5 (12.9–18.4)	11.9 (9.2–15.3)	16.6 (12.0–22.5)	15.9 (13.4–18.7)	19.3 (16.2–22.8)	16.1 (14.7–17.6)
Widow/Divorced	9.9 (5.4–17.4)	24.9 (18.0–33.3)	8.6 (4.5–15.6)	28.1 (10.7–56.0)	13.0 (5.5–27.7)	11.6 (5.7–22.0)	18.6 (14.2–23.9)
Education							
None	7.8 (3.9–15.0)	6.3 (1.0–31.6)	2.8 (0.6–12.2)	19.2 (7.0–43.0)	17.1 (13.0–22.3)	17.7 (9.8–26.5)	14.9 (11.2–19.5)
Primary	11.2 (8.9–14.1)	18.4 (14.6–23.0)	7.7 (4.6–12.7)	15.5 (10.0–23.1)	19.2 (15.0–24.3)	17.7 (15.0–20.8)	17.3 (15.1–19.7)
Secondary	8.3 (5.7–11.9)	22.4 (18.3–27.1)	12.2 (9.5–15.4)	19.4 (12.5–28.8)	12.7 (9.8–16.2)	22.8 (19.6–26.3)	19.2 (17.1–21.5)
University	13.0 (7.5–21.5)	15.5(11.9–19.9)	19.6 (11.6–31.1)	31.4 (11.4–62.0)	14.9 (9.9–21.9)	19.8 (15.0–25.5)	17.5(14.8–20.5)
Work situation							
Working	14.9 (11.7–18.9)	22.6 (19.7–25.8)	17.5 (5.3–11.0)	24.2 (17.3–32.8)	20.6 (15.8–26.4)	24.9 (21.4–28.6)	22.0 (20.2–23.9)
Not working	6.5 (4.7–8.9)	14.0 (10.8–18.0)	13.9 (10.5–18.3)	7.9 (4.5–13.4)	10.7(8.0–14.1)	16.4 (14.0–19.1)	13.0 (11.4–14.8)
Housing							
Owned	10.1 (8.3–12.2)	17.2 (14.8–20.0)	14.6 (9.4–22.1)	18.7 (14.1–24.3)	16.1 (12.7–20.1)	20.0 (18.0–22.1)	17.3 (16–18.6)
Rented	10.5 (6.3–17.0)	22.8 (18.3–28.1)	15.6 (11.7–20.4)	23.9 (11.5–43.2)	18.6 (14.8–23.2)	18.8 (10.5–31.4)	20.4 (17.6–23.5)
Borrowed	11.6 (5.9–21.5)	20.6 (9.8–38.2)	4.1 (1.4–11.6)	11.4 (5.0–24.1)	14.2 (8.8–22.2)	27.6 (16.8–42.0)	19.0 (13.8–25.6)
Others	20.8 (8.8–41.8)	14.7 (7.2–27.9)	2.2 (0.5–8.9)	13.8 (5.7–30.0)	13.2 (7.4–22.2)	21.3 (11.1–37.1)	16.0 (11–22.8)

Table 8. Prevalence (%; 95%-CI) of smoking by demographic characteristics of male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race*							
Whites	82.6 (39.0–97.2)				16.4 (3.9–48.5)	30.9 (24.1–38.5)	29.2 (22.8–36.5)
Black/Mulatto	20.6 (15.2–27.2)				15.9 (7.1–32.1)	29.1 (13.4–52.0)	22.1 (16.0–29.6)
Mestizo/Native	15.9 (11.9–20.8)			35.3 (26.0–45.8)	27.8 (22.3–34.1)	34.0 (29.8–38.5)	30.1 (27.2–33.2)
Garifuna	25.4 (20.8–30.7)				–	–	25.4 (20.8–30.7)
Others	–				–	–	25.0 (12.0–44.9)
Marital status							
Single	18.2 (13.5–24.1)	34.1 (24.5–45.3)	33.6 (17.3–55.0)	39.0 (24.6–55.5)	33.5 (26.8–40.9)	37.6 (31.7–43.9)	34.1 (30.0–38.5)
Married	19.2 (14.8–24.7)	20.9 (17.0–25.3)	18.7 (13.6–25.1)	29.8 (22.0–38.8)	24.7 (21.1–28.7)	31.3 (26.1–37.1)	24.9 (22.7–27.2)
Widow/Divorced	23.1 (12.3–39.3)	36.4 (21.2–54.9)	31.6 (15.4–53.9)	68.7 (26.7–93.0)	32.3 (10.1–66.8)	17.2 (8.1–32.7)	34.9 (23.0–49.0)
Education							
None	13.5 (5.6–29.1)	15.2 (3.4–48.1)		36.8 (12.5–70.3)	31.3 (24.4–39.0)	28.6 (17.9–2.6)	27.9 (21.9–34.8)
Primary	21.1 (16.8–26.1)	28.1 (22.6–34.7)	19.1 (10.7–31.7)	34.4 (23.0–47.9)	31.6 (25.2–38.8)	32.7 (26.9–39.0)	29.5 (25.9–33.4)
Secondary	14.9 (10.1–21.3)	29.4 (22.6–34.7)	19.7 (13.7–27.4)	33.0 (20.8–47.9)	21.0 (16.2–26.7)	34.4 (29.1–40.2)	28.6 (25.2–32.2)
University	21.1 (12.8–32.7)	17.1 (11.6–24.7)	29.5 (16.6–46.8)	39.8 (14.0–72.9)	22.5 (16.2–30.3)	31.8 (24.9–39.7)	24.2 (20.0–28.9)
Work situation							
Working	20.0 (15.9–24.9)	24.9 (21.2–29.2)	27.6 (20.5–6.1)	36.1 (26.1–47.5)	27.9 (21.8–34.9)	33.4 (27.8–39.5)	28.2 (25.6–30.9)
Not working	17.3 (12.7–23.1)	26.8 (18.5–37.2)	15.1 (9.6–23)	27.2 (13.0–48.3)	25.4 (20.3–31.3)	32.8 (28.5–37.6)	27.5 (24.3–30.9)
Housing							
Owned	18.5 (15.0–22.6)	24.6 (20.5–29.4)	26.0 (16.1–9.2)	31.6 (23.8–40.6)	26.2 (20.0–33.5)	32.7 (28.9–36.8)	27.4 (25.0–29.8)
Rented	17.8 (9.9–29.9)	27.7 (19.6–37.7)	24.1 (15.6–35.3)	47.3 (22.7–73.2)	30.5 (23.2–38.9)	24.5 (14.5–38.4)	29.1 (23.9–35.0)
Borrowed	22.7 (13.3–35.9)	24.4 (10.7–46.9)	3.6 (0.8–14.0)	24.4 (9.4–50.1)	29.6 (18.6–43.6)	47.9 (28.8–67.7)	32.4 (24.0–42.1)
Others	37.7 (14.3–68.7)	–	14.2 (2.5–51.8)	25.1 (7.8–57.0)	18.6 (4.0–55.3)	33.4(15.3–58.2)	28.6 (16.8–44.2)

Table 9. Prevalence (%; 95%-CI) of current smoker by demographic characteristics of female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race*							
Whites					2.2 (0.4–11.3)	5.1 (2.7–9.5)	4.7 (2.6–8.4)
Black/Mulatto	2.8 (1.4–5.7)				2.3 (0.3–17.0)	7.9 (2.6–21.8)	4.0 (2.0–7.6)
Mestizo/Native	1.0 (0.4–2.4)			4.4 (2.8–6.8)	3.5 (1.8–6.8)	9.4 (6.9–12.8)	5.9 (4.3–8.2)
Garifuna	3.0 (1.7–5.5)						3.0 (1.7–5.5)
Others	1.9 (0.8–4.7)						1.9 (0.8–4.7)
Marital Status							
Single	9.4 (6.9–12.8)	14.7 (10.9–19.7)	6.7 (4.6–9.7)	5.5 (2.3–12.6)	3.7 (1.2–11.2)	9.3 (5.2–16.0)	9.4 (7.0–12.4)
Married	1.8 (1.1–2.9)	9.2 (6.5–12.9)	5.2 (3.1–8.6)	3.5 (1.9–6.4)	3.2 (2.0–4.9)	7.7 (5.5–10.6)	6.3 (5.1–7.9)
Widow/Divorced	2.0 (0.8–4.7)	20.1 (12.2–31.4)	2.5 (1.1–5.9)	7.1 (3.4–14.2)	4.1 (1.7–9.3)	10.0 (3.9–23.0)	11.9 (7.8–17.7)
Education							
None	3.1 (0.8–11.8)		3.1 (0.6–13.5)	5.4 (2.3–12.0)	0.7 (0.1–4.3)	4.4 (1.3–14.2)	2.6 (1.2–5.6)
Primary	1.9 (1.1–3.2)	10.0 (6.6–14.9)	2.5 (1.1–5.4)	2.9 (1.3–6.3)	2.9 (1.7–4.8)	8.0 (5.2–12.1)	6.2 (4.6–8.3)
Secondary	1.4 (0.7–2.9)	14.8 (11.5–18.9)	6.5 (4.1–10.0)	5.0 (2.8–8.8)	4.4 (2.0–9.7)	9.9 (7.1–13.7)	9.3 (7.6–11.5)
University	0.3 (0.0–2.1)	14.1 (10.2–19.1)	7.0 (4.2–11.4)	10.3 (3.7–25.3)	4.4 (1.7–10.8)	6.4 (2.7–14.5)	10.1 (7.6–13.4)
Work situation							
Working	1.9 (0.8–4.4)	17.6 (13.4–22.9)	6.6 (4.5–9.7)	4.8 (2.8–8.1)	4.1 (2.1–8.0)	10.7 (7.3–15.5)	10.2 (8.1–12.8)
Not working	1.7 (1.0–2.8)	9.8 (7.1–13.5)	4.1 (2.5–6.8)	3.9 (2.1–7.2)	3.0 (1.5–5.8)	7.1 (5.0–10.2)	6.5 (5.1–8.3)
Housing							
Owned	1.5 (1.0–2.4)	9.7 (7.5–12.5)	4.9 (3.1–7.6)	5.3 (3.3–8.6)	3.4 (2.2–5.3)	8.3 (6.3–10.7)	7.0 (5.8–8.4)
Rented	3.0 (1.3–6.7)	19.0 (13.4–26.3)	8.5 (5.3–13.2)	2.4 (0.9–6.4)	4.3 (0.8–21.1)	13.2 (5.2–30.0)	12.2 (8.5–17.2)
Borrowed	0.6 (0.1–4.7)	16.9 (6.8–36.1)	8.5 (5.3–13.2)	2.3 (0.3–14.9)		1.7 (0.2–11.7)	5.4 (2.2–12.6)
Others	3.3 (0.5–19.1)			5.9 (2.2–15.0)	8.6 (3.7–18.9)	11.4 (3.3–32.6)	7.1(3.5–14.0)

Table 10. Prevalence (%; 95%–CI) of current smoker by risk factor status and site in both sexes.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes							
Known	6.6 (3.0–14.0)	13.1 (6.2–25.5)	7.5 (2.0–24.4)	11.2 (5.0–23.2)	4.5 (1.1–17.2)	20.1 (11.6–32.6)	13.1 (8.9–18.9)
Newly	3.4 (1.1–10.2)	15.3 (8.0–27.3)	2.0 (0.3–12.7)	25.4 (13.1–43.5)	26.7 (14.5–43.9)	8.8 (3.7–19.3)	13.9 (9.3–20.1)
IGT/IFG	12.3 (6.3–22.6)	13.8 (9.9–19.0)	11.3 (7.6–16.3)	11.8 (6.7–19.9)	13.7 (6.7–25.9)	14.6 (9.7–21.5)	13.5 (10.8–16.8)
Non DM	7.9 (6.1–10.2)	18.3 (15.2–21.9)	10.6 (7.8–14.3)	25.2 (15.0–39.0)	15.6 (11.8–20.3)	20.9 (18.5–23.5)	17.7 (16.1–19.5)
Hypertension Status							
New HTA	14.8 (8.7–24.1)	12.7 (7.8–19.9)	12.4 (4.0–32.2)	18.8 (8.9–35.4)	17.7 (13.9–22.2)	14.4 (8.9–22.3)	14.8 (11.8–18.3)
Normal to High	10.4 (6.5–16.3)	19.9 (14.4–26.7)	6.5 (4.0–10.5)	41.2 (26.4–57.8)	19.6 (12.8–28.8)	26.0 (21.9–30.5)	22.1 (19.2–25.3)
Know HTA	6.7 (3.6–12.0)	10.9 (6.5–17.8)	14.3 (8.4–23.3)	3.3 (1.5–7.4)	10.9 (7.0–16.5)	16.4 (12.1–21.8)	12.3 (9.9–15.1)
Normal	6.1 (4.5–8.2)	18.0 (13.7–23.2)	10.4 (7.4–14.4)	14.6 (10.0–20.7)	13.7 (10.5–17.7)	16.9 (13.7–20.6)	15.1 (13.3–17.3)
BMI Classification							
Normal	10.9 (7.5–15.7)	22.5 (18.4–27.2)	10.0 (6.1–15.9)	17.2 (12.1–23.8)	18.3 (13.1–24.9)	22.3 (17.8–27.7)	19.7 (17.4–22.2)
Overweight	9.7 (5.9–15.7)	14.6 (11.3–18.8)	11.5 (7.8–16.7)	28.5 (15.5–46.3)	15.1 (10.6–21.1)	15.2 (12.0–19.0)	15.3 (13.1–17.8)
Obese	4.3 (2.5–7.3)	13.8 (9.4–19.7)	7.9 (4.4–13.8)	10.0 (5.9–16.7)	8.8 (6.4–12.0)	21.6 (16.8–27.3)	14.1 (11.7–17.0)
Risk associated with waist circumference							
Substantial risk	4.2 (2.6–6.6)	10.5 (8.5–13.0)	8.0 (5.2–12.1)	5.9 (3.5–9.6)	6.1 (4.5–8.2)	16.9 (12.7–22.1)	9.8 (8.4–11.4)
Increased risk	11.9 (7.2–19.1)	14.7 (9.1–23.0)	11.0 (7.4–16.1)	42.5 (22.1–65.9)	12.7 (9.2–17.2)	14.2 (10.1–19.4)	15.6 (12.3–19.6)
No risk	11.6 (8.4–15.7)	25.2 (18.8–32.9)	13.8 (8.5–21.7)	22.8 (16.4–30.6)	22.5 (15.4–31.6)	22.8 (19.7–26.2)	22.4 (19.5–25.6)
Cholesterol levels							
<200	7.8 (5.7–10.6)	20.3 (17.1–24.0)	10.2 (7.1–14.4)	20.8 (12.1–33.3)	16.0 (10.9–22.9)	20.0 (17.4–22.8)	17.9 (16.2–19.8)
200–239.9	11.6 (6.4–19.9)	13.8 (9.8–19.1)	9.6 (6.1–14.7)	27.5 (15.8–43.5)	15.3 (11.1–20.7)	18.9 (13.4–26.1)	15.5 (13.0–18.3)
240+	7.1 (3.0–15.7)	10.6 (7.6–14.7)	13.4 (7.2–23.6)	9.6 (4.1–21.1)	13.8 (8.7–21.2)	13.4 (6.1–26.8)	12.1 (9.3–15.6)

Table 10. Table 10. Prevalence (%; 95%-CI) of current smoker by risk factor status and site in both sexes. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	7.6 (5.7–10.0)	18.9 (15.7–22.5)	8.2 (5.0–13.2)	15.7 (10.3–23.2)	14.4 (10.1–20.2)	17.8 (15.3–20.6)	16.1 (14.4–17.8)
150–199.9	7.1 (3.7–13.1)	11.2 (8.1–15.2)	11.7 (7.4–17.8)	35.0 (16.3–59.8)	14.3 (11.2–18.1)	16.6 (11.6–23.1)	14.6 (11.9–17.9)
200+	11.7 (5.9–21.9)	18.4 (14.2–23.4)	11.8 (8.2–16.6)	15.6 (10.3–23.0)	17.7 (12.0–25.4)	27.9 (21.8–34.9)	19.3 (16.8–22.2)
Four or more alcoholic beverages at a time during the past 4 weeks							
None	6.6 (4.7–9.1)	12.4 (10.2–14.9)	8.1 (6.1–10.9)	16.3 (9.7–26.2)	11.4 (8.2–15.5)	13.1 (11.1–15.3)	11.9 (10.7–13.3)
1 time	9.1 (3.6–21.4)	57.1 (38.3–74.2)	35.5 (18.1–57.7)	58.9 (27.4–84.5)	29.6 (17.6–45.3)	41.5 (31.2–52.7)	42.3 (34.9–50.0)
2 or more times	28.5 (18.4–41.5)	45.8 (32.6–59.6)	44.5 (26.4–64.1)	68.8 (40.1–87.9)	48.3 (35.0–61.9)	57.1 (48.6–65.2)	49.9 (43.9–55.9)

Table 11. Prevalence (%; 95%-CI) of current smoker by risk factors among male participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes							
Known	18.0 (6.4–41.5)	16.4 (6.4–35.9)	13.8 (3.6–41.2)	14.6 (5.2–34.7)	4.1 (0.6–24.8)	31.0 (16.5–50.5)	18.6 (11.8–28.2)
Newly	6.3 (1.3–25.4)	18.8 (6.6–42.9)	4.2 (0.5–29.1)	32.5 (13.9–58.8)	47.5 (28.5–67.2)	9.0 (3.4–22.0)	21.2 (13.1–32.3)
IGT/IFG	22.1 (11.5–38.4)	17.5 (9.8–29.3)	18.2 (12.2–26.3)	22.1 (12.7–35.8)	21.8 (10.9–38.8)	20.2 (11.1–34.1)	19.7 (14.5–26.3)
Non DM	14.2 (10.6–18.6)	24.8 (19.9–30.5)	19.0 (12.4–28.0)	43.9 (27.5–61.8)	26.7 (19.7–35.2)	34.0 (29.8–38.6)	28.0 (25.1–31.1)
Hypertension Status							
New HTA	20.6 (12.2–32.7)	15.4 (9.4–24.2)	19.7 (6.5–46.6)	24.8 (10.1–49.1)	22.9 (18.0–28.7)	19.9 (11.9–31.4)	19.4 (15.4–24.0)
Normal to High	15.6 (9.4–24.9)	23.3 (16.1–32.3)	9.9 (5.8–16.4)	56.7 (34.5–76.5)	27.1 (18.3–38.3)	34.6 (29.0–40.7)	29.1 (25.1–33.5)
Know HTA	14.2 (6.8–27.3)	18.2 (8.4–34.9)	28.6 (16.9–44.2)	3.7 (0.8–14.5)	20.8 (10.5–36.9)	26.3 (17.4–37.7)	20.8 (15.4–27.4)
Normal	13.5 (9.9–18.1)	25.7 (17.9–35.5)	18.4 (11.5–28.1)	26.9 (18.0–38.1)	26.9 (18.8–36.9)	26.3 (17.4–37.7)	26.3 (22.3–30.8)
BMI Classification							
Normal	17.7 (12.0–25.2)	31.7 (23.4–41.4)	18.0 (9.3–31.8)	31.3 (21.1–43.7)	28.1 (19.1–39.3)	34.4 (27.6–41.9)	29.7 (25.7–34.2)
Overweight	16.8 (9.7–27.6)	17.8 (13.0–23.9)	19.0 (12.2–28.5)	51.5 (28.6–73.8)	25.2 (17.4–34.9)	26.8 (19.9–35.1)	24.0 (20.0–28.5)
Obese	9.1 (5.0–16.0)	17.6 (9.3–30.7)	13.0 (6.4–24.7)	13.5 (6.1–27.3)	19.0 (14.0–25.3)	32.7 (24.8–41.6)	21.6 (17.3–26.7)
Risk associated with waist circumference							
Substantial risk	11.3 (6.6–18.8)	12.3 (6.8–21.3)	15.9 (8.9–26.9)	8.4 (3.0–21.4)	19.5 (11.4–31.4)	32.4 (21.2–46.2)	17.3 (13.2–22.5)
Increased risk	21.9 (13.3–33.9)	17.9 (9.8–30.5)	22.3 (14.0–33.5)	62.9 (37.0–83.1)	20.0 (14.2–27.3)	23.8 (16.1–33.5)	23.8 (18.3–30.3)
No risk	14.9 (10.8–20.2)	28.6 (21.5–37.0)	17.4 (10.1–28.4)	28.0 (20.1–37.6)	29.1 (20.3–39.8)	33.1 (28.6–37.9)	28.8 (25.2–32.7)
Cholesterol levels							
<200	14.5 (10.5–19.7)	27.9 (21.9–34.8)	17.1 (10.6–26.4)	36.6 (19.6–57.8)	27.5 (17.0–41.3)	31.3 (27.7–35.2)	27.8 (24.5–31.3)
200–239.9	21.5 (11.6–36.5)	18.7 (11.9–28.3)	18.6 (11.1–29.5)	44.3 (25.5–64.8)	24.6 (18.1–32.6)	33.4 (21.7–47.6)	24.5 (20.1–29.6)
240+	15.3 (6.1–33.5)	11.8 (7.1–18.8)	22.3 (10.3–41.9)	15.0 (5.3–35.6)	24.0 (14.7–36.7)	21.4 (8.9–43.3)	18.0 (12.4–25.4)

Table 11. Prevalence (%; 95%–CI) of current smoker by risk factors among male participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	14.6 (10.7–19.7)	28.3 (22.3–35.1)	15.2 (7.6–28.2)	28.9 (18.3–42.4)	25.4 (16.8–36.5)	31.5 (25.9–37.6)	26.9 (23.5–30.5)
150–199.9	12.9 (6.9–23.0)	12.3 (7.0–20.8)	23.0 (15.1–33.5)	52.5 (25.5–78.1)	26.8 (20.7–34.0)	25.1 (17.1–35.1)	22.6 (17.3–28.9)
200+	19.6 (10.0–34.9)	22.5 (16.4–30.1)	17.0 (10.8–25.7)	27.0 (17.8–38.8)	25.9 (17.3–36.9)	35.2 (27.0–44.2)	26.1 (22.1–30.5)
Four or more alcoholic beverages at a time during the past 4 weeks							
None	13.4 (9.3–19.0)	16.9 (12.9–21.8)	14.9 (10.2–21.1)	30.6 (17.0–48.8)	20.9 (14.5–29.0)	21.0 (17.4–25.1)	19.3 (16.6–22.4)
1 time	11.5 (4.5–26.3)	53.4 (28.0–77.2)	31.2 (15.1–53.7)	63.2 (28.1–88.3)	32.4 (18.2–51.0)	47.3 (36.4–58.6)	43.5 (35.1–52.3)
2 or more times	29.4 (18.8–42.7)	44.7 (30.7–59.5)	43.2 (21.6–67.7)	69.0 (37.9–89.1)	32.4 (18.2–51.0)	63.5 (54.4–71.8)	51.9 (45.6–58.1)

Table 12. Prevalence (%; 95%-CI) of current smoker by risk factors and site in female participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes							
Known	1.5 (0.5–4.0)	9.3 (3.6–21.9)	0.5 (0.1–3.7)	8.2 (2.6–22.5)	5.0 (1.1–19.9)	11.4 (2.9–35.8)	8.0 (3.9–15.7)
Newly	1.9 (0.3–10.6)	11.4 (3.5–31.3)	–	14.5 (3.6–43.3)	–	8.6 (2.2–28.4)	6.8 (2.9–15.1)
IGT/IFG	2.4 (0.8–7.6)	10.4 (6.9–15.4)	2.9 (1.3–6.5)	3.6 (1.1–11.1)	0.3 (0.0–2.3)	10.2 (5.4–18.7)	7.2 (5.1–10.2)
Non DM	0.6 (0.2–1.5)	12.2 (9.8–15.2)	4.9 (2.9–8.0)	5.9 (3.2–10.5)	3.3 (1.2–8.3)	7.9 (5.5–11.4)	7.5 (5.8–9.6)
Hypertension Status							
New HTA	1.7 (0.5–5.4)	5.7 (1.9–16.2)	–	8.2 (2.1–27.6)	2.5 (0.6–11.0)	5.8 (2.1–14.7)	4.7 (2.5–8.7)
Normal to High	1.5 (0.5–4.4)	13.5 (8.8–20.2)	1.3 (0.3–4.8)	0.7 (0.1–5.4)	1.3 (0.3–5.0)	8.4 (4.7–14.7)	7.7 (5.2–11.1)
Know HTA	1.8 (0.6–5.6)	6.5 (3.7–11.0)	2.8 (0.9–8.3)	3.2 (1.2–8.2)	3.4 (0.7–14.7)	11.6 (6.7–19.3)	7.2 (4.8–10.6)
Normal	0.6 (0.2–1.9)	13.2 (9.9–17.5)	5.2 (3.1–8.5)	6.9 (3.8–12.3)	3.1 (1.3–6.8)	7.3 (4.4–11.8)	7.8 (6.0–10.0)
BMI Classification							
Normal	0.3 (0.1–1.3)	15.6 (12.1–19.8)	3.9 (1.8–8.3)	5.5 (2.5–11.7)	4.7 (2.1–10.3)	5.9 (3.2–10.7)	8.9 (6.7–11.7)
Overweight	0.9 (0.4–2.2)	10.2 (6.8–14.9)	4.1 (1.7–9.2)	3.4 (1.5–7.9)	1.6 (0.4–6.9)	5.1 (3.2–8.0)	5.3 (3.8–7.2)
Obese	1.7 (0.7–3.6)	10.6 (7.3–15.1)	4.8 (2.0–11.2)	8.3 (3.9–16.8)	1.4 (0.3–5.9)	14.4 (9.8–20.7)	8.9 (6.6–12.0)
Risk associated with waist circumference							
Substantial risk	1.4 (0.8–2.6)	9.9 (7.8–12.5)	5.1 (2.9–8.8)	5.5 (3.1–9.5)	1.7 (0.5–5.7)	12.6 (8.1–19.0)	7.4 (5.6–9.7)
Increased risk	0.2 (0.0–1.5)	11.3 (6.5–18.9)	1.2 (0.4–3.6)	7.7 (3.0–18.4)	3.1 (1.3–7.3)	6.8 (3.9–11.5)	7.0 (5.0–9.8)
No risk	0.8 (0.2–2.6)	16.9 (9.8–27.5)	4.6 (1.4–13.9)	2.8 (0.7–10.4)	4.6 (1.6–12.7)	5.6 (3.3–9.5)	7.9 (5.4–11.5)
Cholesterol levels							
<200	0.9 (0.4–1.8)	13.6 (10.5–17.4)	4.1 (2.0–8.1)	6.4 (3.5–11.3)	3.3 (1.2–8.7)	9.0 (6.3–12.7)	8.3 (6.6–10.5)
200–239.9	2.6 (1.0–6.4)	9.0 (5.9–13.3)	3.0 (1.4–6.4)	4.9 (2.1–11.4)	2.9 (1.1–7.4)	5.6 (2.8–10.8)	5.9 (4.2–8.3)
240+	0.8 (0.1–5.6)	9.4 (5.4–16.0)	7.2 (2.4–19.9)	3.0 (0.8–10.5)	1.5 (0.4–6.0)	8.8 (2.5–26.8)	6.0 (3.6–9.8)

Table 12. Table 12. Prevalence (%; 95%–CI) of current smoker by risk factors and site in female participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	1.0 (0.5–1.8)	12.5 (9.6–16.1)	2.4 (1.0–5.8)	6.1 (3.1–11.9)	31.5 (25.9–37.6)	7.4 (5.6–9.8)	7.4 (5.9–9.3)
150–199.9	0.8 (0.3–2.7)	10.2 (6.4–15.9)	3.2 (1.1–8.8)	9.1 (4.9–16.1)	25.1 (17.1–35.1)	7.7 (3.8–15.0)	6.8 (4.6–9.9)
200+	1.8 (0.4–8.1)	11.1 (7.2–16.7)	7.3 (3.9–13.1)	2.2 (0.8–5.8)	35.2 (27.0–44.2)	14.9 (6.7–29.9)	8.3 (5.5–12.3)
Four or more alcoholic beverages at a time during the past 4 weeks							
None	0.8 (0.4–1.6)	8.6 (6.7–11.0)	3.4 (2.0–5.7)	4.8 (2.8–8.3)	2.3 (0.9–6.0)	7.3 (5.2–10.1)	5.9 (4.6–7.4)
1 time	–	62.9 (37.0–83.0)	55.7 (10.3–93.3)	25.3 (5.3–67.1)	12.8 (2.6–44.7)	24.4 (11.5–44.4)	38.8 (24.5–55.3)
2 or more times	20.6 (7.1–46.6)	51.1 (23.0–78.5)	57.2 (16.3–90.1)	66.2 (23.5–92.6)	35.4 (12.4–67.9)	24.9 (9.7–50.6)	37.0 (22.2–54.7)

Tables 13, 14 and 15. Mean value of continuous variables (and Standard Error) by smoking status, gender and site.

13. Smoking: Both genders

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Smoker														
Age (years)	41.4	1.5	37.8	1.2	39.1	1.8	34.5	1.2	35.7	0.9	35.4	0.8	36.5	0.5
Weight (kg)	73.5	2.0	69.3	1.3	73.8	2.0	73.7	3.2	70.6	1.0	74.1	0.8	71.7	0.6
Height (cm)	166.8	1.1	164.5	0.8	165.7	0.9	164.8	1.8	167.9	1.9	164.5	0.4	165.4	0.8
Waist (cm)	92.1	1.7	89.5	1.0	90.6	4.1	91.0	1.2	84.0	1.5	85.7	1.3	87.3	0.7
Hip (cm)	99.3	1.7	.	.	96.0	1.6	96.3	1.0	90.6	0.4	92.2	0.9	92.7	0.7
BMI (kg/m ²)	26.4	0.7	25.6	0.3	26.8	0.6	27.0	0.6	25.0	0.3	27.4	0.4	26.2	0.3
Fasting Glucose (mg/dl)	90.0	2.6	95.3	2.1	99.8	4.7	91.7	3.7	92.3	1.9	87.3	1.9	91.7	1.1
2h-OGTT (mg/dl)	109.9	5.0	98.0	3.7	0.0	0.0	100.8	5.1	90.2	5.2	104.6	2.1	95.7	2.4
Total Cholesterol (mg/dl)	171.2	4.3	189.9	2.7	197.9	7.1	186.4	9.8	199.8	3.1	170.1	2.4	184.8	2.4
Triglycerides (mg/dl)	163.6	20.3	175.0	6.0	190.0	8.4	185.3	9.7	195.5	10.4	172.0	10.2	179.0	5.2
Nonsmoker														
Age (years)	39.1	0.3	42.5	0.7	40.4	0.9	38.4	0.9	39.8	1.2	38.2	0.5	40.2	0.4
Weight (kg)	72.2	1.2	70.9	0.6	69.8	0.7	66.5	1.0	67.8	0.4	70.6	0.7	69.9	0.4
Height (cm)	159.8	1.2	162.0	0.4	160.8	0.6	156.0	0.5	160.0	0.2	159.6	0.2	160.3	0.2
Waist (cm)	93.6	0.6	92.2	0.6	92.8	0.7	92.9	0.7	83.9	2.9	85.3	0.6	88.6	0.8
Hip (cm)	103.6	0.7	.	.	98.5	0.5	98.8	0.6	94.7	0.4	94.0	0.5	96.1	0.5
BMI (kg/m ²)	28.4	0.4	27.2	0.3	26.9	0.2	27.3	0.3	26.4	0.2	27.7	0.2	27.3	0.2
Fasting Glucose (mg/dl)	93.8	1.2	97.7	1.2	97.6	0.9	96.4	1.2	92.7	1.4	91.3	1.5	94.5	0.8
2h-OGTT (mg/dl)	110.2	1.8	102.1	1.8	0.0	0.0	113.1	2.6	99.7	2.1	115.9	1.9	100.5	1.5
Total Cholesterol (mg/dl)	167.0	2.7	201.6	2.0	192.8	2.9	188.3	2.2	206.6	2.1	170.6	1.6	190.6	2.2
Triglycerides (mg/dl)	144.5	6.2	173.4	3.6	175.9	4.1	180.9	7.5	174.2	2.8	145.8	2.7	164.5	2.1

14. Smoking: Males

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Smoker														
Age (years)	41.2	1.6	37.7	1.8	39.6	2.4	34.7	1.3	35.1	0.9	34.7	0.8	36.0	0.7
Weight (kg)	72.5	1.9	73.4	1.7	75.0	2.3	74.7	3.6	71.9	0.7	73.5	1.2	73.1	0.7
Height (cm)	167.6	1.3	169.9	0.7	168.1	0.9	166.6	1.7	169.2	1.4	167.3	0.5	168.5	0.5
Waist (cm)	91.2	1.7	90.3	1.3	89.5	5.2	90.5	1.6	84.0	1.6	84.5	1.6	86.9	0.9
Hip (cm)	97.9	1.5	.	.	94.4	1.8	95.2	1.4	90.6	0.5	89.3	1.2	91.1	0.7
BMI (kg/m ²)	25.8	0.7	25.6	0.5	26.4	0.7	26.8	0.8	25.1	0.4	26.2	0.4	25.8	0.3
Fasting Glucose (mg/dl)	89.6	2.8	95.9	2.7	103.0	6.0	91.2	4.0	93.0	1.9	87.2	2.3	91.9	1.3
2h-OGTT (mg/dl)	108.6	5.1	102.2	5.0	0.0	0.0	99.1	5.2	90.2	5.8	100.2	2.5	95.1	2.7
Total Cholesterol (mg/dl)	169.9	4.8	187.2	3.8	197.7	8.7	187.7	11.8	200.4	3.3	168.8	3.1	184.0	3.0
Triglycerides (mg/dl)	163.9	22.1	185.9	8.2	187.3	10.4	189.3	11.3	201.4	12.3	173.4	12.0	185.0	6.2
Nonsmoker														
Age (years)	39.2	0.5	42.6	0.9	40.2	1.6	38.4	1.0	41.4	1.5	38.5	0.7	40.7	0.5
Weight (kg)	74.5	1.6	77.6	1.1	76.2	1.7	72.9	2.3	71.8	0.3	74.4	1.0	74.9	0.6
Height (cm)	166.1	1.5	169.2	0.7	168.1	1.0	163.3	0.6	166.6	0.4	166.5	0.5	167.3	0.3
Waist (cm)	93.0	1.0	93.3	0.8	94.7	1.5	91.4	1.5	83.3	3.2	87.0	1.2	89.2	0.9
Hip (cm)	100.6	1.0	.	.	96.4	0.9	96.9	1.0	92.9	0.4	91.6	0.8	93.9	0.5
BMI (kg/m ²)	27.0	0.4	27.4	0.4	26.9	0.4	27.2	0.7	25.9	0.1	26.7	0.3	26.8	0.2
Fasting Glucose (mg/dl)	89.8	1.5	100.6	2.5	100.1	1.8	97.6	1.9	94.2	1.7	94.6	2.8	96.5	1.3
2h-OGTT (mg/dl)	103.8	2.3	103.8	2.8	0.0	0.0	109.7	3.5	99.0	2.1	115.8	3.1	100.3	1.8
Total Cholesterol (mg/dl)	166.1	3.0	204.2	3.2	190.6	5.8	191.9	3.8	208.8	2.7	168.7	2.5	192.2	2.8
Triglycerides (mg/dl)	152.6	10.1	192.4	5.6	179.0	9.3	201.2	16.1	194.7	4.3	163.1	5.3	182.2	3.5

15. Smoking: Females

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Media	EE	Media	EE	Media	EE	Media	EE	Media	EE	Media	EE	Media	EE
Smoker														
Age (years)	44.3	4.4	38.0	1.3	37.1	2.0	33.2	1.9	43.1	3.6	38.0	1.2	38.2	0.8
Weight (kg)	87.0	10.6	62.0	1.4	69.7	4.4	67.6	4.6	56.7	1.3	76.2	3.5	66.9	1.7
Height (cm)	154.5	2.9	155.4	0.8	157.7	2.1	154.2	1.5	154.3	0.9	154.7	0.7	155.1	0.5
Waist (cm)	105.3	6.9	87.9	1.5	94.2	3.7	94.5	2.9	83.7	0.8	90.0	2.2	88.9	1.1
Hip (cm)	119.6	8.2	.	.	101.3	2.7	103.4	4.0	89.7	0.6	101.9	3.0	100.4	2.3
BMI (kg/m ²)	35.7	3.1	25.6	0.5	27.9	1.4	28.4	1.8	23.9	0.7	31.7	1.3	27.8	0.7
Fasting Glucose (mg/dl)	95.4	4.7	94.1	2.9	88.7	2.3	94.8	4.6	84.6	2.5	87.4	2.9	91.1	1.8
2h-OGTT (mg/dl)	130.6	11.6	89.8	2.6	0.0	0.0	112.0	11.6	89.8	6.8	122.1	5.7	98.2	3.3
Total Cholesterol (mg/dl)	189.3	12.7	195.0	4.4	198.3	9.8	177.8	6.4	193.2	5.0	174.9	4.1	187.7	2.9
Triglycerides (mg/dl)	159.2	21.1	155.1	6.6	199.5	10.3	159.3	14.4	129.5	10.6	167.3	14.9	158.7	6.3
Nonsmoker														
Age (years)	39.1	0.3	42.4	0.8	40.6	0.9	38.4	1.3	38.4	1.0	38.0	0.5	39.7	0.5
Weight (kg)	70.3	1.1	65.3	0.8	65.4	0.7	63.1	0.8	64.1	0.8	67.9	0.9	66.0	0.5
Height (cm)	154.5	1.1	155.9	0.3	155.8	0.5	152.0	0.4	153.9	0.2	154.7	0.3	154.8	0.2
Waist (cm)	94.0	0.7	91.3	0.7	91.5	0.8	93.9	0.7	84.4	2.7	84.1	0.7	88.2	0.7
Hip (cm)	106.3	0.7	.	.	100.0	0.5	100.0	0.7	96.4	0.8	95.8	0.6	97.8	0.6
BMI (kg/m ²)	29.5	0.4	27.1	0.3	26.9	0.2	27.3	0.3	27.0	0.3	28.4	0.3	27.6	0.2
Fasting Glucose (mg/dl)	97.3	1.4	95.2	0.8	95.8	0.8	95.6	1.4	91.3	1.5	89.0	1.4	92.8	0.7
2h-OGTT (mg/dl)	116.1	2.3	100.8	1.5	0.0	0.0	115.4	3.5	100.3	2.5	116.0	2.3	100.7	1.7
Total Cholesterol (mg/dl)	167.7	2.7	199.4	2.0	194.4	2.5	185.8	2.2	204.6	2.7	172.0	2.0	189.4	1.9
Triglycerides (mg/dl)	137.4	4.8	157.7	3.2	173.8	2.9	167.0	4.7	155.5	5.1	133.6	4.5	150.3	2.1

Table 16. Self-Reported Alcohol Use by Gender and Site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Both Genders							
Drank Alcohol Previous 4 weeks ³	34.7 (3.2)	43.9 (2.5)	39.5 (2.9)	60.7 (3.9)	70.5 (3.6)	61.9 (2.7)	49.9 (2.0)
Had 5+ Drinks During Previous Month							
Once ³	4.9 (3.6–6.7)	5.0 (3.8–6.5)	2.7 (1.8–4.1)	5.4 (3.0–9.3)	6.1 (5.2–7.2)	7.7 (6.5–9.1)	5.9 (5.3–6.6)
Twice or more ^{3 3}	2.7 (1.8–4.1)	1.8 (1.0–3.2)	2.0 (1.2–3.2)	1.5 (0.8–3.0)	3.8 (2.8–5.2)	5.0 (3.7–6.7)	3.2 (2.6–3.9)
Males							
Drank Alcohol Previous 4 weeks ³	51.2 (3.7)	49.1 (3.4)	49.7 (3.9)	70.4 (4.6)	73.6 (3.2)	66.4 (2.7)	58.1 (2.3)
Had 5+ Drinks During Previous Month							
Once ³	8.3 (5.6–12.0)	6.9 (4.6–10.2)	4.5 (2.7–7.4)	10.1 (5.4–18.3)	10.4 (9.0–12.0)	12.7 (10.6–15.1)	9.5 (8.2–10.9)
Twice or more ^{3 3}	4.8 (3.1–7.2)	2.3 (1.1–4.8)	4.3 (2.4–7.5)	3.0 (1.5–5.9)	6.9 (5.1–9.3)	8.6 (6.3–11.8)	5.4 (4.3–6.8)
Females							
Drank Alcohol Previous 4 weeks ³	18.0 (3.2)	38.1 (2.8)	28.5 (2.8)	43.2 (4.8)	57.5 (4.9)	52.9 (5.3)	38.2 (2.1)
Had 5+ Drinks During Previous Month							
Once ³	1.9 (1.1–3.3)	3.4 (2.2–5.2)	1.3 (0.6–2.8)	1.0 (0.4–2.1)	1.4 (1.0–1.9)	3.4 (2.1–5.7)	2.6 (2.0–3.5)
Twice or more ^{3 3}	0.8 (0.4–1.9)	1.4 (0.7–2.7)	0.2 (0.1–0.6)	0.2 (0.0–1.2)	0.3 (0.1–1.4)	1.8 (1.0–3.4)	1.1 (0.7–1.8)

³ Mean (SE)

Table 17. Prevalence (%o, 95%-CI) binge drinking* by age, gender and site.

	Belize	San José	San Salvador	Guatemala	Tegucigalpa	Managua	TOTAL
Age Group (years)							
Both Genders							
20–39	8.5 (6.2–11.6)	8.2 (6.0–11.1)	5.0 (3.2–7.7)	9.5 (5.7–5.3)	12.3 (10.6–14.2)	13.6 (10.9–16.8)	10.7 (9.5–12.1)
40–64	7.5 (5.2–10.6)	6.2 (3.9–9.7)	5.2 (3.3–8.1)	2.2 (0.9–5.5)	7.5 (5.5–10.2)	11.9 (9.7–14.5)	7.7 (6.5–9.2)
65+	2.4 (1.3–4.7)	2.0 (0.6–6.2)	1.3 (0.3–5.7)	–	1.9 (0.5–7.5)	6.4 (2.6–14.9)	2.7 (1.6–4.7)
Males							
20–39	14.9 (10.5–20.8)	9.9 (6.3–5.4)	9.3 (4.9–6.9)	17.6 (10.1–9.0)	21.4 (18.6–24.6)	22.4 (18.2–27.2)	17.4 (15.0–20.0)
40–64	12.1 (8.2–17.4)	9.5 (5.5–6.1)	9.6 (6.5–14.1)	4.4 (1.5–2.1)	13.5 (10.2–17.6)	21.6 (17.0–26.9)	13.2 (10.9–15.9)
65+	4.3 (2.0–9.2)	4.4 (1.3–3.7)	3.1 (0.7–2.9)	–	3.5 (0.9–12.8)	10.0 (3.6–24.7)	5.0 (2.8–8.9)
Females							
20–39	2.9 (1.5–5.7)	6.7 (4.2–10.6)	1.8 (0.8–4.3)	1.5 (0.6–3.5)	2.6 (1.7–3.9)	6.2 (3.9–9.7)	4.8 (3.6–6.4)
40–64	2.9 (1.5–5.2)	3.2 (1.9–5.6)	1.4 (0.6–3.4)	0.5 (0.2–1.5)	0.2 (0.0–1.6)	3.8 (2.2–6.5)	2.6 (1.8–3.7)
65+	0.7 (0.2–2.5)	–	–	–	–	2.6 (0.5–12)	0.5 (0.1–2.2)

* Had 5+ drinks once or more times during previous four weeks

Table 18. Prevalence (%; 95%-CI) of binge drinking use by demographic characteristics of male and female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	13.0 (9.8–17.1)	9.2 (6.5–12.9)	8.8 (5.7–13.4)	13.1 (7.8–21.0)	17.2 (14.4–20.5)	21.3 (18.1–24.8)	14.9 (13.1–16.9)
Female	2.7 (1.6–4.7)	4.7 (3.2–6.8)	1.5 (0.8–2.9)	1.1 (0.5–2.3)	1.7 (1.1–2.6)	5.3 (3.6–7.6)	3.7 (2.9–4.8)
Race*							
Whites	22.6 (4.2–65.9)	–	–	–	6.1 (1.9–17.6)	14.4 (10.6–19.3)	13.3 (9.9–17.7)
Black/Mulatto	6.0 (3.7–9.4)	–	–	–	15.3 (7.0–30.4)	20.5 (8.9–40.6)	11.6 (7.1–18.4)
Mestizo/Native	7.4 (5.4–10.2)	–	–	6.9 (4.3–10.8)	9.9 (8.1–12.2)	11.8 (10.0–14.0)	10.1 (9.0–11.4)
Garifuna	11.8 (6–21.9)	–	–	–	0.0 (0.0–0.0)		11.8 (6.0–21.9)
Others	7.3 (3.1–16)	–	–	–	6.1 (1.9–17.6)		8.1 (3.6–17.3)
Marital Status							
Single	8.4 (5.8–12)	5.8 (3.5–9.7)	4.3 (2.5–7.1)	7.5 (2.5–20.3)	9.4 (6.5–13.6)	15.1 (10.4–21.3)	9.6 (7.7–11.9)
Married	7.7 (5.6–10.6)	7.1 (5.3–9.5)	4.9 (3.4–7.0)	8.0 (4.7–13.4)	10.5 (9.0–12.1)	11.6 (9.9–13.6)	9.1 (8.2–10.2)
Widow /Divorced	4.3 (2.7–6.8)	8.0 (3.6–16.8)	4.8 (1.7–12.4)	0.3 (0.1–1.6)	7.7 (2.7–19.8)	9.9 (5–18.5)	7.3 (4.5–11.5)
Education							
None	5.8 (2.7–12.1)	–	5.5 (0.8–30.4)	2.2 (0.7–7.2)	10.0 (4.1–22.4)	5.8 (2.4–13.0)	6.3 (3.0–12.6)
Primary	6.6 (4.6–9.3)	5.0 (3.1–7.8)	1.8 (0.8–3.8)	6.0 (3.2–10.8)	9.4 (7.5–11.7)	8.1 (5.9–11.0)	7.1 (5.9–8.5)
Secondary	10.3 (7.2–14.5)	8.3 (5.7–11.9)	3.6 (2.3–5.4)	9.4 (4.2–19.6)	10.4 (8.6–12.6)	13.8 (11.4–16.5)	10.5 (9.2–12.0)
University	8.7 (5.1–14.4)	7.6 (4.6–12.6)	7.2 (4.5–11.3)	6.0 (1.7–19.0)	10.6 (5.4–19.7)	19.9 (13.3–28.7)	10.9 (8.4–13.9)
Work situation							
Working	11.4 (8.1–15.8)	9.5 (7.3–12.4)	5.4 (3.7–7.8)	8.5 (5.2–13.7)	14.7 (12.4–17.2)	15.3 (12.3–18.8)	11.9 (10.5–13.5)
Not working	4.5 (3.1–6.6)	3.5 (2.3–5.4)	3.4 (2–5.7)	2.9 (0.7–10.5)	3.7 (2.2–6.1)	10.4 (7.5–14.1)	5.8 (4.6–7.2)
Housing							
Owned	7.9 (5.9–10.3)	5.9 (4.0–8.4)	4.9 (3.4–7.1)	8.6 (5.0–14.4)	8.7 (6.7–11.1)	12.2 (10.1–14.6)	8.7 (7.6–9.9)
Rented	8.1 (4.5–14.2)	7.9 (4.9–12.5)	5.1 (2.6–9.7)	3.9 (1.6–9.4)	14.1 (10.1–19.2)	17.7 (12.3–24.8)	10.0 (7.8–12.6)
Borrowed	5.9 (1.6–19.4)	13.5 (6.4–26.2)	1.1 (0.1–7.2)	5.9 (1.9–17.3)	11.7 (5.9–21.8)	14.8 (7.9–26.1)	12.1 (8.3–17.2)
Others	3.1 (0.4–19.0)	14.0 (6.8–26.5)	2.3 (0.6–8.9)	2.7 (0.6–11.7)	–	10.2 (4.4–21.9)	5.4 (2.6–11.1)

Table 19. Prevalence (%; 95%-CI) of binge drinking use by demographic characteristics of male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race*							
Whites	44.3 (6.8–89.6)	–	–	–	13.8 (3.6–40.6)	23.8 (15.9–34.1)	22.5 (15.3–31.9)
Black/Mulatto	9.4 (5.5–15.6)	–	–	–	25.0 (20.3–30.4)	31.6 (13.4–58.0)	18.9 (11.9–28.9)
Mestizo/Native	13.0 (8.9–18.5)	–	–	13.1 (7.9–21.0)	17.1 (13.9–20.9)	20.1 (17.0–23.6)	17.5 (15.5–19.7)
Garifuna	15.4 (6.9–31.0)	–	–	–	–	–	15.4 (6.9–31.0)
Others	17.2 (6.1–40.1)	–	–	–	–	–	19.0 (7.0–42.2)
Marital status							
Single	12.9 (8.4–19.3)	7.9 (4.0–15.0)	8.3 (4.1–15.8)	12.6 (4.2–32.3)	15.9 (11.0–22.5)	23.1 (15.8–32.3)	15.3 (12.0–19.2)
Married	13.5 (9.6–18.7)	9.5 (6.6–13.4)	8.6 (5.5–13.1)	14.9 (8.4–25.0)	17.1 (14.7–19.8)	19.7 (15.8–24.2)	14.6 (12.8–16.7)
Widow/Divorced	8.0 (3.5–17.5)	13.1 (4.1–34.4)	19.7 (5.7–50.0)	0.4 (0.0–4.2)	23.9 (10.4–45.8)	31.7 (13.2–58.6)	17.3 (9.7–28.9)
Education							
None	9.5 (3.2–24.8)	0.0 (0.0–0.0)	0.0 (0.0–0.0)	2.3 (0.3–15.6)	18.8 (8.2–37.4)	9.9 (3.9–22.6)	12.0 (5.5–24.2)
Primary	11.8 (8.3–16.4)	8.6 (4.8–15.0)	3.1 (1.1–8.8)	13.9 (7.3–24.9)	16.8 (13.3–20.9)	15.1 (11.0–20.4)	13.2 (10.8–16.0)
Secondary	16.6 (10.8–24.7)	11.2 (6.6–18.4)	6.5 (4.0–10.4)	17.2 (7.4–35.1)	18.3 (15.2–21.8)	21.5 (17.5–26.1)	16.6 (14.1–19.4)
University	13.0 (6.6–24.0)	7.7 (3.4–16.2)	12.0 (7.2–19.6)	8.4 (2.2–26.7)	15.2 (7.3–29.0)	32.8 (23.4–43.7)	15.4 (11.7–19.9)
Work situation							
Working	14.6 (10.2–20.4)	10.6 (7.2–15.5)	9.1 (5.6–14.4)	13.1 (7.6–21.6)	19.9 (17.1–23.1)	22.4 (18–27.6)	16.0 (13.9–18.3)
Not working	10.0 (6.1–16.1)	4.4 (2.1–9.0)	8.0 (4.1–14.9)	12.9 (2.4–47.1)	10.0 (4.7–20.1)	19.6 (13.8–27)	12.2 (9.3–15.7)
Housing							
Owned	13.7 (10.3–18.0)	8.7 (5.6–13.3)	9.2 (6–13.8)	16.0 (9.0–27.0)	14.4 (11.3–18.3)	20.1 (16.3–24.6)	14.3 (12.4–16.4)
Rented	11.8 (5.5–23.4)	8.6 (4.8–15.1)	8.6 (3.4–19.8)	7.7 (2.8–19.7)	25.8 (19.1–33.8)	35.6 (26.3–46.2)	16.6 (12.6–21.6)
Borrowed	12.4 (3.3–37.2)	19.1 (6.9–43.2)	2.2 (0.3–14.1)	9.6 (2.4–31.4)	22.9 (12.5–38.1)	23.7 (11.0–43.9)	20.4 (13.5–29.5)
Others	–	–	15.2 (2.7–53.7)	4.9 (0.7–26.6)	–	14.3 (3.6–42.9)	7.2 (2.1–22.1)

Table 20. Prevalence (%; 95%-CI) of binge drinking use by demographic characteristics of female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race*							
Whites		–	–	–	–	7.2 (3.2–15.4)	6.2 (2.8–13.3)
Black/Mulatto	2.4 (1.2–4.8)	–	–	–	–	4.9 (0.6–29.4)	2.6 (1.0–6.9)
Mestizo/Native	2.1 (0.9–4.9)	–	–	1.1 (0.5–2.3)	1.8 (1.2–2.8)	4.7 (3.2–6.8)	3.0 (2.2–4.1)
Garifuna	8.9 (4.3–17.3)	–	–	–	–	–	8.9 (4.3–17.3)
Others	0.2 (0.0–1.7)	–	–	–	–	–	0.2 (0.0–1.7)
Marital Status							
Single	3.3 (1.4–7.4)	4.2 (2.0–8.6)	1.6 (0.6–4.2)	0.5 (0.1–3.5)	2.9 (1.8–4.7)	7.0 (3.6–13.1)	4.5 (3.0–6.6)
Married	2.6 (1.4–4.6)	4.6 (3.0–7.0)	1.5 (0.5–4.3)	1.4 (0.6–3.2)	1.6 (1.0–2.6)	4.7 (3.0–7.3)	3.5 (2.6–4.6)
Widow/Divorced	2.2 (1.0–4.7)	6.2 (1.9–18.4)	1.5 (0.5–4.7)	0.3 (0.0–2.1)	0.4 (0.0–2.9)	4.0 (1.5–10.2)	3.5 (1.5–8.4)
Education							
None	3.0 (0.7–12.6)	–	6.0 (0.8–32.8)	2.2 (0.5–9.2)	0.0 (0.0–0.0)	2.1 (0.3–13.9)	1.3 (0.4–4.3)
Primary	2.1 (0.9–4.8)	2.0 (0.9–4.6)	1.2 (0.4–3.8)	0.9 (0.3–2.7)	0.1 (0.0–1.1)	4.0 (2.1–7.6)	2.0 (1.2–3.1)
Secondary	4.2 (1.9–9.1)	5.4 (3.2–9.1)	1.5 (0.4–5.0)	1.4 (0.5–3.8)	3.1 (1.8–5.4)	5.9 (3.7–9.4)	4.6 (3.4–6.2)
University	2.6 (0.8–8.4)	7.6 (4.1–13.8)	1.6 (0.5–5.2)	–	–	7.5 (2.8–18.6)	6.4 (4.0–10.2)
Work situation							
Working	4.1 (2.0–8.1)	7.5 (4.5–12.2)	1.8 (0.7–4.5)	1.3 (0.6–3.1)	3.6 (2.5–5.0)	4.7 (2.5–8.4)	4.7 (3.5–6.5)
Not working	2.2 (1.2–4.2)	3.3 (1.9–5.6)	1.2 (0.5–2.7)	0.9 (0.2–3.1)	0.5 (0.1–2.2)	5.6 (3.6–8.7)	3.1 (2.2–4.5)
Housing							
Owned	2.4 (1.4–4.4)	3.3 (2.1–5.2)	1.4 (0.6–3.2)	1.2 (0.5–2.9)	2.0 (1.4–2.9)	5.5 (3.7–8.1)	3.6 (2.8–4.7)
Rented	4.8 (1.8–12.3)	7.4 (3.5–14.9)	2.3 (0.7–7.7)	0.5 (0.1–3.9)	0.8 (0.1–6.2)	2.4 (0.6–9.6)	4.2 (1.9–9.1)
Borrowed	0.2 (0.0–1.9)	8.2 (2.2–26.3)	–	3.7 (0.5–23.0)	2.2 (0.5–9.8)	4.8 (1.0–20.7)	4.3 (1.5–11.4)
Others	6.1 (0.8–34.7)	19.9 (6.8–45.6)	–	1.2 (0.2–8.4)	–	6.8 (1.5–25.9)	4.9 (1.9–12.3)

Table 21. Prevalence (%; 95%-CI) of binge drinker by risk factors and site in male and female participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes							
Known	2.6 (0.9–6.7)	7.4 (2.5–19.8)	1.6 (0.2–11.0)	4.3 (1.0–15.8)	3.9 (0.6–20.8)	10.3 (5.2–19.5)	6.9 (3.9–11.8)
Newly	6.4 (2.1–18.3)	7.7 (2.7–20.4)	21.4 (3.8–65.1)	3.1 (0.4–19.5)	2.4 (0.5–10.6)	8.7 (3.3–21.2)	7.1 (4.0–12.5)
IGT/IFG	2.7 (1.1–6.5)	5.3 (2.8–9.9)	6.7 (3.5–12.2)	5.3 (2.2–12.1)	16.4 (11.0–23.8)	12.6 (8.9–17.6)	8.9 (6.3–12.5)
Non DM	8.9 (6.5–12.1)	7.4 (5.2–10.4)	3.7 (2.2–6.4)	9.3 (4.7–17.6)	9.0 (7.2–11.2)	12.7 (9.7–16.5)	9.3 (8.1–10.8)
Hypertension Status							
New HTA	4.4 (2.1–8.8)	8.3 (3.5–18.7)	5.3 (0.7–30.3)	11.3 (3.5–31.1)	14.5 (10.9–19.0)	14.7 (8.8–23.4)	11.4 (8.3–15.4)
Normal to High	7.1 (4.1–12.2)	7.6 (4.0–14.1)	5.1 (2.1–11.7)	17.1 (6.2–39.1)	13.0 (9.6–17.4)	13.6 (9.8–18.6)	11.2 (8.8–14.0)
Know HTA	6.3 (3.2–11.9)	3.3 (1.3–8.3)	9.0 (4.4–17.6)	1.4 (0.4–4.9)	6.5 (2.7–15.0)	10.9 (7.4–15.7)	6.9 (5.1–9.2)
Normal	8.4 (5.2–13.3)	7.4 (4.7–11.3)	3.4 (1.9–5.9)	4.4 (2.5–7.4)	8.4 (7.2–9.8)	11.4 (8.4–15.3)	8.1 (6.9–9.6)
BMI Classification							
Normal	10.9 (7.0–16.7)	5.9 (3.7–9.1)	2.1 (1.0–4.4)	3.5 (1.8–6.8)	11.3 (9.0–14.1)	10.7 (6.7–16.7)	8.6 (6.8–10.7)
Overweight	6.2 (3.6–10.3)	7.3 (4.2–12.3)	6.5 (3.8–10.9)	11.7 (4.6–26.9)	10.8 (7.8–14.8)	12.9 (9.7–17.0)	9.9 (8.1–12.1)
Obese	4.6 (2.4–8.6)	10.8 (6.6–17.1)	6.3 (3.2–12.2)	3.9 (1.7–8.9)	6.6 (5.0–8.7)	13.4 (9.7–18.1)	9.8 (7.8–12.1)
Risk associated with waist circumference							
Substantial risk	4.3 (2.5–7.3)	4.9 (2.9–8.0)	4.7 (2.8–7.9)	1.7 (0.7–4.2)	1.7 (1.2–2.4)	11.9 (8.4–16.5)	5.3 (4.0–6.9)
Increased risk	3.7 (2.0–6.8)	9.0 (4.5–17.1)	5.7 (2.7–11.6)	13.7 (4.5–35.0)	14.2 (7.6–25.0)	9.3 (6.1–14.0)	10.0 (7.0–14.1)
No risk	12.8 (8.5–18.9)	8.0 (5.3–11.9)	3.9 (1.8–8.1)	10.7 (6.0–18.4)	13.9 (11.8–16.3)	13.8 (10.2–18.3)	11.7 (9.9–13.7)
Cholesterol levels							
<200	7.7 (5.6–10.4)	6.7 (4.7–9.6)	4.2 (2.3–7.4)	6.4 (3.7–11.1)	8.1 (6.5–10.0)	12.0 (9.6–15.0)	8.8 (7.6–10.1)
200–239.9	3.4 (1.0–10.7)	5.5 (3.3–9.0)	4.7 (2.9–7.5)	15.8 (5.5–37.9)	11.5 (7.7–16.7)	16.3 (10.8–23.8)	9.6 (7.3–12.3)
240+	9.9 (4.8–19.3)	10.1 (5.4–18.1)	7.1 (2.6–17.6)	3.0 (1.2–7.3)	11.9 (7.5–18.5)	5.0 (1.8–13.3)	9.8 (6.7–14.2)

Table 21. Prevalence (%; 95%–CI) of binge drinker by risk factors and site in male and female participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	7.8 (5.6–10.7)	6.2 (4.2–9.2)	2.2 (1.1–4.2)	3.0 (1.6–5.6)	8.0 (6.2–10.4)	8.6 (6.0–12.3)	7.3 (6.0–8.7)
150–199.9	5.4 (2.4–11.6)	5.4 (2.6–10.7)	4.3 (1.9–9.6)	15.9 (6.3–34.7)	8.9 (6.3–12.3)	17.4 (11.6–25.1)	9.5 (7.2–12.4)
200+	6.8 (3.1–14.2)	9.3 (6.0–14.1)	8.1 (5.0–13.0)	8.1 (4.1–15.2)	14.3 (9.3–21.5)	20.6 (15.1–27.3)	12.7 (10.2–15.7)
Current smoker							
Yes	13.4 (7.0–24.0)	23.6 (16.1–33.2)	14.6 (8.2–24.7)	22.4 (8.9–46.0)	27.1 (19.9–35.8)	32.1 (25.2–39.8)	26.3 (22.2–30.9)
No	6.8 (4.8–9.5)	4.0 (2.6–6.0)	3.7 (2.1–6.3)	4.3 (2.2–7.9)	7.2 (5.5–9.3)	8.4 (6.5–10.6)	6.1 (5.2–7.1)

Table 22. Prevalence (%; 95%-CI) of binge drinker by risk factors and site in male participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes							
Known	3.4 (0.7–16.0)	10.5 (2.5–34.6)	3.2 (0.4–20.7)	–	7.3 (1.2–33.8)	23.7 (12.7–39.9)	12.2 (6.3–22.3)
Newly	6.1 (1.3–24.9)	7.0 (1.1–34.4)	46.8 (9.5–88.0)	5.1 (0.7–29.7)	4.4 (0.9–19.1)	17.8 (5.8–43.0)	11.2 (5.3–22.0)
IGT/IFG	4.5 (1.6–12.2)	9.1 (4.0–19.4)	12.0 (6.3–21.7)	10.7 (4.0–25.3)	25.8 (17.7–36.0)	22.4 (13.2–35.3)	15.7 (10.7–22.4)
Non DM	14.8 (10.2–21.1)	9.7 (5.3–17.0)	7.6 (3.7–14.8)	17.4 (8.1–33.7)	15.6 (12.6–19.2)	20.0 (14.9–26.2)	14.9 (12.4–17.8)
Hypertension Status							
New HTA	4.8 (2.0–10.8)	10.5 (4.0–24.9)	8.5 (1.1–43.1)	15.0 (4.0–43.2)	19.4 (15.1–24.5)	24.1 (14.4–37.6)	16.0 (11.5–21.7)
Normal to High	11.1 (6.3–19.0)	10.4 (4.9–21.0)	7.8 (3.0–18.8)	23.9 (9.0–49.9)	18.5 (14.4–23.5)	20.6 (14.8–27.8)	16.3 (12.9–20.5)
Know HTA	13.0 (5.9–26.4)	6.4 (2.3–16.5)	21.0 (10.4–37.8)	1.1 (0.1–8.0)	15.8 (5.9–35.8)	22.8 (13.4–36.0)	14.4 (10.0–20.2)
Normal	16.0 (9.2–26.4)	9.2 (4.4–18.3)	6.7 (3.1–13.9)	8.9 (4.6–16.3)	15.7 (13.7–17.9)	17.3 (12.4–23.7)	13.0 (10.6–15.8)
BMI Classification							
Normal	16.3 (10.1–25.3)	5.8 (2.6–12.4)	4.8 (1.9–11.3)	3.7 (1.5–9.0)	17.8 (14.5–21.6)	15.9 (10.2–24.0)	12.9 (10.1–16.4)
Overweight	9.8 (5.3–17.6)	10.6 (5.4–19.8)	11.8 (6.7–19.9)	22.2 (8.4–46.9)	18.9 (13.9–25.2)	21.5 (15.0–29.9)	16.2 (12.7–20.4)
Obese	8.7 (4.6–15.8)	16.4 (8.4–29.6)	14.4 (6.6–28.5)	9.9 (3.5–24.8)	14.0 (9.9–19.6)	25.9 (18.1–35.5)	18.0 (13.9–23.0)
Risk associated with waist circumference							
Substantial risk	9.0 (4.8–16.3)	7.3 (3.1–16.3)	14.0 (7.4–24.7)	6.7 (1.7–22.9)	5.0 (3.2–7.7)	34.5 (22.3–49.1)	12.0 (8.5–16.8)
Increased risk	5.2 (2.2–11.8)	14.6 (6.5–29.6)	12.3 (6.4–22.3)	20.8 (5.8–52.9)	21.5 (11.5–36.6)	18.0 (10.5–29.2)	16.9 (11.6–23.8)
No risk	16.3 (10.6–24.4)	8.2 (4.9–13.6)	5.4 (2.4–12.0)	12.5 (6.6–22.5)	18.6 (15.9–21.7)	18.8 (14.3–24.3)	14.8 (12.5–17.5)
Cholesterol levels							
<200	13.1 (9.0–18.8)	8.2 (4.1–15.8)	7.4 (3.5–14.9)	11.8 (6.0–21.9)	15.2 (13.1–17.7)	18.5 (14.4–23.5)	13.8 (11.5–16.3)
200–239.9	6.1 (1.4–22.3)	7.1 (3.7–13.4)	10.8 (6.5–17.2)	27.1 (9.4–57.2)	16.6 (11.5–23.3)	31.7 (19.7–46.8)	15.5 (11.9–20.0)
240+	13.7 (5.9–28.7)	17.6 (8.9–31.9)	17.4 (6.6–38.4)	3.5 (1.0–11.3)	22.4 (14.5–32.9)	10.2 (3.0–29.6)	18.3 (12.2–26.4)

Table 22. Prevalence (%; 95%–CI) of binge drinker by risk factors and site in male participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	13.3 (8.9–19.5)	8.7 (4.4–16.4)	4.5 (1.9–10.4)	4.9 (2.1–11.3)	15.3 (12.2–19.1)	13.4 (9.1–19.4)	12.0 (9.6–14.9)
150–199.9	10.6 (5.1–21.0)	6.2 (1.9–18.2)	9.2 (3.9–20.2)	24.7 (8.3–54.2)	17.1 (11.4–24.7)	26.8 (16.2–41.0)	15.5 (11.2–21.1)
200+	10.3 (3.7–25.8)	12.2 (7.2–20.0)	15.7 (9.6–24.7)	14.8 (7.5–27.2)	19.9 (13.9–27.8)	30.9 (22.3–41.1)	18.5 (14.8–22.8)
Current smoker							
Yes	14.0 (7.2–25.5)	21.1 (10.8–37.2)	15.4 (7.8–28.2)	24.5 (8.6–52.9)	28.8 (22.4–36.3)	37.9 (29.7–46.9)	28.2 (23.1–33.9)
No	12.1 (7.9–18.0)	6.7 (4.0–11.2)	8.3 (4.4–14.9)	9.2 (4.4–18.4)	13.5 (10.3–17.4)	13.8 (10.1–18.6)	10.8 (8.9–13.0)

Table 23. Prevalence (%; 95%-CI) of binge drinker by risk factors and site in female participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes							
Known	2.2 (0.6–7.5)	4.3 (1.0–17.3)	–	8.0 (2.0–26.9)	–	0.4 (0.1–3.2)	2.4 (0.9–6.4)
Newly	6.6 (1.8–21.3)	8.6 (1.6–35.6)	–	–	–	1.8 (0.4–8.1)	3.5 (1.2–10.2)
IGT/IFG	1.1 (0.2–7.5)	2.1 (0.8–5.4)	0.7 (0.1–5.2)	1.3 (0.4–4.2)	0.8 (0.1–6.1)	5.8 (2.2–14.4)	2.5 (1.3–4.5)
Non DM	2.5 (1.0–5.9)	5.4 (3.5–8.3)	1.2 (0.4–3.4)	1.2 (0.5–3.20)	2.2 (1.5–3.2)	6.1 (4.0–9.1)	4.3 (3.3–5.6)
Hypertension Status							
New HTA	3.6 (1.0–11.4)	3.2 (0.9–11.5)	–	4.8 (0.7–28.0)	1.1 (0.1–9.0)	1.5 (0.3–7.0)	2.2 (1.0–4.7)
Normal to High	1.2 (0.2–6.6)	2.7 (0.9–7.8)	1.1 (0.2–7.6)	0.4 (0.1–3.1)	0.7 (0.1–5.1)	1.1 (0.4–3.2)	1.5 (0.7–3.1)
Know HTA	2.1 (0.9–4.6)	1.7 (0.4–6.7)	–	1.6 (0.3–7.4)	–	5.7 (3.1–10.1)	2.8 (1.7–4.7)
Normal	3.0 (1.2–7.2)	6.3 (3.9–10.1)	1.3 (0.4–3.8)	1.6 (0.6–4.1)	2.8 (1.9–3.9)	8.2 (4.9–13.1)	5.1 (3.8–6.8)
BMI Classification							
Normal	2.9 (1.2–7.2)	5.9 (3.4–10.1)	0.1 (0.0–0.9)	3.4 (1.3–8.7)	2.9 (1.8–4.7)	4.4 (1.5–12.1)	4.2 (2.8–6.3)
Overweight	2.1 (0.9–5.0)	3.0 (1.4–6.4)	1.4 (0.4–5.1)	0.5 (0.1–2.2)	0.8 (0.1–4.8)	5.9 (3.5–10.0)	3.2 (2.1–5.0)
Obese	2.7 (1.1–6.2)	6.5 (3.0–13.7)	1.9 (0.3–9.5)	1.0 (0.2–4.2)	1.4 (0.4–4.9)	6.0 (3.4–10.3)	4.5 (2.9–6.9)
Risk associated with waist circumference							
Substantial risk	2.7 (1.5–4.9)	4.1 (2.3–7.2)	1.5 (0.5–4.2)	0.9 (0.3–2.4)	0.6 (0.2–2.4)	6.3 (3.4–11.1)	3.3 (2.2–4.9)
Increased risk	2.2 (0.7–6.1)	3.6 (1.4–9.0)	0.2 (0.0–1.7)	1.8 (0.4–8.4)	5.4 (2.6–10.9)	3.0 (1.3–6.9)	3.4 (2.0–5.6)
No risk	2.2 (0.5–8.5)	7.4 (2.4–20.4)	–	4.2 (1.5–11.4)	1.9 (0.5–6.6)	6.2 (3.4–11.3)	5.2 (3.0–8.7)
Cholesterol levels							
<200	2.4 (1.1–5.1)	5.6 (3.4–9.0)	1.4 (0.4–4.6)	1.7 (0.6–4.4)	1.0 (0.2–3.9)	6.3 (4.1–9.4)	4.4 (3.2–6.0)
200–239.9	1.4 (0.6–3.5)	4.1 (1.8–8.7)	0.8 (0.2–2.7)	1.5 (0.3–6.1)	4.7 (3.2–7.0)	3.0 (1.3–6.9)	3.6 (2.3–5.5)
240+	7.6 (1.9–26.2)	2.3 (0.7–7.0)	–	2.3 (0.5–9.6)	–	2.2 (0.6–8.0)	1.5 (0.7–3.5)

Table 23. Prevalence (%; 95%-CI) of binge drinker by risk factors and site in female participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	2.9 (1.5–5.5)	4.7 (2.4–9.1)	0.3 (0.1–1.5)	1.7 (0.7–4.3)	1.3 (0.4–4.3)	5.3 (3.3–8.4)	3.8 (2.6–5.6)
150–199.9	0.3 (0.0–1.8)	4.8 (1.9–11.2)	0.9 (0.1–6.1)	2.9 (1.0–8.3)	0.7 (0.1–5.9)	7.8 (3.8–15.5)	4.0 (2.3–6.8)
200+	3.0 (1.2–7.2)	4.4 (2.2–8.4)	2.0 (0.5–7.7)	0.5 (0.1–2.2)	4.5 (1.8–10.5)	4.3 (1.6–10.8)	3.8 (2.4–5.9)
Current smoker							
Yes	3.4 (0.4–22.7)	27.4 (15.9–42.9)	12.0 (2.1–46.3)	9.8 (2.8–29.1)	8.7 (2.2–28.7)	15.5 (7.9–28.3)	20.8 (13.7–30.3)
No	2.5 (1.3–4.7)	1.8 (0.9–3.3)	0.6 (0.2–1.8)	1.1 (0.4–2.8)	1.7 (1.3–2.4)	4.6 (2.9–7.3)	2.5 (1.9–3.3)

Tables 24, 25, 26. Mean value of continuous variable (and Standard Error) by alcohol use status, gender and site.

24. Alcohol use: Both genders

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Alcohol users														
Age (years)	35.8	1.4	37.1	1.9	36.8	2.5	31.9	1.1	35.8	1.4	37.1	1.9	35.5	0.8
Weight (kg)	72.5	2.9	75.3	3.0	81.0	1.6	75.1	3.3	72.5	2.9	75.3	3.0	74.7	1.0
Height (cm)	164.8	1.3	163.6	1.5	168.6	1.2	165.2	2.6	164.8	1.3	163.6	1.5	165.3	0.6
Waist (cm)	89.9	1.8	93.9	2.2	99.8	1.3	91.4	1.8	89.9	1.8	93.9	2.2	88.8	1.3
Hip (cm)	100.8	2.2	.	.	100.3	1.5	98.7	1.6	100.8	2.2	.	.	94.1	1.0
BMI (kg/m ²)	26.9	1.2	28.0	0.9	28.5	0.6	27.4	0.5	26.9	1.2	28.0	0.9	27.3	0.4
Fasting Glucose (mg/dl)	88.1	4.5	96.3	3.9	101.0	3.3	96.8	2.9	88.1	4.5	96.3	3.9	94.8	2.2
2h-OGTT (mg/dl)	99.4	3.2	99.1	3.9	0.0	0.0	109.9	5.6	99.4	3.2	99.1	3.9	102.1	2.4
Total Cholesterol (mg/dl)	159.2	6.4	204.7	5.3	200.8	8.0	198.7	12.2	159.2	6.4	204.7	5.3	191.7	4.8
Triglycerides (mg/dl)	137.3	14.4	195.8	12.8	217.7	14.4	201.3	14.0	137.3	14.4	195.8	12.8	204.8	12.2
Alcohol non users														
Age (years)	36.8	2.5	31.9	1.1	35.8	1.4	37.1	1.9	36.8	2.5	31.9	1.1	40.2	0.5
Weight (kg)	81.0	1.6	75.1	3.3	72.5	2.9	75.3	3.0	81.0	1.6	75.1	3.3	69.6	0.4
Height (cm)	168.6	1.2	165.2	2.6	164.8	1.3	163.6	1.5	168.6	1.2	165.2	2.6	160.4	0.2
Waist (cm)	99.8	1.3	91.4	1.8	89.9	1.8	93.9	2.2	99.8	1.3	91.4	1.8	88.3	0.7
Hip (cm)	100.3	1.5	98.7	1.6	100.8	2.2	.	.	100.3	1.5	98.7	1.6	95.9	0.5
BMI (kg/m ²)	28.5	0.6	27.4	0.5	26.9	1.2	28.0	0.9	28.5	0.6	27.4	0.5	27.1	0.2
Fasting Glucose (mg/dl)	101.0	3.3	96.8	2.9	88.1	4.5	96.3	3.9	101.0	3.3	96.8	2.9	94.1	0.7
2h-OGTT (mg/dl)	0.0	0.0	109.9	5.6	99.4	3.2	99.1	3.9	0.0	0.0	109.9	5.6	99.6	1.5
Total Cholesterol (mg/dl)	200.8	8.0	198.7	12.2	159.2	6.4	204.7	5.3	200.8	8.0	198.7	12.2	190.0	2.1
Triglycerides (mg/dl)	217.7	14.4	201.3	14.0	137.3	14.4	195.8	12.8	217.7	14.4	201.3	14.0	163.1	1.9

25. Alcohol use: Males

	Belize		San Salvador		Tegucigalpa		TOTAL		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Alcohol users														
Age (years)	36.0	1.2	38.5	3.0	37.1	2.8	31.9	1.3	35.8	0.8	35.5	1.7	36.1	0.9
Weight (kg)	70.8	2.6	82.2	3.4	81.3	1.6	77.7	2.9	72.5	0.9	77.3	1.6	76.6	1.1
Height (cm)	165.9	1.1	168.5	1.1	170.0	1.3	166.7	2.5	167.4	1.0	168.0	0.6	167.8	0.4
Waist (cm)	88.2	1.5	96.7	2.5	100.0	1.4	92.2	1.8	84.4	3.3	88.6	2.4	89.5	1.3
Hip (cm)	97.8	1.6	.	.	99.5	1.4	99.1	1.6	90.8	0.4	93.4	1.5	93.4	0.9
BMI (kg/m ²)	25.8	1.0	29.2	1.1	28.1	0.5	27.9	0.4	25.9	0.1	27.4	0.5	27.3	0.4
Fasting Glucose (mg/dl)	85.2	3.7	99.8	5.9	102.0	3.6	97.2	3.2	94.1	2.4	98.7	6.6	96.8	2.9
2h-OGTT (mg/dl)	94.7	3.8	102.2	5.1	0.0	0.0	109.3	6.0	96.4	2.8	113.6	5.1	101.3	2.6
Total Cholesterol (mg/dl)	155.1	6.8	208.4	7.9	204.1	8.7	199.3	13.5	214.1	5.7	173.4	4.3	193.6	5.4
Triglycerides (mg/dl)	139.2	16.6	215.3	18.5	220.3	16.1	207.6	15.5	250.8	17.4	208.7	19.3	218.5	12.6
Alcohol non users														
Age (years)	40.4	0.7	42.1	1.1	40.6	1.6	38.4	0.8	40.9	1.8	38.2	0.8	40.4	0.6
Weight (kg)	74.0	1.6	76.0	1.1	75.0	1.6	73.3	2.4	71.8	0.5	73.3	1.1	74.0	0.6
Height (cm)	166.2	1.5	169.2	0.7	167.9	1.0	164.3	1.0	167.1	0.8	166.4	0.5	167.4	0.4
Waist (cm)	93.0	1.1	92.2	0.8	92.7	1.8	91.1	1.3	82.9	2.9	85.5	1.3	88.3	0.9
Hip (cm)	100.1	1.0	.	.	95.5	0.9	96.0	0.9	92.9	0.5	90.4	0.9	93.2	0.5
BMI (kg/m ²)	26.8	0.4	26.8	0.4	26.5	0.4	27.1	0.6	25.7	0.2	26.4	0.3	26.4	0.2
Fasting Glucose (mg/dl)	90.2	1.7	100.0	2.5	99.3	1.8	94.9	2.5	94.2	1.3	91.4	2.1	95.4	1.1
2h-OGTT (mg/dl)	105.1	2.1	104.2	3.2	0.0	0.0	105.2	3.9	97.1	3.0	110.6	2.8	98.5	1.9
Total Cholesterol (mg/dl)	166.3	3.0	200.8	3.1	190.5	5.3	188.9	5.5	207.2	2.4	168.5	2.7	190.7	2.7
Triglycerides (mg/dl)	153.3	12.6	192.2	5.3	175.6	8.3	196.3	13.3	184.7	3.8	155.9	5.7	178.0	3.1

26. Alcohol use: Females

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Alcohol users														
Age (years)	35.2	3.7	34.5	1.3	35.0	4.8	32.3	2.2	28.3	1.2	33.8	2.0	33.6	1.0
Weight (kg)	79.9	5.8	63.2	4.3	78.5	5.9	57.4	3.2	67.7	2.9	71.1	2.2	67.7	2.1
Height (cm)	159.7	2.6	155.3	2.1	159.0	2.9	154.4	1.6	158.0	2.6	156.8	1.6	156.4	1.1
Waist (cm)	97.7	5.3	88.8	3.9	98.5	2.3	84.4	2.7	72.8	7.1	84.9	2.9	86.0	2.2
Hip (cm)	114.2	4.1	.	.	105.6	4.1	94.7	3.2	91.9	1.8	96.8	2.7	97.5	2.1
BMI (kg/m ²)	31.4	2.0	26.0	1.2	30.9	1.7	24.2	1.3	27.2	1.8	29.1	1.2	27.7	0.8
Fasting Glucose (mg/dl)	101.1	11.1	90.1	3.5	93.5	3.3	93.1	6.1	86.7	1.0	82.9	2.1	87.4	1.8
2h-OGTT (mg/dl)	120.5	14.2	93.7	5.5	0.0	0.0	115.1	8.7	92.6	3.6	119.4	5.4	105.1	4.2
Total Cholesterol (mg/dl)	177.4	18.8	198.3	5.8	177.0	8.1	193.9	10.9	202.3	7.3	168.4	8.2	185.0	5.0
Triglycerides (mg/dl)	129.1	13.8	161.1	11.6	198.8	19.2	146.2	12.0	188.8	36.2	144.2	17.2	155.7	9.8
Alcohol non users														
Age (years)	39.2	0.2	42.4	0.8	40.5	0.9	38.2	1.2	38.7	1.0	38.4	0.5	39.9	0.4
Weight (kg)	70.1	1.1	64.9	0.7	65.4	0.7	63.4	0.7	63.8	0.7	68.5	0.9	66.0	0.5
Height (cm)	154.3	1.1	155.8	0.3	155.9	0.5	152.1	0.4	153.8	0.2	154.6	0.3	154.7	0.2
Waist (cm)	93.9	0.8	91.0	0.7	91.6	0.8	94.1	0.7	84.7	2.6	84.6	0.6	88.3	0.7
Hip (cm)	106.1	0.7	.	.	100.0	0.5	100.3	0.7	96.4	0.7	96.3	0.7	98.0	0.6
BMI (kg/m ²)	29.5	0.4	27.0	0.3	26.9	0.3	27.4	0.3	26.9	0.3	28.7	0.3	27.7	0.2
Fasting Glucose (mg/dl)	97.1	1.5	95.5	0.8	95.6	0.8	95.6	1.3	91.2	1.5	89.4	1.4	93.0	0.7
2h-OGTT (mg/dl)	116.1	2.2	100.0	1.5	0.0	0.0	115.2	3.4	100.2	2.4	116.5	2.4	100.4	1.7
Total Cholesterol (mg/dl)	167.8	2.7	198.8	1.9	194.7	2.5	185.1	2.2	204.4	2.8	172.6	2.0	189.5	1.9
Triglycerides (mg/dl)	137.3	4.8	157.4	3.2	174.6	2.8	166.8	4.6	154.1	5.4	136.2	4.3	150.8	2.1

Table 27. Demographic characteristics (%) of male and female survey participants with lab results by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
N	1,622	1,146	1,227	1,034	1,221	1,704	7,954
Age Group							
20–39	61.2	52.5	58.5	65.9	62.7	65.2	60.0
40–64	30.0	37.6	31.4	29.2	27.3	29.0	31.6
65+	8.7	9.9	10.1	4.9	10.1	5.8	8.4
Gender*							
Male	50.3	48.6	44.8	49.0	54.4	48.5	49.8
Female	49.7	51.4	55.2	51.0	45.6	51.5	50.2
Race*							
Whites	0.3			0.1	4.1	22.3	11.3
Black/Mulatto	20.3			0.0	1.6	2.0	4.1
Mestizo/Native	54.6			97.7	94.0	75.1	81.9
Garifuna	12.2				0.3	0.6	1.3
Others	12.7			2.2	0.0		1.4
Marital Status							
Single	25.5	27.7	35.3	15.5	23.5	33.0	27.8
Married	67.5	59.7	58.4	69.5	66.4	60.8	62.5
Widow	3.6	6.0	3.4	4.0	3.8	3.6	4.4
Divorced	3.4	6.6	2.9	11.1	6.4	2.6	5.3
Education							
None	4.3	1.7	2.0	7.2	7.4	5.9	4.7
Primary	62.1	35.7	17.4	40.8	49.8	29.1	38.3
Secondary	25.2	34.0	44.8	36.1	32.2	46.5	37.1
University	8.4	28.6	35.8	15.9	10.6	18.4	20.0
Work situation							
Working	46.1	55.1	61.9	71.6	57.9	46.9	54.1
Not working	53.9	44.9	38.1	28.4	42.1	53.1	45.9
Housing							
Owned	46.1	55.1	61.9	71.6	57.9	46.9	54.1
Rented	80.3	70.6	61.3	64.5	66.3	83.7	73.2
Borrowed	11.8	23.6	29.3	23.5	21.5	7.3	18.1
Others	4.5	5.3	4.3	5.8	9.7	6.0	6.4

Table 28. Demographic characteristics (%) of male survey participants with lab results by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Males	600	390	405	350	435	784	2,964
Age Group							
20–39	59.8	52.2	57.2	67.7	61.6	65.3	59.7
40–64	31.9	38.3	33.7	26.5	28.2	28.4	31.8
65+	8.4	9.5	9.0	5.7	10.2	6.3	8.5
Race							
Whites	0.2			0.1	3.5	20.7	10.1
Black/Mulatto	21.7				1.7	2.5	4.5
Mestizo/Native	54.1			97.5	94.7	76.0	82.8
Garifuna	12.5				0.1	0.8	1.4
Others	11.5			2.4			1.3
Marital Status							
Single	26.9	27.2	29.2	17.3	21.6	36.2	27.7
Married	68.4	65.1	67.9	72.0	72.1	61.1	66.5
Widow	2.4	5.3	1.2	1.3	1.9	1.4	2.8
Divorced	2.3	2.4	1.6	9.5	4.4	1.3	3.0
Education							
None	4.2	1.2	0.3	5.1	7.5	6.0	4.4
Primary	60.7	35.4	11.8	34.0	53.5	23.6	37.3
Secondary	24.0	35.1	47.2	36.6	28.2	49.2	37.1
University	11.2	28.3	40.6	24.2	10.8	21.2	21.2
Work situation							
Currently working	65.1	76.7	71.8	91.0	73.1	60.2	71.1
Working	34.9	23.3	28.2	9.0	26.9	39.8	28.9
Housing							
Owned	81.1	72.6	59.0	66.2	65.9	81.8	73.1
Rented	11.1	21.4	33.6	24.3	22.1	8.2	18.0
Borrowed	5.2	5.7	5.6	4.2	9.6	7.0	6.9
Others	2.4	0.3	1.8	5.3	2.4	3.0	2.0

Table 29. Demographic characteristics (%) of female survey participants with lab results by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Females	999	523	625	455	644	1,024	4,270
Age Group							
20–39	62.7	52.8	59.5	64.1	63.9	65.2	60.3
40–64	28.2	37.0	29.5	31.8	26.2	29.5	31.3
65+	9.1	10.2	11.0	4.1	9.9	5.3	8.4
Race							
Whites	0.4				4.8	23.9	12.7
Black/Mulatto	18.8			0.1	1.4	1.5	3.6
Mestizo/Native	55.1			97.9	93.3	74.2	80.8
Garifuna	11.8				0.6	0.4	1.3
Others	13.9			2.0	0.0		1.6
Marital Status							
Single	24.1	28.3	40.3	13.8	25.7	30.0	27.8
Married	66.7	54.5	50.6	67.1	59.5	60.6	58.6
Widow	4.7	6.7	5.1	6.6	5.9	5.6	6.0
Divorced	4.5	10.5	4.0	12.6	8.8	3.8	7.6
Education							
None	4.4	2.1	3.4	9.1	7.2	5.8	4.9
Primary	63.6	36.0	22.1	47.3	45.4	34.3	39.3
Secondary	26.4	32.9	42.8	35.6	37.0	44.1	37.1
University	5.6	29.0	31.7	8.0	10.4	15.8	18.7
Work situation							
Working	26.9	34.7	53.9	52.9	39.7	34.4	37.2
Not working	73.1	65.3	46.1	47.1	60.3	65.6	62.8
Housing							
Owned	79.5	68.8	63.0	62.8	66.9	85.6	73.2
Rented	12.4	25.7	25.9	22.8	20.6	6.5	18.1
Borrowed	3.8	5.0	3.3	7.4	9.7	5.1	6.0
Others	4.2	0.5	7.8	7.0	2.8	2.9	2.7

Table 30. Probabilities obtained when comparing the questionnaire to the lab populations by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Gender	1.0000	1.0000	0.9510	1.0000	1.0000	1.0000	0.9920
Race	0.1560			1.0000	0.5900	0.6760	0.3980
Marital S	0.2250	0.6800	0.5300	0.2780	0.4240	0.8850	0.2690
Education	0.1790	0.5340	0.0880	0.5780	0.0170	0.0410	0.1950
Work S	0.1780	0.5960	0.0820	0.5900	0.4270	0.8800	0.7420
Housing	0.6510	0.2370	0.2000	0.6700	0.2050	0.3740	0.7100

Table 31. Mean value of continuous variables.

	Belice		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Both														
Age (years)	39.3	0.33	41.7	0.68	40.3	0.85	37.6	0.74	39.2	1.12	37.7	0.45	39.6	0.40
Weight (kg)	72.3	1.17	70.6	0.53	70.2	0.72	68.0	1.12	68.2	0.31	71.3	0.60	70.2	0.37
Height (cm)	160.4	1.15	162.5	0.41	161.3	0.52	157.8	0.58	161.2	0.46	160.5	0.21	161.2	0.22
Waist (cm)	93.4	0.56	91.7	0.50	92.6	0.81	92.5	0.61	83.9	2.68	85.4	0.67	88.4	0.70
Hip (cm)	103.3	0.73	.	.	98.3	0.56	98.3	0.51	94.1	0.40	93.7	0.49	95.5	0.45
BMI (kg/m ²)	28.2	0.36	26.9	0.23	26.9	0.21	27.2	0.30	26.2	0.21	27.7	0.21	27.1	0.17
Fasting Glucose (mg/dl)	93.5	1.19	97.3	1.21	97.8	0.96	95.4	1.28	92.6	1.26	90.5	1.18	94.0	0.69
2h-OGTT (mg/dl)	110.2	1.75	101.4	1.81	0.0	0.00	110.4	1.67	98.2	2.58	113.7	1.62	99.7	1.49
Total Cholesterol (mg/dl)	167.3	2.59	199.6	1.86	193.3	2.80	187.9	3.09	205.5	2.09	170.5	1.46	189.7	2.14
Triglycerides (mg/dl)	146.0	6.79	173.7	3.40	177.4	3.84	181.9	6.30	177.5	3.29	150.9	3.06	166.9	2.17

Table 30. Probabilities obtained when comparing the questionnaire to the lab populations by site. (Continued)

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Males														
Age (years)	39.5	0.49	41.5	0.88	40.1	1.44	37.1	0.74	39.8	1.36	37.3	0.55	39.5	0.47
Weight (kg)	74.2	1.52	76.6	1.02	76.0	1.60	73.6	2.07	71.9	0.41	74.1	0.83	74.4	0.56
Height (cm)	166.3	1.28	169.4	0.59	168.1	0.86	164.6	0.93	167.2	0.68	166.8	0.40	167.6	0.30
Waist (cm)	92.8	0.99	92.6	0.72	93.8	1.74	91.0	1.10	83.5	2.76	86.2	1.04	88.6	0.83
Hip (cm)	100.2	1.00	.	.	96.1	0.87	96.3	0.85	92.3	0.33	90.9	0.64	93.1	0.42
BMI (kg/m ²)	26.8	0.42	27.0	0.32	26.8	0.38	27.1	0.53	25.7	0.19	26.6	0.23	26.5	0.19
Fasting Glucose (mg/dl)	89.8	1.37	99.6	2.14	100.6	1.94	95.2	2.18	93.9	1.39	92.3	1.95	95.3	1.02
2h-OGTT (mg/dl)	104.6	2.16	103.4	2.66	0.0	0.00	105.7	3.25	96.7	2.84	110.9	2.39	98.9	1.75
Total Cholesterol (mg/dl)	166.7	2.90	200.4	2.75	191.9	5.04	190.4	5.02	206.6	2.24	168.7	2.10	190.1	2.67
Triglycerides (mg/dl)	154.4	11.22	190.9	5.02	180.5	8.02	196.9	11.24	196.4	4.92	166.3	5.19	182.9	3.46
Females														
Age (years)	39.1	0.26	41.9	0.71	40.4	0.89	38.1	1.20	38.6	0.95	38.0	0.45	39.6	0.41
Weight (kg)	70.5	1.12	64.9	0.74	65.6	0.71	63.3	0.74	63.8	0.70	68.6	0.81	66.1	0.51
Height (cm)	154.5	1.07	155.9	0.31	155.9	0.49	152.1	0.43	153.9	0.21	154.7	0.31	154.8	0.20
Waist (cm)	94.1	0.70	90.9	0.68	91.6	0.81	93.9	0.67	84.4	2.65	84.6	0.62	88.2	0.65
Hip (cm)	106.5	0.70	.	.	100.1	0.51	100.2	0.67	96.2	0.72	96.3	0.66	98.0	0.56
BMI (kg/m ²)	29.6	0.40	26.9	0.33	27.0	0.25	27.3	0.30	26.9	0.26	28.7	0.29	27.6	0.20
Fasting Glucose (mg/dl)	97.3	1.41	95.1	0.86	95.5	0.84	95.5	1.31	91.1	1.44	88.9	1.30	92.7	0.67
2h-OGTT (mg/dl)	116.2	2.25	99.6	1.46	0.0	0.00	115.2	3.33	100.0	2.38	116.5	2.26	100.5	1.64
Total Cholesterol (mg/dl)	168.0	2.75	198.9	1.94	194.5	2.45	185.3	2.13	204.3	2.64	172.2	1.79	189.3	1.83
Triglycerides (mg/dl)	137.6	4.78	157.4	3.13	174.8	2.70	166.5	4.48	154.8	4.88	136.4	4.07	150.9	1.98

Table 32. Prevalence (%; 95%-CI) of diagnosed Diabetes Mellitus (DM), newly diagnosed DM and Pre Diabetes [Impaired Glucose Tolerance (IGT)/ Impaired Fasting Glucose (IFG)] by gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Both Genders							
Known DM	7.6 (6.1–9.3)	6.3 (4.7–8.4)	5.4 (4.0–7.3)	4.3 (3.0–6.2)	2.5 (1.5–4.3)	5.3 (4.2–6.6)	5.1 (4.1–6.3)
Newly Diagnosed DM	5.3 (4.0–7.0)	2.5 (1.5–4.1)	2.2 (1.3–3.7)	2.9 (2.0–4.3)	2.9 (2.1–4.0)	4.5 (3.5–5.8)	3.4 (2.8–4.0)
IGT/IFG	16.5 (13.7–19.8)	23.1 (19.6–26.9)	22.7 (19.8–6.0)	28.2 (23.3–33.6)	17.1 (14.9 –19.6)	12.4 (10.3–14.8)	18.6 (17.1–20.2)
Males							
Known DM	4.7 (3.4–6.4)	6.9 (4.4–10.5)	6.4 (4.2–9.9)	4.2 (2.4–7.2)	2.5 (1.2 –5.2)	4.9 (3.5–6.6)	4.9 (3.7–6.6)
Newly Diagnosed DM	3.6 (2.3–5.7)	2.8 (1.6–4.8)	2.3 (0.9–5.9)	3.6 (2.1–6.2)	3.0 (2.0–4.5)	4.3 (2.9–6.3)	3.3 (2.6–4.2)
IGT/IFG	16.5 (12.6–21.3)	22.7 (18.1–28.0)	27.8 (21.9–34.5)	25.4 (17.6–35.2)	19.7 (17.1 –22.4)	11.1 (8.5–14.4)	18.7 (16.7–20.9)
Females							
Known DM	10.5 (8.2–13.2)	5.8 (4.3–7.7)	4.6 (3.0–7.0)	4.5 (3.0–6.9)	2.6 (1.6–4.0)	5.7 (4.2–7.7)	5.3 (4.3–6.4)
Newly Diagnosed DM	7.1 (5.2–9.5)	2.3 (1.2–4.2)	2.1 (1.2–3.7)	2.2 (1.4–3.5)	2.8 (2.0–4.0)	4.8 (3.4–6.7)	3.4 (2.7–4.3)
IGT/IFG	16.5 (13.4–20.2)	23.5 (20.1–27.2)	18.7 (15.2–22.8)	30.8 (23.8–38.8)	14.1 (12.1–16.4)	13.5 (10.5–17.3)	18.4 (16.6–20.4)

Table 33. Prevalence (%; 95%–CI) of known diabetes by age, gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes with DM							
20–39	3.0 (1.9–4.8)	2.1 (1.0–4.1)	1.0 (0.3–3.2)	1.7 (0.7–4.0)	0.1 (0.0–0.4)	1.2 (0.6–2.7)	1.3 (0.8–2.1)
40–64	12.1 (9.5–15.3)	8.8 (6.3–12.3)	9.2 (5.8–14.2)	8.7 (5.7–13.2)	5.6 (3.6–8.6)	11.9 (8.6–16.2)	9.2 (7.5–11.3)
65+	23.5 (18.9–28.8)	19.2 (13.0–27.3)	19.4 (13.0–27.8)	13.3 (7.4–22.6)	9.6 (5.7–15.9)	17.7 (11.0–27.4)	16.5 (12.8–20.9)
Males							
20–39	3.5 (1.8–6.9)	3.3 (1.2–8.8)	0.2 (0.0–1.8)	4.0 (1.8–8.5)	2.0 (0.9–4.1)	2.9 (1.5–5.5)	2.8 (1.8–4.2)
40–64	13.0 (9.7–17.3)	12.9 (8.6–18.8)	17.4 (11.4–25.7)	15.5 (9.2–25.1)	8.9 (4.6–16.5)	21.3 (14.7–30.0)	14.4 (11.1–18.4)
65+	24.4 (19.0–30.7)	32.1 (24.5–40.8)	29.4 (16.9–46.0)	17.3 (7.8–34.0)	17.5 (10.6–27.5)	17.8 (9.9–29.8)	23.7 (18.9–29.3)
Females							
20–39	9.3 (6.2–13.8)	2.7 (1.4–5.2)	2.8 (1.2–6.2)	2.7 (1.2–6.0)	2.0 (1.1–3.6)	3.6 (1.5–8.1)	3.3 (2.3–4.7)
40–64	29.3 (25.3–33.7)	11.5 (8.5–15.4)	11.0 (7.1–16.6)	13.6 (8.8–20.7)	9.8 (7.9–12.1)	22.6 (17.5–28.8)	14.4 (11.1–18.4)
65+	37.4 (29.6–45.8)	23.0 (15.4–33.0)	17.3 (10.2–27.7)	15.5 (6.4–33.0)	15.5 (10.8–21.7)	28.1 (14.9–46.4)	22.6 (17.7–28.2)

Table 34. Prevalence (%; 95%–CI) of undiagnosed diabetes by age, gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	5.1 (1.9–12.9)	0.7 (0.2–3.5)	0.5 (0.2–1.6)	1.8 (0.9–3.5)	2.0 (1.2–3.4)	2.2 (1.2–4.1)	1.8 (1.3–2.7)
40–64	8.4 (6.4–11.0)	3.1 (1.9–5.1)	5.5 (2.9–10.3)	6.4 (3.8–10.7)	4.1 (2.3–7.1)	9.7 (7.0–13.5)	5.6 (4.5–7.1)
65+	7.9 (5.1–12.2)	8.3 (5.1–13.3)	3.0 (1.3–6.9)	3.4 (1.5–7.8)	7.5 (5.2–10.9)	5.3 (2.7–10.1)	7.0 (5.4–9.2)
Males							
20–39	5.5 (1.0–24.2)	0.9 (0.1–5.8)	0.2 (0.0–1.2)	2.7 (1.2–6.0)	2.2 (0.9–5.2)	1.7 (0.7–3.9)	1.9 (1.1–3.2)
40–64	5.3 (3.0–9.0)	2.6 (1.0–6.2)	8.2 (3.4–18.5)	7.8 (3.6–16.1)	3.6 (1.2–10.5)	9.5 (5.5–15.8)	5.1 (3.5–7.5)
65+	9.0 (4.1–18.8)	12.3 (6.6–21.7)		1.5 (0.2–10.0)	9.8 (6.1–15.3)	6.1 (2.8–12.5)	9.1 (6.4–12.8)
Females							
20–39	4.7 (2.4–9.0)	0.6 (0.2–2.3)	0.8 (0.2–2.8)	0.9 (0.3–2.3)	1.8 (0.9–3.5)	2.7 (1.1–6.4)	1.8 (1.2–2.9)
40–64	12.0 (9.0–15.8)	3.7 (1.9–7.1)	3.0 (1.5–5.7)	5.3 (2.7–10.0)	4.7 (3.4–6.5)	10.0 (7.0–14.1)	6.1 (4.8–7.8)
65+	6.9 (3.5–13.2)	4.9 (2.1–11.2)	5.1 (2.2–11.4)	6.0 (2.2–15.2)	4.8 (1.7–12.5)	4.4 (1.3–13.8)	5.0 (3.1–7.9)

Table 35. Prevalence (%; 95%-CI) of pre diabetes [Impaired Fasting Glucose (IFG) or Impaired Glucose Tolerance (IGT)] by age, gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	14.3 (11.2–18.1)	15.7 (11.3–21.4)	14.8 (11.0–19.8)	20.6 (15.4–26.8)	13.2 (10.6–16.2)	8.6 (6.3–11.8)	13.1 (11.4–15.1)
40–64	21.4 (16.8–26.9)	32.8 (27.9–38.0)	32.1 (25.1–40.1)	40.3 (30.2–51.3)	23.9 (19.6–28.8)	18.5 (14.6–23.2)	27.1 (24.4–29.8)
65+	22.0 (16.7–28.3)	28.8 (22.5–36.1)	35.0 (27.3–43.6)	27.6 (17.7–40.2)	20.0 (14.4–27.0)	20.0 (13.6–28.5)	24.6 (21.0–28.6)
Males							
20–39	13.6 (7.9–22.4)	15.7 (9.7–24.4)	20.3 (12.1–32.0)	21.0 (13.1–32.0)	14.7 (11.8–18.3)	5.3 (3.2–8.6)	12.8 (10.3–15.7)
40–64	22.7 (16.3–30.8)	35.8 (28.1–44.2)	37.3 (25.7–50.6)	36.9 (24.6–51.1)	28.0 (21.2–36.1)	20.3 (14.8–27.1)	29.6 (25.8–33.7)
65+	26.0 (18.5–35.2)	19.9 (10.9–33.4)	33.5 (21.6–48.0)	19.3 (9.7–34.9)	21.2 (13.0–32.6)	21.2 (12.5–33.8)	21.6 (16.6–27.5)
Females							
20–39	15.0 (11.5–19.3)	15.7 (11.6–20.9)	10.6 (6.8–16.1)	20.1 (15.1–26.2)	11.4 (8.8–14.5)	11.8 (7.9–17.2)	13.5 (11.6–15.7)
40–64	19.9 (15.0–26.0)	29.8 (24.1–36.3)	27.4 (20.9–34.9)	43.1 (29.6–57.7)	18.7 (14.1–24.4)	16.9 (13.1–21.6)	24.5 (21.3–28.0)
65+	18.2 (12.4–26.1)	36.6 (30.5–43.3)	36.0 (26.9–46.3)	38.7 (25.5–53.8)	18.4 (10.7–30.0)	18.6 (9.3–33.7)	27.6 (23.0–32.8)

Table 36. Total prevalence (%; 95%-CI) of Diabetes by age, gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	8.9 (4.6–16.5)	3.1 (1.6–5.7)	1.5 (0.7–3.5)	4.7 (2.7–8.1)	2.1 (1.3–3.5)	3.6 (2.1–6.0)	3.4 (2.5–4.6)
40–64	22.1 (18.6–26.1)	12.2 (9.2–15.9)	15.3 (10.9–21.1)	14.5 (10.4–19.8)	9.2 (6.0–13.9)	22.3 (17.1–28.6)	15.1 (12.6–18.0)
65+	37.1 (31.0–43.6)	27.4 (21.0–35.0)	18.6 (12.6–26.8)	17.5 (10.6–27.5)	14.8 (10.5–20.5)	21.3 (14.3–30.5)	22.7 (18.8–27.2)
Males							
20–39	7.2 (2.1–22.5)	3.5 (1.2–9.6)	0.2 (0.0–1.2)	4.5 (2.1–9.2)	2.2 (0.9–5.2)	3.4 (1.8–6.3)	3.3 (2.1–5.2)
40–64	14.8 (9.5–22.3)	12.7 (8.5–18.6)	17.3 (11.3–25.6)	15.8 (9.5–25.2)	8.9 (4.6–16.5)	22.1 (15.2–30.8)	14.6 (11.4–18.6)
65+	28.6 (21.3–37.2)	33.2 (25.2–42.2)	21.5 (11.2–37.4)	17.0 (7.7–33.5)	16.2 (10.9–23.6)	17.9 (9.6–30.8)	23.6 (18.7–29.4)
Females							
20–39	10.4 (6.8–15.6)	2.6 (1.4–5.1)	2.6 (1.1–5.9)	5.0 (2.2–10.9)	2.0 (1.1–3.8)	3.7 (1.6–8.5)	3.5 (2.5–5.1)
40–64	30.5 (26.4–35.0)	11.6 (8.5–15.7)	13.4 (7.4–23.3)	13.5 (8.8–20.1)	9.6 (7.8–11.8)	22.6 (17.5–28.8)	15.6 (13.1–18.4)
65+	44.9 (34.7–55.6)	22.4 (14.9–32.3)	16.7 (9.7–27.3)	18.3 (8.0–36.5)	13.0 (8.1–20.2)	25.1 (13.3–42.3)	21.8 (17.0–27.5)

Table 37. Prevalence (% , 95%-CI) of diabetes by demographic characteristics of survey participants in both sexes by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	8.3 (6.5–10.5)	9.6 (7.0–13.2)	8.7 (6.0–12.7)	7.8 (5.0–11.8)	5.5 (3.3–9.2)	9.1 (7.0–11.8)	8.3 (6.7–10.2)
Female	17.6 (14.6–20.9)	8.0 (6.1–10.6)	6.8 (4.9–9.2)	6.8 (4.8–9.4)	5.4 (3.9–7.4)	10.5 (8.0–13.6)	8.7 (7.3–10.3)
Both	12.9 (10.9–15.2)	8.8 (6.9–11.2)	7.6 (6.0–9.7)	7.3 (5.4–9.6)	5.4 (3.6–8.1)	9.8 (8.0–12.0)	8.5 (7.2–10.0)
Race							
Whites					6.7 (2.6–16.1)	8.7 (5.4–13.7)	8.4 (5.4–12.8)
Black/Mulatto	13.1 (8.5–19.7)				17.3 (5.1–44.7)	9.5 (2.8–27.3)	12.8 (8.0–19.8)
Mestizo/Native	11.0 (9.0–13.5)			7.3 (5.4–9.7)	5.1 (3.2–8.0)	10.2 (8.2–12.6)	7.8 (5.9–10.3)
Garifuna	19.5 (14.2–26.3)						19.5 (14.2–26.3)
Others	15.9 (9.4–25.6)						15.9 (9.4–25.6)
Marital Status							
Single	7.9 (5.0–12.4)	4.0 (2.4–6.4)	4.6 (2.6–8.2)	3.1 (1.1–8.1)	3.9 (2.6–5.9)	4.8 (3.2–7.0)	4.5 (3.6–5.6)
Married	14.1 (11.9–16.7)	9.5 (6.8–13.0)	8.6 (6.0–12.3)	7.9 (5.7–10.7)	5.0 (2.5–9.7)	11.3 (9.0–14.2)	9.1 (7.2–11.4)
Widow/ Divorced	19.5 (14.5–25.6)	16.9 (11.9–23.3)	15.6 (9.8–23.8)	8.4 (3.3–19.3)	11.4 (7.6–16.8)	21.2 (12.5–33.8)	15.6 (12.4–19.4)
Education							
None	19.7 (13.3–28.2)	11.8 (4.6–27.2)	7.1 (2.0–22.1)	17.4 (11.5–25.6)	11.5 (4.5–26.3)	26.2 (16.4–39.0)	17.7 (11.6–26.0)
Primary	13.8 (11.2–17.0)	12.7 (9.0–17.7)	9.3 (5.6–14.9)	9.3 (6.5–13.2)	5.6 (3.8–8.0)	14.0 (11.2–17.4)	10.7 (8.4–13.6)
Secondary	9.0 (6.6–12.2)	5.9 (3.8–9.1)	7.6 (5.3–10.8)	4.4 (2.6–7.5)	4.2 (2.5–7.1)	6.1 (4.1–9.0)	5.8 (4.6–7.3)
University	12.9 (10.9–15.2)	7.2 (4.6–10.9)	6.6 (3.7–11.4)	4.1 (1.3–12.5)	4.0 (1.2–12.7)	7.1 (4.0–12.4)	6.8 (5.1–9.0)
Work situation							
Paid	8.4 (5.7–12.4)	6.3 (4.2–9.3)	6.5 (4.5–9.4)	6.8 (4.9–9.5)	4.4 (2.6–7.4)	9.0 (6.7–11.9)	6.6 (5.3–8.3)
Unpaid	16.5 (13.9–19.5)	12.1 (9.7–15.0)	9.5 (6.6–13.4)	8.4 (5.4–12.8)	6.9 (5.0–9.4)	10.6 (8.4–13.2)	10.7 (9.1–12.4)
Housing							
Owned	13.4 (11.1–16.2)	10.3 (7.8–13.6)	8.6 (6.4–11.5)	8.3 (6.2–11.0)	7.0 (4.8–10.2)	10.0 (8.2–12.2)	9.6 (8.2–11.2)
Not-owned	10.5 (6.6–16.3)	5.2 (2.8–9.5)	6.1 (3.7–10.0)	5.5 (2.9–10.1)	2.3 (1.4–3.8)	8.8 (5.3–14.3)	5.3 (3.8–7.5)

Table 38. Prevalence (%; 95%-CI) of diabetes by demographic characteristics of male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites					7.0 (1.1–33.9)	7.4 (4.2–12.9)	7.4 (4.2–12.5)
Black/Mulatto	9.5 (5.5–15.9)				26.3 (9.2–55.9)	10.9 (2.1–41.6)	12.8 (6.2–24.6)
Mestizo/Native	8.6 (6.0–12.1)			7.8 (5.1–11.8)	5.0 (2.7–9.1)	9.5 (7.2–12.5)	7.3 (5.2–10.1)
Garifuna	6.9 (3.6–12.6)						6.9 (3.6–12.6)
Others	6.3 (3.3–11.8)						6.3 (3.3–11.8)
Marital Status							
Single	3.0 (1.1–8.0)	2.7 (1.0–7.0)	4.1 (1.4–11.4)	4.6 (1.3–15.2)	2.3 (0.4–12.9)	3.3 (1.8–6.0)	3.0 (1.8–4.8)
Married	10.0 (7.6–13.1)	10.8 (7.1–16.3)	10.4 (6.3–16.6)	8.9 (5.6–13.7)	5.1 (2.2–11.2)	12.1 (9.3–16.1)	9.4 (7.1–12.5)
Widow/ Divorced	15.3 (7.4–28.9)	25.3 (15.3 –38.9)	19.9 (6.3–47.7)	5.1 (0.8–25.9)	19.6 (8.2–40.0)	19.6 (5.4–51.3)	20.0 (13.1–29.3)
Education							
None	8.1 (2.6–22.4)	7.7 (2.1–24.9)		8.8 (2.7–24.7)	12.5 (3.1–38.7)	24.2 (11.9 –42.9)	15.9 (8.2–28.7)
Primary	8.7 (6.2–12.1)	13.6 (8.3–21.6)	7.7 (3.1–17.9)	11.0 (6.3–18.6)	5.7 (4.0–8.1)	14.0 (10.6 –18.3)	10.1 (7.4–13.6)
Secondary	5.1 (2.6–9.6)	5.9 (3.2–10.6)	8.2 (4.4–14.8)	6.2 (3.0–12.5)	3.0 (0.9–9.5)	4.3 (2.5 –7.2)	4.9 (3.5–6.8)
University	12.4 (6.7–21.8)	9.3 (5.5–15.4)	9.8 (4.9–18.6)	5.5 (1.6–17.6)	5.8 (1.7–18.0)	10.8 (5.5 –20.1)	9.2 (6.6–12.7)
Work situation							
Paid	6.0 (3.7–9.5)	7.4 (4.9–11.1)	9.3 (5.7–14.8)	7.1 (4.4–11.2)	4.2 (2.4–7.2)	9.2 (6.5–12.7)	7.0 (5.4–8.9)
Unpaid	12.6 (9.1–17.1)	17.7 (11.9–25.6)	7.4 (3.5–15.1)	15.9 (5.7–37.3)	9.3 (5.4–15.7)	9.1 (6.1–13.4)	11.6 (9.1–14.6)
Housing							
Owned	9.1 (6.7–12.1)	10.9 (7.5–15.5)	10.9 (7.0–16.6)	8.4 (5.3–13.0)	6.8 (3.9–11.6)	8.9 (6.7–11.7)	9.1 (7.4–11.2)
Not-owned	4.8 (2.2–10.1)	6.5 (3.1–13.1)	5.6 (2.3–13.0)	6.6 (2.7–15.1)	3.0 (2.0–4.6)	10.4 (5.4–19.0)	6.0 (4.0–8.8)

Table 39. Prevalence (%; 95%-CI) of diabetes by demographic characteristics of female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites					6.5 (1.8–20.3)	9.7 (5.2–17.4)	9.3 (5.2–16.0)
Black/Mulatto	17.6 (11.2–26.5)				7.6 (1.3–33.9)	7.4 (1.7–27.4)	12.8 (7.9–20.0)
Mestizo/Native	13.6 (11.1–16.4)			6.8 (4.8–9.4)	5.3 (3.8–7.2)	10.8 (8.1–14.2)	8.4 (6.5–10.9)
Garifuna	29.6 (21.2–39.6)						29.6 (21.2–39.6)
Others	24.4 (15.5–36.3)						24.4 (15.5–36.3)
Marital Status							
Single	14.1 (8.6–22.1)	5.1 (2.8–9.0)	5.0 (2.4–10.0)	1.4 (0.4–4.4)	5.7 (3.2–9.8)	6.5 (3.9–10.6)	6.0 (4.6–7.9)
Married	18.2 (14.7–22.3)	7.9 (5.8–10.6)	6.7 (4.2–10.7)	6.8 (4.5–10.0)	4.8 (2.7–8.3)	10.6 (7.6–14.5)	8.7 (7.1–10.8)
Widow/ Divorced	21.4 (14.9–29.6)	13.3 (8.1–21.2)	14.5 (8.5–23.7)	10.2 (5.4–18.5)	7.1 (2.9–16.4)	21.7 (11.4–37.4)	13.7 (9.9–18.8)
Education							
None	31.4 (21.3–43.6)	13.4 (4.3–34.5)	7.7 (2.2–24.0)	22.3 (14.6–32.4)	10.2 (5.8–17.4)	28.1 (17.7–41.5)	19.3 (13.6–26.6)
Primary	18.7 (14.5–23.8)	11.9 (8.4–16.4)	9.9 (5.5–17.4)	8.2 (5.1–12.9)	5.3 (3.3–8.5)	14.0 (10.6–18.3)	11.3 (9.0–14.1)
Secondary	12.5 (9.1–17.0)	6.0 (3.4–10.4)	7.0 (4.3–11.0)	2.7 (1.4–5.4)	5.3 (3.3–8.6)	8.1 (4.7–13.7)	6.8 (5.1–9.0)
University	14.1 (4.5–36.0)	5.1 (2.7–9.6)	3.1 (1.3–7.2)		2.0 (0.6–6.5)	2.6 (1.0–6.4)	4.0 (2.5–6.4)
Work situation							
Paid	15.0 (9.2–23.6)	3.8 (1.8–7.6)	3.6 (2.0–6.5)	6.4 (4.2–9.7)	5.0 (2.4–9.8)	8.6 (5.4–13.4)	6.0 (4.5–8.0)
Unpaid	18.4 (15.7–21.4)	10.3 (7.9–13.5)	10.6 (7.3–15.1)	7.2 (4.4–11.5)	5.6 (4.6–6.8)	11.4 (8.6–15.0)	10.3 (8.6–12.1)
Housing							
Owned	17.9 (14.9–21.3)	9.8 (7.2–13.4)	6.9 (4.7–10.1)	8.2 (5.5–11.8)	7.2 (5.7–9.2)	11.0 (8.6–14.1)	10.1 (8.7–11.8)
Not-owned	16.2 (10.3–24.5)	4.1 (2.1–7.7)	6.5 (3.6–11.6)	4.4 (2.4–8.0)	1.5 (0.5–4.7)	7.0 (2.7–16.8)	4.7 (3.1–7.0)

Table 40. Prevalence (%; 95%-CI) of diabetes by risk factors and site in both sexes.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Hypertension Status							
New HTA	14.6 (10.8–19.4)	10.0 (5.2–18.5)	14.3 (5.2–33.6)	21.3 (12.2–34.6)	9.5 (3.3–24.1)	11.6 (7.4–17.9)	11.2 (7.9–15.6)
Normal to High	10.6 (7.6–14.5)	10.8 (6.8–16.5)	7.1 (3.7–13.2)	5.4 (2.7–10.8)	3.3 (2.1–5.2)	10.0 (6.9–14.2)	8.5 (6.4–11.3)
Know HTA	29.7 (24.3–35.7)	24.4 (18.6–31.4)	19.2 (13.2–27.0)	17.9 (11.3–27.1)	17.0 (13.4–21.2)	19.4 (15.2–24.6)	21.3 (18.6–24.2)
Normal	7.5 (5.3–10.6)	2.6 (1.6–4.3)	4.4 (2.7–7.1)	4.6 (2.8–7.3)	3.0 (1.7–5.2)	4.5 (2.6–7.6)	3.7 (2.9–4.7)
BMI Classification							
Normal	7.6 (5.2–11.1)	3.0 (1.7–5.4)	3.1 (1.6–5.6)	3.1 (1.8–5.4)	1.9 (0.8–4.2)	4.4 (2.8–7.0)	3.4 (2.4–4.7)
Overweight	12.1 (9.4–15.4)	6.7 (4.4–10.0)	7.9 (5.2–11.7)	6.9 (4.0–11.6)	5.9 (3.7–9.4)	7.3 (5.1–10.3)	7.1 (5.8–8.7)
Obese	18.8 (14.5–24.0)	12.4 (8.5–17.8)	15.0 (10.7–20.7)	11.5 (7.4–17.3)	11.7 (8.6–15.7)	19.6 (15.1–25.1)	15.4 (13.0–18.2)
Risk associated with waist circumference							
Substantial risk	20.3 (16.9–24.1)	14.2 (11.3–17.8)	11.2 (8.6–14.6)	10.2 (7.2–14.2)	9.2 (6.8–12.3)	21.8 (16.9–27.5)	14.8 (12.5–17.3)
Increased risk	12.4 (8.9–17.1)	5.9 (3.1–10.9)	5.0 (2.3–10.6)	7.6 (3.9–14.2)	3.7 (1.2–10.8)	10.3 (7.8–13.6)	7.1 (5.2–9.6)
No risk	3.9 (2.6–5.9)	4.7 (3.0–7.3)	3.8 (1.8–8.0)	3.7 (1.9–7.1)	3.7 (2.3–5.8)	4.2 (2.9–6.1)	4.2 (3.3–5.2)
Cholesterol levels							
<200	10.5 (8.8–12.6)	6.9 (4.9–9.8)	6.2 (4.3–8.9)	5.7 (3.8–8.5)	4.2 (2.6–6.7)	8.7 (6.8–11.2)	7.3 (6.1–8.8)
200–239.9	18.7 (13.9–24.7)	10.1 (7.0–14.3)	9.9 (6.6–14.7)	9.3 (5.5–15.1)	5.2 (3.4–7.8)	10.8 (7.2–16.0)	9.1 (7.0–11.6)
240+	36.4 (27.8–45.9)	13.0 (8.1–20.2)	6.6 (6.6–14.7)	14.6 (8.0–25.3)	8.8 (5.2–14.3)	26.6 (16.3–40.3)	13.3 (9.7–18.0)

Table 40. Table 40. Prevalence (%; 95%-CI) of diabetes by risk factors and site in both sexes. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	10.4 (8.0–13.5)	5.5 (3.8–7.9)	4.5 (2.6–7.7)	5.0 (3.1–7.9)	4.7 (3.6–6.0)	6.1 (4.4–8.4)	5.9 (5.0–7.0)
150–199.9	16.4 (12.2–21.6)	10.0 (6.6–14.7)	8.0 (5.4–11.8)	5.5 (3.0–9.7)	5.9 (3.0–11.4)	11.7 (8.0–16.9)	9.4 (7.3–12.0)
200+	18.8 (14.7–23.8)	13.4 (10.2–17.3)	11.1 (7.4–16.3)	12.8 (8.5–19.0)	6.6 (3.1–13.3)	19.8 (15.5–24.8)	13.1 (10.3–16.6)
Smoker status							
Yes	8.3 (4.1–15.9)	7.2 (4.1–12.4)	4.4 (1.3–13.3)	5.9 (2.7–12.5)	5.8 (2.9–11.5)	7.5 (4.8–11.6)	6.9 (5.1–9.2)
No	13.3 (11.2–15.7)	9.2 (7.0–11.8)	8.0 (6.3–10.2)	7.6 (5.8–10.0)	5.4 (3.7–7.7)	10.4 (8.2–13.0)	8.8 (7.4–10.4)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	13.5 (11.1–16.4)	8.7 (6.7–11.4)	7.2 (5.6–9.3)	7.7 (5.8–10.3)	5.9 (4.2–8.2)	10.3 (8.2–12.9)	8.7 (7.4–10.2)
1 time	7.1 (2.4–19.3)	7.6 (3.0–18.0)	19.9 (3.9–60.1)	3.1 (0.6–13.2)	2.3 (0.4–13.1)	12.5 (5.8–24.9)	8.2 (4.6–14.0)
2 or more times	8.1 (3.2–19.1)	14.8 (3.9–42.3)	1.6 (0.2–12.1)	6.0 (0.9–30.2)	0.9 (0.1–7.6)		3.6 (1.2–10.6)

Table 41. Prevalence (%; 95%-CI) of diabetes by risk factors and site in male survey participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Hypertension Status							
New HTA	11.6 (7.8–16.8)	12.9 (6.5–24.2)	14.9 (3.4–46.4)	18.7 (7.3–40.3)	7.7 (1.9–26.1)	9.9 (5.7–16.6)	10.8 (6.8–16.8)
Normal to High	5.9 (3.0–11.4)	10.5 (6.0–17.9)	4.3 (1.6–11.0)	4.7 (1.9–10.9)	3.5 (2.2–5.5)	8.8 (5.7–13.4)	7.6 (5.4–10.5)
Know HTA	23.2 (15.2–33.6)	22.0 (13.2–34.5)	25.7 (15.3–39.8)	18.4 (7.4–38.9)	20.5 (12.5–31.9)	16.7 (9.1–28.7)	20.3 (15.8–25.8)
Normal	3.7 (1.7–8.1)	3.6 (2.0–6.6)	5.0 (2.3–10.8)	6.7 (3.3–12.9)	3.0 (1.1–7.7)	6.1 (3.9–9.3)	4.2 (3.0–5.9)
BMI Classification							
Normal	3.8 (2.1–6.6)	4.5 (2.0–9.8)	4.3 (1.6–10.9)	2.7 (1.1–6.3)	1.5 (0.4–5.0)	4.6 (2.6–8.3)	3.5 (2.2–5.6)
Overweight	8.1 (5.3–12.2)	6.5 (3.5–11.8)	8.5 (4.5–15.5)	7.1 (3.4–14.5)	6.3 (3.1–12.4)	9.7 (6.3–14.6)	7.5 (5.7–10.0)
Obese	16.3 (10.1–25.3)	12.5 (6.6–22.4)	17.8 (10.1–29.3)	10.8 (4.0–26.3)	13.5 (8.1–21.7)	16.7 (11.3–23.9)	14.5 (11.3–18.6)
Risk associated with waist circumference							
Substantial risk	16.3 (11.0–23.6)	21.3 (13.8–31.2)	15.5 (10.2–22.9)	20.4 (8.9–40.0)	16.0 (12.3–20.5)	26.1 (16.8–38.1)	20.1 (16.0–24.8)
Increased risk	12.4 (8.1–18.6)	9.5 (4.6–18.4)	7.8 (3.0–18.6)	9.9 (4.2–21.7)	4.5 (1.3–14.3)	14.8 (9.8–21.7)	9.7 (6.6–13.9)
No risk	3.2 (1.9–5.2)	5.0 (2.8–8.8)	5.2 (2.3–11.1)	4.1 (2.1–8.1)	3.5 (1.7–7.3)	5.0 (3.3–7.4)	4.4 (3.3–6.0)
Cholesterol levels							
<200	6.8 (5.1–9.1)	7.4 (4.5–11.9)	7.1 (3.7–13.4)	6.3 (3.5–10.9)	5.3 (3.4–8.2)	8.4 (6.5 – 10.8)	7.2 (5.9–8.8)
200–239.9	13.6 (7.6–23.1)	9.5 (5.5–16.0)	11.6 (6.1–20.0)	8.4 (3.6–18.8)	3.3 (0.9–10.8)	11.8 (6.1 – 21.5)	8.1 (5.2–12.3)
240+	21.5 (10.3–39.4)	17.2 (8.9–30.5)	11.0 (4.3–25.1)	16.1 (6.1–36.0)	9.6 (5.1–17.3)	15.9 (4.3 – 44.2)	13.9 (9.1–20.6)

Table 41. Prevalence (%; 95%–CI) of diabetes by risk factors and site in male survey participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	6.3 (4.2–9.4)	5.9 (3.1–11.0)	2.0 (0.6–6.4)	6.7 (3.1–13.7)	6.5 (4.7–9.1)	5.1 (3.2–8.0)	5.7 (4.5–7.3)
150–199.9	8.0 (4.1–14.8)	13.2 (8.2–20.5)	13.0 (8.0–20.2)	3.4 (1.2–9.1)	3.5 (0.8–14.3)	8.2 (4.3–15.1)	8.9 (6.1–12.8)
200+	14.7 (8.8–23.3)	11.4 (7.3–17.3)	13.0 (7.0–22.9)	14.3 (8.3–23.3)	5.1 (1.6–14.5)	18.7 (12.4–27.2)	11.7 (8.3–16.3)
Total	8.3 (6.5–10.5)	9.6 (7.0–13.2)	8.7 (6.0–12.7)	7.9 (5.1–12.0)	5.5 (3.3–9.2)	9.1 (7.0–11.8)	8.3 (6.7–10.2)
Smoker status							
Yes	7.0 (3.1–15.1)	7.3 (3.5–14.7)	5.5 (1.6–17.1)	4.8 (1.9–11.9)	5.9 (2.8–12.3)	6.0 (3.6–9.9)	6.3 (4.5–8.8)
No	8.5 (6.3–11.4)	10.3 (7.1–14.7)	9.5 (6.3–14.0)	9.5 (6.1–14.4)	5.4 (3.2–8.7)	10.6 (7.5–14.6)	8.9 (7.1–11.2)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	9.0 (6.7–11.9)	9.5 (6.5–13.8)	7.8 (5.0–11.9)	9.2 (5.9–14.1)	6.3 (4.2–9.3)	9.2 (6.7–12.3)	8.5 (6.9–10.4)
1 time	3.3 (0.6–16.3)	8.0 (2.2–24.8)	24.1 (4.8–66.7)	1.7 (0.2–12.4)	2.7 (0.4–15.6)	15.7 (7.1–31.2)	9.1 (4.7–16.8)
2 or more times	2.4 (0.5–11.1)	12.5 (1.6–55.3)	1.7 (0.2–12.8)		0.9 (0.1–7.8)		2.5 (0.5–12.0)

Table 42. Prevalence (%; 95%-CI) of diabetes by risk factors and site in female survey participants.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Hypertension Status							
New HTA	21.5 (14.8–30.2)	2.5 (0.3–16.2)	13.3 (5.0–30.9)	25.9 (13.4–44.1)	14.4 (7.6–25.8)	14.3 (6.8–27.8)	11.9 (8.0–17.2)
Normal to High	18.6 (12.4–26.8)	11.2 (6.6–18.5)	11.6 (5.2–23.8)	7.3 (3.1–16.3)	2.7 (0.8–8.9)	12.4 (7.4–20.0)	10.3 (7.4–14.3)
Known HTA	34.0 (28.7–39.7)	25.9 (19.4–33.7)	13.9 (8.9–21.1)	17.6 (10.9–27.2)	14.3 (11.2–18.0)	20.8 (16.0–26.5)	21.9 (18.7–25.5)
Normal	10.4 (7.4–14.5)	1.9 (0.9–4.1)	3.9 (2.3–6.7)	3.2 (1.7–6.0)	3.0 (2.2–4.1)	3.5 (1.3–9.4)	3.3 (2.4–4.6)
BMI Classification							
Normal	13.7 (8.7–21.0)	1.9 (0.8–4.4)	2.1 (1.0–4.6)	3.4 (1.7–6.7)	2.4 (1.2–4.6)	4.2 (2.1–8.0)	3.2 (2.3–4.5)
Overweight	17.0 (13.0–22.0)	6.9 (3.6–13.1)	7.2 (4.3–11.9)	6.7 (3.7–11.7)	5.4 (3.8–7.6)	5.2 (3.0–9.0)	6.7 (5.1–8.7)
Obese	20.1 (15.8–25.3)	12.4 (8.3–18.2)	13.4 (8.4–20.7)	11.8 (7.4–18.2)	10.3 (7.3–14.4)	21.5 (16.1–28.2)	16.0 (13.2–19.3)
Risk associated with waist circumference							
Substantial risk	21.8 (17.9–26.3)	11.7 (9.0–15.1)	9.7 (7.1–13.1)	8.6 (6.0–12.2)	7.0 (4.3–11.1)	20.6 (15.6–26.6)	13.0 (10.7–15.8)
Increased risk	12.5 (8.3–18.4)	2.1 (0.6–6.7)	2.7 (1.1–6.5)	3.6 (1.5–8.5)	2.7 (0.7–9.6)	6.9 (4.1–11.3)	4.4 (2.9–6.5)
No risk	6.3 (3.4–11.5)	3.9 (1.9–7.9)	0.4 (0.1–1.7)	2.1 (0.5–8.8)	4.2 (2.7–6.5)	3.0 (1.5–6.1)	3.5 (2.5–5.1)
Cholesterol levels							
<200	14.4 (11.8–17.5)	6.6 (4.6–9.3)	5.4 (3.7–7.9)	5.1 (3.0–8.6)	3.0 (1.4–6.4)	9.0 (6.3–12.9)	7.4 (5.9–9.4)
200–239.9	23.3 (17.8–29.8)	10.7 (7.0–15.8)	8.9 (5.0–15.5)	10.4 (6.5–16.0)	7.7 (5.6–10.3)	9.9 (5.8–16.4)	10.1 (8.1–12.5)
240+	47.7 (33.5–62.3)	8.4 (4.5–15.1)	7.2 (3.8–13.4)	12.8 (7.3–21.5)	7.7 (4.2–13.8)	32.8 (18.5–51.2)	12.7 (8.7–18.1)

Table 42. Prevalence (%; 95%-CI) of diabetes by risk factors and site in female survey participants. (Continued)

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Triglycerides							
<150	14.3 (10.7–18.7)	5.3 (3.6–7.5)	6.7 (3.9–11.1)	3.7 (2.1–6.4)	2.8 (1.8–4.3)	6.9 (4.6–10.2)	6.0 (4.7–7.6)
150–199.9	25.5 (18.2–34.4)	7.1 (4.2–11.7)	4.4 (2.5–7.5)	8.6 (5.1–14.1)	8.4 (5.5–12.7)	15.5 (9.9–23.5)	9.9 (7.7–12.7)
200+	24.0 (16.5–33.6)	16.9 (11.2–24.7)	9.4 (6.1–14.4)	11.1 (5.9–19.9)	9.4 (6.0–14.5)	21.6 (14.0–31.9)	15.5 (12.2–19.5)
Smoker status							
Yes	26.4 (9.5–55.0)	6.9 (3.1–14.6)	0.5 (0.1–4.0)	12.6 (4.6–30.1)	4.6 (0.9–19.6)	12.5 (5.0–27.7)	8.8 (5.1–14.7)
No	17.5 (14.6–20.7)	8.2 (6.2–10.8)	7.0 (5.1–9.6)	6.4 (4.5–9.1)	5.4 (3.9–7.4)	10.3 (7.8–13.4)	8.7 (7.3–10.3)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	17.4 (14.5–20.6)	8.1 (6.1–10.7)	6.9 (5.0–9.4)	6.5 (4.7–9.1)	5.5 (3.9–7.6)	11.1 (8.4–14.5)	8.9 (7.4–10.5)
1 time	22.0 (4.9–60.4)	6.9 (1.7–23.8)		14.2 (1.9–58.9)		3.2 (0.9–10.1)	5.5 (2.4–12.3)
2 or more times	45.5 (12.4–83.2)	20.7 (2.8–70.5)					9.7 (2.3–33.0)

Table 43, 44 and 45. Mean (and Standard Error) of continuous variables by Diabetes Mellitus, gender and site.

43. Diabetes: Both genders

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
With DM														
Age (years)	50.5	1.12	56.8	1.8	56.0	2.0	48.5	1.6	53.1	1.3	51.0	1.3	53.3	0.8
Weight (kg)	75.1	1.2	78.7	1.8	75.0	1.6	71.8	1.6	76.6	1.3	78.8	1.6	77.6	0.8
Height (cm)	156.9	1.0	163.2	1.2	160.0	1.2	155.9	1.2	160.2	1.0	159.3	0.9	160.1	0.5
Waist (cm)	99.4	1.0	98.1	1.9	101.5	1.4	99.2	1.4	85.6	3.1	96.2	1.0	96.0	1.1
Hip (cm)	105.8	0.9	.	.	102.6	1.2	101.8	1.2	102.4	1.1	104.3	1.4	103.9	0.8
BMI (kg/m ²)	30.6	0.4	30.6	0.8	29.2	0.4	29.5	0.6	29.7	0.4	31.0	0.6	30.5	0.3
Fasting Glucose (mg/dl)	157.3	5.6	148.2	8.7	151.6	5.7	153.0	8.3	161.9	12.7	170.9	7.4	158.8	4.3
2h-OGTT (mg/dl)	239.0	8.9	186.1	9.5	0.0	0.0	228.7	21.6	250.3	31.7	284.6	19.0	216.2	10.6
Total Cholesterol (mg/dl)	185.5	3.4	208.6	4.1	199.6	5.1	205.3	5.0	222.8	4.7	181.0	4.2	198.7	2.8
Triglycerides (mg/dl)	177.8	14.8	214.3	12.5	215.3	12.5	223.6	14.9	222.6	36.0	210.9	13.9	211.0	8.2
Without DM														
Age (years)	37.7	0.4	40.2	0.6	39.0	0.8	36.7	0.8	38.4	1.0	36.2	0.5	38.3	0.4
Weight (kg)	71.9	1.2	69.8	0.6	69.8	0.7	67.8	1.2	67.8	0.3	70.4	0.6	69.6	0.4
Height (cm)	160.9	1.2	162.4	0.4	161.4	0.5	158.0	0.6	161.3	0.5	160.6	0.2	161.2	0.2
Waist (cm)	92.6	0.6	91.1	0.5	91.9	0.8	92.0	0.7	83.8	2.8	84.2	0.7	87.7	0.7
Hip (cm)	102.9	0.8	.	.	97.9	0.6	98.0	0.6	93.7	0.4	92.5	0.5	94.8	0.4
BMI (kg/m ²)	27.8	0.4	26.7	0.2	26.7	0.2	27.1	0.3	26.0	0.2	27.3	0.2	26.8	0.2
Fasting Glucose (mg/dl)	84.1	1.1	92.3	0.5	93.3	0.5	90.9	0.9	88.6	0.6	81.8	0.5	88.0	0.5
2h-OGTT (mg/dl)	103.0	1.2	98.3	1.5	0.0	0.0	105.1	1.3	92.5	1.0	106.2	1.4	94.7	1.2
Total Cholesterol (mg/dl)	164.6	2.5	198.8	1.9	192.8	2.9	186.5	3.3	204.6	2.1	169.4	1.5	188.8	2.2
Triglycerides (mg/dl)	141.3	6.3	169.8	3.2	174.2	4.0	178.6	6.7	174.9	3.3	144.5	3.3	162.8	2.6

44. Diabetes: Males

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
With DM														
Age (years)	52.1	1.7	56.9	2.1	58.5	2.5	46.8	2.3	54.0	1.9	50.0	1.4	53.6	1.0
Weight (kg)	79.4	1.6	83.6	2.7	79.1	2.5	75.9	1.6	81.2	3.3	82.5	2.5	82.1	1.4
Height (cm)	163.2	1.6	169.9	1.0	166.3	1.2	163.9	1.5	166.2	1.4	167.8	0.9	167.5	0.6
Waist (cm)	101.4	1.8	99.1	2.5	101.2	2.5	96.9	1.9	82.1	4.4	97.5	1.7	96.0	1.7
Hip (cm)	102.4	1.3	.	.	100.1	1.9	98.5	1.0	99.9	2.0	100.7	1.6	100.5	0.9
BMI (kg/m ²)	30.0	0.8	29.8	1.3	28.5	0.7	28.2	0.7	29.3	0.9	29.1	0.7	29.3	0.5
Fasting Glucose (mg/dl)	165.1	8.9	164.8	14.0	152.9	10.2	146.2	12.7	164.1	18.0	186.0	12.1	169.5	7.3
2h-OGTT (mg/dl)	244.6	13.4	200.5	13.0	.	.	203.4	36.7	253.0	38.8	294.0	24.0	218.3	13.6
Total Cholesterol (mg/dl)	185.0	5.9	212.0	6.1	199.8	9.1	207.8	7.3	221.1	7.7	177.6	4.6	200.5	3.6
Triglycerides (mg/dl)	200.7	28.6	226.6	20.0	232.9	19.6	242.3	26.1	224.7	54.2	234.5	22.1	228.0	13.6
Without DM														
Age (years)	38.4	0.5	39.9	0.8	38.3	1.3	36.3	0.8	39.0	1.2	36.0	0.6	38.2	0.4
Weight (kg)	73.7	1.6	75.9	1.1	75.7	1.7	73.4	2.2	71.4	0.4	73.3	0.9	73.8	0.6
Height (cm)	166.6	1.3	169.3	0.6	168.3	0.9	164.6	1.0	167.3	0.7	166.7	0.4	167.6	0.3
Waist (cm)	92.0	1.1	91.9	0.8	93.1	1.8	90.5	1.2	83.6	2.9	85.0	1.1	88.0	0.8
Hip (cm)	100.0	1.0	.	.	95.7	0.8	96.1	0.9	91.9	0.3	89.8	0.7	92.5	0.4
BMI (kg/m ²)	26.6	0.4	26.7	0.3	26.7	0.4	27.0	0.6	25.5	0.2	26.3	0.2	26.3	0.2
Fasting Glucose (mg/dl)	83.0	1.2	92.6	0.7	95.6	1.0	90.9	1.7	89.8	0.6	82.8	0.6	88.6	0.5
2h-OGTT (mg/dl)	99.6	1.8	99.9	2.3	.	.	101.4	2.6	91.2	1.3	103.8	1.6	94.2	1.4
Total Cholesterol (mg/dl)	165.0	2.9	199.2	2.9	191.1	5.2	188.9	5.4	205.8	2.4	167.8	2.3	189.1	2.8
Triglycerides (mg/dl)	150.2	10.5	187.1	4.9	175.5	8.4	193.0	11.9	194.8	5.9	159.4	5.8	178.8	4.2

45. Diabetes: Females

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
With DM														
Age (years)	49.8	1.2	56.7	2.5	53.5	2.6	50.4	1.9	52.0	1.8	51.9	2.1	53.1	1.1
Weight (kg)	73.1	1.5	73.2	1.5	70.7	1.7	68.7	2.3	71.3	1.8	75.7	1.8	73.5	0.9
Height (cm)	153.9	1.1	155.5	1.0	153.6	1.2	149.9	0.7	153.4	0.8	152.4	0.6	153.4	0.4
Waist (cm)	98.5	0.9	96.9	3.2	101.8	1.2	101.8	2.2	89.9	3.8	95.1	1.2	96.1	1.3
Hip (cm)	107.4	1.1	.	.	105.2	1.2	105.3	2.0	105.4	1.8	107.3	1.9	106.7	1.1
BMI (kg/m ²)	30.8	0.5	31.5	1.0	29.9	0.4	30.5	1.0	30.2	0.7	32.6	0.7	31.5	0.4
Fasting Glucose (mg/dl)	153.5	5.8	129.5	4.9	150.3	5.7	160.5	8.3	159.3	14.4	158.5	6.8	148.8	3.6
2h-OGTT (mg/dl)	236.2	9.3	172.6	15.6	.	.	252.6	18.8	247.5	31.1	277.6	30.4	214.5	13.2
Total Cholesterol (mg/dl)	185.8	4.2	204.8	5.5	199.5	3.8	202.4	6.8	224.8	4.3	183.7	7.3	197.1	3.7
Triglycerides (mg/dl)	166.9	11.8	200.3	11.8	197.0	12.3	201.7	10.5	220.1	20.2	191.0	18.4	194.9	7.9
Without DM														
Age (years)	36.9	0.3	40.6	0.6	39.5	0.9	37.2	1.3	37.8	0.9	36.4	0.5	38.3	0.4
Weight (kg)	69.9	1.1	64.2	0.8	65.2	0.7	62.9	0.8	63.4	0.7	67.8	0.9	65.4	0.5
Height (cm)	154.6	1.1	155.9	0.3	156.1	0.5	152.3	0.5	154.0	0.2	155.0	0.4	154.9	0.2
Waist (cm)	93.2	0.8	90.4	0.6	90.9	0.8	93.4	0.7	84.1	2.8	83.4	0.6	87.5	0.7
Hip (cm)	106.2	0.8	.	.	99.7	0.5	99.8	0.7	95.8	0.7	95.0	0.6	97.1	0.5
BMI (kg/m ²)	29.3	0.4	26.6	0.3	26.7	0.3	27.1	0.3	26.7	0.2	28.2	0.3	27.3	0.2
Fasting Glucose (mg/dl)	85.3	1.1	92.1	0.5	91.5	0.5	90.8	1.0	87.2	0.7	80.8	0.5	87.4	0.5
2h-OGTT (mg/dl)	106.8	1.2	96.9	1.2	.	.	108.8	3.3	93.9	1.3	108.5	1.6	95.3	1.4
Total Cholesterol (mg/dl)	164.2	2.7	198.4	1.9	194.2	2.6	184.1	2.2	203.1	2.5	170.9	1.6	188.5	1.9
Triglycerides (mg/dl)	131.4	5.3	153.7	3.0	173.2	2.6	163.9	4.8	151.1	4.1	130.2	4.2	146.8	2.0

Table 46. Classification of Hypertension (% , 95%-CI) by age, gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Both genders							
HTA stage 2	2.9 (2.1–4.0)	2.3 (1.3–4.0)	0.7 (0.4–1.4)	1.2 (0.6–2.4)	2.7 (1.9–3.8)	2.8 (1.9–4.0)	2.4 (1.9–3.0)
HTA stage 1	9.6 (7.2–12.6)	7.7 (5.6–10.4)	3.0 (1.6–5.5)	5.1 (3.5–7.4)	8.3 (5.6–12.0)	7.5 (6.0–9.3)	7.5 (6.4–8.9)
Pre hypertension	22.8 (20.1–25.7)	26.7 (23.5–30.2)	17.5 (14.1–21.5)	26.6 (19.0–35.8)	25.1 (20.3–30.6)	33.2 (30.4–36.0)	27.4 (25.6–29.3)
Known HTA	18.8 (15.4–22.8)	15.3 (13.2–17.7)	16.4 (13.3–20.2)	11.2 (8.5–14.7)	11.8 (9.4–14.8)	18.6 (16.3–21.2)	15.5 (14.0–17.2)
Normal	46.0 (41.8–50.2)	48.0 (43.8–52.2)	62.3 (56.6–67.7)	55.9 (48.7–62.9)	52.1 (44.2–59.8)	38.0 (34.9–41.1)	47.1 (44.7–49.6)
Males							
HTA stage 2	4.3 (3.0–6.3)	3.6 (1.7–7.5)	0.9 (0.3–2.3)	2.0 (0.9–4.5)	3.8 (2.7–5.3)	3.6 (2.2–5.8)	3.5 (2.6–4.7)
HTA stage 1	13.4 (9.1–19.3)	11.4 (7.4–17.1)	4.2 (2.0–8.6)	6.1 (3.6–10.3)	11.4 (7.4–17.2)	9.3 (7.6–11.3)	10.3 (8.4–12.7)
Pre hypertension	28.1 (23.2–33.6)	35.8 (29.8–42.3)	23.0 (16.2–31.5)	38.7 (28.0–50.5)	32.4 (25.1–40.8)	45.5 (40.7–50.5)	36.7 (33.7–39.8)
Known HTA	15.6 (10.4–22.7)	11.8 (9.1–15.3)	16.7 (11.1–24.2)	8.4 (4.9–14.1)	9.4 (7.4–11.8)	12.4 (9.4–16.1)	11.7 (10.1–13.4)
Normal	38.6 (32.4–45.3)	37.4 (31.4–43.8)	55.3 (44.0–66.0)	44.8 (35.3–54.7)	43.0 (31.8–55.0)	29.2 (24.5–34.3)	37.8 (34.3–41.4)
Females							
HTA stage 2	1.5 (0.9–2.4)	1.0 (0.6–1.8)	0.6 (0.2–1.6)	0.5 (0.2–1.2)	1.4 (0.8–2.5)	2.0 (1.2–3.3)	1.3 (1.0–1.8)
HTA stage 1	5.7 (4.2)	4.2 (2.8–6.3)	2.1 (1.2–3.8)	4.0 (2.3–7.1)	4.6 (3.5–6.1)	5.8 (3.4–9.5)	4.7 (3.8–5.9)
Pre hypertension	17.3 (14.6–20.5)	18.1 (14.6–22.3)	13.1 (10.1–16.8)	15.0 (9.6–22.5)	16.3 (14.5–18.3)	21.5 (19.0–24.2)	18.2 (16.6–19.9)
Known HTA	22.1 (19.2–25.3)	18.7 (16.0–21.7)	16.2 (13.0–20.1)	13.9 (10.9–17.6)	14.7 (11.2–19.1)	24.5 (20.2–29.3)	19.4 (17.2–21.7)
Normal	53.4 (49.3–57.4)	58.0 (53.1–62.7)	68.0 (63.0–72.6)	66.6 (60.2–72.4)	62.9 (58.0–67.6)	46.3 (41.7–51.0)	56.4 (53.5–59.3)

Table 47. Total prevalence of hypertension (%; 95%-CI) by demographic characteristics in both sexes by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	30.0 (24.7–35.9)	26.8 (20.7–33.8)	21.4 (14.8–29.9)	15.9 (10.8–22.8)	24.4 (20.4–28.9)	25.4 (22.2–29.0)	25.2 (22.7–27.8)
Female	28.2 (24.5–32.3)	23.9 (20.5–27.8)	19.0 (15.5–23.0)	18.1 (14.5–22.4)	21.2 (17.0–26.2)	32.2 (27.5–37.3)	25.4 (23.0–28.0)
Both	29.1 (25.5–33.1)	25.3 (21.6–29.4)	20.1 (16.4–24.3)	17.1 (13.5–21.4)	23.0 (19.5–26.8)	28.9 (26.3–31.7)	25.3 (23.6–27.2)
Race							
Whites	56.6 (16.4–89.7)				18.2 (7.4– 38.1)	31.7 (26.9–37.0)	30.3 (25.3–35.7)
Black/Mulatto	33.1 (24.8–42.6)				39.6 (23.4–58.4)	32.0 (17.4–51.2)	34.1 (26.6–42.3)
Mestizo/Native	24.5 (20.7–28.7)			17.0 (13.4–21.3)	22.8 (19.1–26.9)	27.9 (25.0–31.1)	24.4 (22.3–26.6)
Garifuna	40.2 (32.5–48.3)						40.2 (32.5–48.3)
Others	35.2 (30.7–40.1)						35.2 (30.7–40.1)
Marital Status							
Single	25.9 (20.9–31.6)	18.9 (12.3–27.9)	12.1 (8.6–16.9)	8.6 (4.2–16.9)	17.0 (11.8–23.9)	22.4 (18.8–26.5)	19.4 (16.5–22.6)
Married	27.5 (23.3–32.2)	25.0 (21.7–28.7)	23.0 (17.2–30.1)	18.9 (14.7–24.0)	23.1 (19.8–26.9)	30.4 (25.6–35.7)	25.7 (23.6–28.0)
Widow/Divorced	58.9 (48.1–69.0)	40.6 (32.8–48.9)	37.1 (25.0–51.2)	16.4 (6.8–34.5)	35.3 (25.1–47.1)	49.2 (37.4–61.1)	39.3 (33.8–45.0)
Education							
None	38.0 (28.3–48.8)	48.5 (27.6–69.9)	26.4 (14.1–43.7)	36.0 (25.6–47.9)	37.4 (31.2–44.1)	46.8 (35.6–58.3)	41.7 (36.2–47.4)
Primary	30.8 (26.4–35.6)	31.3 (25.1–38.4)	21.6 (15.6–29.1)	20.7 (15.9–26.5)	25.9 (22.2–29.9)	35.6 (29.7–42.0)	29.7 (26.8–32.7)
Secondary	24.6 (20.1–29.8)	19.7 (14.9–25.6)	20.0 (14.6–26.8)	10.5 (7.1–15.2)	16.3 (11.7–22.1)	23.8 (20.1–27.9)	20.2 (17.7–23.0)
University	24.3 (14.7–37.4)	23.1 (18.9–27.8)	17.9 (12.8–24.5)	14.4 (5.7–32.0)	18.1 (9.6–31.6)	25.5 (18.9–33.5)	22.3 (19.3–25.6)
Work situation							
Paid	26.4 (21.2–32.4)	23.3 (18.2–29.2)	18.4 (13.9–23.8)	17.6 (13.6–22.6)	20.2 (17.2–23.7)	26.1 (21.8–30.8)	22.7 (20.4–25.2)
Unpaid	31.4 (27.3–35.7)	27.9 (23.8–32.4)	22.8 (17.3–29.5)	15.6 (11.4–21.0)	26.7 (22.2–31.7)	31.4 (27.0–36.3)	28.4 (26.2–30.8)
Housing							
Owned	29.8 (26.1–33.8)	27.4 (22.9–32.3)	22.9 (18.5–27.9)	20.1 (16.1–24.9)	24.3 (20.5–28.6)	30.5 (27.6–33.5)	27.4 (25.3–29.5)
Not-owned	26.2 (18.0–36.5)	20.4 (16.0–25.5)	15.5 (10.7–21.9)	11.6 (7.0–18.6)	20.3 (16.0–25.3)	20.9 (14.5–29.0)	19.7 (17.2–22.5)

Table 48. Total prevalence of hypertension (%; 95%-CI) by demographic characteristics of male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	–			–	22.3 (6.3–54.7)	19.2 (13.2–26.9)	19.8 (13.9–27.3)
Black/Mulatto	34.1 (22.1–48.6)				38.0 (25.5–52.3)	31.6 (12.8–59.3)	34.0 (24.1–45.5)
Mestizo/Native	25.5 (19.8–32.3)			15.8 (10.7–22.7)	24.2 (19.9–29.1)	26.9 (23.3–30.8)	24.5 (22.0–27.1)
Garifuna	29.9 (22.3–38.7)			–	–	–	29.9 (22.3–38.7)
Others	43.8 (33.1–55.1)			–	–	–	43.8 (33.1–55.1)
Marital Status							
Single	25.0 (17.4–34.5)	23.2 (24.7–35.9)	9.4 (4.6–18.2)	7.1 (2.0–21.9)	16.0 (10.2–24.3)	18.6 (13.6–24.9)	19.1 (14.5–24.9)
Married	29.2 (23.0–36.3)	26.7 (21.9–32.2)	26.1 (16.3–39.1)	19.6 (13.3–27.9)	27.1 (23.5–31.1)	27.4 (22.2–33.3)	26.7 (24.3–29.3)
Widow/ Divorced	79.3 (60.5–90.5)	38.2 (23.7–55.1)	39.1 (15.7–69.0)	5.6 (1.1–24.2)	22.4 (12.2–12.2)	72.1 (52.3–85.9)	36.1 (26.6–46.9)
Education							
None	33.0 (19.0–50.8)	60.7 (16.6–92.3)		36.7 (18.8–59.1)	35.1 (25.7–45.9)	42.0 (25.7–60.1)	39.1 (30.5–48.5)
Primary	31.6 (25.0–38.9)	30.7 (19.2–45.3)	20.4 (11.2–34.3)	18.8 (11.9–28.4)	26.2 (22.5–30.3)	33.3 (26.5–40.9)	28.9 (24.6–33.6)
Secondary	27.3 (18.8–37.9)	19.7 (12.8–29.1)	20.3 (11.3–33.8)	8.0 (4.1–14.9)	18.6 (14.2–24.1)	21.1 (16.4–26.8)	19.7 (16.6–23.3)
University	26.2 (15.4–41.0)	29.4 (21.4–39.0)	23.0 (14.5–34.3)	18.9 (6.3–44.6)	21.8 (9.5–42.6)	22.0 (16.0–29.4)	25.1 (20.5–30.5)
Work situation							
Paid	26.4 (19.3–34.9)	27.3 (20.3–35.6)	20.5 (13.2–30.4)	16.1 (10.6–23.6)	22.1 (18.8–25.8)	22.7 (18.6–27.3)	23.8 (20.8–27.0)
Unpaid	36.9 (29.5–45.0)	24.8 (17.1–34.5)	23.6 (15.0–35.0)	13.9 (5.1–32.6)	30.9 (22.6–40.6)	29.6 (24.0–35.8)	28.8 (25.0–33.0)
Housing							
Owned	30.7 (25.1–37.1)	28.1 (20.7–36.9)	28.1 (20.0–38.0)	18.8 (12.5–27.2)	25.6 (21.9–29.6)	26.2 (22.3–30.5)	26.7 (23.8–29.8)
Not-owned	26.9 (16.9–39.9)	23.2 (15.7–32.9)	11.6 (6.0–21.5)	10.7 (4.8–22.1)	22.1 (15.9–29.8)	21.9 (15.3–30.2)	21.1 (17.3–25.5)

Table 49. Total prevalence of hypertension (%; 95%–CI) by demographic characteristics of female survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	31.6 (3.9–84.0)				14.8 (6.8–29.4)	42.0 (32.0–52.6)	38.8 (29.4–49.2)
Black/Mulatto	31.9 (25.3–39.2)				41.3 (15.5–73.0)	32.6 (13.2–60.4)	34.2 (24.3–45.6)
Mestizo/Native	23.5 (20.0–27.3)			18.1 (14.4–22.4)	21.1 (16.9–26.1)	28.9 (24.4–34.0)	24.2 (21.2–27.6)
Garifuna	48.3 (37.4–59.3)						48.3 (37.4–59.3)
Others	27.6 (17.8–40.2)						27.6 (17.8–40.2)
Marital Status							
Single	27.0 (18.5–37.4)	15.0 (11.0–20.0)	13.8 (9.2–20.3)	10.3 (4.6–21.4)	18.0 (12.8–24.7)	26.6 (21.8–32.1)	19.6 (17.1–22.5)
Married	25.8 (22.0–29.9)	23.1 (19.2–27.5)	19.7 (15.2–25.3)	18.3 (14.2–23.3)	17.4 (12.6–23.6)	33.3 (25.8–41.7)	24.7 (21.1–28.6)
Widow/Divorced	49.8 (39.0–60.6)	41.6 (32.3–51.5)	36.6 (25.0–50.1)	22.8 (13.2–36.3)	42.0 (28.5–56.8)	43.2 (29.6–57.9)	40.6 (34.6–46.8)
Education							
None	43.1 (27.3–60.5)	43.7 (27.3–61.6)	28.6 (15.3–47.0)	35.6 (25.1–47.7)	40.4 (30.9–50.6)	51.6 (41.0–62.1)	44.0 (38.2–50.0)
Primary	30.1 (25.2–35.5)	31.9 (26.0–38.4)	22.1 (15.3–30.8)	22.0 (16.0–29.6)	25.4 (20.2–31.3)	37.0 (29.9–44.8)	30.4 (27.1–34.0)
Secondary	22.2 (17.6–27.6)	19.7 (14.9–25.6)	19.7 (14.9–25.6)	12.8 (7.9–20.1)	14.1 (8.7–22.2)	26.6 (19.4–35.4)	20.6 (16.9–24.9)
University	19.7 (8.2–40.4)	17.1 (11.7–24.4)	12.4 (7.7–19.2)	1.0 (0.2–4.6)	13.7 (8.8–20.8)	29.8 (16.5–47.8)	19.1 (14.3–25.1)
Work situation							
Paid	26.5 (20.7–33.3)	14.8 (10.6–20.1)	16.1 (11.9–21.4)	20.1 (15.8–25.3)	16.1 (12.0–21.3)	31.6 (21.9–43.3)	20.6 (16.9–25.0)
Unpaid	28.8 (25.0–32.9)	28.8 (24.6–33.4)	22.4 (16.6–29.6)	15.9 (11.3–21.9)	24.6 (20.1–29.6)	32.5 (26.6–39.0)	28.3 (25.5–31.2)
Housing							
Owned	28.8 (24.9–33.1)	26.6 (22.6–31.0)	18.9 (15.3–23.2)	21.5 (17.7–25.8)	22.9 (17.4–29.4)	34.4 (29.7–39.3)	28.0 (25.3–30.9)
Not-owned	25.6 (16.7–37.3)	18.0 (14.0–22.8)	19.0 (13.2–26.6)	12.4 (7.5–19.7)	18.0 (14.7–21.8)	19.7 (11.3–32.1)	18.2 (15.7–21.1)

Table 50. Prevalence of hypertension (%; 95%–CI) by risk factors and site in both sexes.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	60.0 (53.1–66.6)	53.5 (38.2–68.2)	44.1 (29.4–60.0)	51.2 (36.0–66.2)	68.4 (45.4–84.9)	56.1 (46.6–65.1)	56.0 (48.4–63.3)
Newly	43.1 (32.5–54.4)	54.1 (36.2–71.0)	57.6 (31.3–80.2)	35.0 (19.6–54.3)	46.0 (34.1–58.4)	40.8 (28.9–53.8)	45.5 (38.7–52.5)
IGT/IFG	37.9 (30.8–45.6)	34.4 (28.2–41.2)	25.8 (19.9–32.9)	23.1 (15.4–33.2)	34.2 (27.8–41.2)	47.5 (40.3–54.9)	35.5 (32.0–39.2)
Non DM	22.7 (18.9–27.1)	18.5 (14.3–23.7)	15.1 (11.6–19.4)	11.3 (8.5–15.0)	18.1 (14.8–22.0)	23.4 (20.2–27.0)	19.6 (17.7–21.7)
BMI Classification							
Normal	17.9 (14.3–22.1)	12.8 (7.7–20.5)	10.6 (7.4–15.0)	13.2 (9.6–17.9)	16.8 (12.0–23.1)	16.5 (12.6–21.3)	15.0 (12.3–18.3)
Overweight	31.3 (25.8–37.4)	21.8 (16.9–27.7)	24.4 (18.9–30.7)	14.8 (8.9–23.6)	27.9 (22.8–33.7)	27.0 (22.1–32.5)	25.0 (22.3–28.0)
Obese	38.3 (31.2–46.0)	38.4 (30.0–47.6)	27.4 (21.3–34.4)	32.4 (23.0–43.5)	28.1 (20.1–37.8)	46.7 (42.1–51.3)	38.5 (34.2–43.1)
Total	29.2 (25.5–33.1)	22.1 (18.6–26.1)	19.8 (16.1–24.2)	18.1 (14.0–23.0)	22.9 (19.5–26.6)	29.2 (26.6–31.9)	24.5 (22.8–26.4)
Risk associated with waist circumference							
Substantial risk	38.6 (32.8–44.8)	34.8 (30.5–39.2)	25.4 (20.5–31.1)	24.9 (19.4–31.4)	31.4 (26.0–37.4)	47.7 (42.3–53.2)	35.7 (32.8–38.7)
Increased risk	32.7 (26.0–40.3)	22.5 (15.8–31.1)	21.3 (14.8–29.7)	15.7 (9.0–25.9)	21.2 (17.1–26.0)	35.0 (28.7–41.9)	25.7 (22.0–29.7)
No risk	15.4 (11.4–20.5)	16.6 (10.8–24.6)	10.5 (6.6–16.4)	9.2 (6.2–13.3)	18.2 (13.3–24.4)	18.1 (15.2–21.5)	16.9 (14.4–19.7)
Cholesterol levels							
<200	27.4 (23.7–31.4)	18.4 (14.7–22.7)	19.1 (14.3–24.9)	15.0 (10.4–21.3)	16.2 (13.9–18.8)	27.3 (24.3–30.4)	21.8 (19.7–24.1)
200–239.9	36.6 (28.3–45.7)	30.2 (24.8–36.2)	21.5 (16.1–28.2)	18.7 (12.7–26.8)	24.7 (20.3–29.7)	30.0 (21.7–40.0)	27.7 (24.5–31.1)
240+	38.1 (27.5–50.1)	40.0 (30.0–50.9)	21.2 (14.5–30.0)	30.4 (16.7–48.7)	36.1 (27.3–45.9)	54.3 (40.2–67.8)	38.6 (33.2–44.4)
Triglycerides							
<150	25.5 (21.5–30.0)	17.1 (13.5–21.4)	16.5 (11.1–23.8)	12.0 (9.1–15.7)	15.3 (13.2–17.7)	24.3 (20.9–28.0)	19.6 (17.5–21.8)
150–199.9	41.1 (35.1–47.3)	28.1 (20.6–37.0)	18.7 (14.2–24.1)	16.6 (9.8–26.8)	25.0 (20.2–30.6)	29.1 (23.7–35.1)	26.8 (23.3–30.6)
200+	32.1 (22.2–43.9)	36.7 (30.8–42.9)	25.8 (19.5–33.4)	25.9 (18.4–35.3)	35.7 (30.0–42.0)	44.1 (37.3–51.1)	36.5 (33.3–39.8)
Smoker status							
Yes	35.4 (25.3–47.0)	17.4 (11.5–25.5)	26.9 (15.7–42.3)	6.9 (3.1–14.7)	21.1 (17.8–24.9)	23.2 (19.5–27.3)	20.2 (17.4–23.4)
No	28.6 (25.1–32.4)	26.9 (23.1–31.1)	19.3 (15.7–23.4)	19.7 (15.9–24.2)	23.3 (19.7–27.4)	30.0 (27.3–33.5)	26.3 (24.4–28.3)
Total	29.1 (25.5–33.1)	25.3 (21.6–29.4)	20.1 (16.4–24.3)	17.1 (13.5–21.4)	23.0 (19.5–26.8)	28.9 (26.3–31.7)	25.3 (23.6–27.2)
Alcoholic beverages 5 times a week for the past 4 weeks							
None	30.1 (25.9–34.6)	25.4 (21.4–29.8)	19.2 (15.6–23.5)	17.8 (13.8–22.7)	22.8 (19.4–26.5)	29.3 (25.8–32.9)	25.4 (23.4–27.5)
1 time	18.9 (10.0–32.8)	18.1 (8.5–34.6)	56.2 (35.2–75.2)	6.4 (1.6–22.6)	33.4 (25.0–43.0)	25.9 (18.4–35.0)	24.4 (18.6–31.3)
2 or more times	30.2 (10.9–60.3)	21.1 (6.3–51.6)	9.6 (2.1–34.0)	26.6 (5.7–68.6)	10.6 (6.1–17.9)	33.6 (23.7–45.3)	23.1 (16.5–31.5)

Table 51. Prevalence of hypertension in men (%; 95%-CI) by risk factors and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	69.8 (53.6–82.2)	37.0 (21.7–55.4)	45.6 (26.0–66.7)	44.9 (23.1–68.8)	61.1 (34.9–82.1)	37.0 (25.9–49.7)	43.1 (33.6–53.0)
Newly	48.9 (29.8–68.3)	72.2 (50.2–86.9)	88.2 (55.7–97.8)	30.1 (11.2–59.5)	52.0 (41.0–62.9)	36.4 (19.1–58.1)	51.4 (41.3–61.4)
IGT/IFG	40.1 (30.3–50.8)	30.9 (22.1–41.3)	27.9 (19.8–37.9)	26.7 (14.2–44.5)	35.6 (29.5–42.3)	53.4 (43.7–62.9)	35.8 (31.1–40.7)
Non DM	24.4 (18.5–31.5)	22.5 (15.3–31.7)	13.7 (7.9–22.7)	9.3 (5.4–15.4)	19.1 (14.5–24.7)	20.2 (16.5–24.5)	20.1 (17.3–23.2)
BMI Classification							
Normal	18.8 (13.9–25.0)	20.1 (9.9–36.5)	7.7 (3.6–15.8)	11.5 (7.3–17.7)	19.1 (12.1–28.8)	13.2 (9.5–18.1)	16.9 (12.5–22.4)
Overweight	33.8 (25.7–43.0)	22.6 (15.8–31.1)	27.2 (19.1–37.1)	14.3 (6.7–28.1)	30.2 (23.8–37.5)	27.8 (20.8–36.0)	26.2 (22.3–30.5)
Obese	43.7 (30.6–57.8)	37.1 (23.6–53.0)	30.6 (20.7–42.7)	41.5 (22.0–64.2)	25.7 (13.0–44.4)	44.1 (37.0–51.4)	37.7 (30.8–45.2)
Risk Associated with Waist Circumference							
Substantial risk	48.6 (34.6–62.9)	39.5 (28.5–51.8)	32.9 (22.3–45.5)	47.9 (25.5–71.3)	35.1 (23.7–48.6)	48.1 (37.1–59.3)	40.9 (34.4–47.7)
Increased risk	41.0 (30.7–52.2)	32.8 (22.5–45.0)	30.2 (18.9–44.6)	17.1 (7.2–35.5)	28.0 (23.2–33.4)	46.3 (37.0–55.8)	33.9 (28.6–39.6)
No risk	17.6 (12.6–24.1)	18.8 (11.2–29.8)	10.4 (5.7–18.2)	9.0 (6.0–13.3)	20.8 (14.1–29.6)	16.3 (13.0–20.3)	17.7 (14.1–21.9)
Cholesterol Levels							
<200	28.6 (23.7–34.0)	20.8 (14.8–28.4)	20.1 (12.1–31.4)	14.4 (8.5–23.3)	18.6 (15.5–22.3)	23.5 (19.8–27.7)	21.7 (19.2–24.4)
200–239.9	34.9 (23.3–48.7)	30.9 (22.4–41.0)	23.8 (15.9–34.0)	13.6 (6.7–25.6)	24.2 (20.4–28.4)	28.5 (18.6–40.9)	27.2 (23.1–31.7)
240+	44.6 (18.7–73.8)	38.0 (21.0–58.7)	22.6 (11.7–39.3)	35.4 (14.2–64.4)	37.7 (24.5–53.1)	56.1 (30.9–78.5)	38.7 (28.9–49.4)
Triglycerides							
<150	25.3 (20.1–31.4)	20.4 (14.6–27.7)	15.2 (7.1–29.4)	10.9 (7.1–16.4)	17.8 (14.7–21.5)	19.0 (14.7–24.3)	19.2 (16.8–21.9)
150–199.9	44.6 (33.6–56.1)	27.6 (14.5–46.1)	20.7 (12.5–32.2)	13.3 (5.8–27.8)	24.3 (17.8–32.2)	24.3 (16.9–33.6)	25.3 (19.4–32.4)
200+	33.4 (18.8–52.2)	33.1 (25.5–41.7)	29.6 (19.3–42.7)	25.8 (15.2–40.4)	33.8 (28.2–39.8)	40.2 (32.8–48.0)	34.3 (30.5–38.4)
Smoker Status							
Yes	34.6 (23.8–47.3)	19.8 (11.6–31.7)	31.5 (17.3–50.3)	5.8 (2.2–14.6)	20.8 (16.6–25.8)	18.7 (13.7–25.0)	19.6 (16.1–23.6)
No	29.2 (23.8–35.3)	28.8 (22.2–36.3)	19.2 (12.9–27.6)	21.8 (15.2–30.3)	25.6 (21.0–30.8)	28.5 (24.5–32.9)	27.2 (24.4–30.1)
Alcoholic Beverages 5 Times a Week for the Past 4 Weeks							
None	32.3 (25.8–39.6)	26.1 (19.4–34.1)	19.2 (12.7–28.0)	17.6 (11.6–25.8)	24.0 (20.4–28.1)	24.4 (20.2–29.1)	24.8 (22.0–27.8)
1 time	18.6 (8.7–35.5)	22.6 (9.0–46.3)	68.1 (47.1–83.6)	5.0 (0.8–25.1)	38.4 (28.9–48.8)	25.0 (16.6–36.0)	27.0 (19.6–35.9)
2 or more times	26.7 (8.8–58.0)	25.9 (6.8–62.7)	10.1 (2.2–35.9)	21.9 (3.0–71.8)	10.8 (6.3–17.9)	35.9 (24.6–49.1)	23.6 (16.2–33.0)

Table 52. Prevalence of hypertension in women (%; 95%-CI) by risk factors and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	55.6 (47.6–63.3)	72.1 (51.9–86.1)	42.4 (24.7–62.4)	56.8 (36.1–75.4)	77.0 (55.5–90.0)	71.4 (54.5–83.9)	67.9 (59.1–75.7)
Newly	40.2 (28.9–52.6)	33.4 (14.9–59.0)	30.9 (13.2–56.7)	42.6 (23.6–64.0)	38.3 (22.5–56.9)	44.5 (26.5–64.1)	39.9 (30.1–50.4)
IGT/IFG	35.6 (28.5–43.4)	37.6 (30.8–44.9)	23.3 (16.1–32.5)	20.2 (12.9–30.3)	31.9 (23.0–42.3)	43.0 (33.8–52.7)	35.3 (31.1–39.7)
Non DM	20.7 (17.1–24.9)	14.9 (11.5–19.1)	16.1 (12.9–32.5)	13.4 (10.0–17.8)	17.0 (13.3–21.5)	26.6 (21.2–32.7)	19.2 (16.8–21.9)
BMI Classification							
Normal	16.3 (11.6–22.4)	7.3 (4.6–11.5)	12.8 (8.9–18.1)	14.7 (9.3–22.4)	13.7 (10.2–18.1)	20.9 (12.1–33.7)	13.0 (10.1–16.6)
Overweight	28.3 (23.4–33.7)	20.8 (15.4–27.5)	21.6 (15.7–28.9)	15.2 (10.5–21.6)	24.9 (19.0–31.9)	26.3 (20.4–33.2)	23.7 (20.7–27.0)
Obese	35.4 (29.4–41.8)	39.5 (31.2–48.4)	25.4 (18.5–33.8)	27.9 (19.8–37.7)	29.8 (24.2–36.2)	48.3 (41.4–55.4)	39.1 (35.0–43.4)
Risk Associated with Waist Circumference							
Substantial risk	34.8 (30.2–39.7)	33.0 (28.8–37.6)	22.7 (18.2–28.0)	21.2 (16.8–26.4)	30.2 (25.0–36.0)	47.6 (41.6–53.7)	34.0 (31.2–37.0)
Increased risk	23.0 (15.1–33.4)	11.4 (6.7–18.7)	13.6 (8.1–21.8)	13.2 (7.1–23.2)	12.2 (7.8–18.4)	26.3 (19.9–33.9)	17.1 (13.8–21.0)
No risk	8.2 (5.1–12.8)	11.2 (7.4–16.5)	10.8 (5.2–21.1)	9.6 (3.5–23.9)	11.0 (6.1–19.0)	21.1 (13.5–31.5)	15.2 (11.2–20.2)
Cholesterol Levels							
<200	26.2 (22.0–30.8)	16.3 (13.1–20.0)	18.2 (14.2–22.9)	15.6 (10.8–22.1)	13.5 (10.4–17.2)	30.9 (25.8–36.6)	21.9 (18.9–25.2)
200–239.9	38.1 (29.6–47.4)	29.5 (22.8–37.2)	19.8 (13.3–28.6)	25.7 (18.9–33.8)	25.4 (17.7–34.9)	31.5 (19.4–46.8)	28.3 (23.8–33.3)
240+	33.2 (22.5–46.0)	42.1 (33.5–51.3)	20.3 (11.5–33.3)	24.3 (14.4–38.0)	34.1 (28.1–40.7)	53.3 (36.1–69.8)	38.6 (33.6–43.8)
Triglycerides							
<150	25.7 (21.4–30.6)	14.9 (11.6–19.1)	17.6 (12.9–23.6)	12.8 (9.0–18.0)	12.9 (9.6–17.1)	28.2 (22.5–34.7)	19.8 (16.8–23.3)
150–199.9	37.3 (29.3–46.0)	28.5 (22.3–35.5)	17.2 (12.8–22.7)	21.5 (13.9–31.6)	25.8 (20.5–31.9)	34.1 (26.7–42.4)	28.2 (24.8–31.9)
200+	30.4 (21.6–40.9)	42.9 (34.9–51.3)	22.6 (16.4–30.3)	26.0 (15.4–40.6)	39.4 (31.1–48.2)	51.1 (37.1–64.8)	40.0 (35.1–45.2)
Smoker Status							
Yes	46.4 (19.6–75.5)	13.0 (7.5–21.5)	11.1 (3.5–30.1)	14.1 (5.6–31.3)	24.1 (12.7–41.1)	38.8 (24.1–55.8)	22.5 (16.0–30.8)
No	28.0 (24.3–32.1)	25.4 (21.7–29.4)	19.3 (15.8–23.3)	18.4 (14.4–23.1)	21.2 (16.9–26.1)	31.6 (26.6–37.0)	25.7 (23.2–28.3)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	28.2 (24.3–32.4)	24.8 (21.3–28.6)	19.2 (15.7–23.2)	18.0 (14.4–22.3)	21.6 (17.4–26.4)	32.8 (27.8–38.2)	25.8 (23.4–28.5)
1 time	20.0 (7.6–43.4)	11.2 (3.6–29.9)		17.7 (3.2–58.3)	3.8 (0.5–24.0)	28.3 (14.9–47.1)	16.8 (10.0–26.9)
2 or more times	52.7 (15.6–87.1)	8.3 (1.0–44.6)				25.6 (6.5–62.8)	20.5 (7.5–45.0)

Table 53. Prevalence of diagnosed hypertension (%; 95%–CI) by age group, gender, and site

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	36.9 (34.2–39.8)	23.8 (19.4–28.8)	25.6 (19.2–33.4)	27.3 (21.8–33.5)	27.6 (20.5–36.2)	41.5 (36.0–47.3)	31.2 (28.5–34.1)
40–64	44.8 (42.1–47.5)	55.6 (50.3 – 60.8)	50.6 (41.1–60.0)	56.3 (50.0–62.4)	41.7 (37.7–45.9)	45.7 (40.8–50.7)	49.0 (46.1–52.0)
65+	18.3 (16.1–20.7)	20.6 (15.8–26.3)	23.8 (17.9–30.8)	16.4 (11.5–22.9)	30.6 (23.6–38.7)	12.8 (9.8–16.5)	19.8 (17.3–22.5)
Men							
20–39	36.1 (31.6–40.8)	31.5 (24.5–39.5)	16.3 (9.4–26.9)	17.4 (9.9–28.6)	34.2 (23.5–46.9)	35.3 (28.3–43.0)	32.3 (28.0–36.9)
40–64	47.1 (43.0–51.2)	53.8 (46.2–61.1)	62.0 (47.0–75.0)	61.9 (47.3–74.7)	36.7 (30.8–43.1)	50.6 (44.0–57.2)	49.6 (44.9–54.3)
65+	16.9 (13.7–20.7)	14.8 (10.5–20.4)	21.7 (12.8–34.5)	20.7 (11.7–33.8)	29.1 (19.8–40.5)	14.1 (10.2–19.1)	18.1 (15.4–21.1)
Women							
20–39	37.8 (34.3–41.5)	15.2 (11.2–20.3)	32.8 (25.5–41.0)	35.4 (26.8– 45.2)	20.1 (16.0–24.9)	45.5 (36.6–54.8)	30.2 (25.7–35.2)
40–64	42.5 (39.4–45.7)	57.6 (48.6–66.2)	41.8 (34.4–49.6)	51.6 (41.8–61.3)	47.5 (43.4–51.6)	42.5 (35.1–50.3)	48.5 (44.3–52.7)
65+	19.7 (17.4–22.2)	27.1 (20.7–34.7)	25.4 (20.0–31.7)	12.9 (8.5–19.1)	32.4 (25.8–39.9)	12.0 (8.3–16.9)	21.3 (18.1–25.0)

Table 54. Prevalence (%; 95%-CI) of undiagnosed hypertension by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	8.0 (5.0–12.4)	8.8 (5.5–13.6)	0.5 (0.1–2.0)	2.9 (1.5–5.9)	7.3 (4.6–11.3)	7.3 (5.1–10.3)	7.2 (5.7–8.9)
40–64	18.7 (13.7–25.0)	11.1 (8.2–14.9)	8.2 (4.7–14.1)	18.8 (10.5–31.6)	13.9 (11.1–17.3)	13.3 (10.3–16.9)	13.0 (11.3–14.9)
65+	22.4 (18.5–27.0)	12.5 (8.3–18.3)	8.5 (4.5–15.2)	31.2 (18.7–47.1)	26.3 (14.8–42.3)	28.3 (21.1–36.8)	20.3 (15.5–26.1)
Men							
20–39	12.1 (6.7–20.9)	15.0 (8.8–24.5)	0.3 (0.1–1.1)	4.1 (1.5–10.3)	11.7 (7.0–18.8)	8.4 (6.0–11.7)	10.7 (8.2–13.9)
40–64	25.5 (17.1–36.2)	15.0 (10.1–21.9)	11.8 (6.7–19.9)	16.1 (9.1–27.1)	16.0 (11.6–21.6)	19.0 (14.0–25.4)	16.8 (14.0–20.1)
65+	28.3 (20.6–37.4)	13.8 (8.7–21.4)	10.4 (4.0–24.6)	42.8 (24.4–63.5)	34.4 (17.2–56.9)	32.1 (21.4–45.1)	25.5 (17.7–35.2)
Women							
20–39	4.0 (2.3–6.8)	2.9 (1.4–5.8)	0.8 (0.2–3.0)	1.8 (0.7–4.3)	2.3 (1.6–3.3)	6.2 (3.1–12.1)	3.7 (2.4–5.5)
40–64	11.0 (8.0–15.1)	7.3 (4.5–11.8)	5.0 (2.6–9.3)	21.0 (8.6–42.9)	11.3 (7.9–15.8)	8.1 (4.8–13.3)	9.1 (7.1–11.7)
65+	17.0 (12.2–23.3)	11.2 (4.9–23.7)	7.1 (2.9–16.6)	15.5 (7.5–29.4)	16.3 (10.2–24.9)	24.0 (12.3–41.6)	15.0 (10.8–20.6)

Table 55. Prevalence (%; 95%-CI) of normal high hypertension by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	23.2 (19.3–27.6)	25.3 (20.3–31.1)	14.3 (9.3–21.3)	24.6 (16.5–35.1)	25.5 (20.3–31.6)	35.8 (31.8–40.1)	27.8 (25.3–30.4)
40–64	22.9 (19.1–27.3)	29.1 (24.1–34.8)	21.1 (16.9–25.9)	31.8 (22.3–43.1)	29.1 (21.6–37.9)	29.6 (24.7–35.0)	28.6 (25.6–31.7)
65+	19.2 (14.5–24.9)	25.3 (19.0–32.9)	25.2 (15.5–38.1)	21.7 (13.2–33.5)	11.6 (5.7–22.3)	20.8 (14.7–28.4)	20.2 (15.9–25.4)
Men							
20–39	31.7 (24.3–40.2)	36.8 (27.5–47.1)	21.9 (11.5–37.7)	42.9 (28.7–58.3)	34.8 (27.9–42.4)	52.5 (46.1–58.9)	40.3 (36.2–44.6)
40–64	24.0 (18.1–31.0)	36.4 (27.0–47.0)	22.6 (16.9–29.6)	31.3 (20.2–45.1)	36.2 (22.8–52.2)	33.3 (26.2–41.3)	33.9 (28.5–39.8)
65+	17.7 (12.1–25.3)	28.3 (18.6–40.6)	31.2 (14.8–54.1)	22.9 (11.9–39.4)	8.0 (2.1–26.2)	28.3 (19.8–38.7)	21.5 (14.9–30.1)
Women							
20–39	14.9 (11.0–19.9)	14.5 (9.7–21.1)	8.3 (5.2–13.0)	6.1 (3.8–9.7)	14.9 (11.2–19.6)	20.1 (16.1–24.9)	15.5 (13.3–18.0)
40–64	21.7 (18.7–25.0)	22.0 (17.7–27.0)	19.6 (13.7–27.4)	32.2 (18.8–49.3)	20.0 (16.5–24.0)	26.2 (20.9–32.3)	23.2 (20.6–26.1)
65+	20.5 (13.9–29.2)	22.7 (15.5–32.0)	21.2 (11.5–35.6)	20.0 (9.8–36.5)	16.1 (10.6–23.6)	12.3 (5.7–24.4)	18.9 (15.0–23.5)

Table 56. Total prevalence (%; 95%–CI) of hypertension by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both genders							
20–39	20.5 (16.1–25.9)	12.4 (9.2–16.5)	8.5 (5.7–12.4)	7.8 (5.3–11.3)	11.6 (8.2–16.0)	18.8 (15.7–22.4)	14.2 (12.5–16.2)
40–64	43.9 (36.8–51.2)	35.9 (30.9–41.2)	33.5 (27.2–40.6)	41.0 (31.1–51.7)	32.8 (27.7–38.3)	45.3 (40.8–49.9)	38.4 (35.5–41.3)
65+	63.5 (56.7–69.9)	55.6 (46.5–64.4)	50.6 (38.9–62.3)	62.7 (50.9–73.1)	68.3 (59.1–76.3)	62.8 (54.0–70.8)	60.9 (55.6–66.0)
Men							
20–39	23.3 (14.7–34.8)	18.1 (11.9–26.5)	5.7 (2.7–11.6)	6.0 (2.9–11.9)	15.7 (10.2–23.3)	14.5 (10.8–19.1)	15.5 (12.7–18.8)
40–64	45.1 (36.2–54.4)	34.3 (26.7–42.7)	42.9 (32.2–54.3)	38.5 (26.2–52.4)	29.4 (23.4–36.1)	44.5 (38.3–50.9)	37.0 (32.9–41.3)
65+	59.4 (50.7–67.5)	44.3 (31.9–57.4)	46.7 (28.3–66.1)	63.6 (47.0–77.5)	67.2 (27.9–75.3)	55.4 (43.5–66.7)	55.2 (47.5–62.6)
Women							
20–39	17.8 (14.6–21.6)	7.0 (4.7–10.1)	10.7 (7.1–15.8)	9.7 (6.5–14.3)	6.8 (4.9–9.4)	22.9 (16.5–30.8)	13.0 (10.1–16.5)
40–64	42.4 (35.3–49.8)	37.5 (31.6–43.8)	24.8 (20.4–29.9)	43.1 (29.9–57.3)	37.2 (30.4–44.6)	46.1 (39.9–52.3)	39.8 (36.4–43.2)
65+	67.4 (56.9–76.4)	65.7 (55.7–74.5)	53.3 (40.7–65.5)	61.4 (46.5–74.4)	69.6 (57.8–79.3)	71.0 (54.4–83.4)	66.8 (61.0–72.1)

Table 57, 58, 59. Mean value of continuous variables and standard error, by hypertension status, gender, and site.

Hypertension: both genders by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
With HTA														
Age (years)	47.4	1.0	51.9	1.4	52.0	1.4	49.4	1.3	51.9	1.7	45.3	0.9	49.4	0.6
Weight (kg)	78.8	1.9	75.3	1.0	73.4	1.4	72.1	3.2	71.9	1.1	77.2	1.1	75.3	0.8
Height (cm)	161.3	1.5	162.6	0.9	160.6	0.9	156.7	1.0	161.8	1.0	159.9	0.5	161.1	0.4
Waist (cm)	99.5	1.1	96.2	1.1	97.5	2.3	100.3	1.8	88.2	2.5	91.8	0.7	93.6	0.9
Hip (cm)	106.9	1.1	.	.	101.6	0.8	101.9	1.4	97.6	1.4	101.2	0.8	100.9	1.0
BMI (kg/m ²)	30.3	0.6	29.4	0.5	28.3	0.3	29.1	0.8	27.5	0.7	30.2	0.4	29.3	0.4
Fasting Glucose(mg/dl)	102.4	2.8	104.2	2.1	106.9	2.8	102.9	2.1	99.0	3.8	95.9	1.7	100.4	1.3
2h-OGTT (mg/dl)	121.0	3.9	112.6	2.5	.	.	126.9	3.9	117.9	5.9	128.5	3.2	115.0	2.1
Total Cholesterol (mg/dl)	175.1	3.2	211.5	2.8	198.9	3.0	199.3	4.3	221.23	1.7	177.5	2.2	198.8	3.1
Triglycerides (mg/dl)	161.0	13.9	198.1	6.2	191.5	6.8	226.8	23.8	211.6	12.2	183.6	8.6	194.1	4.3
Without HTA														
Age (years)	36.0	0.3	38.2	0.6	37.4	0.8	35.2	0.9	35.4	1.0	34.6	0.4	36.2	0.4
Weight (kg)	69.7	0.9	69.0	0.6	69.4	0.7	67.1	1.2	67.1	0.3	68.8	0.6	68.5	0.3
Height (cm)	160.1	1.1	162.4	0.4	161.5	0.6	158.1	0.7	161.0	0.4	160.8	0.3	161.2	0.2
Waist (cm)	91.0	0.6	90.2	0.5	91.3	0.8	90.9	0.6	82.6	2.9	82.8	0.8	86.7	0.7
Hip (cm)	101.8	0.7	.	.	97.5	0.6	97.5	0.5	93.1	0.3	90.6	0.5	93.7	0.4
BMI (kg/m ²)	27.3	0.3	26.2	0.3	26.6	0.2	26.8	0.3	25.9	0.1	26.6	0.2	26.4	0.1
Fasting Glucose (mg/dl)	89.8	1.0	94.9	1.4	95.5	0.8	93.9	1.4	90.7	0.8	88.4	1.4	91.8	0.7
2h-OGTT (mg/dl)	106.2	1.7	97.8	2.1	.	.	107.4	1.8	92.7	2.0	108.1	1.8	94.9	1.5
Total Cholesterol (mg/dl)	164.1	2.5	195.6	2.0	191.9	3.3	185.5	3.5	200.9	2.2	167.7	1.8	186.6	2.0
Triglycerides (mg/dl)	139.9	5.8	165.4	4.1	173.8	4.3	172.4	5.2	167.3	3.3	137.6	3.4	157.7	2.5

58. Hypertension: Men, by sites

	Belize		San Salvador		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
With HTA														
Age (years)	47.0	1.4	48.0	1.9	52.8	2.0	51.0	2.0	49.8	2.8	46.6	1.3	48.2	0.9
Weight (kg)	81.3	2.5	79.4	2.3	80.7	1.6	79.9	5.8	74.9	1.3	81.2	1.2	79.1	1.2
Height (cm)	167.7	1.7	168.7	1.7	168.3	0.8	164.0	1.3	168.1	1.1	167.3	0.7	167.9	0.6
Waist (cm)	99.0	1.7	95.3	1.5	97.0	4.6	100.3	3.6	87.1	2.4	94.4	0.8	93.7	1.2
Hip (cm)	103.2	1.4	.	.	100.7	1.1	100.7	2.6	94.5	1.4	98.7	0.8	98.0	1.2
BMI (kg/m ²)	28.9	0.7	28.2	0.6	28.4	0.4	29.5	1.7	26.5	0.8	28.9	0.3	28.1	0.5
Fasting Glucose (mg/dl)	97.2	3.7	104.0	2.9	113.2	4.9	100.8	2.9	98.2	4.1	95.5	2.9	100.0	1.7
2h-OGTT (mg/dl)	112.7	4.5	112.3	3.8	0.0	0.0	124.1	5.1	117.1	7.5	130.9	4.8	114.4	2.8
Total Cholesterol (mg/dl)	174.9	4.2	208.2	4.9	199.3	4.7	203.2	6.9	220.9	1.5	179.1	3.4	200.0	3.8
Triglycerides (mg/dl)	172.6	23.0	206.7	10.2	201.2	11.3	250.8	46.3	219.6	17.1	210.8	16.9	209.4	7.2
Without HTA														
Age (years)	36.3	0.5	39.2	1.0	36.6	1.3	34.4	0.7	36.6	1.2	34.1	0.6	36.5	0.5
Weight (kg)	71.1	1.2	75.6	1.2	74.8	1.7	72.2	2.2	70.9	0.6	71.7	1.0	72.9	0.6
Height (cm)	165.7	1.1	169.6	0.5	168.0	1.0	164.7	1.1	167.0	0.6	166.6	0.5	167.5	0.3
Waist (cm)	90.1	1.0	91.6	0.8	92.9	1.4	89.3	1.0	82.4	3.3	83.4	1.2	86.9	0.9
Hip (cm)	98.8	1.0	.	.	94.7	0.9	95.4	0.8	91.6	0.5	88.2	0.7	91.5	0.5
BMI (kg/m ²)	26.0	0.4	26.6	0.4	26.4	0.4	26.6	0.5	25.4	0.2	25.7	0.3	26.0	0.2
Fasting Glucose (mg/dl)	86.6	1.1	98.0	2.6	97.2	1.6	94.2	2.4	92.5	0.9	91.2	2.2	93.8	1.1
2h-OGTT (mg/dl)	101.3	2.2	100.2	3.2	.	.	102.6	3.4	90.5	2.4	104.2	2.6	93.9	1.9
Total Cholesterol (mg/dl)	163.2	2.9	197.6	3.0	189.9	5.9	187.9	5.7	202.0	2.6	165.2	2.5	186.7	2.5
Triglycerides (mg/dl)	146.5	9.0	185.1	6.4	174.9	9.3	186.4	8.0	188.9	7.5	151.1	5.0	174.0	4.4

59. Hypertension: Women, by sites

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
With HTA														
Age (years)	47.9	0.9	56.1	1.1	51.2	1.8	48.1	1.5	54.9	1.0	44.3	1.3	50.5	1.0
Weight (kg)	76.1	2.1	70.9	1.2	67.1	1.3	65.8	1.8	67.8	1.5	74.3	1.6	71.7	0.9
Height (cm)	154.4	1.0	155.1	0.6	153.9	0.5	150.9	0.7	153.2	0.5	154.4	0.6	154.2	0.3
Waist (cm)	100.0	1.4	97.1	1.6	97.9	1.2	100.3	1.5	89.8	3.3	89.8	1.0	93.6	0.9
Hip (cm)	110.9	1.5	.	.	102.4	1.3	102.9	1.4	101.9	1.1	103.0	1.2	103.6	0.8
BMI (kg/m ²)	31.9	0.8	30.9	0.7	28.3	0.5	28.8	0.6	28.8	0.5	31.1	0.6	30.5	0.4
Fasting Glucose (mg/dl)	108.0	3.2	104.4	1.8	101.1	2.1	104.7	3.1	100.2	3.8	96.2	2.5	100.9	1.3
2h-OGTT (mg/dl)	131.5	4.1	113.1	2.7	0.0	0.0	129.3	6.4	119.0	4.2	126.6	4.0	115.6	2.2
Total Cholesterol (mg/dl)	175.3	3.6	214.9	3.2	198.6	3.4	195.7	4.4	221.8	3.0	176.3	3.9	197.7	3.4
Triglycerides (mg/dl)	148.5	7.9	189.0	6.3	182.6	6.5	205.1	11.5	200.6	7.5	163.4	10.2	179.0	4.8
Without HTA														
Age (years)	35.7	0.3	37.4	0.6	37.9	0.8	35.9	1.5	34.1	0.9	35.0	0.5	35.9	0.4
Weight (kg)	68.3	1.0	63	0.8	65.2	0.9	62.8	0.9	62.8	0.5	65.9	0.7	64.2	0.4
Height (cm)	154.5	1.2	156	0.3	156.4	0.6	152.4	0.5	154.1	0.2	154.8	0.3	155	0.2
Waist (cm)	91.8	0.8	89	0.6	90.2	1.0	92.5	0.8	82.9	2.6	82.1	0.7	86.4	0.7
Hip (cm)	104.7	0.8	.	.	99.5	0.6	99.6	0.8	94.7	0.6	93.1	0.7	96.0	0.5
BMI (kg/m ²)	28.6	0.4	26	0.3	26.6	0.3	27.0	0.4	26.4	0.2	27.5	0.3	26.7	0.2
Fasting Glucose (mg/dl)	93.0	1.4	92.2	0.8	94.2	0.9	93.5	1.4	88.6	1.0	85.4	1.6	89.9	0.6
2h-OGTT (mg/dl)	111.2	2.5	95.8	1.8	0.0	0.0	112.3	4.0	95.2	1.9	112.1	2.8	95.9	1.7
Total Cholesterol (mg/dl)	165.1	2.7	193.8	1.9	193.6	3.1	183.0	2.4	199.6	2.5	170.3	1.8	186.4	1.7
Triglycerides (mg/dl)	133.3	5.2	147.5	3.3	173	3.1	157.8	5.4	142.4	3.8	123.6	3.9	141.4	2.0

Table 60. BMI classification (%; 95%-CI) by gender and site.

IMC	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Both Sexes							
<18.5	2.4 (1.0–5.6)	1.7 (0.8–3.5)	2.0 (1.2–3.4)	1.5 (0.9–2.7)	2.2 (1.7–2.8)	1.8 (1.2–2.6)	1.9 (1.5–2.4)
18.5–24.9	31.2 (27.1–35.6)	39.1 (35.6–42.7)	36.0 (30.6–41.9)	33.1 (26.9–39.9)	43.6 (40.5–46.8)	31.5 (28.4–34.8)	36.9 (34.3–39.6)
25.0–29.9	32.5 (29.4–35.9)	35.0 (31.5–38.7)	38.3 (34.0–42.8)	43.6 (34.5–53.2)	34.9 (33.5–36.3)	37.5 (33.8–41.4)	36.2 (34.4–37.9)
30.0–34.9	19.7 (16.7–23.1)	16.8 (13.7–20.5)	19.1 (15.9–22.9)	15.0 (11.9–18.8)	14.9 (13.6–16.3)	19.4 (17.0–22.2)	17.4 (15.9–19.0)
35.0–39.9	8.6 (7.1–10.4)	5.1 (3.7–7.0)	3.4 (2.4–4.6)	5.0 (2.7–9.1)	2.9 (1.8–4.5)	6.2 (4.8–7.8)	5.1 (4.1–6.2)
40.0+	5.5 (3.8–7.9)	2.2 (1.4–3.5)	1.2 (0.6–2.3)	1.8 (0.6–5.5)	1.5 (1.0–2.2)	3.5 (2.5–4.9)	2.6 (2.1–3.3)
Men							
<18.5	3.4 (2.1–5.5)	1.4 (0.5–4.4)	1.4 (0.5–3.7)	1.3 (0.6–2.8)	1.7 (0.9–3.1)	1.8 (1.1–3.1)	1.8 (1.2–2.6)
18.5–24.9	38.1 (32.9–43.5)	34.1 (28.8–39.8)	34.4 (23.9–46.6)	34.2 (25.2–44.5)	46.3 (41.8–50.8)	37.9 (34.0–42.0)	38.1 (34.7–41.6)
25.0–29.9	35.0 (32.4–37.6)	43.1 (37.1–49.4)	44.3 (35.1–54.0)	48.2 (35.6–60.9)	36.6 (34.6–38.6)	36.5 (32.1–41.0)	39.5 (36.7–42.4)
30.0–34.9	15.6 (12.4–19.5)	16.7 (12.7–21.6)	16.6 (11.4–23.5)	11.2 (7.1–17.2)	13.1 (9.9–17.1)	19.0 (15.3–23.4)	16.2 (13.9–18.7)
35.0–39.9	4.8 (3.6–6.4)	3.5 (2.0–6.1)	1.8 (0.9–3.5)	3.0 (0.7–11.9)	2.2 (1.5–3.2)	2.9 (1.7–4.9)	3.1 (2.3–4.1)
40.0+	3.2 (2.0–5.1)	1.2 (0.5–2.8)	1.5 (0.5–4.1)	2.2 (0.3–14.1)	0.2 (0.0–1.3)	1.9 (1.0–3.6)	1.4 (0.9–2.2)
Women							
<18.5	2.3 (1.2–4.3)	2.3 (1.3–3.9)	2.4 (1.2–4.7)	1.9 (0.9–3.7)	2.7 (1.6–4.6)	1.8 (1.0–3.1)	2.2 (1.6–2.9)
18.5–24.9	25.1 (21.6–28.9)	44.4 (38.1–50.8)	35.8 (32.0–39.7)	35.2 (27.5–43.8)	39.6 (37.4–41.8)	25.3 (21.6–29.4)	35.2 (32.1–38.5)
25.0–29.9	30.1 (27.5–32.9)	28.4 (24.2–33.1)	34.7 (31.6–37.9)	37.4 (30.1–45.2)	33.2 (30.7–35.9)	38.7 (34.43.8)	33.3 (30.9–35.8)
30.0–34.9	22.5 (19.3–25.9)	15.6 (12.7–19.0)	21.4 (18.2–25.0)	17.6 (14.1–21.8)	17.5 (15.0–20.3)	20.0 (16.7–23.8)	18.2 (16.5–19.9)
35.0–39.9	12.5 (10.5–14.8)	6.5 (5.0–8.4)	4.7 (3.5–6.4)	6.6 (3.7–11.6)	3.9 (2.0–7.2)	9.2 (7.0–11.9)	7.3 (6.0–8.8)
40.0+	7.6 (5.6–10.1)	2.8 (1.7–4.6)	1.0 (0.5–2.0)	1.3 (0.5–3.2)	3.1 (2.1–4.6)	5.0 (3.3–7.5)	3.8 (3.0–4.8)

Table 61. Prevalence (%; 95%–CI) of overweight individuals by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both genders							
20–39	31.2 (28.7–33.8)	31.5 (27.5–35.8)	33.4 (28.2–39.2)	41.4 (31.2–52.4)	32.1 (30.6–33.6)	36.4 (31.5–41.5)	33.6 (31.4–35.9)
40–64	34.6 (32.0–37.3)	41.6 (36.3–47.1)	47.9 (39.9–56.0)	45.0 (34.6–56.0)	45.0 (40.4–49.6)	40.9 (37.2–44.7)	41.9 (39.2–44.6)
65+	35.6 (29.8–41.8)	12.6 (1.6–55.8)	38.0 (28.4–48.6)	38.4 (22.6–57.2)	22.9 (14.6–34.1)	36.9 (27.0–48.0)	31.1 (24.8–38.3)
Men							
20–39	34.9 (31.2–38.8)	38.5 (31.3–46.1)	35.6 (32.5–38.8)	51.7 (34.7–68.4)	35.5 (32.0–39.1)	32.9 (27.0–39.4)	36.4 (33.1–40.0)
40–64	35.9 (31.8–40.2)	49.7 (40.4–59.0)	62.1 (49.7–73.1)	43.8 (30.8–57.7)	43.4 (36.7–50.3)	42.4 (35.7–49.4)	46.0 (41.3–50.7)
65+	32.0 (24.4–40.6)	.....	41.6 (25.4–59.9)	35.9 (17.0–60.5)	22.0 (13.9–33.0)	43.4 (30.6–57.1)	32.7 (25.3–41.2)
Women							
20–39	27.5 (24.2–31.0)	25.0 (19.4–31.5)	34.6 (30.8–38.7)	32.3 (25.1–40.4)	28.6 (25.7–31.6)	38.9 (32.6–45.6)	31.1 (27.9–34.5)
40–64	33.1 (29.5–37.0)	33.8 (28.5–39.5)	34.6 (28.5–41.2)	46.1 (31.6–61.4)	46.9 (39.5–54.4)	39.8 (35.1–44.7)	38.0 (34.6–41.5)
65+	39.2 (31.8–47.1)	....	35.4 (24.3–48.4)	41.7 (19.7–67.5)	24.1 (12.8–40.6)	30.4 (17.9–46.8)	29.5 (22.0–38.2)

Table 62. Prevalence (%; 95%–CI) of overweight–obesity (BMI \geq 25) by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	62.7 (57.7–67.5)	48.7(43.4–54.1)	53.2(44.7–61.4)	55.9(46.2–65.2)	50.0(47.8–52.3)	61.0(56.4–65.3)	54.4 (51.7–57.0)
40–64	73.9 (70.0–77.5)	73.0(68.5–77.1)	78.6(72.5–83.7)	80.4(73.8–85.7)	71.1(67.1–74.8)	81.4(77.7–84.6)	75.4 (73.1–77.6)
65+	56.2 (50.4–61.8)	75.0(34.2–94.6)	61.7(52.7–69.8)	52.1(37.0–66.9)	34.2(24.2–45.9)	67.7(57.7–76.3)	52.5 (43.4–61.4)
Men							
20–39	56.1(49.3–62.1)	56.5(48.0–64.7)	50.9(34.2–67.4)	61.1(45.3–74.9)	49.0(44.9–53.1)	52.9(46.5–59.1)	53.9(49.9–57.9)
40–64	66.2(59.5–72.2)	75.6(69.0–81.1)	82.4(73.5–88.8)	75.1(64.5–83.4)	65.6(59.3–71.3)	75.9(69.4–81.4)	73.2(69.6–76.5)
65+	47.9(40.0–55.9)	.....	63.4(44.6–78.8)	45.9(25.2–68.1)	28.4(17.4–42.7)	61.2(47.5–73.4)	45.9(35.9–56.2)
Women							
20–39	69.3(63.0–74.9)	41.3(33.8–49.2)	54.8(47.3–62.0)	51.3(41.1–61.4)	51.2(49.1–53.2)	67.0(60.9–72.6)	54.7(51.0–58.4)
40–64	82.5(78.8–85.6)	70.6(63.8–76.6)	75.1(67.1–81.6)	84.8(77.8–89.8)	77.9(73.9–81.4)	85.4(80.8–89.1)	77.5(74.3–80.5)
65+	64.4(57.2–71.1)	66.7(21.7–93.5)	60.4(48.9–71.0)	60.2(38.7–78.4)	41.3(27.1–57.2)	74.2(59.8–84.8)	59.3(48.7–69.1)

Table 63. Prevalence (%; 95%–CI) of obesity (BMI \geq 30) by age, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	33.4 (27.2–40.3)	18.9 (14.8–23.9)	20.2 (14.3–27.9)	16.4 (12.1–21.9)	17.6 (15.6–19.7)	24.2 (20.7–28.0)	21.2 (19.0–23.5)
40–64	41.3 (36.2–46.5)	33.2 (27.0–40.0)	32.8 (25.7–40.8)	35.8 (26.4–46.5)	26.5 (23.3–29.9)	39.4 (35.1–44.0)	34.2 (30.9–37.6)
65+	23.7 (18.6–29.7)	61.3 (23.8–88.9)	25.3 (16.9–36.0)	13.1 (7.4–22.1)	11.2 (7.3–16.9)	30.9 (20.7–43.5)	21.0 (15.3–28.1)
Men							
20–39	23.4 (15.6–33.5)	20.4 (13.2–30.2)	19.8 (10.3–34.7)	11.4 (6.1–20.2)	13.1 (9.5–17.8)	19.9 (16.4–24.1)	18.1 (14.9–21.9)
40–64	33.5 (25.5–42.6)	26.7 (19.6–35.2)	22.9 (13.4–36.5)	30.7 (17.6–47.8)	22.8 (18.0–28.3)	32.7 (26.1–40.1)	27.8 (24.0–32.0)
65+	16.3 (10.8–23.9)	.....	20.6 (8.4–42.1)	10.2 (3.6–25.9)	5.0 (1.1–19.4)	18.4 (9.9–31.7)	12.1 (6.8–20.4)
Women							
20–39	43.1 (36.6–49.9)	17.5 (13.0–23.2)	20.6 (15.4–27.0)	20.8 (15.5–27.4)	22.8 (20.4–25.4)	28.1 (22.8–34.1)	24.1 (21.6–26.9)
40–64	50.2 (44.1–56.4)	39.5 (32.1–47.4)	42.0 (34.3–50.1)	39.7 (27.8–53.0)	31.3 (26.3–36.9)	45.4 (40.8–50.2)	40.5 (36.7–44.5)
65+	30.7 (22.3–40.5)	64.8 (20.8–92.8)	28.6 (16.5–44.7)	16.8 (7.3–34.1)	19.5 (13.3–27.5)	44.8 (28.5–62.2)	30.9 (23.7–39.1)

Table 64. Prevalence (%; 95%-CI) of overweight-obesity (BMI ≥ 25 Kg/m²) by demographic characteristics in both sexes, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	59.2 (52.9–65.3)	64.3 (56.8–71.1)	62.8 (50.2–73.9)	65.7 (53.9–75.8)	51.5 (47.4–55.6)	60.0 (55.6–64.3)	59.5 (55.6–63.3)
Female	73.6 (68.1–78.4)	54.3 (47.3–61.1)	61.3 (57.0–65.4)	65.2 (59.5–70.5)	57.4 (54.3–60.4)	72.8 (68.8–76.5)	62.9 (59.5–66.1)
Both	66.3 (61.2–71.1)	59.2 (55.3–63.0)	62.0 (56.2–67.4)	65.4 (58.4–71.8)	54.2 (50.8–57.5)	66.7 (63.4–69.8)	61.2 (58.4–63.9)
Race							
Whites	49.1 (12.8–86.4)				54.1 (47.2–60.8)	63.6 (51.3–74.4)	62.4 (51.5–72.2)
Black/Mulatto	68.5 (60.6–75.5)				49.2 (21.6–77.3)	55.3 (36.0–73.1)	61.5 (52.1–70.0)
Mestizo/Native	69.2 (64.0–74.0)			65.4 (58.4–71.8)	54.3 (50.4–58.2)	68.0 (65.1–70.7)	62.2 (57.4–66.8)
Garifuna	58.4 (40.8–74.1)						58.4 (40.8–74.1)
Others	57.4 (46.1–68.0)						57.4 (46.1–68.0)
Marital Status							
Single	49.4 (39.8–58.9)	43.5 (35.8–51.6)	54.7 (47.4–61.8)	31.6 (21.9–43.1)	40.5 (35.6–45.5)	52.9 (47.6–58.2)	46.9 (43.1–50.8)
Married	72.4 (68.0–76.4)	66.4 (61.5–70.9)	66.3 (56.5–74.9)	68.5 (63.4–73.2)	58.8 (54.3–63.2)	73.0 (69.6–76.1)	67.0 (63.5–70.3)
Widow/ Divorced	69.0 (60.8–76.1)	61.5 (51.5–70.6)	63.0 (49.7–74.5)	79.0 (55.1–92.0)	54.6 (45.9–63.0)	77.9 (68.4–85.1)	65.2 (59.5–70.6)
Education							
None	56.6 (47.9–64.8)	52.0 (20.6–81.9)	67.9 (49.6–82.0)	66.6 (54.8–76.7)	46.0 (40.4–51.6)	64.7 (48.5–78.1)	56.4 (48.6–63.9)
Primary	69.5 (62.9–75.4)	61.5 (52.2–70.0)	68.2 (58.8–76.2)	66.9 (59.4–73.6)	56.2 (51.4–60.8)	75.0 (71.0–78.5)	64.3 (59.3–68.9)
Secondary	61.2 (53.8–68.2)	61.0 (54.8–66.8)	60.7 (48.9–71.4)	60.5 (51.5–68.9)	56.0 (52.7–59.2)	62.1 (56.8–67.1)	60.3 (57.4–63.2)
University	63.0 (49.5–74.7)	54.8 (49.2–60.2)	60.3 (53.7–66.6)	70.8 (49.7–85.6)	44.4 (30.7–58.9)	65.7 (55.6–74.5)	58.0 (53.4–62.6)
Work Situation							
Paid	63.5 (56.5–70.0)	60.4 (55.4–65.1)	62.1 (53.0–70.4)	66.9 (59.1–73.8)	55.5 (51.8–59.1)	69.4 (64.9–73.6)	62.1 (59.0–65.2)
Unpaid	68.6 (62.4–74.3)	57.3 (51.1–63.2)	61.8 (56.4–66.9)	61.7 (51.7–70.9)	52.4 (48.2–56.5)	64.2 (60.6–67.7)	60.0 (56.8–63.1)
Housing							
Owned	66.0 (60.9–70.8)	61.2 (55.2–66.9)	64.2 (59.9–68.3)	63.9 (57.0–70.3)	55.8 (51.6–60.0)	67.7 (63.5–71.7)	62.9 (59.7–65.9)
Not owned	67.6 (57.3–76.5)	54.6 (47.6–61.5)	58.4 (45.5–70.2)	68.1 (52.5–80.4)	50.9 (48.4–53.4)	61.3 (54.1–68.1)	56.6 (52.8–60.3)

Table 65. Prevalence (%; 95%-CI) of overweight-obesity (BMI \geq 25 Kg/m²) by demographic characteristics of male survey, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	79.6 (19.3–98.4)				55.5 (38.4–71.3)	54.1 (41.6–66.1)	54.2 (43.0–65.0)
Black/Mulatto	64.4 (56.2–71.9)				60.5 (20.1–90.3)	48.1 (24.8–72.2)	58.5 (46.6–69.4)
Mestizo/Native	60.9 (52.5–68.6)			65.8 (54.0–75.8)		62.2 (57.2–67.0)	57.6 (52.6–62.4)
Garifuna	47.7 (36.5–59.2)						47.7 (36.5–59.2)
Others	51.7 (42.0–61.3)						51.7 (42.0–61.3)
Marital Status							
Single	39.8 (28.8–51.9)	43.4 (30.2–57.7)	58.5 (46.4–69.6)	29.6 (14.6–51.0)	39.1 (32.9–45.8)	45.6 (36.9–54.6)	43.5 (37.9–49.2)
Married	66.7 (60.5–72.4)	73.4 (63.2–81.6)	64.4 (46.4–79.1)	68.5 (58.9–76.7)	55.1 (48.2–61.8)	68.4 (63.5–72.8)	65.8 (60.0–71.2)
Widow/Divorced	67.0 (49.5–80.8)	62.2 (38.4–81.3)	70.1 (44.8–87.2)	86.9 (51.9–97.6)	53.3 (32.6–72.9)	63.7 (42.4–80.7)	63.4 (50.5–74.6)
Education							
None	39.2 (26.5–53.5)			60.7 (34.1–82.2)	48.8 (31.0–66.9)	62.0 (44.8–76.6)	55.3 (45.1–65.0)
Primary	60.8 (52.6–68.5)	60.9 (43.8–75.6)	60.5 (39.2–78.4)	55.8 (44.4–66.6)	51.1 (45.2–57.0)	60.5 (52.4–68.1)	57.0 (50.5–63.2)
Secondary	58.4 (48.4–67.7)	66.3 (56.3–75.1)	59.7 (36.4–79.3)	61.6 (44.8–76.1)	53.2 (47.0–59.3)	54.6 (47.3–61.7)	58.6 (53.9–63.1)
University	60.9 (42.4–76.7)	65.1 (56.7–72.6)	66.8 (56.0–76.1)	80.7 (55.2–93.4)	50.9 (29.8–71.7)	71.2 (61.4–79.4)	66.2 (60.3–71.6)
Work Situation							
Paid	62.4 (55.8–68.6)	67.2 (59.1–74.3)	63.1 (45.2–78.0)	67.7 (55.7–77.7)	55.2 (51.2–59.2)	66.0 (60.7–71.0)	63.4 (59.1–67.5)
Unpaid	53.2 (43.9–62.2)	48.3 (33.2–63.7)	62.2 (50.5–72.6)	43.0 (23.9–64.3)	41.1 (31.4–51.6)	50.9 (42.6–59.0)	48.6 (42.8–54.5)
Housing							
Owned	57.9 (51.6–63.9)	66.6 (57.7–74.4)	68.5 (61.2–75.0)	61.4 (50.0–71.6)	53.7 (48.0–59.2)	60.3 (54.7–65.6)	60.8 (56.7–64.7)
Not owned	65.3 (50.1–77.9)	58.6 (44.1–71.7)	54.7 (31.3–76.2)	73.9 (50.8–88.6)	47.4 (42.2–52.6)	58.8 (48.6–68.3)	56.1 (49.4–62.5)

Table 66. Prevalence (%; 95%-CI) of overweight-obesity (BMI ≥ 25 Kg/m²), by demographic characteristics of female survey participants and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	31.6 (3.9–84.0)				53.0 (39.9–65.6)	71.3 (55.4–83.2)	69.0 (54.9–80.3)
Black/Mulatto	73.7 (64.4–81.2)				39.7 (13.9–72.8)	66.0 (35.0–87.5)	65.1 (51.6–76.6)
Mestizo/Native	77.9 (73.8–81.6)			65.1 (59.4–70.4)	58.0 (54.2–61.7)	73.5 (70.5–76.4)	67.1 (62.2–71.6)
Garifuna	67.0 (42.5–84.8)						67.0 (42.5–84.8)
Others	62.5 (47.6–75.4)						62.5 (47.6–75.4)
Marital Status							
Single	61.4 (47.5–73.6)	43.7 (35.7–51.9)	52.4 (44.1–60.6)	33.3 (22.7–45.9)	41.9 (32.8–51.5)	61.0 (55.0–66.8)	50.4 (45.8–55.0)
Married	78.2 (74.2–81.7)	58.7 (50.9–66.1)	68.4 (62.6–73.6)	68.6 (62.1–74.4)	64.1 (61.7–66.5)	77.3 (71.9–82.0)	68.2 (64.7–71.5)
Widow/ Divorced	69.8 (59.4–78.6)	61.2 (48.2–72.8)	61.1 (45.7–74.6)	74.3 (55.4–87.1)	55.3 (46.9–63.4)	81.6 (69.4–89.7)	66.1 (59.6–71.9)
Education							
None	74.2 (63.6–82.5)	37.4 (14.4–68.0)	65.2 (47.4–79.6)	69.9 (57.3–80.1)	42.4 (25.6–61.1)	67.4 (46.8–82.9)	57.5 (44.5–69.5)
Primary	77.8 (71.1–83.4)	62.0 (52.2–71.0)	71.5 (62.5–79.1)	72.7 (63.8–80.1)	63.4 (60.1–66.5)	84.1 (79.9–87.6)	71.2 (66.7–75.3)
Secondary	63.8 (55.3–71.5)	55.6 (48.6–62.4)	61.6 (55.0–67.8)	59.6 (49.9–68.7)	58.5 (55.0–61.8)	69.8 (64.1–75.0)	62.1 (58.9–65.2)
University	67.7 (52.1–80.2)	45.2 (35.0–55.8)	53.1 (44.3–61.8)	41.3 (27.6–56.4)	36.2 (29.6–43.5)	58.9 (41.5–74.3)	48.8 (41.4–56.2)
Work Situation							
Paid	66.5 (53.8–77.2)	46.2 (36.4–56.3)	61.0 (55.4–66.3)	65.7 (59.1–71.9)	56.0 (51.5–60.4)	74.8 (65.4–82.3)	59.7 (54.5–64.7)
Unpaid	75.9 (70.8–80.4)	59.4 (53.4–65.2)	61.6 (55.3–67.5)	64.5 (53.7–74.0)	58.3 (54.4–62.1)	71.8 (68.2–75.1)	64.8 (61.8–67.7)
Housing							
Owned	74.5 (68.6–79.5)	55.8 (46.4–64.8)	61.0 (55.5–66.2)	66.2 (59.9–71.9)	58.4 (54.3–62.4)	74.3 (69.6–78.5)	65.0 (60.8–68.9)
Not owned	69.9 (59.7–78.4)	51.3 (44.9–57.6)	61.8 (53.7–69.3)	63.4 (51.1–74.2)	55.4 (52.2–58.5)	64.3 (55.1–72.5)	57.1 (53.7–60.4)

Table 67. Prevalence (%; 95%–CI) of overweight–obesity (BMI ≥ 25 Kg/m²), by risk factors and sites in both sexes.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	79.6 (69.6–86.9)	82.1 (66.7–91.3)	82.5 (69.3–90.8)	79.7 (67.5–88.1)	75.1 (62.9–84.3)	84.3 (74.4–90.9)	81.7 (76.1–86.2)
Newly	80.6 (69.5–88.4)	79.0 (63.2–89.2)	91.0 (73.5–97.4)	91.2 (77.9–96.8)	89.6 (75.2–96.0)	86.1 (72.9–93.4)	85.2 (78.7–90.0)
IGT/IFG	73.6 (66.6–79.5)	69.6 (62.6–75.8)	81.1 (74.6–86.3)	81.6 (72.5–88.2)	71.1 (60.8–79.5)	85.0 (76.7–90.7)	75.0 (70.4–79.0)
Non DM	62.1 (56.0–67.9)	53.8 (48.6–58.9)	53.1 (45.9–60.2)	56.2 (47.1–64.8)	48.4 (45.9–51.0)	61.4 (57.4–65.2)	55.5 (52.5–58.4)
Hypertension Status							
New HTA	75.8 (63.5–85.0)	67.0 (45.3–83.2)	77.3 (57.3–89.6)	70.9 (57.2–81.6)	61.0 (48.7–72.1)	73.7 (58.3–84.9)	81.7 (76.1–86.2)
Normal to High	68.7 (60.2–76.2)	73.6 (65.3–80.6)	74.8 (67.0–81.3)	84.6 (71.4–92.4)	62.1 (56.0–67.7)	66.2 (60.3–71.6)	85.2 (78.7–90.0)
Know HTA	81.9 (76.2–86.5)	83.9 (74.5–90.3)	80.2 (72.9–85.9)	76.6 (64.8–85.4)	71.4 (62.1–79.1)	85.4 (79.9–89.6)	75.0 (70.4–79.0)
Normal	57.1 (49.9–64.0)	44.4 (37.3–51.7)	52.6 (44.9–60.1)	52.3 (45.9–58.6)	44.6 (41.2–48.0)	55.8 (51.3–60.2)	55.5 (52.5–58.4)
Risk Associated with Waist Circumference							
Substantial risk	92.8 (88.0–95.7)	88.1 (82.0–92.3)	88.1 (84.0–91.2)	88.8 (84.8–91.8)	89.2 (85.9–91.8)	98.9 (96.4–99.7)	91.1 (88.7–93.0)
Increased risk	76.8 (69.6–82.8)	61.8 (55.7–67.5)	57.8 (49.6–65.5)	71.2 (57.1–82.1)	62.8 (57.2–68.2)	95.0 (91.2–97.2)	72.6 (67.8–76.9)
No risk	27.6 (21.8–34.3)	27.4 (21.9–33.7)	21.1 (13.0–32.2)	71.2 (57.1–82.1)	26.5 (19.9–34.5)	40.9 (35.9–46.0)	31.9 (28.0–35.9)
Cholesterol Levels							
<200	64.7 (59.3–69.8)	53.9 (48.2–59.5)	55.0 (46.5–63.1)	61.0 (50.2–70.8)	47.1 (42.7–51.6)	63.7 (60.4–66.8)	57.7 (54.3–61.1)
200–239.9	75.6 (66.2–83.0)	66.3 (59.0–72.8)	68.7 (63.1–73.8)	73.4 (62.8–81.8)	56.5 (52.2–60.8)	76.4 (65.4–84.8)	66.1 (61.3–70.5)
240+	68.5 (51.7–81.5)	65.5 (50.8–77.8)	78.2 (65.7–87.1)	78.8 (67.1–87.1)	66.9 (60.1–73.1)	86.4 (78.1–91.9)	69.5 (62.9–75.4)
Triglycerides							
<150	58.3 (52.6–63.8)	44.7 (39.1–50.5)	44.7 (35.2–54.6)	45.4 (37.5–53.5)	43.1 (39.8–46.3)	58.3 (54.4–62.1)	50.2 (47.1–53.3)
150–199.9	81.7 (74.1–87.4)	60.6 (50.3–70.0)	65.4 (58.9–71.4)	74.5 (60.5–84.8)	58.1 (49.0–66.7)	79.4 (73.2–84.5)	67.1 (61.2–72.4)
200+	82.0 (77.0–86.1)	83.9 (77.8–88.6)	79.8 (73.2–85.1)	82.7 (74.1–88.9)	72.1 (67.6–76.2)	82.6 (73.5–89.0)	80.1 (76.4–83.3)
Smoker Status							
Yes	55.6 (39.2–70.8)	47.9 (40.4–55.6)	62.3 (46.3–75.9)	71.1 (52.1–84.7)	45.5 (40.6–50.4)	61.7 (54.1–68.7)	54.2 (49.1–59.3)
No	67.3 (62.2–72.0)	61.6 (57.4–65.5)	61.9 (56.2–67.3)	63.9 (58.7–68.8)	55.7 (52.6–58.8)	67.9 (63.9–71.6)	62.6 (59.9–65.2)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	67.1 (61.7–72.1)	58.4 (54.4–62.3)	60.3 (54.5–65.9)	64.7 (57.2–71.5)	54.9 (51.3–58.5)	66.3 (62.3–70.1)	60.9 (58.2–63.5)
1 time	48.5 (36.2–61.1)	63.4 (44.8–78.8)	81.5 (60.3–92.7)	80.7 (53.6–93.8)	43.5 (38.7–48.4)	71.9 (56.8–83.3)	62.5 (53.0–71.1)
2 or more times	48.6 (20.8–77.4)	83.0 (65.7–92.6)	84.5 (62.0–94.8)	92.0 (68.1–98.4)	57.0 (50.2–63.6)	70.0 (56.3–80.9)	68.2 (60.2–75.3)

Table 68. Prevalence (%; 95%-CI) of overweight-obesity (BMI ≥ 25 Kg/m²) in men, by risk factors and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	85.7 (70.0–93.9)	83.2 (55.5–95.2)	77.7 (53.4–91.4)	78.8 (56.7–91.4)	80.7 (63.1–91.1)	79.1 (63.6–89.1)	81.2 (71.1–88.4)
Newly	76.0 (56.8–88.4)	61.1 (38.2–79.9)	93.7 (61.3–99.3)	94.4 (67.5–99.3)	89.1 (68.1–96.9)	81.4 (57.3–93.4)	80.1 (67.8–88.5)
IGT/IFG	68.0 (58.9–76.0)	70.9 (58.1–81.1)	86.4 (75.6–92.8)	81.8 (68.5–90.2)	67.8 (53.9–79.2)	81.0 (67.3–89.9)	73.4 (66.1–79.7)
Non DM	54.8 (47.0–62.4)	60.8 (50.5–70.2)	49.6 (34.0–65.3)	57.5 (39.7–73.5)	44.9 (42.1–47.8)	54.7 (49.3–60.0)	53.8 (49.4–58.3)
Hypertension Status							
New HTA	75.5 (60.5–86.2)	64.4 (37.3–84.6)	78.0 (50.2–92.6)	68.6 (49.3–83.1)	56.8 (40.7–71.5)	73.7 (61.0–83.4)	66.1 (53.9–76.5)
Normal to High	59.7 (49.1–69.5)	77.5 (66.0–85.9)	76.5 (66.3–84.3)	82.9 (67.0–92.1)	60.4 (52.7–67.5)	58.0 (50.0–65.6)	66.2 (60.9–71.1)
Know HTA	73.0 (63.8–80.6)	81.6 (61.7–92.5)	88.7 (77.7–94.6)	85.8 (68.3–94.4)	69.9 (56.0–80.9)	85.8 (77.2–91.5)	80.4 (73.2–86.0)
Normal	47.6 (37.6–57.8)	47.7 (38.8–56.7)	47.9 (31.8–64.4)	40.9 (28.0–55.2)	38.3 (32.1–46.0)	45.6 (34.7–56.9)	44.3 (39.3–49.4)
Risk Associated with Waist Circumference							
Substantial risk	95.0 (87.0–98.1)		99.5 (96.6–99.9)				99.4 (98.3–99.8)
Increased risk	92.3 (86.3–95.8)	96.5 (89.3–98.9)	90.0 (81.2–94.9)	97.0 (91.1–99.0)	82.9 (76.0–88.1)	99.6 (97.0–99.9)	93.3 (89.7–95.8)
No risk	31.1 (24.6–38.3)	36.2 (28.9–44.3)	27.0 (15.7–42.4)	36.5 (26.2–48.3)	29.7 (22.6–38.0)	42.8 (36.9–48.9)	35.9 (31.5–40.6)
Cholesterol Levels							
<200	56.1 (48.3–63.5)	60.1 (48.9–70.3)	56.4 (39.4–72.1)	61.4 (43.9–76.4)	42.5 (37.5–47.6)	55.3 (50.6–59.9)	54.6 (49.7–59.3)
200–239.9	77.9 (66.4–86.3)	71.1 (59.6–80.5)	68.8 (55.8–79.3)	71.7 (53.4–84.8)	53.8 (48.3–59.1)	80.1 (69.7–87.6)	67.0 (60.2–73.1)
240+	67.6 (49.1–81.8)	65.7 (42.3–83.4)	82.5 (62.7–93.0)	84.0 (66.0–93.5)	67.7 (58.8–75.4)	81.2 (59.2–92.8)	69.1 (58.6–78.0)
Triglycerides							
<150	46.2 (39.8–52.7)	48.1 (36.5–59.9)	35.5 (21.5–52.6)	38.3 (24.7–54.1)	39.1 (35.0–43.4)	46.0 (39.2–53.0)	44.2 (39.7–48.8)
150–199.9	80.6 (68.8–88.6)	60.8 (44.9–74.7)	75.6 (64.2–84.2)	76.9 (54.5–90.2)	41.7 (28.8–55.8)	69.9 (59.8–78.4)	62.2 (52.1–71.4)
200+	82.9 (76.2–88.0)	83.9 (76.4–89.4)	83.4 (71.9–90.8)	80.0 (65.7–89.3)	74.1 (67.8–79.6)	83.7 (75.8–89.4)	80.9 (77.0–84.3)
Smoker Status							
Yes	53.1 (36.1–69.3)	50.1 (40.1–60.2)	61.7 (42.6–77.7)	72.1 (49.3–87.3)	46.9 (41.1–52.8)	56.0 (46.6–65.0)	53.4 (47.6–59.1)
No	60.3 (54.1–66.2)	68.4 (59.1–76.5)	63.1 (49.1–75.2)	61.6 (51.3–71.0)	53.1 (49.4–56.7)	61.9 (56.0–67.4)	61.6 (57.3–65.7)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	59.5 (52.9–65.8)	62.8 (54.2–70.7)	59.8 (46.7–71.6)	63.0 (49.6–74.6)	51.6 (46.4–56.8)	58.1 (52.4–63.5)	58.4 (54.2–62.5)
1 time	44.5 (31.0–58.7)	76.9 (57.5–89.1)	78.8 (54.6–92.0)	91.1 (68.7–98.0)	46.3 (40.3–52.4)	71.7 (52.8–85.2)	66.0 (55.4–75.1)
2 or more times	42.7 (17.0–73.0)	87.3 (52.0–97.8)	83.6 (59.0–94.8)	91.5 (66.4–98.3)	56.2 (48.6–63.4)	64.3 (50.5–76.1)	65.1 (56.9–72.5)

Table 69. Prevalence (%; 95%-CI) of overweight-obesity (BMI ≥ 25 Kg/m²) in women, by risk factors and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	76.8 (65.5–85.2)	80.8 (61.5–91.7)	87.9 (74.8–94.7)	80.3 (62.6–90.8)	69.7 (50.0–84.1)	88.6 (79.4–94.0)	82.1 (75.6–87.2)
Newly	83.0 (67.9–91.8)	95.0 (69.2–99.4)	88.8 (61.2–97.5)	88.0 (66.3–96.5)	90.2 (67.5–97.6)	90.0 (75.9–96.2)	89.8 (82.9–94.1)
IGT/IFG	79.1 (69.4–86.4)	68.3 (59.9–75.7)	74.7 (65.2–82.3)	81.5 (70.4–89.2)	76.5 (68.9–82.6)	88.0 (75.9–94.5)	76.5 (71.9–80.6)
Non DM	70.7 (64.3–76.4)	47.3 (38.5–56.2)	55.5 (50.8–60.0)	54.9 (49.4–60.4)	52.4 (49.1–55.7)	67.8 (63.3–72.0)	57.1 (53.2–60.9)
Hypertension Status							
New HTA	76.4 (58.8–88.1)	74.8 (55.5–87.6)	76.1 (50.9–90.7)	74.8 (55.2–87.7)	73.3 (68.4–77.7)	73.8 (39.4–92.4)	74.2 (60.8–84.3)
Normal to High	84.2 (76.4–89.7)	65.9 (55.0–75.3)	72.3 (61.2–81.2)	88.9 (75.8–95.3)	66.2 (58.1–73.5)	82.5 (75.4–87.9)	74.5 (69.1–79.2)
Know HTA	87.7 (83.0–91.3)	85.4 (76.2–91.5)	73.8 (63.3–82.2)	71.5 (57.3–82.5)	72.4 (61.4–81.2)	85.2 (77.4–90.7)	82.1 (77.3–86.0)
Normal	64.4 (56.9–71.1)	42.4 (33.4–52.0)	55.6 (50.3–60.7)	57.9 (51.1–64.3)	49.7 (47.0–52.4)	61.6 (56.6–66.4)	52.0 (47.9–56.0)
Risk Associated with Waist Circumference							
Substantial risk	91.9 (87.4–94.9)	83.9 (75.7–89.7)	83.9 (78.8–87.9)	87.0 (82.5–90.5)	85.6 (81.8–88.7)	98.6 (95.4–99.6)	88.4 (85.3–90.9)
Increased risk	58.5 (48.4–68.0)	26.1 (17.6–36.9)	30.0 (22.9–38.1)	29.1 (16.2–46.4)	36.5 (23.0–52.5)	91.4 (85.5–95.1)	51.1 (42.5–59.7)
No risk	15.9 (9.1–26.3)	5.6 (2.9–10.4)	4.6 (2.0–10.0)	4.6 (1.5–12.8)	17.5 (10.2–28.2)	37.7 (30.3–45.8)	22.7 (17.6–28.8)
Cholesterol Levels							
<200	73.9 (69.0–78.3)	48.4 (38.0–58.9)	53.7 (47.1–60.2)	60.7 (52.5–68.2)	52.2 (47.9–56.4)	71.6 (67.2–75.7)	60.7 (56.0–65.2)
200–239.9	73.4 (61.7–82.6)	61.4 (53.3–68.9)	68.7 (61.8–74.8)	75.5 (66.1–83.0)	60.3 (56.1–64.3)	73.0 (55.8–85.4)	65.1 (60.4–69.6)
240+	69.2 (50.2–83.4)	65.3 (53.9–75.1)	75.3 (56.4–87.8)	72.8 (56.4–84.7)	66.1 (58.0–73.3)	89.4 (77.4–95.4)	70.0 (64.3–75.1)
Triglycerides							
<150	69.8 (63.5–75.4)	42.5 (34.0–51.4)	52.2 (45.4–58.9)	49.3 (42.1–56.5)	47.0 (43.1–50.9)	67.5 (63.4–71.4)	54.9 (50.7–59.0)
150–199.9	82.8 (71.9–90.1)	60.4 (48.7–71.0)	58.0 (50.9–64.7)	71.2 (60.2–80.2)	75.5 (69.6–80.5)	88.9 (82.5–93.2)	71.8 (66.1–76.9)
200+	80.9 (73.2–86.8)	83.8 (75.3–89.9)	76.6 (67.6–83.6)	85.7 (75.6–92.0)	68.3 (63.6–72.6)	80.7 (57.3–92.8)	78.7 (72.8–83.6)
Smoker Status							
Yes	92.8 (72.4–98.5)	44.1 (32.4–56.5)	64.3 (39.8–83.0)	65.0 (42.9–82.1)	30.0 (14.3–52.4)	81.0 (68.2–89.4)	57.1 (47.6–66.1)
No	73.4 (67.9–78.3)	55.8 (48.8–62.5)	61.1 (57.1–65.1)	65.2 (59.2–70.7)	58.2 (54.6–61.7)	72.1 (67.8–76.0)	63.3 (60.1–66.5)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	73.5 (67.8–78.5)	54.8 (48.0–61.4)	60.7 (56.3–64.9)	65.9 (60.1–71.3)	58.1 (55.1–61.0)	72.2 (67.8–76.3)	63.0 (59.7–66.1)
1 time	64.4 (39.2–83.6)	42.6 (18.7–70.5)	93.9 (59.6–99.4)	18.5 (4.7–51.3)	25.6 (5.9–65.2)	72.4 (41.0–90.8)	52.5 (35.6–68.8)
2 or more times	87.6 (43.8–98.5)	73.2 (35.2–93.2)				89.0 (65.7–97.1)	84.4 (66.7–93.6)

Tables 70, 71 and 72. Mean value of continuous variables among those with and without obesity/overweight (BMI ≥ 25), by gender.

70. Body mass index: Both genders, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Overweight														
Age	40.0	0.5	40.9	0.6	42.2	0.9	40.5	0.9	40.2	1.0	40.0	0.6	40.4	0.3
Weight	79.4	1.4	79.9	0.6	77.5	0.7	74.7	1.1	76.4	0.3	77.9	0.6	78.1	0.4
Height	158.7	1.1	162.8	0.6	161.5	0.6	158.0	0.8	160.0	0.2	159.9	0.3	160.7	0.3
Waist	99.7	0.6	99.0	0.6	100.6	0.5	98.9	0.9	92.9	3.2	91.9	0.5	95.6	0.7
Hip	108.6	0.7	.	.	103.3	0.4	103.4	0.8	100.2	0.5	100.2	0.5	101.6	0.4
Fasting Glucose	96.2	1.4	99.3	1.7	101.9	1.2	98.1	2.2	95.8	1.6	92.9	1.3	96.4	0.8
2h-OGTT	115.4	2.2	105.1	2.3	0.0	0.0	118.9	2.5	107.9	2.9	122.8	2.4	106.8	1.7
Total Cholesterol	171.4	2.7	204.4	2.4	199.1	2.7	191.3	5.4	212.4	1.5	177.2	1.7	193.9	2.3
Triglycerides	162.7	7.5	196.7	5.5	193.6	2.8	206.5	9.6	209.5	4.5	169.7	4.1	188.5	3.5
Normal Weight														
Age	37.9	0.8	34.3	0.7	37.2	1.1	34.7	0.9	38.0	1.2	33.2	0.6	35.4	0.5
Weight	58.7	0.7	58.6	0.4	58.3	0.7	55.4	0.5	58.6	0.5	58.2	0.4	58.3	0.2
Height	163.8	1.3	161.9	0.6	161.0	0.7	157.5	0.6	162.6	0.9	161.7	0.4	161.9	0.4
Waist	81.3	0.8	82.0	0.6	83.8	0.5	82.5	0.5	77.5	2.8	74.8	0.4	79.1	0.8
Hip	92.9	0.7	.	.	90.2	0.5	89.9	0.5	86.8	0.4	80.9	0.3	85.7	0.5
Fasting Glucose	88.0	1.4	91.3	0.7	91.1	0.9	89.3	1.1	88.5	0.6	86.2	2.6	89.0	0.7
2h-OGTT	100.8	1.9	92.6	2.0	0.0	0.0	98.4	2.0	87.5	1.7	97.1	1.6	88.1	1.3
Total Cholesterol	159.4	3.7	189.8	3.0	184.6	4.2	180.4	2.6	197.6	3.0	157.7	2.1	181.4	2.8
Triglycerides	113.8	5.5	137.8	3.4	150.6	6.5	144.5	5.0	139.9	3.7	114.9	5.4	132.1	2.3

71. Body mass index: Men, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Overweight														
Age	40.3	0.7	40.2	0.8	42.3	1.6	39.4	1.2	40.2	1.3	40.0	0.8	40.2	0.5
Weight	82.6	1.5	84.5	0.9	83.2	1.0	80.7	2.0	80.5	0.3	83.0	0.9	82.8	0.5
Height	164.9	1.2	169.6	0.6	168.7	0.5	165.5	1.2	166.2	0.3	167.4	0.4	167.6	0.3
Waist	100.1	0.9	98.9	0.8	102.0	0.9	97.6	1.4	91.8	4.2	95.0	0.7	96.4	0.8
Hip	105.2	0.9	.	.	100.5	0.6	100.8	1.1	97.7	0.3	98.5	0.7	99.3	0.5
Fasting Glucose	93.1	1.9	101.4	3.3	105.2	2.1	96.8	4.0	96.9	1.6	95.7	2.1	98.1	1.3
2h-OGTT	109.1	2.7	104.6	3.1	0.0	0.0	111.9	6.1	106.1	3.9	120.5	3.9	104.7	2.1
Total Cholesterol	174.0	3.5	204.8	4.0	198.6	4.4	194.8	9.1	215.2	1.6	177.2	2.5	196.2	2.8
Triglycerides	184.2	13.1	216.2	8.3	203.7	4.3	227.8	19.9	245.3	9.4	199.7	8.7	215.6	6.2
Normal Weight														
Age	38.3	1.0	34.6	1.3	36.5	1.8	36.5	1.5	39.2	1.6	33.3	0.8	36.1	0.7
Weight	62.0	1.0	64.1	0.9	63.8	1.1	60.0	0.7	62.7	0.9	61.1	0.7	62.5	0.4
Height	168.4	1.6	169.0	1.1	167.1	1.8	162.9	0.6	168.4	1.2	166.0	0.7	167.6	0.6
Waist	82.0	0.9	82.9	0.6	84.4	0.9	81.9	0.9	78.6	2.5	76.7	0.6	79.8	0.8
Hip	92.8	0.9	.	.	88.6	0.6	89.7	0.7	86.6	0.6	79.6	0.6	84.9	0.7
Fasting Glucose	84.9	1.7	92.5	1.1	92.8	1.9	89.5	1.5	89.9	1.1	87.7	3.5	89.7	1.1
2h-OGTT	98.3	2.1	96.6	4.1	0.0	0.0	98.0	2.8	87.7	1.5	97.5	2.3	89.9	1.9
Total Cholesterol	156.1	3.3	191.3	5.6	180.8	7.9	182.5	4.1	198.5	3.7	156.4	2.2	180.4	4.0
Triglycerides	111.1	7.0	149.5	5.5	142.6	11.7	156.7	8.8	145.9	5.2	118.1	5.2	136.9	3.2

72. Body mass index: Women, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Overweight														
Age	39.8	0.4	41.6	0.8	42.1	1.0	41.4	1.7	40.1	0.9	39.9	0.6	40.6	0.4
Weight	76.8	1.4	74.6	0.8	72.9	0.8	69.6	0.9	71.9	0.6	74.1	0.8	73.7	0.4
Height	153.7	1.0	155.2	0.4	155.6	0.6	151.7	0.5	153.4	0.3	154.3	0.3	154.2	0.2
Waist	99.4	1.0	99.1	0.9	99.4	0.6	100.0	0.8	94.0	2.3	89.5	0.6	94.9	0.7
Hip	111.4	0.8	.	.	105.5	0.4	105.6	0.8	103.0	0.7	101.4	0.6	103.6	0.5
BMI	32.4	0.3	30.9	0.3	30.0	0.2	30.2	0.3	30.5	0.2	31.1	0.3	30.9	0.1
Fasting Glucose	98.8	1.5	96.9	1.3	99.3	1.1	99.2	1.7	94.6	2.0	90.8	1.7	94.8	0.9
2h-OGTT	120.7	2.8	105.5	2.6	0.0	0.0	125.2	4.4	109.8	1.9	124.5	2.7	108.9	2.0
Total Cholesterol	169.3	2.7	204.0	2.8	199.5	3.0	188.1	3.1	209.5	2.2	177.1	2.1	191.7	2.1
Triglycerides	145.0	5.7	174.8	5.4	185.3	2.9	186.7	5.8	170.8	6.4	146.7	3.4	163.0	2.4
Normal Weight														
Age	37.3	1.1	34.1	0.8	37.8	1.4	33.1	1.0	36.3	1.0	33.2	0.9	34.8	0.4
Weight	53.5	0.6	54.4	0.4	54.0	0.7	51.6	0.6	53.0	0.3	54.2	0.7	53.8	0.3
Height	156.5	1.4	156.7	0.4	156.3	0.7	153.0	0.7	154.7	0.3	155.8	0.6	155.8	0.3
Waist	80.0	0.8	81.4	0.8	83.3	0.7	82.9	0.5	76.1	3.3	72.2	0.7	78.3	0.9
Hip	93.1	0.7	.	.	91.4	0.6	90.1	0.5	87.1	0.3	82.7	0.7	86.7	0.4
BMI	21.8	0.2	22.2	0.2	22.1	0.2	22.0	0.2	22.1	0.2	22.3	0.2	22.1	0.1
Fasting Glucose	92.8	2.3	90.4	0.8	89.7	1.1	89.1	1.6	86.6	1.2	84.1	2.2	88.1	0.7
2h-OGTT	104.9	2.7	89.8	1.5	0.0	0.0	98.8	2.6	87.3	2.7	96.5	2.5	86.2	1.5
Total Cholesterol	164.5	4.9	188.7	2.6	187.6	2.9	178.7	2.8	196.4	3.9	159.5	4.2	182.4	2.2
Triglycerides	118.0	4.7	129.1	3.1	156.8	4.9	134.2	5.1	131.5	3.6	110.6	13.5	127.0	3.3

Table 73. Prevalence (%; 95%-CI) of waist substantial/increased by risk, gender, and site.

Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL	TOTAL
Both Genders							
Substantial Risk	46.2 (41.5–51.1)	41.2 (37.5–45.0)	48.8 (42.5–55.2)	40.4 (36.8–44.1)	31.6 (28.0–35.4)	24.8 (21.3–28.6)	35.2 (32.9–37.5)
Increased Risk	17.7 (14.9–20.8)	22.4 (18.1–27.4)	20.8 (17.2–24.9)	24.1 (18.5–30.8)	20.2 (17.5–23.3)	20.6 (18.6–22.7)	21.1 (19.3–23.0)
No Risk	36.1 (31.7–40.7)	36.4 (32.7–40.2)	30.4 (23.1–38.7)	35.5 (29.9–41.6)	48.2 (42.9–53.5)	54.6 (50.7–58.5)	43.7 (41.1–46.4)
Men							
Substantial Risk	27.6 (21.3–34.9)	23.0 (18.3–28.5)	30.2 (20.8–41.7)	12.5 (7.8–19.5)	14.2 (12.0–16.8)	11.6 (8.9–15.0)	17.8 (15.7–20.2)
Increased Risk	18.6 (14.5–23.6)	24.0 (18.5–30.6)	21.6 (14.8–30.5)	29.8 (19.2–43.2)	21.2 (18.5–24.3)	18.1 (15.2–21.4)	21.6 (19.3–24.1)
No Risk	53.8 (45.7–61.6)	52.9 (46.9–58.9)	48.1 (35.2–61.3)	57.7 (46.1–68.4)	64.6 (60.2–68.7)	70.3 (66.4–73.9)	60.6 (57.5–63.6)
Women							
Substantial Risk	65.1 (59.7–70.1)	58.4 (54.2–62.4)	63.9 (58.9–68.6)	67.1 (61.7–72.1)	52.4 (45.6–59.0)	37.2 (32.2–42.5)	52.4 (49.4–55.3)
Increased Risk	16.7 (13.4–20.7)	20.9 (17.0–25.5)	20.1 (16.6–24.1)	18.6 (14.4–23.6)	19.1 (16.0–22.6)	22.9 (19.7–26.4)	20.6 (18.8–22.6)
No Risk	18.2 (14.4–22.9)	20.7 (17.2–24.7)	16.0 (11.5–21.8)	14.3 (10.6–18.9)	28.6 (22.0–36.2)	39.9 (34.9–45.2)	27.0 (24.1–30.0)

Table 74. Prevalence (%; 95%–CI) of increased waist circumference by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	17.3 (13.6–21.8)	23.3 (18.3–29.2)	20.0 (15.5–25.5)	26.5 (18.0–37.3)	20.0 (16.6–23.9)	17.5 (14.2–21.3)	20.4 (18.2–22.8)
40–64	17.4 (14.0–21.4)	22.3 (16.7–29.2)	24.0 (17.6–32.0)	18.9 (13.3–26.1)	22.1 (18.2–26.7)	28.1 (23.2–33.6)	23.3 (20.5–26.4)
65+	21.0 (15.8–27.3)	18.4 (11.2–28.8)	15.0 (9.6–22.8)	22.1 (11.2–39.0)	16.7 (9.5–27.9)	17.8 (12.1–25.5)	18.0 (14.0–22.8)
Men							
20–39	17.8 (11.8–26.1)	21.3 (14.2–30.6)	13.9 (8.3–22.3)	28.2 (14.3–47.9)	17.8 (14.4–21.7)	12.7 (9.2–17.2)	17.7 (14.8–21.1)
40–64	18.8 (14.0–24.7)	27.5 (19.6–37.0)	36.4 (24.2–50.6)	33.7 (22.7–46.8)	29.2 (23.8–35.4)	29.8 (23.4–37.1)	28.5 (24.6–32.7)
65+	23.7 (16.9–32.1)	25.5 (13.4–43.1)	15.6 (7.2–30.4)	31.1 (14.7–54.1)	19.8 (6.4–47.1)	21.5 (13.1–33.3)	22.7 (15.1–32.5)
Women							
20–39	16.8 (12.9–21.6)	25.2 (19.8–31.4)	24.8 (19.9–30.4)	24.9 (19.1–31.7)	22.5 (18.3–27.3)	22.0 (17.2–27.6)	23.0 (20.4–25.7)
40–64	15.9 (11.7–21.1)	17.3 (12.4–23.6)	12.6 (9.3–16.8)	6.9 (4.2–11.4)	13.0 (9.5–17.6)	26.6 (20.3–34.0)	18.1 (15.2–21.4)
65+	18.5 (10.6–30.3)	12.2 (7.2–19.9)	14.6 (8.4–24.2)	9.9 (2.9–28.6)	12.9 (6.4–24.6)	13.7 (6.5–26.7)	13.2 (9.8–17.6)

Table 75. Prevalence (%; 95%-CI) of substantially increased waist circumference by age group, gender, and site

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Sexes							
20–39	40.9 (34.6–47.6)	31.3 (27.8–35.0)	40.1 (32.1–48.8)	30.7 (25.3–36.6)	24.4 (20.9–28.4)	18.4 (14.5–23.1)	26.9 (24.7–29.2)
40–64	55.8 (50.4–61.1)	52.2 (46.1–58.1)	59.9 (52.7–66.7)	61.9 (53.3–69.7)	45.2 (39.3–51.3)	36.6 (32.4–41.0)	48.0 (45.0–51.0)
65+	50.2 (43.6–56.8)	52.3 (44.7–59.7)	64.9 (52.8–75.3)	42.7 (29.5–57.1)	39.1 (29.0–50.2)	37.7 (27.6–49.1)	46.2 (41.2–51.4)
Men							
20–39	22.0 (14.4–32.0)	17.1 (11.8–24.0)	23.3 (13.3–37.8)	6.8 (3.3–13.6)	9.1 (7.3–11.2)	7.6 (4.8–11.6)	12.2 (9.9–14.9)
40–64	38.8 (30.4–47.9)	29.2 (21.9–37.7)	37.7 (27.0–49.8)	27.4 (15.6–43.7)	26.0 (20.5–32.4)	19.9 (15.2–25.6)	27.2 (23.7–31.1)
65+	25.3 (18.6–33.5)	31.0 (21.7–42.1)	45.8 (28.1–64.5)	11.0 (4.3–25.5)	12.5 (8.0–19.0)	16.4 (7.9–31.1)	22.2 (17.2–28.1)
Women							
20–39	59.3 (52.5–65.7)	44.5 (39.8–49.4)	53.2 (45.9–60.4)	54.9 (48.0–61.6)	42.1 (35.1–49.5)	28.6 (22.9–35.2)	41.3 (37.9–44.7)
40–64	75.3 (69.7–80.2)	74.7 (67.5–80.7)	80.4 (70.8–87.4)	89.5 (83.5–93.5)	69.9 (60.5–77.9)	51.8 (46.0–57.6)	68.9 (65.1–72.5)
65+	73.3 (62.2–82.0)	71.0 (60.7–79.5)	77.6 (65.0–86.7)	85.6 (67.8–94.3)	72.1 (55.5–84.2)	61.6 (44.6–76.1)	70.6 (64.1–76.3)

Table 76. Prevalence (%; 95%–CI) of increased/substantial increased waist circumference age, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	58.3 (52.5–63.8)	54.5 (48.8–60.2)	60.2 (48.4–70.8)	57.2 (49.8–64.3)	44.4 (39.2–49.7)	35.9 (30.5–41.7)	47.2 (44.0–50.5)
40–64	73.2 (67.8–78.0)	74.5 (69.2–79.1)	83.9 (77.6–88.7)	80.7 (74.2–85.9)	67.4 (59.5–74.4)	64.7 (60.7–68.5)	71.3 (68.6–73.9)
65+	71.2 (66.2–75.7)	70.7 (61.7–78.4)	79.9 (68.6–87.9)	64.8 (51.0–76.5)	55.8(43.5 (67.5)	55.6 (45.1–54.9)	64.2 (58.1–69.9)
Men							
20–39	39.8 (30.2–50.3)	38.3 (29.1–48.5)	37.3 (23.0–54.1)	35.0 (20.8–52.5)	26.9 (22.3–31.9)	20.3 (15.9–25.4)	29.9 (26.1–34.0)
40–64	57.5 (48.3–66.2)	56.6 (48.7–64.2)	74.1 (62.0–83.5)	61.1 (49.5–71.7)	55.3 (47.1–63.1)	49.7 (43.2–56.1)	87.0 (84.3–89.4)
65+	49.0 (40.3–57.8)	56.5 (45.2–67.1)	61.3 (42.9–77.0)	42.1 (24.1–62.4)	32.3 (17.4–52.0)	38.0 (26.3–51.2)	83.8 (77.8–88.5)
Women							
20–39	76.1 (69.2–81.8)	69.7 (63.9–75.0)	78.0 (68.9–85.0)	79.8 (72.9–85.2)	64.6 (57.8–70.9)	50.6 (42.7–58.4)	64.2 (60.2–68.1)
40–64	91.2 (88.3–93.4)	91.9 (87.5–94.9)	93.0 (82.1–97.5)	96.4 (91.4–98.6)	82.9 (71.6–90.3)	78.4 (73.6–82.5)	87.0 (84.3–89.4)
65+	91.7 (87.3–94.7)	67.1 (83.2–73.5)	92.3 (78.5–97.5)	95.5 (85.2–98.7)	85.0 (65.4–94.4)	75.3 (60.7–85.8)	83.8 (77.8–88.5)

Table 77. Prevalence (%; 95%–CI) of increased or substantially increased waist circumference by demographic characteristics in both sexes, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	44.9 (38.0–51.9)	46.2 (40.0–52.6)	51.6 (40.6–62.5)	42.6 (30.3–55.8)	35.4 (31.2–39.8)	29.7 (25.8–33.8)	39.1 (36.0–42.2)
Female	82.9 (79.8–85.6)	79.3 (75.4–82.8)	84.8 (80.0–88.6)	85.5 (81.0–89.1)	71.2 (63.4–77.9)	60.1 (54.9–65.1)	73.1 (70.1–75.9)
Both	63.8 (59.7–67.7)	63.3 (59.2–67.2)	70.0 (62.5–76.5)	64.5 (57.5–70.9)	51.7 (46.3–57.1)	45.4 (41.3–49.4)	56.1 (53.4–58.9)
Race							
Whites	20.1 (2.6–70.3)				57.1 (44.7–68.6)	46.1 (38.0–54.3)	47.3 (40.0–54.7)
Black/Mulatto	63.1 (55.6–70.1)				17.9 (6.7–39.7)	36.1 (20.6–55.2)	46.8 (37.0–56.9)
Mestizo/Native	64.6 (58.9–69.9)			64.5 (57.5–70.9)	52.2 (46.8–57.6)	45.4 (40.9–50.0)	51.8 (48.5–55.2)
Garifuna	55.0 (45.5–64.1)						55.0 (45.5–64.1)
Others	68.3 (59.8–75.8)						68.3 (59.8–75.8)
Marital Status							
Single	42.4 (34.6–50.6)	46.4 (39.5–53.5)	63.7 (55.6–71.0)	39.9 (29.2–51.6)	40.7 (34.4–47.3)	34.4 (28.7–40.6)	42.0 (38.5–45.6)
Married	70.4 (67.0–73.6)	69.1 (63.7–74.0)	72.0 (60.5–81.2)	64.0 (57.8–69.7)	53.7 (47.5–59.8)	48.8 (44.1–53.6)	59.8 (56.6–63.0)
Widow/ Divorced	76.9 (69.2–83.2)	69.6 (59.6–78.0)	86.4 (74.6–93.2)	87.9 (72.6–95.2)	63.8 (53.8–72.8)	69.1 (59.1–77.6)	70.8 (65.0–75.9)
Education							
None	59.3 (48.4–69.3)	74.0 (53.3–87.7)	93.1 (78.1–98.1)	74.8 (59.0–86.0)	56.0 (47.8–63.9)	49.3 (35.3–63.4)	58.1 (51.5–64.5)
Primary	68.1 (63.5–72.4)	64.1 (56.3–71.2)	82.0 (70.2–89.8)	66.8 (59.1–73.7)	52.8 (46.7–58.8)	59.5 (54.9–64.0)	60.8 (56.8–64.7)
Secondary	55.9 (48.7–62.9)	61.6 (55.8–67.1)	65.4 (51.8–76.9)	58.3 (48.8–67.2)	52.9 (46.6–59.1)	38.7 (33.8–43.8)	51.7 (48.0–55.3)
University	56.3 (44.5–67.4)	63.5 (56.4–70.1)	67.1 (58.8–74.4)	67.7 (45.6–83.9)	38.5 (29.8–48.1)	38.6 (31.2–46.7)	54.6 (49.5–59.6)
Work Situation							
Paid	55.6 (50.1–61.1)	55.5 (49.4–61.4)	68.7 (58.1–77.7)	58.9 (50.8–66.6)	45.6 (39.9–51.5)	41.8 (37.3–46.4)	50.8 (47.5–54.1)
Unpaid	70.4 (64.4–75.8)	73.1 (67.7–78.0)	71.9 (65.6–77.5)	78.8 (71.7–84.5)	60.2 (53.0–67.0)	48.6 (44.1–53.0)	62.5 (59.1–65.7)
Housing							
Owned	63.2 (58.9–67.3)	65.9 (60.7–70.7)	73.7 (67.5–79.1)	62.7 (56.2–68.8)	55.3 (49.6–61.0)	46.5 (42.1–50.9)	57.6 (54.6–60.5)
Not owned	66.3 (57.1–74.5)	56.9 (51.3–62.3)	63.8 (49.6–76.0)	67.6 (53.0–79.5)	44.7 (38.8–50.7)	39.6 (32.2–47.6)	52.3 (48.2–56.3)

Table 78. Prevalence (%; 95%–CI) of increased or substantially increased waist circumference by demographic characteristics of male survey participants and by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites					48.4 (31.9–65.3)	32.4 (22.7–43.8)	34.2 (25.2–44.4)
Black/Mulatto	44.1 (34.4–54.2)				11.7 (2.1–44.4)	26.7 (11.8–49.9)	33.1 (23.1–44.8)
Mestizo/Native	46.5 (37.5–55.7)			42.6 (30.4–55.9)	35.5 (31.2–40.0)	29.0 (24.7–33.8)	34.6 (31.4–38.0)
Garifuna	26.4 (15.2–41.6)						26.4 (15.2–41.6)
Others	2.2 (37.1–66.9)						52.2 (37.1–66.9)
Marital Status							
Single	19.7 (11.1–32.4)	24.1 (14.9–36.6)	39.4 (26.8–53.6)	15.7 (7.5–29.9)	24.8 (17.9–33.3)	17.3 (11.6–25.0)	22.0 (17.8–26.9)
Married	54.5 (48.4–60.4)	55.4 (47.7–62.8)	55.9 (41.2–69.7)	41.4 (31.4–52.2)	38.5 (33.4–43.9)	36.1 (30.6–42.0)	45.2 (41.2–49.2)
Widow/ Divorced	57.0 (39.1–73.2)	39.2 (23.9–56.9)	79.7 (54.2–92.9)	82.7 (44.1–96.7)	37.5 (28.4–47.5)	48.2 (27.8–69.3)	46.8 (34.4–59.7)
Education							
None	36.1 (23.4–51.1)	52.2 (12.0–89.7)		40.6 (19.2–66.3)	38.6 (27.3–51.2)	31.8 (14.7–55.7)	37.1 (27.2–48.2)
Primary	48.6 (40.1–57.2)	43.4 (30.6–57.2)	54.9 (31.0–76.7)	33.4 (24.1–44.1)	36.9 (32.7–41.3)	34.6 (28.4–41.4)	39.9 (35.1–44.9)
Secondary	36.4 (26.9–47.0)	42.8 (31.9–54.5)	44.1 (28.0–61.5)	35.5 (20.1–54.8)	33.5 (26.5–41.3)	24.9 (20.6–29.9)	34.0 (29.4–38.9)
University	45.7 (27.2–65.5)	53.8 (44.2–63.2)	59.2 (48.4–69.1)	64.4 (34.4–86.1)	33.5 (26.5–41.3)	34.8 (26.0–44.8)	46.9 (40.9–53.0)
Work Situation							
Paid	47.6 (40.3–54.9)	48.4 (41.5–55.3)	53.3 (38.6–67.4)	42.8 (29.8–56.9)	36.8 (32.2–41.8)	30.7 (26.3–35.4)	41.2 (37.7–44.9)
Unpaid	39.8 (30.3–50.2)	38.5 (28.1–50.0)	47.7 (37.3–58.4)	39.9 (22.2–60.8)	31.4 (25.3–38.3)	28.1 (22.7–34.3)	33.5 (29.6–37.6)
Housing							
Owned	43.1 (35.5–51.1)	47.8 (40.2–55.5)	59.0 (47.6–69.4)	40.2 (30.0–51.4)	40.6 (34.6–46.9)	29.7 (25.3–34.5)	40.4 (36.9–44.0)
Not-owned	53.0 (40.2–65.5)	42.1 (29.7–55.5)	40.9 (25.1–58.8)	46.9 (21.7–73.8)	25.7 (21.2–30.8)	29.7 (20.2–41.2)	35.5 (28.9–42.6)

Table 79. Prevalence (%; 95%-CI) of increased or substantially increased waist circumference by demographic characteristics of female survey participants with increased or substantially increased waist circumference, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	31.6 (3.9–84.0)				64.2 (48.6–77.3)	57.3 (46.9–67.0)	58.0 (48.6–66.8)
Black/Mulatto	86.6 (79.2–91.6)				24.6 (7.3–57.6)	50.0 (23.7–76.3)	64.3 (46.7–78.7)
Mestizo/Native	83.2 (79.5–86.4)			85.5 (81.0–89.1)	72.5 (65.7–78.5)	61.3 (54.8–67.5)	70.2 (65.6–74.4)
Garifuna	77.6 (62.0–88.1)						77.6 (62.0–88.1)
Others	82.8 (73.0–89.5)						82.8 (73.0–89.5)
Marital Status							
Single	70.7 (60.7–79.1)	66.4 (57.6–74.2)	78.3 (71.2–84.0)	66.8 (50.5–79.9)	57.2 (48.5–65.6)	53.7 (44.6–62.6)	61.9 (57.0–66.7)
Married	86.5 (83.5–89.0)	84.7 (78.8–89.2)	89.4 (82.7–93.7)	87.6 (82.6–91.3)	75.4 (65.2–83.4)	61.0 (53.4–68.1)	76.3 (72.1–80.1)
Widow/ Divorced	85.9 (74.7–92.6)	82.3 (73.1–88.8)	88.0 (72.9–95.3)	90.9 (79.4–96.3)	77.5 (64.2–86.9)	74.6 (62.3–83.9)	80.8 (75.7–85.0)
Education							
None	82.7 (74.0–89.0)	82.5 (62.4–93.0)	92.5 (76.2–98.0)	94.2 (86.5–97.6)	78.1 (68.9–85.1)	66.6 (52.0–78.6)	77.3 (70.5–82.9)
Primary	86.7 (83.0–89.7)	83.2 (77.5–87.7)	93.9 (84.2–97.8)	89.7 (83.7–93.7)	75.2 (62.4–84.8)	75.4 (70.3–79.8)	80.5 (77.1–83.5)
Secondary	73.6 (65.9–80.1)	80.7 (74.8–85.5)	85.2 (79.4–89.6)	79.7 (69.9–86.8)	70.7 (64.2–76.5)	53.5 (46.0–60.7)	69.4 (64.9–73.5)
University	80.7 (67.6–89.3)	72.6 (64.3–79.6)	75.8 (64.6–84.2)	77.8 (63.5–87.6)	48.6 (37.9–59.3)	43.3 (30.8–56.7)	63.3 (56.6–69.6)
Work Situation							
Paid	77.6 (71.2–83.0)	70.7 (63.7–76.8)	84.9 (79.5–89.1)	85.7 (80.3–89.9)	65.4 (57.0–72.9)	59.7 (52.2–66.9)	69.3 (65.6–72.8)
Unpaid	84.6 (81.2–87.5)	84.0 (79.8–87.5)	84.6 (79.1–88.8)	85.2 (78.1–90.4)	75.0 (66.6–81.8)	60.3 (54.9–65.5)	75.4 (71.9–78.5)
Housing							
Owned	83.7 (80.7–86.4)	83.8 (78.3–88.2)	84.7 (79.0–89.1)	84.9 (79.9–88.8)	72.6 (65.6–78.6)	61.7 (56.8–66.3)	74.5 (71.2–77.6)
Not-owned	79.3 (69.9–86.3)	69.4 (62.7–75.3)	84.8 (78.7–89.4)	86.6 (78.2–92.1)	68.4 (57.4–77.7)	51.1 (38.8–63.3)	69.2 (64.7–73.4)

Table 80. Prevalence (%; 95%-CI) of increased or substantially increased waist circumference by risk factors and sites in both sexes, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	90.8 (85.6–94.3)	80.2 (70.2–87.4)	83.0 (62.2–93.5)	82.0 (63.6–92.2)	53.1 (36.7–68.8)	75.6 (63.8–84.5)	77.2 (71.0–82.4)
Newly	86.5 (75.6–93.0)	81.4 (64.5–91.3)	90.0 (69.4–97.3)	81.5 (60.9–92.6)	79.4 (68.7–87.1)	77.3 (62.8–87.3)	80.3 (73.6–85.6)
IGT/IFG	71.3 (65.7–76.3)	70.6 (61.7–78.1)	84.4 (77.8–89.3)	71.2 (59.1–80.9)	62.1 (54.1–69.5)	70.4 (63.8–76.3)	69.7 (65.3–73.8)
Non DM	57.4 (52.3–62.3)	58.5 (52.8–64.1)	63.6 (53.8–72.3)	59.6 (51.3–67.4)	48.3 (43.0–53.7)	37.5 (33.2–41.9)	50.1 (46.9–53.3)
Hypertension Status							
New HTA	73.5 (60.8–83.3)	61.7 (43.7–77.0)	84.5 (65.8–93.9)	71.9 (56.4–83.5)	55.5 (42.3–67.9)	56.5 (43.2–69.0)	60.4 (52.0–68.2)
Normal to High	60.5 (53.7–67.0)	64.2 (56.2–71.5)	76.5 (62.8–86.3)	73.9 (56.4–86.1)	57.5 (48.7–65.9)	40.7 (34.7–47.0)	55.7 (51.1–60.2)
Know HTA	86.0 (77.7–91.5)	85.2 (78.0–90.3)	84.2 (76.2–86.3)	85.4 (75.4–91.7)	67.6 (59.4–74.9)	70.8 (65.7–75.5)	77.3 (73.4–80.9)
Normal	54.9 (48.7–60.9)	56.1 (50.9–61.2)	63.5 (53.9–72.1)	54.8 (48.7–60.7)	44.3 (39.4–49.3)	33.9 (28.9–39.3)	48.6 (45.4–51.7)
BMI Classification							
Normal	22.5 (16.9–29.2)	33.3 (25.2–42.4)	40.1 (29.3–51.9)	35.2 (29.1–41.8)	24.4 (20.8–28.3)	4.0 (2.3–6.9)	23.3 (19.7–27.5)
Overweight	72.6 (65.9–78.4)	72.4 (66.5–77.6)	85.6 (77.4–91.1)	79.3 (67.7–87.5)	68.9 (60.3–76.4)	45.3 (40.2–50.4)	64.7 (60.3–68.8)
Obese	96.9 (94.9–98.2)	97.4 (94.2–98.9)	97.7 (90.2–99.5)	99.7 (98.7–99.9)	91.3 (77.3–97.0)	94.6 (90.7–96.9)	95.5 (93.2–97.0)
Cholesterol Levels							
<200	60.7 (56.6–64.7)	60.0 (54.5–65.3)	66.0 (55.6–75.0)	60.8 (51.0–69.8)	46.5 (42.3–50.7)	42.7 (38.9–46.6)	51.9 (49.0–54.9)
200–239.9	79.1 (71.0–85.4)	67.3 (61.0–73.0)	74.8 (67.8–80.8)	68.5 (56.7–78.4)	53.4 (46.3–60.3)	49.6 (39.2–60.1)	61.2 (56.6–65.5)
240+	74.0 (62.1–83.1)	66.9 (55.3–76.7)	77.0 (59.9–88.2)	74.9 (57.8–86.7)	61.5 (51.4–70.6)	77.7 (64.6–86.9)	66.9 (60.5–72.8)
Triglycerides							
<150	56.8 (53.3–60.2)	56.3 (51.0–61.4)	53.8 (40.6–66.5)	51.9 (46.0–57.8)	40.8 (34.0–47.9)	37.6 (33.2–42.3)	46.5 (43.1–49.9)
150–199.9	78.5 (67.2–86.6)	68.1 (58.8–76.2)	79.4 (73.6–84.1)	73.4 (59.1–84.1)	58.9 (48.1–68.8)	55.7 (49.0–62.1)	65.3 (60.1–70.1)
200+	76.4 (69.3–82.3)	70.8 (63.4–77.3)	80.4 (73.0–86.1)	72.0 (62.0–80.2)	67.5 (57.5–76.1)	61.3 (53.3–68.7)	68.8 (64.9–72.6)
Smoker Status							
Yes	49.4 (36.8–62.0)	45.1 (35.1–55.4)	60.0 (44.3–73.9)	61.1 (40.0–78.8)	29.2 (26.5–32.1)	36.3 (30.2–42.9)	40.7 (35.4–46.3)
No	65.1 (61.1–68.8)	66.9 (61.6–71.9)	71.1 (63.3–77.9)	65.3 (59.9–70.4)	55.8 (49.1–62.3)	47.5 (42.9–52.2)	59.2 (56.1–62.2)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	66.3 (61.8–70.5)	64.0 (59.8–68.0)	69.7 (61.8–76.6)	66.4 (59.4–72.8)	54.5 (48.7–60.2)	47.0 (42.4–51.7)	58.0 (55.1–60.8)
1 time	32.2 (21.2–45.6)	55.9 (37.6–72.7)	79.9 (60.9–91.0)	58.0 (26.8–83.9)	38.2 (32.0–44.8)	41.7 (30.0–54.4)	46.2 (38.6–53.9)
2 or more times	46.9 (19.4–76.4)	63.9 (43.2–80.5)	69.1 (50.5–83.0)	27.4 (8.4–60.8)	28.5 (15.6–46.2)	37.2 (22.3–55.1)	40.7 (32.0–50.1)

Table 81. Prevalence (%; 95%–CI) of increased or substantially increased waist circumference by risk factors and sites in male survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	84.1 (70.3–92.2)	75.1 (59.4–86.2)	68.4 (40.3–87.4)	66.5 (37.6–86.7)	36.5 (17.1–61.6)	58.5 (39.7–75.1)	65.7 (55.8–74.4)
Newly	72.4 (49.7–87.4)	65.2 (41.9–82.9)	80.1 (40.7–95.9)	72.8 (44.5–90.0)	77.3 (49.4–92.2)	65.5 (43.3–82.5)	69.4 (57.4–79.3)
IGT/IFG	52.2 (42.5–61.7)	51.6 (38.7–64.3)	76.8 (66.2–84.8)	44.4 (28.4–61.7)	49.5 (41.8–57.2)	61.9 (49.3–73.2)	53.8 (47.5–60.0)
Non DM	39.5 (31.9–47.7)	40.7 (32.4–49.6)	37.9 (25.0–52.8)	38.7 (22.0–58.7)	30.0 (26.1–34.2)	21.5 (17.7–25.9)	32.1 (28.5–35.9)
Hypertension Status							
New HTA	65.7 (47.3–80.4)	51.3 (31.2–71.1)	77.2 (49.3–92.2)	59.6 (38.7–77.4)	44.2 (29.7–59.8)	47.7 (34.7–61.1)	50.4 (40.5–60.3)
Normal to High	42.4 (33.0–52.3)	52.5 (40.8–63.8)	65.8 (49.5–79.0)	64.2 (43.0–81.0)	46.8 (36.6–57.3)	26.9 (21.5–33.1)	43.2 (37.4–49.2)
Know HTA	70.0 (52.1–83.3)	75.7 (60.7–86.3)	76.3 (60.2–87.3)	74.2 (54.3–87.4)	20.9 (15.3–28.0)	62.2 (51.0–72.3)	65.3 (57.0–72.9)
Normal	29.8 (22.0–39.0)	29.1 (21.6–38.0)	35.5 (24.1–48.8)	13.5 (8.6–20.5)	20.9 (15.3–28.0)	11.9 (8.5–16.5)	22.8 (19.2–26.7)
BMI Classification							
Normal	6.8 (3.2–13.9)	2.4 (0.8–6.6)	6.6 (2.9–14.3)	3.0 (1.2–7.4)	7.6 (5.5–10.5)	0.2 (0.0–1.4)	3.9 (2.8–5.5)
Overweight	55.7 (45.1–65.9)	54.8 (45.7–63.7)	72.1 (58.9–82.4)	61.7 (40.3–79.3)	52.2 (41.1–63.2)	26.2 (20.6–32.7)	48.1 (42.5–53.8)
Obese	94.3 (88.6–97.3)	96.0 (88.9–98.7)	95.3 (72.9–99.3)	99.4 (95.9–99.9)	90.0 (73.0–96.8)	87.2 (77.9–92.9)	92.0 (87.8–94.9)
Cholesterol Levels							
<200	40.6 (33.7–47.9)	43.0 (34.8–51.5)	47.9 (33.0–63.3)	36.7 (19.9–57.4)	29.0 (25.4–32.7)	27.1 (23.1–31.6)	34.4 (31.0–38.0)
200–239.9	72.2 (57.2–83.4)	53.5 (44.2–62.6)	57.2 (45.1–68.6)	51.3 (32.1–70.2)	37.1 (30.4–44.3)	37.1 (24.9–51.3)	46.3 (40.3–52.4)
240+	50.4 (34.7–65.9)	42.9 (29.0–58.1)	57.5 (32.5–79.1)	60.5 (34.9–81.3)	47.3 (37.9–56.9)	56.0 (34.1–75.7)	47.1 (39.3–55.1)
Triglycerides							
<150	33.3 (27.7–39.3)	35.1 (25.7–45.8)	22.9 (13.0–37.2)	19.2 (10.6–32.1)	20.4 (15.0–27.0)	16.8 (13.0–21.6)	24.3 (20.4–28.7)
150–199.9	64.8 (47.9–78.7)	47.3 (33.5–61.6)	69.5 (58.1–78.9)	59.2 (33.3–80.9)	33.0 (19.9–49.4)	33.0 (22.0–46.3)	44.5 (36.2–53.1)
200+	65.4 (52.6–76.3)	57.5 (48.8–65.8)	69.8 (58.9–78.8)	51.9 (39.0–64.6)	58.1 (46.1–69.3)	55.4 (46.7–63.9)	57.8 (52.8–62.7)
Smoker Status							
Yes	46.6 (33.7–60.0)	31.4 (20.0–45.6)	53.4 (36.4–69.6)	56.2 (31.6–78.1)	27.2 (25.3–29.1)	25.6 (19.5–32.8)	31.8 (26.6–37.4)
No	44.6 (37.9–51.4)	50.5 (42.3–58.7)	51.2 (39.3–63.0)	34.6 (26.2–44.2)	38.3 (32.8–44.1)	31.5 (27.0–36.5)	41.6 (37.9–45.4)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	46.5 (38.3–54.9)	44.8 (38.2–51.5)	48.9 (37.4–60.4)	42.3 (28.7–57.2)	36.7 (31.6–42.2)	28.5 (23.5–34.1)	39.0 (35.6–42.4)
1 time	19.7 (12.8–29.2)	52.5 (30.6–73.4)	75.6 (54.9–88.8)	58.4 (24.0–86.2)	32.3 (23.2–43.1)	36.6 (23.8–51.6)	40.7 (31.9–50.1)
2 or more times	38.8 (14.5–70.3)	54.1 (28.8–77.4)	67.3 (48.0–82.1)	22.8 (5.4–60.2)	27.9 (14.7–46.4)	33.2 (19.0–51.4)	35.8 (27.4–45.2)

Table 82. Prevalence (%; 95%-CI) of increased or substantially increased waist circumference by risk factors and sites in female survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	93.8 (89.3–96.5)	85.9 (72.8–93.3)	99.3 (95.2–99.9)	95.8 (75.8–99.4)	72.5 (56.2–84.4)	89.4 (80.3–94.5)	87.9 (82.3–91.8)
Newly	93.8 (80.3–98.3)		98.6 (89.9–99.8)	94.8 (70.4–99.3)	82.1 (57.2–94.1)	87.3 (67.7–95.7)	90.8 (81.4–95.7)
IGT/IFG	90.7 (84.3–94.7)	87.9 (81.8–92.2)	93.6 (87.1–96.9)	92.4 (84.1–96.5)	83.1 (69.8–91.2)	76.9 (65.6–85.4)	85.8 (81.7–89.1)
Non DM	78.0 (74.0–81.6)	75.2 (70.0–79.7)	81.2 (74.9–86.3)	81.0 (74.8–86.0)	68.7 (60.8–75.7)	53.2 (47.2–59.2)	68.0 (64.3–71.5)
Hypertension Status							
New HTA	91.3 (84.1–95.4)	88.1 (74.8–94.9)	96.7 (86.8–99.3)	93.7 (74.4–98.7)	87.8 (75.0–94.5)	70.3 (39.5–89.6)	82.3 (67.6–91.2)
Normal to High	91.6 (85.5–95.2)	86.4 (78.6–91.6)	93.4 (82.3–97.7)	99.2 (96.5–99.8)	83.4 (73.8–90.0)	68.7 (58.8–77.2)	81.1 (76.1–85.3)
Know HTA	96.4 (94.1–97.8)	91.0 (85.2–94.7)	90.5 (80.6–95.6)	91.9 (77.5–97.4)	83.9 (68.1–92.7)	74.9 (67.1–81.4)	84.5 (79.7–88.3)
Normal	73.8 (67.3–79.4)	72.7 (66.7–77.9)	81.4 (75.6–86.0)	80.6 (74.5–85.6)	63.2 (56.4–69.5)	46.7 (39.4–54.2)	65.7 (61.8–69.3)
BMI Classification							
Normal	47.1 (39.9–54.5)	56.3 (45.7–66.4)	65.9 (55.4–75.1)	61.9 (52.7–70.4)	47.4 (38.6–56.4)	9.2 (5.3–15.5)	44.3 (38.0–50.8)
Overweight	93.5 (87.4–96.8)	97.1 (93.0–98.9)	98.8 (96.9–99.6)	98.5 (95.3–99.5)	91.4 (83.5–95.7)	61.9 (54.5 – 68.8)	83.8 (77.9–88.3)
Obese	98.3 (96.3–99.3)	98.6 (96.2–99.5)	99.2 (96.6–99.8)	99.8 (98.6–100.0)	92.2 (79.4–97.3)	99.4 (97.1–99.9)	97.8 (95.8–98.9)
Cholesterol Levels							
<200	81.8 (78.5–84.7)	75.1 (68.9–80.4)	81.8 (75.1–87.1)	82.7 (76.6–87.5)	66.0 (60.1–71.4)	57.9 (52.3–63.2)	68.9 (65.4–72.2)
200–239.9	85.3 (75.9–91.4)	80.7 (74.3–85.8)	87.6 (79.5–92.8)	91.8 (84.3–95.9)	74.9 (63.8–83.5)	61.2 (47.0–73.7)	76.8 (72.0–81.1)
240+	91.9 (75.5–97.7)	92.8 (85.7–96.6)	90.4 (70.4–97.4)	92.7 (82.8–97.1)	78.4 (65.2–87.6)	90.1 (82.4–94.6)	87.3 (81.5–91.5)
Triglycerides							
<150	78.9 (75.1–82.2)	70.7 (64.7–76.1)	79.3 (71.5–85.5)	75.5 (68.8–81.2)	61.0 (52.2–69.1)	53.4 (46.8–59.9)	64.1 (60.2–67.8)
150–199.9	93.2 (85.5–96.9)	86.5 (80.6–90.9)	86.7 (78.1–92.2)	94.4 (88.4–97.4)	86.2 (80.2–90.5)	79.5 (67.4–87.9)	85.8 (82.1–88.8)
200+	90.2 (83.9–94.2)	93.9 (88.4–96.9)	89.4 (79.6–94.9)	95.6 (90.0–98.1)	84.8 (73.9–91.7)	71.6 (52.8–85.1)	86.8 (81.2–90.9)
Smoker Status							
Yes	88.2 (66.8–96.5)	70.0 (56.6–80.6)	83.1 (55.5–95.1)	92.7 (73.8–98.3)	52.3 (41.2–63.1)	73.6 (60.0–83.8)	71.4 (63.1–78.4)
No	82.8 (79.7–85.6)	80.6 (75.6–84.8)	84.8 (80.2–88.5)	85.1 (80.4–88.8)	71.7 (63.7–78.6)	58.9 (53.3–64.2)	73.2 (69.9–76.4)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	82.7 (79.5–85.5)	79.9 (75.1–84.0)	84.5 (79.7–88.3)	85.8 (81.2–89.4)	71.4 (64.0–77.9)	60.4 (55.2–65.3)	73.5 (70.4–76.4)
1 time	80.9 (54.5–93.7)	61.1 (28.6–86.0)		55.3 (29.2–78.8)	73.0 (33.2–93.6)	56.7 (33.0–77.7)	62.4 (44.2–77.6)
2 or more times		90.2 (50.7–98.8)			59.4 (8.3–96.0)	51.3 (19.0–82.6)	67.4 (37.5–87.7)

Tables 83, 84 and 85. Mean value of continuous variables and standard error by body fat accumulation status, gender, and site.

83. Body fat accumulation: Both genders, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Increased risk														
Age	41.4	0.5	43.9	0.7	42.8	0.9	40.1	0.8	42.0	1.1	42.0	0.6	42.6	0.4
Weight	78.4	1.3	75.1	0.6	73.4	0.8	71.6	1.2	73.3	0.2	80.7	0.7	75.9	0.5
Height	158.9	1.2	161.2	0.5	160.2	0.5	156.8	0.9	159.4	0.3	159.0	0.4	159.7	0.3
Hip	109.1	0.7	.	.	102.0	0.4	102.5	0.7	100.1	0.5	104.3	0.5	103.1	0.7
BMI	31.0	0.4	29.1	0.4	28.5	0.2	29.0	0.3	28.8	0.1	31.8	0.2	29.8	0.2
Fasting Glucose	97.8	1.6	99.8	1.6	100.2	1.1	97.3	2.0	94.8	2.0	95.4	1.6	97.4	1.0
2h-OGTT	117.9	2.4	105.4	1.9	0.0	0.0	117.1	2.4	108.1	3.1	131.0	2.8	106.1	1.8
Total Cholesterol	172.4	2.9	203.7	2.2	196.4	2.2	190.9	4.8	211.2	1.9	177.9	2.0	195.7	1.9
Triglycerides	159.4	7.6	182.7	4.7	187.1	2.7	195.3	9.0	198.3	4.4	170.8	4.5	182.5	2.9
Normal														
Age	35.7	0.5	37.9	1.1	34.4	1.1	33.1	0.7	36.3	1.3	34.0	0.5	35.7	0.5
Weight	61.8	0.8	62.8	0.8	62.3	1.2	60.1	0.8	62.4	0.6	63.3	0.4	62.7	0.3
Height	163.1	1.1	164.6	0.6	164.2	1.0	160.1	0.5	163.3	0.7	161.8	0.3	163.0	0.3
Hip	93.1	0.6	.	.	89.0	0.5	90.5	0.6	87.4	0.7	84.7	0.3	86.8	0.3
BMI	23.2	0.3	23.3	0.2	23.1	0.3	23.3	0.3	23.4	0.4	24.1	0.1	23.6	0.1
Fasting Glucose	85.9	1.4	93.0	1.3	92.3	1.4	91.9	1.1	90.3	0.8	86.5	1.7	89.6	0.7
2h-OGTT	97.6	1.5	94.5	2.4	0.0	0.0	99.1	2.2	87.6	2.3	100.5	1.5	91.8	1.6
Total Cholesterol	158.4	2.8	192.6	2.6	186.3	6.2	182.5	3.2	199.5	3.3	164.4	1.9	181.9	2.8
Triglycerides	122.6	7.0	158.1	4.8	154.6	8.0	158.1	5.5	155.1	6.3	134.4	4.7	147.0	2.9

84. Body fat accumulation: Men, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Increased risk														
Age	43.0	1.0	44.2	1.1	44.5	1.5	41.0	1.5	43.7	1.9	43.5	1.0	43.7	0.6
Weight	86.0	1.5	87.5	0.9	84.8	1.2	84.3	2.1	82.9	0.5	90.6	1.4	86.7	0.6
Height	167.0	1.4	170.7	0.7	169.2	0.5	166.7	1.4	168.2	0.5	168.6	0.5	169.0	0.4
Hip	107.8	0.8	.	.	102.1	0.6	102.5	1.5	99.8	0.3	105.9	0.8	103.3	0.8
BMI	30.9	0.5	30.4	0.4	29.6	0.4	30.3	0.7	29.3	0.1	31.8	0.4	30.5	0.2
Fasting Glucose	94.5	2.6	106.3	4.1	105.7	2.1	97.9	5.3	99.3	2.4	99.1	3.2	101.8	1.9
2h-OGTT	114.0	3.7	110.1	3.7	0.0	0.0	114.1	8.6	112.6	4.9	137.6	5.2	109.7	2.6
Total Cholesterol	176.1	3.8	205.4	3.6	196.8	3.9	198.5	11.9	217.6	1.7	179.3	3.1	199.5	2.7
Triglycerides	189.6	15.9	211.0	8.5	205.1	4.5	235.3	25.9	253.0	12.2	217.0	8.3	221.0	6.9
Normal														
Age	36.7	0.6	39.2	1.3	35.4	1.4	34.2	0.9	37.6	1.3	34.6	0.6	36.8	0.5
Weight	64.5	1.0	67.3	0.9	66.3	1.5	63.9	0.8	65.6	0.5	67.0	0.6	66.4	0.4
Height	165.8	1.3	168.3	0.8	166.9	1.4	162.7	0.5	166.7	0.8	166.0	0.5	166.7	0.4
Hip	93.9	0.7	.	.	89.4	0.5	91.6	0.6	88.1	0.5	84.4	0.5	87.3	0.4
BMI	23.5	0.3	24.1	0.2	23.8	0.3	24.1	0.3	23.6	0.3	24.3	0.2	24.0	0.2
Fasting Glucose	86.0	1.6	93.8	1.5	95.1	2.2	93.3	1.2	90.9	1.1	89.4	2.3	91.2	0.9
2h-OGTT	97.1	1.6	97.8	3.0	0.0	0.0	99.7	2.6	87.9	2.1	100.4	2.1	92.3	1.8
Total Cholesterol	159.0	2.9	196.1	3.4	186.6	8.4	184.2	3.7	200.6	3.3	164.3	2.5	184.0	3.0
Triglycerides	125.6	8.4	173.6	6.5	154.3	10.7	167.8	6.9	165.4	8.0	144.9	6.0	158.5	3.6

85. Body fat accumulation: Women, by site

	Belize		San Salvador		Tegucigalpa		TOTAL		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Increased risk														
Age	40.5	0.4	43.8	0.8	42.0	1.0	39.6	1.3	40.9	0.8	41.3	0.6	42.0	0.4
Weight	74.1	1.3	68.3	0.9	67.8	0.8	65.8	0.8	67.6	0.6	76.0	1.0	70.2	0.6
Height	154.5	1.1	155.9	0.3	155.8	0.6	152.2	0.4	154.1	0.2	154.6	0.4	154.8	0.2
Hip	109.8	0.8	.	.	102.0	0.5	102.5	0.7	100.3	0.7	103.6	0.9	103.1	0.7
BMI	31.1	0.4	28.4	0.4	27.9	0.3	28.4	0.3	28.4	0.2	31.8	0.3	29.4	0.3
Fasting Glucose	99.7	1.6	96.1	0.9	97.4	0.9	97.0	1.4	92.1	2.1	93.6	1.9	95.2	0.9
2h-OGTT	120.2	2.6	102.9	1.7	0.0	0.0	118.5	3.7	105.4	2.5	127.9	3.4	104.3	1.9
Total Cholesterol	170.3	2.8	202.8	2.3	196.2	2.5	187.0	2.5	207.5	2.5	177.2	2.6	193.8	1.8
Triglycerides	142.8	5.2	167.2	3.9	178.3	3.0	174.6	4.9	165.8	5.6	149.3	3.9	161.9	2.1
Normal														
Age	32.6	1.0	34.5	1.2	31.8	1.7	28.9	1.2	32.7	2.2	33.1	0.7	33.2	0.7
Weight	52.8	0.9	51.6	0.6	51.4	0.6	48.1	0.8	53.7	1.8	57.3	0.7	54.4	0.6
Height	154.4	1.2	155.6	0.6	156.6	0.5	152.0	1.2	153.6	0.4	154.9	0.6	154.7	0.3
Hip	90.4	0.8	.	.	87.7	1.0	86.2	0.7	85.3	1.6	85.1	0.7	85.7	0.6
BMI	22.3	0.5	21.4	0.2	21.0	0.2	20.8	0.3	22.7	0.7	23.9	0.2	22.8	0.2
Fasting Glucose	85.7	2.1	91.1	1.7	85.1	1.0	86.7	1.9	88.6	1.3	81.8	1.3	86.1	0.9
2h-OGTT	99.2	2.8	86.8	2.1	0.0	0.0	96.8	3.7	86.6	3.3	100.7	2.7	90.8	2.1
Total Cholesterol	156.4	4.3	183.9	3.1	185.5	4.9	175.7	3.6	196.4	5.0	164.7	2.8	177.1	2.7
Triglycerides	112.7	8.6	120.1	3.5	155.6	7.2	119.3	5.4	127.6	6.7	117.1	9.3	121.2	4.3

Table 86. Cholesterol classification (%₀, 95%–CI) by gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Total							
<200.0	81.4 (76.4–85.6)	53.9 (49.2–58.6)	57.5 (51.7–63.0)	66.1 (59.2–72.5)	47.6 (43.7–51.6)	79.9 (76.2–83.2)	63.0 (58.8–67.0)
200.0–239.9	13.3 (10.5–16.6)	30.4 (26.9–34.3)	30.7 (26.6–35.2)	24.1 (19.0–30.2)	31.9 (30.0–33.9)	15.6 (12.8–18.8)	24.8 (22.5–27.4)
240.0+	5.3 (3.5–8.0)	15.6 (12.8–18.9)	11.8 (8.9–15.5)	9.7 (6.9–13.4)	20.5 (17.9–23.3)	4.5 (3.1–6.5)	12.2 (10.2–14.5)
Men							
<200.0	82.8 (76.8–87.5)	52.0 (44.8–59.1)	60.4 (51.4–68.7)	62.5 (51.8–72.0)	46.0 (42.0–50.1)	81.3 (76.0–85.6)	61.6 (56.3–66.7)
200.0–239.9	12.6 (9.0–17.3)	31.1 (25.4–37.5)	28.9 (22.2–36.6)	26.9 (18.7–36.9)	33.5 (30.8–36.3)	15.4 (11.3–20.5)	25.8 (22.5–29.4)
240.0+	4.6 (2.7–7.9)	16.9 (12.3–22.7)	10.7 (7.0–16.0)	10.7 (6.4–17.2)	20.5 (17.8–23.5)	3.4 (2.1–5.2)	12.6 (10.1–15.5)
Women							
<200.0	80.3 (75.2–84.6)	55.6 (50.5–60.5)	55.1 (48.9–61.3)	70.4 (64.7–75.4)	49.4 (44.4–54.4)	78.9 (73.9–83.1)	64.2 (60.3–67.9)
200.0–239.9	13.8 (11.0–17.3)	29.9 (25.1–35.1)	32.2 (28.2–36.4)	21.0 (16.7–26.1)	30.2 (27.0–33.5)	15.7 (12.2–20.0)	24.0 (21.5–26.7)
240.0+	5.8 (3.9–8.6)	14.6 (11.8–17.9)	12.7 (9.1–17.4)	8.6 (6.4–11.5)	20.4 (17.5–23.8)	5.4 (3.4–8.5)	11.8 (9.8–14.2)

Table 87. Prevalence (%; 95%-CI) of medium cholesterol by age group, gender, and site

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	9.9 (7.1–13.7)	25.2 (20.6–30.5)	27.3 (22.0–33.3)	22.9 (16.4–31.1)	29.4 (26.8–32.3)	11.5 (8.2–16.0)	20.5 (17.7–23.7)
40–64	18.0 (13.9–22.9)	33.9 (29.6–38.4)	33.4 (26.6–40.8)	27.0 (20.1–35.3)	34.5 (30.4–38.9)	23.8 (19.9–28.2)	29.9 (27.5–32.4)
65+	17.6 (12.2–24.8)	42.5 (34.9–50.6)	39.9 (29.8–50.8)	20.5 (12.6–31.7)	39.3 (26.4–53.8)	17.7 (11.5–26.3)	34.3 (28.6–40.3)
Men							
20–39	10.1 (6.2–16.0)	27.1 (20.4–35.0)	26.2 (17.1–38.0)	27.6 (16.5–42.3)	32.6 (29.1–36.3)	11.1 (6.1–19.4)	22.4 (18.3–27.1)
40–64	15.7 (10.3–23.1)	33.1 (25.0–42.3)	28.4 (19.5–39.5)	28.7 (17.6–43.2)	33.7 (28.7–39.1)	23.5 (17.6–30.5)	29.3 (25.5–33.5)
65+	14.7 (9.5–22.2)	41.8 (32.0–52.3)	44.1 (26.2–63.7)	11.0 (4.5–24.6)	38.3 (23.9–55.1)	19.9 (13.3–28.7)	33.7 (27.2–40.8)
Women							
20–39	9.8 (6.7–14.1)	23.7 (17.8–30.9)	28.0 (22.4–34.4)	17.4 (13.2–22.7)	26.2 (21.8–31.3)	11.8 (7.7–17.7)	19.0 (16.1–22.3)
40–64	20.3 (16.3–24.9)	34.6 (29.3–40.2)	38.0 (32.0–44.4)	25.3 (16.9–36.0)	35.6 (30.5–41.0)	24.0 (19.5–29.3)	30.4 (27.5–33.5)
65+	20.3 (12.6–30.9)	43.2 (32.5–54.7)	36.9 (26.3–48.9)	34.9 (16.2–59.9)	40.4 (29.1–52.8)	15.5 (6.8–31.6)	34.8 (28.3–42.0)

Table 88. Prevalence (%; 95%–CI) of medium–high cholesterol age, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	11.9 (8.6–16.3)	34.5 (28.7–40.9)	36.3 (27.8–45.6)	28.7 (22.2–36.1)	45.6 (40.5–50.7)	13.8 (10.6–17.9)	29.0 (24.3–34.2)
40–64	24.3 (19.0–30.5)	58.1 (52.8–63.2)	45.4 (36.8–54.2)	44.0 (35.0–53.5)	61.1 (55.7–66.2)	30.2 (24.5–36.5)	48.0 (44.2–51.8)
65+	29.0 (20.7–38.9)	62.5 (53.0–71.2)	52.7 (41.5–63.7)	45.1 (33.4–57.4)	66.3 (59.6–72.4)	33.7 (24.6–44.0)	54.5 (48.8–60.1)
Men							
20–39	10.1 (6.4–15.5)	40.2 (31.1–50.0)	32.5 (19.9–48.3)	34.3 (22.8–48.0)	51.3 (43.8–58.8)	12.9 (8.4–19.2)	32.1 (25.8–39.2)
40–64	21.2 (14.9–29.3)	57.0 (48.3–65.3)	41.0 (27.6–55.8)	48.4 (35.4–61.6)	57.5 (50.0–64.7)	28.4 (21.5–36.6)	46.6 (41.8–51.5)
65+	24.5 (16.4–34.9)	57.2 (46.3–67.4)	49.9 (31.5–68.4)	27.1 (14.6–44.8)	55.2 (44.1–65.8)	30.7 (20.6–43.1)	47.6 (41.3–54.0)
Women							
20–39	13.7 (9.1–20.1)	29.2 (23.7–35.4)	39.2 (29.7–49.5)	22.7 (17.8–28.6)	39.0 (35.2–43.0)	14.8 (10.4–20.5)	25.9 (22.2–30.0)
40–64	27.8 (21.9–34.6)	59.1 (52.5–65.3)	49.4 (42.5–56.4)	40.2 (29.0–52.5)	65.8 (62.1–69.2)	31.7 (25.2–39.1)	49.4 (45.1–53.8)
65+	33.1 (22.2–46.3)	67.2 (55.0–77.5)	54.6 (43.8–65.0)	70.4 (55.0–82.2)	80.2 (75.3–84.4)	37.0 (21.8–55.3)	61.5 (54.0–68.5)

Table 89. Prevalence (%; 95%-CI) of high cholesterol by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	3.2 (1.7–6.0)	8.4 (5.5–12.8)	10.2 (6.4–15.7)	5.7 (3.4–9.3)	16.1 (12.8–20.0)	2.6 (1.4–4.8)	8.0 (5.8–11.1)
40–64	7.0 (4.7–10.3)	24.9 (20.4–30.0)	13.3 (9.9–17.7)	16.6 (10.9–24.6)	26.5 (23.0–30.2)	6.2 (3.7–10.2)	18.3 (15.6–21.3)
65+	10.8 (6.5–17.5)	20.2 (13.9–28.5)	14.5 (9.0–22.6)	23.5 (14.7–35.5)	25.7 (14.1–42.3)	16.3 (9.5–26.4)	20.0 (15.7–25.2)
Men							
20–39	2.3 (0.9–6.2)	11.9 (6.6–20.3)	8.9 (4.5–16.9)	6.5 (3.0–13.4)	19.1 (15.1–23.8)	2.2 (0.9–5.2)	9.7 (6.7–13.8)
40–64	6.7 (3.7–11.6)	25.1 (17.9–33.8)	13.6 (7.9–22.3)	20.5 (10.7–35.6)	23.9 (19.6–28.8)	4.4 (2.0–9.7)	17.8 (14.4–21.9)
65+	9.5 (4.6–18.8)	15.8 (9.1–26.0)	8.7 (2.9–23.5)	13.7 (5.5–30.2)	13.3 (3.5–39.5)	11.3 (4.2–26.7)	13.3 (8.3–20.8)
Women							
20–39	4.0 (2.0–7.9)	5.2 (2.9–9.3)	11.1 (6.2–19.1)	4.8 (2.8–8.1)	12.7 (9.4–16.9)	3.1 (1.6–5.9)	6.4 (4.5–8.9)
40–64	7.4 (4.9–10.9)	24.8 (20.6–29.4)	13.0 (9.5–17.7)	13.2 (8.2–20.6)	29.8 (24.6–35.5)	7.8 (3.8–15.3)	18.8 (15.7–22.2)
65+	12.0 (6.8–20.5)	24.1 (15.1–36.2)	18.4 (10.6–29.8)	37.4 (23.4–53.8)	41.2 (30.8–52.4)	21.9 (9.8–42.0)	26.9 (21.2–33.4)

Table 90. Prevalence (%; 95%-CI) of medium/high cholesterol by demographic characteristics of survey participants and by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Gender							
Male	16.5 (11.9–22.5)	47.4 (40.1–54.8)	39.4 (30.7–48.8)	37.0 (27.1–48.2)	53.8 (49.6–58.0)	18.5 (14.2–23.9)	38.1 (33.0–43.5)
Female	19.5 (15.2–24.7)	44.1 (39.2–49.1)	44.4 (38.1–50.9)	28.8 (23.9–34.2)	50.4 (45.5–55.4)	21.0 (16.7–26.0)	36.3 (32.7–40.1)
Both	18.0 (13.8–23.0)	45.7 (40.9–50.6)	42.2 (36.4–48.2)	32.9 (26.7–39.8)	52.3 (48.3–56.2)	19.8 (16.5–23.5)	37.2 (33.1–41.5)
Race							
Whites	29.0 (4.2–79.2)				46.0 (33.5–59.1)	19.2 (13.1–27.3)	22.3 (16.0–30.2)
Black/Mulatto	18.9 (14.3–24.6)				60.6 (40.5–77.6)	34.1 (17.7–55.5)	31.2 (22.7–41.2)
Mestizo/Native	11.8 (9.0–15.4)			32.9 (26.7–39.8)	52.4 (48.7–56.0)	19.5 (15.5–24.2)	33.9 (26.4–42.2)
Garifuna	26.9 (17.2–39.4)						26.9 (17.2–39.4)
Others	36.1 (29.7–42.9)						36.1 (29.7–42.9)
Marital Status							
Single	15.9 (11.1–22.1)	40.1 (31.4–49.4)	38.5 (30.2–47.5)	26.1 (17.2–37.4)	47.1 (42.5–51.8)	13.2 (9.3–18.5)	30.4 (25.5–35.8)
Married	18.0 (13.6–23.3)	46.4 (41.6–51.3)	43.4 (35.9–51.3)	37.2 (30.9–44.1)	52.0 (47.4–56.5)	22.3 (17.2–28.5)	38.3 (34.2–42.6)
Widow/ Divorced	26.4 (17.1–38.5)	54.3 (44.8–63.6)	51.8 (40.9–62.5)	21.2 (8.3–44.6)	66.5 (61.9–70.8)	30.2 (21.4–40.7)	48.6 (41.6–55.7)
Education							
None	14.6 (8.3–24.5)	36.8 (21.3–55.6)	49.2 (32.4–66.2)	36.0 (24.0–50.1)	66.0 (50.8–78.5)	11.7 (6.3–20.9)	37.1 (23.2–53.6)
Primary	19.5 (14.0–26.6)	48.8 (42.2–55.3)	45.6 (34.8–56.7)	28.8 (23.2–35.0)	55.9 (50.7–61.0)	21.6 (16.2–28.1)	40.7 (35.5–46.1)
Secondary	15.4 (10.6–21.9)	47.4 (40.0–54.9)	41.7 (32.1–51.9)	41.4 (32.1–51.3)	46.7 (41.3–52.2)	20.0 (15.1–26.1)	35.5 (31.5–39.7)
University	15.8 (8.1–28.4)	40.4 (33.9–47.2)	40.3 (34.4–46.6)	25.0 (11.6–45.8)	40.6 (30.4–51.7)	19.1 (12.3–28.3)	33.3 (29.1–37.9)
Work situation							
Paid	17.5 (12.6–23.8)	45.5 (38.3–52.8)	38.0 (31.1–45.4)	36.1 (28.7–44.1)	50.7 (46.4–55.0)	19.7 (14.7–25.9)	37.8 (33.2–42.6)
Unpaid	18.4 (14.0–23.8)	46.0 (40.7–51.3)	49.0 (42.6–55.5)	24.5 (18.4–31.9)	54.5 (49.0–59.8)	19.9 (16.8–23.4)	36.4 (32.3–40.8)
Housing							
Owned	19.8 (15.1–25.4)	47.2 (42.6–51.9)	43.1 (37.7–48.7)	36.8 (31.0–43.0)	52.6 (48.5–56.7)	19.9 (16.3–24.2)	36.8 (32.8–41.1)
Not owned	9.9 (6.3–15.3)	42.1 (34.4–50.2)	40.7 (31.5–50.6)	26.3 (16.2–39.9)	51.6 (47.3–55.9)	19.1 (13.4–26.4)	38.1 (33.0–43.6)

Table 91. Prevalence (%; 95%-CI) of medium / high cholesterol by demographic characteristics of male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	79.6 (19.3–98.4)				61.9 (36.7–82.0)	13.8 (8.3–22.1)	19.5 (12.4–29.4)
Black/Mulatto	15.9 (10.3–23.6)				39.6 (19.8–63.5)	38.3 (16.6–65.9)	27.0 (17.1–40.0)
Mestizo/Native	12.4 (8.2–18.2)			37.1 (27.1–48.3)	53.9 (49.9–57.8)	19.1 (13.8–25.7)	35.6 (27.2–45.0)
Garifuna	22.3 (11.9–37.9)						22.3 (11.9–37.9)
Others	31.3 (19.2–46.7)						31.3 (19.2–46.7)
Marital Status							
Single	13.2 (7.8–21.4)	33.1 (20.6–48.5)	41.7 (26.8–58.3)	33.1 (19.0–51.0)	50.4 (42.0–58.7)	10.5 (7.0–15.5)	27.5 (20.7–35.6)
Married	17.2 (11.7–24.6)	50.9 (42.2–59.5)	37.0 (26.8–48.5)	43.0 (32.9–53.8)	54.5 (49.1–59.7)	22.7 (16.2–30.9)	41.3 (36.4–46.3)
Widow/ Divorced	27.1 (12.4–49.4)	61.6 (44.7–76.1)	70.0 (40.3–89.0)	7.8 (1.5–31.4)	59.3 (43.1–73.7)	31.7 (13.4–58.3)	49.4 (36.6–62.2)
Education							
None	8.1 (2.9–20.9)	32.4 (6.9–75.7)		21.2 (7.0–49.1)	67.4 (37.7–87.6)	10.2 (4.3–22.3)	36.8 (16.9–62.5)
Primary	18.6 (12.1–27.6)	52.8 (42.8–62.5)	25.5 (13.0–43.8)	32.6 (23.4–43.3)	57.3 (53.4–61.1)	20.3 (13.9–28.6)	43.7 (37.3–50.4)
Secondary	12.0 (6.8–20.3)	48.7 (36.4–61.2)	40.4 (25.0–57.9)	51.5 (35.5–67.3)	47.8 (39.3–56.5)	18.5 (11.9–27.6)	35.7 (30.3–41.5)
University	17.7 (8.0–34.9)	39.4 (29.0–51.0)	41.5 (33.1–50.4)	27.2 (10.6–53.9)	40.5 (25.8–57.2)	19.2 (12.7–28.0)	32.5 (26.7–39.0)
Work situation							
Paid	16.3 (10.6–24.4)	47.4 (38.5–56.4)	33.3 (23.5–44.9)	37.6 (27.0–49.6)	52.8 (48.1–57.4)	21.0 (14.7–29.0)	39.5 (34.1–45.1)
Unpaid	16.8 (11.2–24.3)	47.5 (37.2–58.0)	54.0 (43.5–64.2)	29.1 (15.1–48.5)	56.9 (50.2–63.3)	14.9 (11.1–19.6)	34.5 (28.6–41.0)
Housing							
Owned	17.6 (12.7–24.0)	47.0 (39.6–54.5)	41.0 (33.7–48.8)	40.1 (30.3–50.8)	51.1 (46.6–55.7)	18.4 (13.0–25.2)	36.3 (31.6–41.4)
Not owned	11.3 (5.3–22.3)	48.4 (33.4–63.7)	37.0 (22.5–54.2)	31.2 (15.0–53.9)	58.9 (52.0–65.5)	19.4 (12.9–28.2)	42.8 (34.5–51.6)

Table 92. Prevalence (%; 95%–CI) of medium/ high cholesterol by demographic characteristics of female survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites					33.0 (19.1–50.6)	23.6 (13.5–38.0)	24.6 (15.2–37.4)
Black/Mulatto	22.7 (15.7–31.5)				83.2 (55.7–95.1)	28.0 (10.1–57.4)	36.5 (23.6–51.7)
Mestizo/Native	11.3 (8.9–14.2)			28.7 (23.9–34.1)	50.6 (46.2–54.9)	19.9 (15.3–25.4)	32.0 (25.4–39.5)
Garifuna	30.6 (19.9–43.8)						30.6 (19.9–43.8)
Others	40.3 (36.0–44.7)						40.3 (36.0–44.7)
Marital Status							
Single	19.2 (13.3–27.0)	46.3 (37.6–55.2)	36.6 (28.1–46.0)	18.1 (11.7–27.1)	43.7 (37.7–49.9)	16.3 (10.8–23.8)	33.4 (28.8–38.3)
Married	18.7 (14.7–23.4)	41.4 (36.3–46.7)	50.4 (42.9–57.8)	30.7 (24.3–38.0)	48.4 (43.5–53.3)	21.9 (16.0–29.3)	35.0 (30.9–39.4)
Widow/Divorced	26.1 (16.5–38.6)	51.3 (40.2–62.4)	47.1 (36.9–57.6)	29.8 (17.1–46.6)	70.2 (62.7–76.7)	29.8 (18.8–43.7)	48.3 (41.5–55.2)
Education							
None	21.2 (11.9–35.0)	38.5 (19.4–62.0)	44.9 (28.7–62.2)	45.0 (33.5–57.1)	64.3 (53.7–73.7)	13.2 (6.6–24.6)	37.5 (28.1–47.8)
Primary	20.4 (15.3–26.7)	45.0 (37.1–53.3)	54.4 (42.7–65.5)	26.0 (19.4–33.9)	54.0 (45.7–62.1)	22.4 (16.6–29.5)	37.8 (33.2–42.7)
Secondary	18.5 (12.0–27.4)	46.0 (39.6–52.5)	42.9 (34.0–52.3)	31.1 (23.1–40.5)	45.7 (42.1–49.4)	21.6 (15.1–29.8)	35.4 (31.3–39.8)
University	11.3 (5.3–22.3)	41.2 (35.9–46.8)	39.0 (31.1–47.4)	18.0 (7.1–38.8)	40.6 (31.8–50.2)	18.9 (7.6–39.7)	34.3 (29.2–39.7)
Work situation							
Paid	20.7 (14.2–29.1)	41.5 (35.0–48.3)	42.8 (35.7–50.3)	33.3 (27.7–39.4)	46.1 (41.5–50.8)	17.6 (10.9–27.3)	34.6 (30.5–39.0)
Unpaid	19.1 (14.2–25.2)	45.5 (39.1–52.1)	46.4 (39.2–53.7)	23.8 (17.2–31.9)	53.2 (47.1–59.3)	22.8 (18.6–27.5)	37.3 (33.3–41.4)
Housing							
Owned	21.9 (16.9–28.0)	47.4 (41.1–53.8)	44.6 (38.2–51.1)	33.2 (28.0–38.8)	54.4 (49.2–59.4)	21.4 (16.8–26.7)	37.3 (33.1–41.8)
Not owned	8.7 (5.4–13.5)	36.8 (31.0–43.0)	44.2 (35.7–53.0)	21.8 (14.4–31.6)	42.5 (34.6–50.8)	18.7 (10.9–30.2)	33.4 (29.7–37.3)

Table 93. Prevalence (%; 95%-CI) of high cholesterol risk factors in both sexes, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	36.0 (28.6–44.1)	54.7 (44.7–64.3)	58.5 (43.8–71.9)	38.0 (24.7–53.2)	59.0 (44.7–72.0)	21.7 (13.0–33.8)	43.2 (37.0–49.6)
Newly	28.7 (19.3–40.3)	63.9 (47.2–77.8)	39.2 (18.3–65.0)	63.4 (44.2–79.2)	66.5 (54.7–76.6)	37.2 (24.9–51.4)	49.7 (41.5–58.0)
IGT/IFG	23.6 (16.6–32.4)	49.7 (41.8–57.6)	52.6 (42.8–62.2)	44.6 (32.5–57.3)	59.0 (48.7–68.5)	23.3 (17.5–30.2)	44.9 (40.0–49.9)
Non DM	13.9 (10.0–19.0)	42.9 (37.5–48.4)	37.6 (31.5–44.1)	26.4 (19.6–34.7)	50.0 (46.2–53.9)	18.1 (14.3–22.6)	34.2 (29.7–39.1)
Hypertension Status							
New HTA	20.7 (13.7–30.1)	58.5 (45.6–70.3)	37.8 (20.1–59.5)	38.6 (24.9–54.5)	71.8 (67.3–75.8)	29.0 (18.7–42.0)	49.1 (40.3–57.9)
Normal to High	23.7 (17.7–31.0)	49.6 (40.6–58.6)	48.8 (39.6–58.2)	38.9 (20.3–61.5)	55.7 (47.9–63.2)	20.8 (16.3–26.1)	39.1 (34.0–44.5)
Know HTA	24.3 (18.1–31.9)	61.9 (54.4–68.9)	46.6 (37.0–56.5)	43.4 (28.3–59.9)	61.4 (54.7–67.7)	21.6 (17.0–27.1)	43.9 (38.3–49.7)
Normal	12.1 (8.9–16.3)	35.8 (30.5–41.5)	39.3 (32.2–47.0)	27.1 (21.7–33.1)	44.3 (39.5–49.2)	15.5 (10.7–22.0)	31.4 (27.6–35.4)
BMI Classification							
Normal	14.1 (8.8–22.0)	36.3 (28.1–45.4)	32.1 (24.5–40.7)	23.8 (18.4–30.1)	44.9 (39.3–50.7)	12.8 (8.5–18.7)	30.6 (25.8–35.9)
Overweight	19.8 (14.3–26.8)	47.4 (39.7–55.3)	48.7 (40.8–56.8)	31.2 (18.9–46.8)	60.7 (55.8–65.3)	23.4 (17.9–30.1)	40.4 (34.7–46.4)
Obese	20.1 (15.3–26.0)	50.5 (43.6–57.3)	49.7 (41.3–58.1)	50.7 (39.3–62.1)	54.6 (52.0–57.2)	23.7 (18.9–29.3)	39.1 (34.8–43.6)
Risk Associated with Waist Circumference							
Substantial risk	21.3 (16.6–26.8)	53.1 (48.7–57.5)	49.2 (43.5–55.0)	40.7 (32.2–49.7)	58.5 (54.6–62.3)	26.2 (20.8–32.4)	45.0 (41.2–48.8)
Increased risk	23.4 (16.1–32.8)	40.3 (29.9–51.7)	37.3 (29.8–45.5)	29.4 (16.3–47.0)	55.0 (50.2–59.6)	22.2 (17.6–27.6)	36.7 (31.3–42.5)
No risk	11.1 (7.6–15.8)	40.3 (33.7–48.5)	34.5 (23.8–47.1)	27.1 (19.8–35.9)	47.1 (41.0–53.2)	16.0 (11.9–21.2)	31.3 (26.3–36.8)
Triglycerides							
<150	12.1 (8.7–16.6)	28.2 (22.1–35.4)	28.6 (20.1–38.9)	20.0 (14.2–27.4)	36.0 (31.5–40.8)	12.3 (8.9–16.8)	23.0 (19.4–27.1)
150–199.9	24.7 (16.7–34.9)	62.2 (54.8–69.1)	40.0 (32.1–48.4)	33.7 (19.6–51.4)	61.9 (56.9–66.6)	24.1 (18.7–30.6)	48.0 (42.4–53.6)
200+	33.3 (23.2–45.2)	60.8 (53.4–67.8)	61.1 (53.1–68.7)	51.4 (40.2–62.5)	76.1 (70.7–80.8)	40.4 (31.4–50.1)	58.4 (52.9–63.6)
Smoker Status							
Yes	22.3 (14.4–33.1)	34.5 (25.5–44.9)	43.2 (30.6–56.8)	34.8 (18.0–56.5)	50.1 (44.7–55.5)	17.9 (12.9–24.4)	32.2 (26.6–38.3)
No	17.6 (13.4–22.8)	48.0 (43.5–52.5)	42.1 (35.9–48.5)	32.4 (27.2–38.2)	52.7 (48.4–56.9)	20.2 (16.7–24.4)	38.2 (34.1–42.4)
Total	18.0 (13.8–23.0)	45.7 (40.9–50.6)	42.2 (36.4–48.2)	32.9 (26.7–39.8)	52.3 (48.3–56.2)	19.8 (16.5–23.5)	37.2 (33.1–41.5)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	17.8 (13.6–22.9)	45.9 (41.2–50.6)	41.5 (35.5–47.7)	31.3 (24.9–38.4)	52.4 (48.3–56.5)	20.0 (16.1–24.6)	37.4 (33.4–41.6)
1 time	8.9 (3.3–22.0)	38.1 (24.3–54.2)	42.3 (22.9–64.4)	49.3 (18.9–80.3)	62.7 (48.8–74.8)	22.6 (14.4–33.6)	37.0 (27.0–48.2)
2 or more times	20.8 (9.8–38.9)	71.7 (44.8–88.8)	55.9 (40.6–70.1)	41.5 (11.0–80.2)	61.5 (45.6–75.3)	22.8 (12.7–37.6)	45.2 (33.1–58.0)

Table 94. Prevalence (%; 95%-CI) of high cholesterol risk factors in men, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	32.4 (17.7–51.6)	53.3 (37.8–68.1)	62.4 (38.4–81.6)	28.0 (10.5–56.2)	44.9 (19.8–72.9)	19.4 (8.7–37.9)	41.2 (31.7–51.3)
Newly	29.6 (14.4–51.3)	76.1 (52.9–90.0)	17.8 (4.3–51.0)	73.4 (47.1–89.5)	64.4 (50.8–76.0)	32.3 (16.2–54.0)	52.8 (41.7–63.6)
IGT/IFG	27.2 (17.0–40.5)	46.6 (33.9–59.8)	50.9 (37.9–63.7)	56.6 (39.3–72.4)	55.7 (40.4–70.1)	17.7 (10.6–28.0)	44.2 (37.6–51.0)
Non DM	12.5 (8.0–19.0)	45.9 (37.7–54.3)	32.8 (23.0–44.4)	28.3 (17.1–43.0)	53.2 (47.5–58.9)	17.9 (12.8–24.4)	35.7 (29.5–42.4)
Hypertension Status							
New HTA	20.1 (12.2–31.4)	57.7 (41.8–72.2)	33.4 (13.3–62.1)	43.1 (23.3–65.3)	73.2 (66.9–78.7)	21.9 (15.5–30.2)	48.6 (37.3–60.1)
Normal to High	21.0 (14.0–30.4)	51.4 (39.4–63.3)	42.6 (31.4–54.6)	39.5 (20.1–62.9)	55.1 (47.7–62.2)	16.6 (11.5–23.4)	38.0 (31.8–44.5)
Know HTA	21.1 (12.6–33.2)	60.9 (49.1–71.5)	46.0 (31.6–61.2)	45.3 (20.2–73.1)	51.3 (39.7–62.8)	27.1 (16.8–40.5)	44.4 (37.7–51.3)
Normal	10.2 (6.3–16.1)	35.3 (26.4–45.3)	36.5 (25.2–49.4)	31.9 (21.1–45.2)	46.6 (39.9–53.3)	16.4 (7.1–33.5)	32.5 (27.2–38.2)
BMI Classification							
Normal	10.0 (5.5–17.7)	39.5 (27.2–53.3)	29.5 (17.0–46.2)	28.6 (19.0–40.5)	45.7 (40.2–51.2)	9.2 (6.1–13.7)	30.0 (23.8–37.0)
Overweight	19.3 (13.1–27.4)	48.4 (34.9–62.1)	46.3 (34.2–58.8)	34.2 (17.0–56.9)	64.4 (59.0–69.5)	25.1 (16.2–36.7)	43.2 (35.6–51.1)
Obese	23.5 (14.6–35.4)	51.2 (35.8–66.4)	45.4 (30.6–61.1)	70.6 (50.2–85.2)	56.7 (51.8–61.4)	25.2 (16.8–35.9)	41.9 (34.9–49.2)
Risk Associated with Waist Circumference							
Substantial risk	23.0 (15.4–33.0)	56.3 (43.6–68.3)	46.1 (35.7–56.8)	77.1 (59.4–88.6)	58.7 (51.4–65.5)	29.1 (17.2–44.7)	48.6 (41.9–55.3)
Increased risk	26.2 (16.1–39.6)	46.3 (32.9–60.3)	40.7 (27.7–55.2)	35.5 (14.5–64.0)	64.7 (59.7–69.4)	23.1 (16.8–31.0)	43.0 (35.4–50.9)
No risk	10.0 (6.6–15.0)	44.2 (35.6–53.2)	34.8 (21.0–51.7)	30.0 (21.2–40.6)	49.2 (43.3–55.2)	15.7 (10.5–22.7)	33.4 (27.7–39.6)
Triglycerides							
<150	9.8 (5.9–15.7)	28.8 (19.0–41.1)	22.9 (10.5–42.9)	21.5 (12.6–34.3)	36.8 (31.0–42.9)	10.5 (5.3–19.7)	22.7 (17.6–28.7)
150–199.9	22.3 (11.8–38.1)	60.7 (47.5–72.5)	38.6 (28.4–50.0)	34.0 (14.3–61.3)	61.3 (52.0–69.8)	22.7 (15.2–32.4)	46.2 (38.2–54.5)
200+	32.7 (19.5–49.3)	58.9 (48.5–68.5)	60.0 (47.9–71.1)	58.3 (45.6–70.0)	74.1 (68.1–79.3)	33.3 (24.1–43.9)	56.1 (49.5–62.4)
Smoker Status							
Yes	21.3 (13.4–32.3)	34.5 (23.2–47.8)	42.7 (27.8–59.1)	36.8 (16.8–62.7)	50.8 (44.1–57.5)	18.5 (12.9–25.9)	33.2 (26.8–40.1)
No	15.6 (10.8–22.0)	51.1 (43.0–59.2)	38.7 (28.6–49.8)	37.1 (27.7–47.6)	54.9 (49.4–60.2)	18.6 (13.4–25.2)	39.8 (34.4–45.5)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	15.8 (10.9–22.4)	47.6 (39.6–55.7)	36.9 (28.1–46.8)	34.2 (24.1–46.0)	54.9 (50.3–59.4)	17.4 (12.1–24.6)	38.3 (32.9–44.0)
1 time	6.3 (1.6–21.3)	45.2 (25.6–66.5)	50.0 (26.9–73.1)	53.0 (19.4–84.1)	60.4 (47.1–72.4)	26.2 (16.4–39.2)	40.4 (30.0–51.8)
2 or more times	17.0 (6.4–38.0)	77.9 (44.7–93.9)	53.4 (39.2–67.0)	37.8 (7.5–81.9)	61.6 (45.0–75.8)	26.7 (15.2–42.5)	48.1 (35.6–60.9)

Table 95. Prevalence (%; 95%-CI) of high cholesterol risk factors in female survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	37.7 (29.8–46.2)	56.3 (39.4–71.8)	54.2 (35.6–71.7)	46.9 (27.9–66.9)	75.6 (49.9–90.6)	23.5 (11.0–43.2)	45.0 (35.7–54.7)
Newly	28.2 (17.0–43.0)	49.9 (30.8–68.9)	58.0 (33.4–79.2)	45.7 (25.2–67.8)	69.3 (52.5–82.2)	41.4 (24.1–61.1)	46.8 (36.6–57.2)
IGT/IFG	19.9 (13.0–29.3)	52.4 (44.9–59.9)	54.7 (41.4–67.4)	34.2 (21.5–49.6)	64.3 (59.5–68.9)	27.5 (19.0–38.1)	45.6 (39.7–51.6)
Non DM	15.5 (11.5–20.7)	40.1 (34.9–45.5)	40.9 (34.6–47.5)	24.4 (18.9–30.8)	46.5 (40.7–52.5)	18.3 (13.8–24.0)	32.8 (29.2–36.7)
Hypertension Status							
New HTA	22.2 (13.6–34.0)	60.5 (41.5–76.8)	45.0 (25.1–66.7)	30.5 (16.3–49.6)	67.6 (51.2–80.6)	40.0 (20.3–63.6)	50.0 (40.2–59.8)
Normal to High	28.3 (21.2–36.8)	46.2 (34.9–58.0)	58.6 (47.6–68.9)	37.4 (17.8–62.1)	57.2 (47.4–66.5)	29.2 (21.0–39.0)	41.4 (35.7–47.3)
Know HTA	26.4 (19.7–34.4)	62.5 (53.2–70.9)	47.0 (37.2–57.1)	42.2 (28.0–57.8)	69.0 (62.0–75.3)	19.0 (12.7–27.6)	43.6 (36.1–51.5)
Normal	13.6 (9.6–18.9)	36.1 (30.2–42.5)	41.2 (33.2–49.6)	23.8 (19.3–29.1)	42.4 (37.9–47.1)	15.0 (11.4–19.4)	30.6 (27.1–34.5)
BMI Classification							
Normal	20.6 (13.1–30.8)	33.9 (25.8–43.1)	34.1 (27.0–41.9)	19.8 (14.0–27.1)	43.9 (36.8–51.2)	17.6 (9.6–30.1)	31.4 (26.8–36.3)
Overweight	20.5 (14.7–27.9)	46.1 (38.1–54.2)	51.2 (41.1–61.1)	27.8 (19.4–38.3)	55.6 (48.8–62.2)	22.0 (16.5–28.7)	37.2 (32.1–42.6)
Obese	18.3 (13.8–23.8)	49.9 (41.5–58.3)	52.3 (44.3–60.2)	39.3 (30.1–49.4)	53.1 (49.8–56.4)	22.7 (16.6–30.2)	37.2 (32.6–42.1)
Risk Associated with Waist Circumference							
Substantial risk	20.6 (15.9–26.2)	51.9 (46.2–57.6)	50.4 (43.6–57.1)	34.4 (27.2–42.4)	58.5 (54.9–62.0)	25.4 (19.8–32.0)	43.8 (39.7–48.0)
Increased risk	20.1 (13.7–28.5)	33.9 (23.6–45.9)	34.4 (25.7–44.2)	18.6 (10.5–30.6)	42.1 (36.0–48.5)	21.6 (15.3–29.5)	30.1 (25.4–35.3)
No risk	14.5 (8.4–24.0)	32.7 (24.1–42.6)	33.8 (21.9–48.2)	15.6 (9.1–25.7)	41.4 (30.3–53.5)	16.5 (10.5–25.1)	26.5 (21.3–32.4)
Triglycerides							
<150	14.2 (10.2–19.5)	27.8 (22.7–33.7)	33.3 (25.9–41.6)	18.9 (14.0–25.0)	35.3 (30.3–40.5)	13.7 (10.3–18.0)	23.3 (20.2–26.7)
150–199.9	27.2 (19.1–37.1)	63.6 (54.4–71.8)	41.0 (30.0–53.0)	33.3 (23.8–44.3)	62.5 (58.0–66.8)	25.7 (17.9–35.3)	49.7 (44.4–55.0)
200+	34.1 (24.8–44.9)	64.2 (56.1–71.6)	62.1 (52.8–70.6)	43.2 (27.8–60.0)	79.9 (72.6–85.6)	52.8 (36.3–68.8)	62.1 (55.8–67.9)
Smoker Status							
Yes	36.6 (14.3–66.6)	34.6 (23.6–47.6)	45.0 (23.6–68.5)	21.8 (10.3–40.4)	42.2 (33.3–51.7)	15.9 (8.5–27.7)	28.9 (21.9–37.1)
No	19.3 (15.1–24.4)	45.4 (40.4–50.4)	44.4 (37.9–51.1)	29.2 (24.1–34.9)	50.7 (45.5–55.8)	21.4 (16.9–26.8)	36.9 (33.2–40.7)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	19.5 (15.2–24.5)	44.5 (39.7–49.4)	44.7 (38.4–51.2)	28.7 (23.8–34.2)	50.0 (44.9–55.1)	21.9 (17.2–27.3)	36.7 (33.2–40.4)
1 time	19.2 (3.9–58.5)	27.1 (11.3–52.2)	6.1 (.6–40.4)	20.1 (5.1–54.2)	76.3 (41.7–93.6)	11.8 (5.3–24.2)	26.8 (15.6–42.1)
2 or more times	45.7 (12.4–83.3)	55.2 (16.0–88.9)			59.4 (8.3–96.0)	9.2 (1.9–34.6)	29.6 (13.9–52.4)

Tables 96, 97 and 98. Mean value of continuous variables and standard error by cholesterol status, gender, and site.

96. Cholesterol: Both genders, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Cholesterol ≥ 200														
Age (years)	44.7	1.1	46.0	1.0	42.3	1.2	39.6	1.1	42.3	1.4	44.1	1.0	44.0	0.8
Weight (kg)	74.8	1.6	71.5	0.7	72.2	1.0	72.1	2.1	69.7	0.7	73.8	1.2	71.4	0.4
Height (cm)	160.6	1.9	162.0	0.6	161.1	0.8	158.9	1.1	161.2	0.7	159.6	0.6	161.1	0.4
Waist (cm)	96.8	1.1	93.1	0.7	95.4	0.9	96.5	1.3	84.9	3.4	89.0	1.1	90.3	1.1
Hip (cm)	104.1	0.9	.	.	99.7	0.7	100.7	1.0	95.5	0.4	97.1	1.0	97.2	0.6
BMI	29.1	0.7	27.6	0.3	27.8	0.3	28.4	0.6	26.8	0.2	28.9	0.4	27.6	0.2
Fasting Glucose (mg/dl)	104.9	3.7	100.4	1.8	100.4	1.4	101.1	2.3	94.9	1.8	96.6	2.9	98.3	1.3
2h-OGTT (mg/dl)	117.2	3.4	105.0	2.6	0.0	0.0	119.7	4.1	104.4	3.6	121.1	5.0	101.8	1.9
Triglycerides (mg/dl)	200.0	18.1	201.9	4.9	203.2	4.2	234.0	16.9	217.0	3.5	216.1	13.9	210.3	3.4
Cholesterol < 200														
Age (years)	38.1	0.4	38.1	0.7	38.8	1.0	36.4	1.2	35.8	0.8	36.1	0.5	36.9	0.4
Weight (kg)	71.8	1.2	69.9	0.7	68.8	0.9	65.9	1.6	66.6	0.8	70.6	0.6	69.5	0.5
Height (cm)	160.4	1.1	162.8	0.6	161.5	0.5	157.7	0.8	161.2	0.3	160.7	0.2	161.2	0.2
Waist (cm)	92.7	0.5	90.6	0.6	90.6	1.2	90.1	0.7	82.9	2.1	84.5	0.7	87.3	0.6
Hip (cm)	103.1	0.8	.	.	97.2	0.7	96.5	0.5	92.6	0.5	92.8	0.5	94.6	0.5
BMI	28.0	0.3	26.4	0.3	26.3	0.3	26.4	0.4	25.6	0.3	27.3	0.2	26.8	0.2
Fasting Glucose (mg/dl)	91.0	1.0	94.7	1.3	95.9	1.2	92.0	1.4	90.1	0.9	89.0	1.2	91.5	0.6
2h-OGTT (mg/dl)	108.8	1.7	98.5	1.9	0.0	0.0	104.6	2.1	91.3	1.6	111.8	1.9	98.3	1.7
Triglycerides (mg/dl)	134.2	6.1	149.9	4.4	158.5	4.6	156.3	4.7	134.1	3.2	134.7	2.3	141.1	1.8

97. Cholesterol: Men, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Cholesterol ≥ 200														
Age (years)	44.0	1.6	44.5	1.2	41.6	2.2	37.2	1.4	41.1	1.8	44.1	1.6	42.7	1.0
Weight (kg)	79.5	2.2	77.0	1.4	79.0	1.4	77.9	3.4	73.2	0.7	78.6	2.5	76.1	0.8
Height (cm)	167.4	2.2	168.4	1.0	169.2	0.6	164.6	1.3	167.1	0.8	166.0	0.8	167.4	0.5
Waist (cm)	98.1	1.4	93.2	1.0	96.9	1.7	95.8	2.2	84.5	3.5	91.5	2.1	90.4	1.4
Hip (cm)	103.0	1.1	.	.	97.5	1.1	99.6	1.6	93.4	0.4	95.9	2.0	95.3	0.8
BMI	28.4	0.8	27.5	0.4	27.6	0.5	28.6	1.0	26.2	0.2	28.3	0.7	27.2	0.3
Fasting Glucose (mg/dl)	99.3	4.5	103.1	3.6	104.7	2.6	102.8	3.5	94.9	2.1	98.7	5.1	99.6	2.2
2h-OGTT (mg/dl)	114.3	5.1	105.0	4.1	0.0	0.0	117.9	5.3	102.9	4.0	117.0	9.1	101.5	2.5
Triglycerides (mg/dl)	226.5	29.0	219.7	8.9	214.0	7.6	259.0	27.0	236.7	5.0	235.3	26.6	229.7	5.8
Cholesterol < 200														
Age (years)	38.6	0.6	38.9	1.1	39.1	1.7	37.1	1.0	38.2	1.2	35.7	0.6	37.5	0.4
Weight (kg)	73.1	1.6	76.3	1.3	74.1	2.1	71.3	2.8	70.2	0.4	73.1	0.9	73.4	0.7
Height (cm)	166.1	1.2	170.2	0.6	167.3	1.2	164.8	1.3	167.5	0.7	167.0	0.5	167.7	0.3
Waist (cm)	91.7	1.1	92.0	1.1	91.8	2.4	88.3	1.2	82.3	2.3	84.9	1.2	87.5	0.8
Hip (cm)	99.6	1.1	.	.	95.1	1.1	94.3	0.8	91.1	0.5	89.7	0.7	92.0	0.5
BMI	26.5	0.5	26.5	0.5	26.4	0.5	26.2	0.7	25.1	0.2	26.2	0.3	26.1	0.2
Fasting Glucose (mg/dl)	87.9	1.4	96.4	2.0	98.0	2.2	90.5	2.4	92.7	1.0	90.8	2.0	92.7	0.9
2h-OGTT (mg/dl)	102.7	2.2	102.1	2.9	0.0	0.0	97.6	3.5	89.4	1.8	109.4	2.4	97.2	2.0
Triglycerides (mg/dl)	140.1	9.8	165.0	6.9	158.7	8.9	160.4	5.1	149.4	6.7	150.4	4.4	154.1	2.8

98 . Cholesterol: Women, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Cholesterol ≥ 200														
Age	45.3	1.5	47.6	1.2	42.8	1.3	42.8	1.1	43.9	1.0	44.0	1.2	45.3	0.7
Weight	70.7	1.8	65.9	1.0	67.3	0.9	64.9	0.9	65.0	0.5	69.9	1.3	66.5	0.5
Height	154.8	1.5	155.2	0.4	155.2	0.6	152.0	0.5	153.6	0.3	154.3	0.8	154.4	0.3
Waist	95.7	1.2	92.9	0.9	94.3	1.0	97.3	0.9	85.3	3.5	86.8	1.0	90.1	1.1
Hip	105.0	1.2	.	.	101.3	0.7	102.1	0.7	98.3	0.6	98.0	1.4	99.3	0.6
BMI	29.7	0.9	27.7	0.5	27.9	0.3	28.1	0.4	27.5	0.2	29.3	0.6	28.0	0.2
Fasting Glucose	109.8	4.1	97.6	1.1	97.4	1.2	99.0	2.0	94.9	1.6	94.8	2.8	96.9	0.9
2h-OGTT	120.1	4.5	105.0	2.4	0.0	0.0	122.3	4.7	106.4	3.3	124.5	5.2	102.2	2.1
Triglycerides	177.2	11.5	183.9	3.8	195.5	4.5	201.1	8.4	191.8	4.8	200.2	14.8	190.1	3.3
Cholesterol < 200														
Age	37.6	0.4	37.3	0.7	38.6	0.9	35.8	1.9	33.2	0.6	36.4	0.5	36.3	0.4
Weight	70.4	1.1	64.2	1.0	64.1	0.8	61.7	0.7	62.6	1.4	68.3	0.9	65.8	0.7
Height	154.4	1.1	156.3	0.4	156.4	0.6	152.2	0.6	154.3	0.3	154.8	0.3	155.0	0.2
Waist	93.7	0.8	89.3	0.9	89.5	1.4	91.7	0.8	83.4	2.0	84.0	0.7	87.0	0.6
Hip	106.8	0.7	.	.	99.0	0.6	98.4	0.6	94.2	1.1	95.8	0.7	97.2	0.7
BMI	29.6	0.3	26.4	0.5	26.2	0.3	26.6	0.3	26.2	0.5	28.5	0.3	27.4	0.3
Fasting Glucose	94.2	1.2	93.1	1.0	94.0	1.2	93.4	1.7	87.2	1.2	87.3	1.4	90.3	0.7
2h-OGTT	115.4	2.4	95.4	1.7	0.0	0.0	111.0	4.9	93.5	1.9	114.2	2.8	99.4	2.0
Triglycerides	128.0	5.2	136.5	3.2	158.3	2.9	152.5	5.9	117.1	3.6	119.5	2.5	128.6	2.1

Table 99. Triglycerides classification (%; 95%-CI) by gender and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Total							
<150	65.8 (60.5–70.8)	47.4 (43.5–51.5)	37.1 (31.4–43.1)	41.0 (33.7–48.8)	52.8 (50.2–55.4)	64.1 (61.0–67.1)	54.1 (51.9–56.3)
150–199.9	15.5 (12.8–18.7)	24.7 (21.9–27.8)	31.3 (27.3–35.5)	29.1 (22.8–36.2)	18.6 (16.7–20.6)	16.7 (14.2–19.4)	20.9 (19.3–22.5)
200+	18.7 (15.3–22.7)	27.8 (24.5–31.4)	31.6 (27.9–35.7)	29.9 (25.8–34.5)	28.6 (26.1–31.2)	19.2 (16.6–22.2)	25.1 (23.4–26.8)
Men							
<150	62.8 (54.9–70.1)	39.2 (33.3–45.4)	37.1 (26.3–49.3)	35.0 (26.2–44.9)	47.9 (44.7–51.2)	56.2 (51.7–60.6)	47.2 (44.3–50.0)
150–199.9	16.1 (12.7–20.3)	24.1 (19.3–29.6)	30.3 (23.5–37.4)	33.6 (21.8–47.8)	17.5 (15.3–20.0)	17.6 (14.2–21.7)	21.0 (18.7–23.5)
200+	21.1 (15.2–28.4)	36.7 (31.3–42.5)	32.9 (25.5–41.3)	31.4 (23.7–40.4)	34.5 (30.6–38.7)	26.2 (22.3–30.4)	31.8 (29.4–34.4)
Women							
<150	68.2 (63.0–73.1)	54.5 (50.6–58.3)	37.1 (32.9–41.5)	47.9 (41.2–54.7)	58.1 (55.0–61.1)	70.2 (66.2–73.9)	60.1 (57.7–62.5)
150–199.9	15.0 (11.4–19.4)	25.2 (21.8–29.0)	32.2 (27.7–37.1)	23.9 (19.4–29.0)	19.8 (17.9–21.8)	15.9 (13.3–19.0)	20.8 (19.0–22.6)
200+	16.8 (13.4–20.8)	20.3 (17.1–23.9)	30.6 (27.3–34.2)	28.2 (20.7–37.2)	22.1 (19.2–25.4)	13.9 (10.7–17.8)	19.1 (17.3–21.0)

Table 100. Prevalence (%; 95%-CI) of medium triglycerides by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	12.7 (9.6–16.8)	19.6 (15.2–25.0)	29.5 (23.4–36.3)	33.6 (23.0–46.0)	17.3 (14.3–20.8)	14.2 (11.0–18.3)	18.0 (15.9–20.3)
40–64	19.7 (15.1–25.2)	26.6 (22.4–31.3)	33.8 (29.3–38.7)	20.8 (15.1–28.1)	22.0 (19.3–24.9)	22.0 (18.0–26.6)	24.1 (21.8–26.5)
65+	17.8 (14.0–22.3)	41.6 (33.4–50.3)	32.2 (22.5–43.7)	27.8 (15.6–44.4)	16.6 (11.3–23.6)	16.5 (10.4–25.1)	28.1 (22.8–34.0)
Men							
20–39	13.5 (8.5–20.9)	19.1 (11.5–29.9)	24.4 (15.9–35.5)	41.1 (24.4–60.2)	16.5 (12.2–21.9)	15.2 (10.7–21.0)	18.4 (15.1–22.3)
40–64	20.7 (14.5–28.6)	25.2 (19.3–32.2)	34.7 (27.8–42.3)	18.1 (10.8–28.7)	19.8 (16.0–24.2)	22.2 (15.0–31.6)	23.1 (19.7–26.9)
65+	13.1 (7.7–21.2)	41.9 (31.3–53.4)	41.4 (23.5–61.9)	34.8 (17.8–56.8)	16.9 (9.4–28.5)	20.9 (10.6–37.2)	29.2 (22.4–37.0)
Women							
20–39	12.2 (8.3–17.4)	20.1 (16.0–25.0)	33.1 (26.4–40.5)	24.5 (18.5–31.7)	18.2 (16.1–20.5)	13.5 (9.8–18.3)	17.6 (15.4–20.0)
40–64	18.7 (13.6–25.2)	27.8 (22.2–34.2)	33.0 (27.2–39.4)	23.6 (16.1–33.4)	24.7 (21.0–28.7)	21.8 (17.4–26.9)	25.0 (22.2–28.0)
65+	22.1 (15.8–30.0)	41.3 (32.2–50.9)	25.8 (18.0–35.5)	17.2 (7.7–34.1)	16.1 (11.0–23.1)	12.0 (6.5–21.1)	27.0 (21.7–33.0)

Table 101. Prevalence (%; 95%-CI) of high triglycerides, by age group, gender, and site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Age Group							
Both Genders							
20–39	13.8 (10.1–18.5)	23.5 (19.7–27.7)	23.0 (18.0–28.8)	20.2 (15.4–26.0)	24.1 (21.4–27.1)	16.4 (13.3–20.1)	20.6 (18.6–22.7)
40–64	23.9 (17.8–31.2)	33.7 (28.5–39.2)	44.6 (39.3–50.1)	47.6 (37.7–57.6)	39.4 (37.1–41.7)	27.0 (22.7–31.8)	33.7 (31.0–36.5)
65+	15.9 (11.3–22.0)	29.1 (22.4–36.8)	38.9 (28.8–50.0)	25.2 (15.4–38.3)	27.7 (16.7–42.3)	18.9 (12.6–27.3)	26.3 (21.9–31.1)
Men							
20–39	16.0 (10.4–23.8)	36.5 (29.7–43.8)	22.6 (13.2–35.9)	24.2 (16.3–34.5)	32.6 (26.5–39.5)	22.5 (17.5–28.4)	28.6 (25.2–32.2)
40–64	25.2 (16.2–36.9)	37.9 (29.7–46.8)	46.0 (38.2–54.0)	51.9 (39.2–64.5)	44.3 (41.1–47.6)	34.8 (26.2–44.6)	38.7 (34.4–43.1)
65+	11.2 (6.9–17.6)	26.5 (16.9–39.0)	32.8 (17.8–52.4)	15.7 (7.5–30.2)	19.3 (6.5–45.0)	22.0 (13.1–34.7)	22.3 (15.6–30.9)
Women							
20–39	11.7 (8.2–16.4)	11.3 (7.9–15.9)	23.3 (18.1–29.4)	16.0 (11.2–22.2)	14.3 (12.1–16.7)	10.7 (6.5–16.9)	12.7 (10.7–15.0)
40–64	22.4 (17.5–28.1)	29.6 (24.5–35.2)	43.3 (36.4–50.6)	43.6 (29.8–58.6)	33.0 (28.4–38.1)	19.9 (15.7–24.9)	28.6 (25.7–31.6)
65+	20.3 (12.1–32.0)	31.3 (23.8–40.0)	43.0 (31.1–55.7)	38.4 (24.3–54.7)	38.2 (29.4–47.8)	15.4 (7.0–30.3)	30.3 (25.6–35.4)

Table 102. Prevalence (%; 95%-CI) of high triglycerides by demographic characteristics of males and female survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	0.0 (0.0–0.0)			–	37.7 (28.0–48.5)	19.2 (13.2–27.1)	21.3 (15.6–28.4)
Black/Mulatto	5.6 (2.8–10.9)			–	16.9 (5.8–40.1)	22.3 (9.4–44.3)	12.6 (7.2–21.1)
Mestizo/Native	24.3 (20.9–28)			28.4 (24.5–32.8)	28.5 (26.2–30.9)		24.6 (22.9–26.4)
Garifuna	5.5 (3.2–9.3)						5.5 (3.2–9.3)
Others	21.2 (13.9–31.1)						21.2 (13.9–31.1)
Marital Status							
Single	13.2 (8.4–20.1)	23.7 (17.5–31.3)	25.8 (20.6–31.8)	20.2 (11.8–32.3)	24.1 (19.7–29.0)	15.6 (12.1–19.8)	20.4 (17.8–23.4)
Married	20.8 (17.0–25.3)	30.6 (26.5–35)	32.9 (26.9–39.5)	29.7 (24.7–35.2)	30.0 (28.1–32.0)	22.4 (18.7–26.5)	27.5 (25.7–29.5)
Widow/Divorced	17.5 (11.1–26.6)	29.0 (19.6–40.6)	40.4 (29.2–52.8)	30.4 (24.8–36.7)	29.9 (21.0–40.7)	14.5 (8.4–23.8)	26.6 (21.8–32.1)
Education							
None	15.9 (9.4–25.7)	20.1 (11.9–31.9)	23.8 (12.6–40.4)	29.3 (18.2–43.6)	33.7 (29.4–38.2)	23.1 (14.3–35.0)	26.6 (22.0–31.8)
Primary	19.1 (15.3–23.5)	30.8 (26.7–35.3)	38.0 (30.6–46.1)	32.4 (24–42.2)	29.1 (25.3–33.2)	19.4 (16.4–22.7)	26.8 (25.0–28.8)
Secondary	15.3 (10.8–21.2)	26.9 (21.5–32.9)	27.7 (21.0–35.7)	21.7 (16.4–28)	27.6 (23.8–31.7)	15.8 (12.2–20.3)	22.4 (20.0–25.0)
University	26.7 (12.8–47.6)	26.8 (19.9–35)	30.3 (24.9–36.4)	31.9 (15.9–53.8)	25.4 (14.5–40.6)	28.5 (21.2–37.1)	27.6 (23.3–32.4)
Work Situation							
Paid	19.4 (13.8–26.7)	30.4 (25.4–36)	29.4 (23.9–35.6)	28.3 (22.5–35.0)	29.2 (26.3–32.4)	22.9 (18.8–27.6)	27.5 (25.2–29.9)
Unpaid	18.0 (14.3–22.5)	25.3 (22–28.9)	33.2 (27.9–38.9)	28.6 (17.8–42.5)	27.7 (21.6–34.8)	16.7 (13.8–20.1)	22.8 (21.0–24.8)
Housing							
Owned	18.8 (15.0–23.4)	28.9 (25.4–32.6)	36.3 (31.8–41.0)	28.7 (23.7–34.3)	30.3 (27.4–33.3)	20.3 (17.4–23.6)	26.0 (24.2–27.8)
Rented	17.1 (11.4–24.9)	26.6 (20.4–34)	20.6 (12.5–32.1)	28.9 (21.1–38.2)	23.6 (18.6–29.5)	20.2 (13.8–28.6)	24.4 (21.0–28.1)
Borrowed	18.9 (9.7–33.8)	26.5 (15.5–41.4)	28.3 (14.9–47.0)	23.5 (11.5–42.2)	30.4 (21.0–41.8)	13.5 (7.0–24.4)	24.0 (18.4–30.7)
Others	20.2 (5.8–51.2)	16.7 (8.4–30.6)	24.4 (14.2–38.6)	27.3 (15.6–43.3)	21.3 (6.5–51.2)	11.2 (4.8–24.2)	18.5(12.3–26.8)

Table 103. Prevalence (%; 95%-CI) of high triglycerides, by demographic characteristics of male survey participants and by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites					60.9 (33.7–82.7)	24.5 (16.3–35.0)	28.6 (20.3–38.8)
Black/Mulatto	6.5 (2.8–14.2)				5.0 (0.5–36.1)	34.9 (14.1–63.6)	15.2 (7.3–28.9)
Mestizo/Native	26.5 (19.6–34.8)			30.3 (22.6–39.5)	33.9 (30.3–37.6)	25.9 (22.6–29.5)	29.9 (27.3–32.6)
Garifuna	2.0 (0.9–4.7)						2.0 (0.9–4.7)
Others	27.9 (13.9–48.2)						27.9 (13.9–48.2)
Marital Status							
Single	13.2 (6.5–25.1)	32.0 (22.4–43.4)	24.5 (15.1–37.1)	23.9 (11.2–43.8)	28.8 (22.6–35.9)	20.1 (14.9–26.7)	25.2 (21.3–29.7)
Married	23.9 (17.9–31.1)	39.1 (32.3–46.4)	34.6 (24.4–46.4)	34.8 (26.7–43.8)	36.9 (33.0–41.0)	29.2 (24.5–34.5)	34.5 (31.6–37.5)
Widow/Divorced	17.7 (5.9–42.1)	40.1 (21.6–61.8)	45.8 (22.1–71.6)	12.9 (2.3–48.2)	21.9 (5.9–55.7)	26.6 (9.9–54.3)	29.2 (17.4–44.7)
Education							
None	6.8 (2.1–19.9)	8.6 (0.9–48.2)	0.0 (0.0–0.0)	22.2 (7.4–50.4)	39.9 (27.2–54.2)	28.3 (15.6–45.6)	29.8 (19.7–42.4)
Primary	19.0 (14.3–24.7)	38.4 (30.2–47.3)	31.3 (17.6–49.3)	33.8 (24.5–44.5)	31.7 (26.3–37.7)	27.9 (21.9–34.9)	31.7 (28.2–35.5)
Secondary	21.1 (12.1–34.1)	32.5 (22.7–44.0)	29.4 (17.4–45.1)	23.7 (15.1–35.2)	37.8 (31.0–45.1)	20.0 (14.8–26.3)	27.8 (23.6–32.5)
University	34.2 (15.6–59.4)	41.1 (28.8–54.7)	35.1 (26.2–45.3)	35.9 (14.4–65.1)	32.3 (13.8–58.7)	36.8 (28.7–45.8)	37.8 (31.1–45.1)
Work situation							
Paid	21.6 (14.9–30.2)	37.9 (31.5–44.7)	31.9 (22.3–43.2)	30.3 (22.1–40.0)	35.1 (31.5–38.8)	28.0 (23.2–33.3)	33.1 (30.3–36)
Unpaid	18.9 (12.6–27.3)	32.8 (24.5–42.3)	31.9 (22.5–42.9)	30.0 (15.7–49.7)	31.5 (21.3–43.8)	22.7 (17.1–29.4)	27.3 (23.5–31.6)
Housing							
Owned	20.9 (15.1–28.3)	37.2 (32.1–42.7)	37.1 (28.8–46.2)	33.8 (25.6–43.1)	34.4 (29.5–39.6)	26.8 (22.3–31.8)	32.0 (29.4–34.7)
Rented	14.6 (6.4–29.9)	34.7 (22.0–49.9)	26.5 (11.8–49.2)	20.3 (7.1–45.8)	31.2 (24.3–39.1)	25.7 (17.2–36.4)	30.0 (24.1–36.5)
Borrowed	19.5 (6.8–44.6)	38.2 (17.9–63.7)	17.2 (6.1–40.0)	40.0 (16.4–69.4)	41.9 (26–59.6)	19.3 (9.8–34.6)	32.6 (23.4–43.4)
Others	34.5 (10.1–71.3)	51.5 (51.5–51.5)	6.1 (0.6–42.6)	32.4 (13.9–58.6)	24.9 (3.6–74.6)	17.1 (5.8–41.1)	24.6 (12.9–41.7)

Table 104. Prevalence (%; 95%-CI) of high triglycerides by demographic characteristics of female survey participants and by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Race							
Whites	0.0 (0.0–0.0)				18.6 (7.9–38.0)	14.9 (6.6–30.3)	15.3 (7.5–28.6)
Black/Mulatto	4.4 (2.3–8.5)				29.6 (15.6–48.9)	3.6 (0.8–15.6)	9.3 (4.8–17.1)
Mestizo/Native	22.0 (17.9–26.8)			26.5 (19.6–34.7)	22.0 (19.3–25.0)	13.6 (11.1–16.6)	18.9 (17.1–20.8)
Garifuna	8.3 (4.5–14.7)						8.3 (4.5–14.7)
Others	15.2 (10.5–21.5)						15.2 (10.5–21.5)
Marital Status							
Single	13.1 (7.0–23.1)	16.4 (10.6–24.4)	26.6 (20.7–33.5)	16.0 (8.1–29.1)	19.2 (13.4–26.7)	10.4 (5.9–17.6)	15.7 (12.6–19.2)
Married	17.7 (14.1–22.1)	20.9 (17.5–24.7)	31.0 (25.4–37.3)	24.0 (19.4–29.3)	20.2 (17.1–23.7)	15.8 (11.2–21.9)	19.6 (17.6–21.8)
Widow/ Divorced	17.5 (12.1–24.6)	24.4 (16.7–34.0)	39.1 (28.1–51.3)	41.5 (18.9–68.4)	34.0 (29.0–39.4)	11.3 (5.5–21.7)	25.5 (20.7–31.1)
Education							
None	25.2 (15.9–37.5)	24.6 (14.8–37.8)	25.8 (13.7–43.3)	33.5 (23.4–45.4)	25.7 (10.7–50.2)	17.9 (8.8–33.2)	23.6 (16.9–31.9)
Primary	19.2 (14.9–24.3)	23.9 (18.7–30.0)	41.0 (33.8–48.6)	31.4 (19.6–46.4)	25.4 (21.0–30.3)	13.9 (10.7–17.9)	22.2 (19.8–24.8)
Secondary	10.0 (6.3–15.4)	21.1 (15.5–28.1)	26.2 (20.8–32.4)	19.6 (13.7–27.2)	18.2 (14.6–22.4)	11.4 (7.6–16.7)	16.9 (14.5–19.7)
University	9.6 (4.2–20.2)	13.4 (9.0–19.5)	25.1 (18.9–32.5)	19.1 (9.6–34.5)	17.2 (8.8–30.9)	18.2 (6.8–40.1)	16.1 (11.6–21.9)
Work Situation							
Paid	13.6 (8.8–20.4)	14.5 (10.4–20.0)	26.9 (21.9–32.6)	24.8 (20.1–30.0)	16.1 (13.2–19.5)	14.6 (8.0–25.1)	16.6 (13.9–19.7)
Unpaid	17.6 (13.7–22.4)	22.9 (19.6–26.7)	33.9 (28.7–39.4)	28.3 (16.3–44.5)	25.8 (21.2–30.9)	13.3 (10.5–16.6)	20.9 (19.1–22.8)
Housing							
Owned	16.7 (12.8–21.5)	20.6 (16.3–25.6)	35.7 (31.7–39.9)	23.2 (18.8–28.1)	25.4 (22.4–28.7)	14.5 (11.0–18.9)	20.0 (17.9–22.2)
Rented	19.3 (13.4–27.0)	20.2 (14.8–27.0)	14.5 (9.5–21.6)	38.6 (18.6–63.3)	13.7 (8.6–21.1)	13.9 (5.7–30.1)	18.9 (14.7–23.8)
Borrowed	18.4 (7.7–38.1)	13.4 (6.7–25.2)	45.0 (22.8–69.4)	16.4 (6.0–37.7)	17.0 (12.4–22.8)	6.1 (2.0–16.8)	14.2 (10.4–19.1)
Others	0.0 (0.0–0.0)	0.0 (0.0–0.0)	27.5 (16.4–42.5)	23.5 (11.3–42.7)	18.0 (5.8–44.2)	5.6 (0.8–30.4)	13.6 (8.5–21.2)

Table 105. Prevalence (%; 95%-CI) of high triglycerides by risk factors in male and female survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	24.7 (16.4–35.3)	40.4 (29.7–52.1)	43.2 (27.6–60.3)	43.9 (29.1–59.8)	36.0 (26.3–46.9)	34.2 (23.0–47.4)	36.8 (31.0–43.0)
Newly	30.9 (18.9–46.1)	48.5 (35.2–62.0)	48.7 (25.6–72.4)	58.0 (37.8–75.8)	33.3 (12.6–63.4)	46.9 (33.0–61.2)	43.4 (34.5–52.8)
IGT/IFG	26.0 (17.6–36.6)	37.9 (31.3–44.9)	49.9 (41.8–57.9)	49.9 (38.5–61.4)	44.6 (40.1–49.3)	25.9 (19.3–33.9)	38 (34.1–42.1)
Non DM	15.4 (12.1–19.3)	23.0 (19.6–26.7)	23.1 (18.8–28.2)	17.1 (13.0–22.3)	24.6 (22.6–26.8)	16.1 (13.4–19.3)	20.5 (19.0–22.2)
Hypertension Status							
New HTA	19.0 (9.2–35.2)	39.9 (28.6–52.4)	47.2 (26.5–69.0)	42.6 (27.9–58.9)	49.7 (43.7–55.8)	35.6 (25.3–47.5)	39.6 (33.8–45.6)
Normal to High	22.4 (15.6–31.1)	34.9 (28.8–41.4)	38.3 (27.1–51.0)	32.6 (25.0–41.2)	35.4 (31.2–39.7)	22.4 (17.9–27.7)	30.1 (27.1–33.2)
Know HTA	21.7 (16.9–27.4)	41.4 (34.7–48.5)	38.2 (29.4–47.8)	42.4 (30.7–55.1)	39.8 (33.1–46.8)	26.7 (21.1–33.3)	34.6 (31.2–38.1)
Normal	15.6 (11.7–20.6)	17.9 (14.0–22.5)	25.8 (21.0–31.4)	21.8 (17.4–26.9)	18.1 (14.0–23.1)	9.4 (6.9–12.7)	16.6 (14.8–18.6)
BMI Classification							
Normal	10.0 (7.2–13.8)	10.9 (7.5–15.8)	16.4 (11.1–23.5)	14.9 (10.0–21.8)	17.4 (13.5–22.3)	10.3 (6.6–15.9)	13.0 (11.0–15.3)
Overweight	21.7 (16.2–28.5)	38.1 (31.2–45.5)	40.1 (35.4–45.0)	37.0 (29.2–45.5)	38.5 (35.3–41.9)	18.9 (16–22.3)	31.4 (28.4–34.6)
Obese	24.6 (18.7–31.5)	41.1 (33.0–49.8)	38.9 (31.2–47.1)	39.4 (28.8–51.1)	37.3 (34.1–40.6)	31.9 (25.7–38.9)	35.5 (32.1–39.1)
Risk Associated with Waist Circumference							
Substantial risk	23.0 (18.4–28.4)	34.5 (28.9–40.5)	38.4 (34.0–43.0)	36.7 (27.9–46.5)	33.1 (29.5–37.0)	25.5 (20.0–31.8)	31.8 (29.1–34.6)
Increased risk	20.8 (15.4–27.4)	26.3 (17.7–37.1)	28.9 (22.0–37.0)	24.7 (14.9–38.1)	43.8 (32.7–55.4)	27.9 (22.1–34.6)	30.1 (24.4–36.5)
No risk	12.2 (8.7–16.9)	22.4 (17.4–28.2)	20.2 (13.1–29.7)	22.1 (16.6–28.7)	19.3 (13.3–27.2)	13.9 (11.3–17.1)	18.0 (15.7–20.6)
Cholesterol							
<200	15.2 (11.6–19.6)	20.3 (15.6–26.0)	20.7 (16.4–25.8)	20.6 (16.2–25.8)	14.3 (12.2–16.6)	14.6 (11.8–17.9)	16.8 (15–18.8)
200–239.9	33.0 (21.8–46.5)	34.2 (28.2–40.8)	38.7 (33.6–44)	40.3 (28.8–53.1)	33.7 (29.4–38.2)	37.5 (28.5–47.4)	35.2 (31.8–38.7)
240+	38.8 (24.6–55.1)	43.9 (35.4–52.7)	60.6 (44.2–74.9)	54.6 (38.6–69.7)	54.2 (46.6–61.5)	48.9 (36.5–61.4)	49.3 (44.6–54.0)
Smoker Status							
Yes	26.4 (14.7–43.0)	30.7 (25.0–37.0)	35.0 (24.5–47.1)	20.8 (11.0–35.8)	33.0 (27.9–38.4)	28.0 (21.4–35.6)	29.6 (26.1–33.3)
No	18.0 (14.5–22.0)	27.7 (23.8–31.8)	30.4 (26.2–34.9)	30.5 (24.8–36.8)	27.8 (25.0–30.7)	17.6 (15.1–20.5)	24.5 (22.9–26.2)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	17.7 (14.5–21.4)	28.2 (24.8–31.9)	29.6 (25.7–33.7)	28.3 (24.2–32.7)	27.1 (24.3–30.1)	17.5 (14.7–20.5)	24.4 (22.9–26.0)
1 time	17.4 (6.6–38.7)	38.1 (23.4–55.3)	61.1 (40.1–78.7)	15.4 (5.1–38.2)	38.7 (29.5–48.8)	27.6 (16.3–42.9)	32.3 (25.3–40.2)
2 or more times	14.2 (4.5–36.6)	40.7 (19.4–66.3)	43.4 (26.8–61.6)	78.1 (48.0–93.2)	43.8 (26.9–62.2)	39.0 (23.3–57.4)	40.8 (30.6–51.9)

Table 106. Prevalence (%; 95%–CI) of high triglycerides by risk factors in male survey participants by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	29.5 (14.7–50.3)	38.7 (22.9–57.4)	45.7 (23.2–70.1)	46.3 (23.3–71.1)	28.5 (12.9–51.7)	52.8 (31.6–73.0)	41.3 (31.1–52.4)
Newly	45.8 (21.0–72.9)	54.7 (33.2–74.5)	52.4 (13.6–88.5)	64.7 (37.5–84.8)	33.7 (10.3–69.2)	53.3 (31.8–73.6)	49.4 (36.2–62.6)
IGT/IFG	31.0 (17.7–48.4)	42.3 (31.9–53.3)	51.7 (39.7–63.5)	57.2 (43.6–69.8)	51.6 (44.5–58.7)	40.4 (28.2–53.9)	45.4 (39.7–51.2)
Non DM	16.6 (11.8–23.1)	34.0 (28.0–40.6)	21.1 (13.7–30.9)	17.5 (10.9–27.0)	29.7 (26.7–33.0)	20.8 (16.5–25.8)	26.4 (23.9–29.1)
Hypertension Status							
New HTA	20.4 (7.7–44.1)	45.2 (29.3–62.1)	46.4 (20.3–74.7)	42.1 (23.9–62.8)	50.1 (39.2–61.0)	38.1 (29.0–48.2)	42.5 (35.7–49.6)
Normal to High	22.3 (12.3–37.2)	40.0 (31.8–48.8)	32.8 (19.8–49.1)	24.9 (13.3–41.7)	38.8 (32.7–45.2)	25.0 (18.8–32.4)	32.6 (28.4–37.2)
Know HTA	26.3 (17.5–37.3)	45.9 (34.5–57.7)	43.4 (30.0–57.9)	53.2 (27.2–77.6)	42.7 (33.9–52.1)	43.8 (31.8–56.5)	43.2 (37.4–49.2)
Normal	17.7 (11.9–25.6)	27.6 (20.8–35.7)	26.6 (16.9–39.3)	28.7 (20.2–39.0)	22.9 (14.4–34.3)	14.0 (8.3–22.5)	22.8 (19.0–27.0)
BMI Classification							
Normal	8.7 (5.2–14.0)	16.9 (10.8–25.4)	14.4 (6.3–29.6)	19.5 (10.5–33.5)	18.3 (12.7–25.8)	10.7 (6.8–16.5)	15.0 (12.2–18.3)
Overweight	23.1 (15.1–33.7)	47.4 (35.0–60.1)	46.8 (40.3–53.5)	35.7 (19.4–56.1)	47.8 (42.6–53.1)	27.9 (22.8–33.6)	40.0 (35.1–45.1)
Obese	37.7 (26.3–50.7)	51.9 (39.5–64.1)	34.7 (20.0–53.0)	51.4 (29.3–72.9)	52.9 (47.8–57.9)	50.1 (38.4–61.8)	49.5 (43.6–55.4)
Risk Associated with Waist Circumference							
Substantial risk	34.0 (22.0–48.5)	49.9 (38.1–61.8)	41.6 (29.5–54.9)	55.1 (30.8–77.1)	46.0 (39.4–52.8)	49.6(34.1–65.2)	47.0 (40.9–53.2)
Increased risk	25.2 (16.0–37.3)	42.0 (25.3–60.8)	44.9 (34.7–55.5)	30.1 (13.7–53.9)	62.7 (46.4–76.6)	47.6(37.2–58.3)	46.3 (36.5–56.4)
No risk	13.0 (8.6–19.2)	29.1 (22.5–36.7)	19.9 (11.7–31.9)	25.6 (18.6–34.1)	22.1 (14.6–32.1)	16.4(13.1–20.3)	21.8 (18.7–25.3)
Cholesterol							
<200	16.7 (11.4–23.8)	28.8 (21.1–37.9)	21.0 (14.1–30.1)	20.0 (12.6–30.4)	19.1 (15–24.1)	21.1 (16.6–26.5)	22.3 (19.4–25.5)
200–239	38.5 (20.5–60.2)	42.9 (33.3–53.0)	43.4 (34.0–53.3)	43.1 (26.3–61.7)	37.4 (30.5–44.9)	43.2 (29.5–58.1)	41.1 (35.7–46.6)
240+	47.7 (26.5–69.7)	51.0 (36.9–65.0)	62.6 (39.2–81.3)	60.3 (34.1–81.7)	62.8 (54.4–70.5)	60.7 (35.9–81.0)	57.2 (49.7–64.5)
Smoker Status							
Yes	26.3 (13.8–44.3)	37.0 (28.1–46.8)	29.9 (19.0–43.7)	22.4 (11.0–40.3)	34.2 (28.0–41.1)	29.1 (21.4–38.1)	31.9 (27.6–36.6)
No	19.6 (14.2–26.5)	36.7 (30.2–43.7)	32.3 (23.7–42.4)	34.8 (26.8–43.8)	34.1 (30.1–38.4)	24.4 (20.2–29.2)	31.3 (28.7–34.1)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	19.3 (13.9–26.1)	37.7 (31.7–44.1)	29.2 (21.8–37.8)	30.0 (21.4–40.3)	33.3 (29.6–37.3)	22.1 (18.0–26.8)	30.6 (28.0–33.3)
1 time	18.4 (6.7–41.6)	51.7 (28.6–74.1)	63.5 (41.6–80.9)	16.2 (4.8–42.5)	36.7 (24.1–51.4)	34.3 (19.8–52.5)	37.2 (28.5–46.8)
2 or more times	10.1 (2.3–34.5)	46.2 (18.4–76.6)	40.2 (23.1–60.0)	83.1 (49.8–96.0)	43.5 (25.9–62.8)	45.5 (28.0–64.2)	44.1 (33.3–55.5)

Table 107. Prevalence (%; 95%-CI) of high triglycerides by risk factors in female survey participants, by site.

	Belize	San José	San Salvador	Guatemala City	Tegucigalpa	Managua	TOTAL
Diabetes Mellitus							
Known	22.5 (15.3–31.8)	42.3 (29.4–56.3)	40.4 (23–60.5)	41.7 (23.3–62.7)	44.8 (28.8–61.9)	19.2 (9.3–35.5)	32.6 (25.6–40.5)
Newly	23.3 (12.3–39.7)	41.4 (24.0–61.3)	45.4 (27.8–64.3)	46.0 (25.7–67.7)	32.8 (11.5–64.7)	41.2 (24.9–59.6)	37.5 (28.0–48.0)
IGT/IFG	21.0 (13.7–30.8)	33.9 (27.4–41.1)	47.7 (39–56.6)	43.6 (26.2–62.8)	32.9 (28.0–38.3)	14.8 (9.2–22.8)	30.5 (26.3–35.0)
Non DM	13.9 (9.8–19.4)	12.7 (9.2–17.2)	24.6 (20.3–29.4)	16.7 (12.7–21.7)	19.0 (16.1–22.2)	11.5 (7.8–16.7)	14.7 (12.8–16.8)
Hypertension Status							
New HTA	15.8 (9.2–25.8)	26.5 (16.1–40.4)	48.6 (27.6–70.1)	43.6 (23.9–65.5)	48.6 (36.9–60.4)	31.7 (12.2–60.8)	33.1 (22.9–45.1)
Normal to High	22.6 (16.3–30.4)	25.2 (18.8–32.8)	46.9 (33.1–61.2)	53.7 (26.5–78.9)	27.1 (16.5–41.1)	17.1 (11.2–25.2)	24.7 (20.6–29.5)
Know HTA	18.7 (13.0–26.1)	38.6 (29.9–48.1)	34.0 (25.2–43.9)	35.6 (23.1–50.6)	37.5 (29.6–46.1)	18.5 (12.5–26.7)	29.4 (24.9–34.2)
Normal	14.1 (9.6–20.1)	11.9 (8.7–16.0)	25.4 (20.2–31.3)	17.2 (13.0–22.5)	14.2 (11.6–17.3)	6.7 (4.5–9.9)	12.6 (11.0–14.4)
BMI Classification							
Normal	12.1 (8.6–16.8)	6.5 (3.9–10.7)	17.9 (12.4–25.0)	11.1 (6.8–17.4)	16.2 (13.0–20.0)	9.8 (3.4–25.4)	10.7 (8.2–14.0)
Overweight	20.0 (14.0–27.9)	25.0 (18.6–32.7)	33.5 (27.5–40.0)	38.4 (23.8–55.5)	26.0 (22.1–30.3)	11.1 (7.8–15.5)	21.4 (18.5–24.7)
Obese	17.4 (12.9–23.1)	32.2 (24.1–41.6)	41.5 (34.8–48.4)	32.5 (23.9–42.6)	25.9 (21.9–30.4)	20.1 (15.3–26)	25.8 (22.7–29.2)
Risk Associated with Waist Circumference							
Substantial risk	18.8 (14.1–24.6)	28.9 (24.0–34.5)	37.3 (33.1–41.6)	33.6 (24.3–44.3)	28.9 (24.9–33.3)	18.6 (13.7–24.8)	26.8 (24.4–29.4)
Increased risk	15.6 (11.0–21.5)	9.3 (5.8–14.7)	15.1 (10.0–22.2)	15.1 (8.7–25.1)	18.8 (14.0–24.8)	12.8 (8.8–18.3)	13.1 (10.7–16.0)
No risk	9.5 (5.9–15.1)	5.9 (3.0–11.1)	20.8 (10.6–36.9)	8.0 (3.7–16.7)	11.6 (7.2–18.2)	9.8 (4.5–20.1)	9.5 (6.5–13.5)
Cholesterol							
<150	13.6 (9.9–18.5)	12.8 (9.4–17.3)	20.5 (16.1–25.8)	21.1 (12.4–33.6)	8.9 (6.5–12.0)	8.2 (5.7–11.7)	11.5 (9.7–13.5)
150–199.9	28.0 (18.6–39.8)	25.8 (20.2–32.2)	35.3 (28.8–42.3)	36.5 (27.2–47.0)	28.7 (25.6–32.2)	32.2 (19.4–48.2)	28.9 (25.2–33)
200+	32.0 (19.7–47.4)	36.1 (27.9–45.2)	59.2 (38.5–77.2)	47.6 (33.8–61.8)	43.8 (34.3–53.8)	42.0 (28.5–56.8)	41.1 (36.0–46.5)
Smoker Status							
Yes	28.0 (6.8–67.6)	19.1 (11.7–29.5)	52.8 (31.5–73.1)	10.0 (4.1–22.4)	19.1 (8.1–38.7)	24.1 (11.8–43.1)	21.5 (15.1–29.5)
No	16.5 (13.0–20.7)	20.1 (16.9–23.8)	29.1 (25.6–32.8)	27.5 (20.2–36.2)	22.1 (19.1–25.3)	12.8 (9.6–16.9)	19.1 (17.4–20.9)
Five or more alcoholic beverages on a single time during the past 4 weeks							
None	16.4 (13.1–20.3)	20.4 (17.1–24.0)	29.8 (26.3–33.6)	26.8 (19.8–35.2)	21.3 (17.8–25.2)	14.1 (10.7–18.3)	19.4 (17.7–21.2)
1 time	13.5 (4.4–34.6)	17.1 (6.9–36.5)	49.7 (7.9–91.9)	8.9 (1.8–34.3)	50.4 (10.8–89.5)	7.8 (3.3–17.5)	18.0 (9.0–32.8)
2 or more times	40.7 (9.8–81.2)	26.2 (6.5–64.3)	100.0 (100.0–100.0)	0.0 (0.0–0.0)	59.4 (7.5–96.4)	16.1 (3.5–50.5)	22.8 (9.9–44.4)

Tables 108, 109 and 110. Mean value of continuous variables and Standard Error by triglycerides status, gender, and site..

108. Triglycerides: Both genders, by site.

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Triglycerides ≥ 150														
Age (years)	41.9	0.7	45.3	0.9	42.7	1.0	39.8	1.0	41.6	1.7	40.6	0.6	42.7	0.6
Weight (kg)	75.1	1.7	74.2	0.7	72.6	0.9	71.5	1.4	72.0	0.4	76.7	0.6	74.0	0.4
Height (cm)	158.9	1.2	162.9	0.5	161.4	0.6	159.1	0.8	161.9	0.5	161.5	0.3	161.8	0.2
Waist (cm)	98.0	0.8	95.2	0.7	95.6	0.9	95.0	0.8	89.6	1.9	90.4	0.8	93.0	0.6
Hip (cm)	105.3	1.0	.	.	100.2	0.4	99.6	0.6	96.6	0.4	97.7	0.5	98.4	0.5
BMI	29.7	0.5	28.4	0.3	27.8	0.2	28.1	0.3	27.4	0.3	29.3	0.2	28.4	0.2
Fasting Glucose (mg/dl)	100.5	1.8	102.1	1.9	100.9	1.2	98.9	2.3	97.3	2.6	100.3	2.7	100.2	1.3
2h-OGTT (mg/dl)	120.6	3.1	108.9	2.4	0.0	0.0	118.0	2.4	105.8	4.9	129.2	3.0	105.7	2.2
Total Cholesterol (mg/dl)	183.9	3.7	214.4	1.9	201.6	2.4	196.4	5.8	224.8	2.0	187.0	2.0	207.2	2.3
Triglycerides < 150														
Age (years)	38.0	0.5	37.7	0.8	36.3	1.1	34.3	0.8	37.1	0.9	36.0	0.5	36.8	0.4
Weight (kg)	70.9	1.2	66.6	0.8	66.3	0.8	62.4	1.2	64.8	0.5	68.1	0.8	66.9	0.5
Height (cm)	161.2	1.1	162.0	0.6	161.3	0.9	156.5	0.5	160.6	0.5	159.9	0.3	160.7	0.3
Waist (cm)	91.1	0.6	87.9	0.6	87.7	1.2	88.3	0.9	78.9	3.4	82.5	0.7	84.4	0.9
Hip (cm)	102.2	0.8	.	.	95.2	0.9	95.5	0.8	91.8	0.4	91.3	0.6	93.2	0.5
BMI	27.4	0.4	25.4	0.3	25.5	0.3	25.5	0.5	25.1	0.2	26.7	0.3	26.0	0.2
Fasting Glucose (mg/dl)	89.9	1.5	91.9	1.1	92.7	1.0	89.7	1.3	88.4	0.4	84.6	0.9	88.5	0.6
2h-OGTT (mg/dl)	104.9	1.6	93.5	1.7	0.0	0.0	97.5	2.2	91.4	1.3	104.5	1.8	94.3	1.3
Total Cholesterol (mg/dl)	158.7	2.7	183.3	1.9	179.9	4.7	176.1	2.5	188.4	2.3	161.1	1.8	174.6	2.0

109. Triglycerides: Men, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Triglycerides ≥ 150														
Age	40.6	1.1	43.5	1.1	43.0	1.6	37.9	1.0	40.4	2.0	40.2	0.7	41.5	0.7
Weight	79.2	2.3	78.8	1.2	79.5	1.3	76.8	2.4	75.3	0.6	80.4	0.9	78.3	0.7
Height	164.4	1.2	168.5	0.8	168.1	0.5	165.3	1.2	167.6	0.6	166.9	0.4	167.5	0.3
Waist	98.7	1.5	95.2	1.0	98.8	1.2	94.1	1.2	88.9	1.9	91.7	1.2	93.2	0.8
Hip	103.6	1.3	.	.	98.6	0.7	98.2	0.9	94.2	0.5	97.0	0.7	96.7	0.7
BMI	29.3	0.7	28.0	0.4	28.1	0.4	28.0	0.6	26.8	0.3	28.8	0.3	27.9	0.3
Fasting Glucose	94.9	2.2	103.6	3.2	106.2	2.2	97.3	3.5	97.2	2.6	101.7	4.2	100.9	1.8
2h-OGTT	114.5	4.1	108.5	3.3	0.0	0.0	110.6	5.0	103.3	5.0	126.6	4.0	105.3	2.5
Total Cholesterol	184.2	4.1	212.7	2.8	202.1	3.6	198.6	8.1	224.9	1.9	183.6	2.6	206.2	2.8
Triglycerides < 150														
Age	38.9	0.7	38.5	1.3	35.4	1.7	35.8	1.3	39.1	1.2	35.0	0.8	37.4	0.6
Weight	71.3	1.4	73.3	1.4	70.3	1.9	66.8	2.5	68.1	0.8	69.3	1.0	70.2	0.7
Height	167.4	1.4	170.5	0.6	168.1	2.0	163.5	0.6	166.9	0.8	166.7	0.6	167.8	0.4
Waist	89.3	0.9	88.7	1.3	85.8	2.3	85.5	1.6	77.8	4.0	82.0	1.1	83.7	1.1
Hip	98.2	1.0	.	.	92.0	0.8	92.8	1.4	90.3	0.7	86.2	0.8	89.7	0.6
BMI	25.4	0.3	25.5	0.5	24.9	0.4	25.0	1.0	24.5	0.2	24.9	0.3	25.0	0.2
Fasting Glucose	86.8	2.1	93.5	2.3	91.6	1.2	90.8	2.0	90.4	0.9	85.0	1.5	89.2	0.9
2h-OGTT	98.8	2.1	96.0	3.2	0.0	0.0	94.5	4.0	89.6	1.7	99.7	2.7	92.1	1.7
Total Cholesterol	156.6	3.2	181.6	3.2	175.5	9.0	175.1	4.2	187.1	3.1	157.2	3.0	172.4	2.7

110. Triglycerides: Women, by site

	Belize		San José		San Salvador		Guatemala City		Tegucigalpa		Managua		TOTAL	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Triglycerides ≥ 150														
Age	43.5	0.9	47.6	1.1	42.5	1.1	42.3	2.1	43.3	1.4	41.1	1.0	44.3	0.6
Weight	70.3	1.3	68.4	0.9	67.1	0.9	65.1	0.8	67.0	0.4	71.6	0.9	68.6	0.5
Height	152.6	1.4	155.2	0.4	156.0	0.5	151.7	0.6	153.5	0.2	154.2	0.6	154.3	0.2
Waist	97.2	1.0	95.2	0.9	93.0	1.1	96.2	0.9	90.5	2.4	88.6	0.8	92.8	0.6
Hip	107.4	1.0	.	.	101.4	0.6	101.5	0.6	100.2	0.6	98.7	1.2	100.6	0.5
BMI	30.2	0.5	29.0	0.5	27.6	0.3	28.2	0.3	28.4	0.2	30.1	0.4	29.0	0.2
Fasting Glucose	107.1	3.0	100.2	1.2	96.7	1.1	101.0	2.1	97.6	2.9	98.3	3.1	99.4	1.1
2h-OGTT	128.4	3.9	109.4	2.4	0.0	0.0	127.6	5.6	109.6	4.8	132.7	5.4	106.3	2.7
Total Cholesterol	183.7	3.9	216.5	2.7	201.1	2.8	193.5	4.0	224.6	2.8	191.8	2.5	208.4	2.1
Triglycerides < 150														
Age	37.1	0.6	37.1	0.7	37.0	1.1	33.2	0.9	35.2	0.8	36.7	0.6	36.4	0.4
Weight	70.6	1.4	62.0	0.9	63.0	1.0	60.0	0.8	61.5	0.9	67.2	1.1	64.3	0.7
Height	155.3	1.0	156.3	0.4	155.8	0.7	152.6	0.6	154.3	0.3	154.9	0.5	155.2	0.2
Waist	92.7	0.9	87.4	0.9	89.3	1.1	90.3	0.8	80.0	2.9	82.8	0.8	85.0	0.8
Hip	106.0	0.9	.	.	97.8	0.8	97.4	0.8	93.4	0.8	95.2	0.8	96.2	0.8
BMI	29.3	0.5	25.4	0.4	26.0	0.3	25.7	0.4	25.8	0.3	28.0	0.4	26.7	0.3
Fasting Glucose	92.7	1.3	90.9	0.8	93.5	1.5	88.9	1.3	86.4	0.7	84.2	1.2	87.9	0.6
2h-OGTT	110.9	2.0	91.8	1.7	0.0	0.0	99.7	2.0	93.2	1.3	108.3	1.6	96.0	1.4
Total Cholesterol	160.7	2.9	184.4	2.0	183.6	2.7	176.9	2.1	189.8	2.7	164.1	1.8	176.4	1.7

Appendix C: Questionnaire

Central America Diabetes Initiative (CAMDI)



Multinational Survey
Diabetes Mellitus, Hypertension,
and Risk Factors

General Information on the Interview

		Response
1	Identification of interviewee	□/□□□□
2	Date of interview	□□/□□/□□□□ Day Month Year
3	Time of beginning of the interview	□□:□□
4	Name of person interviewed:	
5	Sector (census segment)	□□
6	Subunit segment	□□□
7	Dwelling	□□□
8	Initials of interviewer:	□□

Health Status and Family History

"I would like to ask you some questions about your health and the health of your close family member."

Question		Response
9	You would say that your health is:	Excellent 1 Very Good 2 Good 3 Regular 4 Bad 5 I don't know/Unsure 9
10	In general, where do you go first when you become ill?	A public hospital 1 IGSS 2 Doctor's office or private hospital 3 Company doctor 4 Pharmacy 5 Home remedies 6 A healer, chiropractor 7 naturopath Other place or advisor 8
11	Have you ever seen a doctor for a health examination or checkup? If the Response is YES, note how many years ago.	Yes 1 _____ years ago No 2/ 00 I don't know/Unsure 9/ 99
12	Have your father, mother, brother or sister related by blood had any of the following diseases?	
12.1	Diabetes or excess sugar in blood	Yes 1 No 2 I don't know/Unsure 9
12.2	High blood pressure	Yes 1 No 2 I don't know/Unsure 9
12.3	Stroke	Yes 1 No 2 I don't know/Unsure 9
12.4	Cancer or malignant neoplasm	Yes 1 No 2 I don't know/Unsure 9
12.5	High cholesterol	Yes 1 No 2 I don't know/Unsure 9
12.6	Attack or heart attack before the age of 45 years (father, brother)	Yes 1 No 2 I don't know/Unsure 9

Health status and family history (continued)

Question		Response
12.7	Attack or heart before the age of 55 years (mother, sister)	Yes 1 No 2 I don't know/Unsure 9
12.8	Osteoporosis, lack of calcium in bones or hip fracture	Yes 1 No 2 I don't know/Unsure 9

Diabetes mellitus

"The following questions are related to diabetes, meaning excess sugar in blood."

Pregunta		Respuesta
13	Have you ever had a test of glucose, or sugar, in blood?	Yes 1 No 2 (Pass to Question 15) I don't know/Unsure 9 (Pass to Question 5)
14	When was the last time that you had a blood sugar test?	Less than 6 months ago 1 6 to 11 months ago 2 1 to 2 years ago 3 More than 2 years ago 4 I don't know/Unsure 9
15	Has any health professional told you that you have diabetes or excess sugar in blood?	Yes 1 No 2 (Pass to Question 28) I don't know/Unsure 9 (Pass to Question 28)
16	How old were you when they told you that you have diabetes?	Age: ____ years
17	What treatment or medical recommendation have you been prescribed for diabetes or to lower the blood sugar?	Sone 1 No 0 (Pass to Question 18) I don't know/Unsure 9 (Pass to Question 18)
17.1	Drugs	Yes 1 No 2
17.2	A Dpecial Diet	Yes 1 No 2
17.3	Lose Weight	Yes 1 No 2
17.4	Do not drink alcoholic beverages in excess	Yes 1 No 2
17.5	Regular exercise or physical activity	Yes 1 No 2

Diabetes mellitus (continued)

Question		Response
17.6	Home remedies (specify):	Yes 1 No 2
17.7	Other recommendations:	Yes 1 No 2
18	If you are taking drugs for diabetes, what are you taking? <i>(Ask the subject to show you the drug)</i>	
18.1		
18.2		
18.3		
19	During the last month, have you used any of the following treatments or recommendations to control your diabetes?	
19.1	Drugs	Always or almost always 1 Sometimes 2 Never or almost never 3
19.2	A special diet	Always or almost always 1 Sometimes 2 Never or almost never 3
19.3	Lose weight	Always or almost always 1 Sometimes 2 Never or almost never 3
19.4	Do not drink alcoholic beverages in excess	Always or almost always 1 Sometimes 2 Never or almost never 3
19.5	Regular exercise or physical activity	Always or almost always 1 Sometimes 2 Never or almost never 3
19.6	Home remedies (specify): _____	Always or almost always 1 Sometimes 2 Never or almost never 3
19.7	Other: _____	Always or almost always 1 Sometimes 2 Never or almost never 3
20	Where do you usually check your blood sugar?	Public hospital, health post, or health center 1 IGSS or company medical officer 2 Private doctor/Private clinic 3 On the street 4 Family member or friend 5 By myself 6 I don't check it 7 Another way or place 8 _____

Diabetes mellitus (continued)

Question		Response
21	In the last 12 months, how often have you checked your blood sugar?	Number of times _____ Per day 1 Per week 2 Per month 3 Per year 4 Never 00/0 I don't know/Unsure 99/9
22	Have you heard about glycosylated hemoglobin? (If the response is YES, note how many times it has been measured in the last 12 months.)	Yes 1 ___ años No 2/00 I don't know/Unsure 9/99
23	Approximately, how many times have you consulted a doctor or health care professional about your diabetes?	Number of times _____ Never 00 I don't know/Unsure 99
24	In the last 12 months, has any doctor or health care professional checked your bare feet?	Yes 1 No 2 I don't know/Unsure 9
25	When was the last time that your vision was checked with dilation of the pupil?	Less than 1 months ago 1 1 to 11 months ago 2 1 to 2 years ago 3 More than 2 years ago 4 Never 5 I don't know/Unsure 9
26	Do you usually find the drugs that the doctor prescribes for diabetes?	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Can't find them 4
27	Do you usually have money or the means for obtaining the drugs that your doctors prescribes for diabetes?	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Cannot buy or obtain them 4
28	(ONLY FOR WOMEN) Has any doctor told you that you had diabetes only during some of your pregnancies?	Yes 1 No 2 I haven't had children 3 I don't know/Unsure 9

Hypertension

“The following questions are related to blood pressure.”

Question		Response
29	Has your blood pressure ever been taken?	Yes 1 No 2 (<i>Pass to Question 31</i>) I don't know/Unsure 9 (<i>Pass to Question 31</i>)
30	When was the last time that your blood pressure was taken?	Less than 6 months ago 1 6 to 11 months ago 2 1 year to 1 year and 11 months ago 3 2 to 3 years ago 4 More than 3 years ago 5 I don't know/Unsure 9
31	Has a doctor, nurse, or other health professional ever told you that you have high blood pressure?	Yes 1 No 2 (<i>Pass to Question. 41</i>) I don't know/Unsure 9 (<i>Pass to Question 41</i>)
32	How old were you when they told you that you have high blood pressure?	Age: ____ years
33	What treatment have they prescribed you for high blood pressure?	Some 1 No 0 I don't know/Unsure 9 (<i>Pass to Question 34</i>)
33.1	Drugs	Yes 1 No 2
33.2	Reduce salt in food	Yes 1 No 2
33.3	Lose weight	Yes 1 No 2
3.4	Quit smoking	Yes 1 No 2
33.5	Do not drink alcoholic beverages in excess	Yes 1 No 2
33.6	Regular exercise or physical activity	Yes 1 No 2
33.7	Prevent stress	Yes 1 No 2
33.8	Home remedies (specify)	Yes 1 No 2
33.9	Other: _____	Yes 1 No 2
34	If you are taking drugs for blood pressure, what are you taking? (<i>Ask th e subject to show you the drug</i>)	
34.1		

Hypertension (continued)

Question		Response
34.2		
34.3		
34.4		
35	During the last month, have you used any of the following treatments to control your high blood pressures?	
35.1	Drugs	Always or almost always 1 Sometimes 2 Never or almost never 3
35.2	Low-salt diet	Always or almost always 1 Sometimes 2 Never or almost never 3
35.3	Lose weight	Always or almost always 1 Sometimes 2 Never or almost never 3
35.4	Quit smoking	Always or almost always 1 Sometimes 2 Never or almost never 3
35.5	Do not drink alcoholic beverage in excess	Always or almost always 1 Sometimes 2 Never or almost never 3
35.6	Regular exercise or physical activity	Always or almost always 1 Sometimes 2 Never or almost never 3
35.7	Prevent stress	Always or almost always 1 Sometimes 2 Never or almost never 3
35.8	Home remedies (specify): _____	Always or almost always 1 Sometimes 2 Never or almost never 3
35.9	Other: _____	Always or almost always 1 Sometimes 2 Never or almost never 3
36	Where do you usually check your blood pressure?	Public hospital, health post, or health center 1 IGSS or company medical officer 2 Private doctor/Private clinic 3 On the street 4 Family member or friend 5 By myself 6 I don't check it 7 Another way or place: 8 _____

Hypertension (continued)

Question		Response
37	In the last 12 months, how often have you checked your blood pressure?	Number of times _____ Per day 1 Per week 2 Per month 3 Per year 4 Never 00/0 I don't know/Unsure 99/9
38	Approximately, how many times in the last 12 months have you consulted a doctor or health care professional about your high blood pressure?	Number of times: _____ Never 00 I don't know/Unsure 99
39	Do you usually find the drugs that the doctor prescribes for high blood pressure?	Yes always 1 Yes, but not easily 2 Yes, but it is difficult 3 Can't find them 4
40	Do you usually have money or the means for obtaining the drugs that your doctor prescribes for high blood pressure?	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Cannot buy or obtain them 4

Other Chronic Diseases

41	Has any doctor ever told you that you have to have had any of the following disease? (If the response is YES, ask the subject at what age it was diagnosed for the first times.)	
41.1	Angina pectoris	Yes, _____ yeas 1 No 2/00 I don't know/Unsure 9/9
41.2	Heart attack	Yes, _____ yeas 1 No 2/00 I don't know/Unsure 9/99
41.3	Stroke	Yes, _____ yeas 1 No 2/00 I don't know/Unsure 9/99
41.4	Cancer or malignant neoplasm, specify: _____	Yes, _____ yeas 1 No 2/00 I don't know/Unsure 9/99
41.5	Osteoporosis, lack of calcium in the bones, or hip fracture	Yes, _____ yeas 1 No 2/00 I don't know/Unsure 9/99

Eating habits

The following questions are about what you usually eat and how you eat it.

	Food	Portion	Never 00/00.0	Every -day (10)	Times per week (2)						Times per month			Frequency	Size of portion
					1	2	3	4	5	6	1	2	3		
42.1	Tortillas	1 unit													
42.2	Bread of any type	1 unit													
42.3	Pastry	1 unit													
42.4	Milk, counting that of atoles, cereals and oatmeal, or mosh	1 glass													
42.5	Cheese or cream	1 slice/ teaspoon													
42.6	Eggs	1 unit													
42.7	Vegetables, herbs	1 unit/ piece													
42.8	Fruit, not counting juices	1 unit/slice													
42.9	Chicken	1 part													
42.1	Beef or pork	1 ounce													
42.11	Fish	1 ounce													
42.12	Sausages, including ham, frankfurters, chorizo, longsniza, etc.	1 unit/slice													
42.13	Sweet carbonated warer	1 glass/ bot/can													
42.14	Sweet or sweetened beverages	1 glass/ tetrapak													
42.15	Natural juices	1 glass/ can/ tetrapak													
42.16	Soup, instant dehydrated, bottled, or cubes	1 cup/glass													
42.17	Beer, wine, or sangria	1 bottle/can													
42.18	Rum, whisky, or other strong spirits	1 ounce/ drink													
42.19	Coffee	1 cup													

Eating habits (continued)

	Food	Portion	Never 00/00.0	Every -day (10)	Times per week (2)						Times per month			Frequency	Size of portion	
					1	2	3	4	5	6	1	2	3			
42.20	Sugar added to any food	1 teaspoon													---	---.---
42.21	Butter, margarine, or mayonnaise added to bread or any other food	1 teaspoon													---	---.---
42.22	Fast food, including hamburgers, hot-dogs, Chinese food, fried chicken	1 unit/plate/piece													---	---.---
42.23	Typical dishes, including tacos, tostada, tamales, chuchitos, stuffed chiles, "rellenitos"	1 unit													---	---.---
42.24	Desserts, including cakes, chocolate, cookies	1 unit/package													---	---.---
42.25	Salted snacks like potato chips, cheese noodles, fried pork rinds, etc.	1 small bag/cup													---	---.---

Eating habits (continued)

Question		Response
43	What type of fat do you use or is used usually at home to cook food?	Vegetable Oil 1 Margarine 2 Vegetable Shortening 3/00 Animal Shortening 4/00 Butter 5/00 I don't know/Unsure 9/99
44	When you eat vegetables, do you eat them with margarine, fried, or dipped in egg batter?	Always or almost always 1 Sometimes 2 Never or almost never 3
45	When you eat beans, do you eat them prepared or fried?	Always or almost always 1 Sometimes 2 Never or almost never 3
46	When you eat rice, do you eat it fried?	Always or almost always 1 Sometimes 2 Never or almost never 3
47	When you eat potatoes, do you eat them fried?	Always or almost always 1 Sometimes 2 Never or almost never 3
48	When you eat meat or chicken, do you eat it fried, breaded, or sautéed?	Always or almost always 1 Sometimes 2 Never or almost never 3
49	When you eat chicken, do you eat the skin?	Always or almost always 1 Sometimes 2 Never or almost never 3
50	When you eat meat, do you eat the fat?	Always or almost always 1 Sometimes 2 Never or almost never 3
51	Do you add salt to your prepared food?	Always or almost always 1 Sometimes 2 Never or almost never 3
52	How do you usually eat your food?	With only a little salt 1 Normal 2 With a fair amount of salt 3
53	Are you following, a special diet now for your health?	Yes, for more than 6 months 1 Yes, for less than 6 months 2 (<i>Pass to Question 55</i>) No 3 (<i>Pass to Question 55</i>)

Eating habits (continued)

Question		Response
54	What does the diet that you are following consist of?	
54.1	In increasing vegetable consumption	Yes 1 No 2
54.2	In increasing fruit consumption	Yes 1 No 2
54.3	In increasing consumption of the food:	Yes 1 No 2
54.4	In reducing fats	Yes 1 No 2
54.5	In reducing the amount of sugar and sweet beverages	Yes 1 No 2
54.6	In reducing the amount of salt	Yes 1 No 2
54.7	In reducing consumption of the food:	Yes 1 No 2
54.8	In switching from lard, margarine, or butter to oil	Yes 1 No 2
54.9	In other recommendation (specify):	Yes 1 No 2
55	Do you usually have money to obtain the following foods?	
55.1	Vegetables	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Cannot buy or obtain them 4
55.2	Fruits	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Cannot buy or obtain them 4
55.3	Vegetable oil	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Cannot buy or obtain them 4

Physical Activity

"I am now going to ask you some questions about how much time you were active in the last 7 days. You should answer each question, even if you do not consider yourself an active person. I will ask you about activities or efforts that you carry out for 10 consecutive minutes or more in different places."

Section 1: Physical Activity at Work	
<p><i>The first questions are about activities you do during work. It should not include work for which you do not earn money and that is done at home, such as odd jobs or work to maintain the house, garden, patio, or land around your home, or to care for your family.</i></p>	
Question	Response
56	<p>Do you do work or have a trade for which you are paid, whether inside or outside your home, or do you do jobs for which you are not paid (in the fields, as a volunteer, or related with your studies, etc.) and is not done at home?</p> <p>Yes 1 No 2 (<i>Pass to Section 2: Physical activity related to movements/trip and transportation</i>)</p>
<p>The following questions are about all the activity or effort made in the last 7 days as part of your work that lasted at least 10 consecutive minutes or more. It should not include your trips to and from work.</p>	
57	<p>In the last 7 days, on how many days did you perform activities or intense physical efforts that made you breathe much harder than normal as part of the work? (<i>Give examples</i>)</p> <p>Days of the week _____ No 0 (<i>Pass to Question 59</i>) I don't know/Unsure 9 (<i>Pass to Question 59</i>)</p>
58	<p>On each of these days, approximately how much time in total you devoted to those activities or efforts as long as you devoted 10 consecutive minutes or more each time?</p> <p>(or if the person cannot answer, ask: "<i>How much time in total did you devote to those activities or effort in the last 7 days?</i>")</p> <p>_____ hours _____ minutes a day _____ hours _____ minutes of the week</p>
59	<p>In the last 7 days, on how many days did you perform moderate activities or efforts, that is, less intense than the previous activities, but that still made you breathe a little harder than normal as part of the work? (<i>Give examples</i>)</p> <p>Days of the week _____ No 0 (<i>Pass to Question 61</i>) I don't know/Unsure 9 (<i>Pass to Question 61</i>)</p>
60	<p>On each of those days, approximately how much time did you devote to those activities or efforts for 10 consecutive minutes or more?</p> <p>(or if the person cannot answer, ask: "<i>How much time in total did you devote to those activities or efforts in the last 7 days?</i>")</p> <p>_____ hours _____ minutes a day _____ horas _____ minutes of the week</p>

Physical Activity (continued)

Question		Response
61	In the last 7 days, on how many days did you walk for 10 consecutive minutes or more as part of your work? (not including how much you walked in going to and from your job?)	Day of the week _____ No 0 (Pass to Question 2) I don't know/Unsure 9 (Pass to Question 2)
62	On each of those days, approximately how much time in total did you walk as part of your work? (or if the person cannot answer, ask: "How much time in total did you walk as part of your work in the last 7 days?")	_____ hours _____ minutes a day _____ hours _____ minutes of the week
Section 2: Physical Activity Related to Your Movements/Trips and Transportation <i>Now, think about how you traveled from one place to another, always considering the two-way trip to and from work, when you go to the store, to the market, to carry out errands, going to church, etc.</i>		
63	In the last 7 days, how many days did you travel in a car, pick-up truck, motorcycle, or other motor vehicle?	Days of the week _____ No 0 (Pass to Question 65) I don't know/Unsure 9 (Pass to Question 65)
64	On each of those days, approximately how much time in total did you travel in a car, pick-up truck, motorcycle, or other motor vehicle? (or, if the person cannot answer, ask: "How much time in total did you travel in a motor vehicle in the last 7 days?")	_____ hours _____ minutes a day _____ hours _____ minutes of the week
65	In the last 7 days, how many days did you ride a bike for at least 10 minutes to go from one place to another?	Days of the week _____ No 0 (Pass to Question 67) I don't know/Unsure 9 (Pass to Question 67)
66	On each of those days, approximately how much time did you ride a bike from one place to another place for 10 consecutive minutes or more? (or, if the person cannot answer, ask: "How much time in total did you ride a bike from one place to another in the last 7 days?")	_____ hours _____ minutos diarios _____ hours _____ minutes of the week
67	In the last 7 days, how many days did you walk from one place to another for 10 consecutive minutes or more?	Days of the week _____ No 0 (Pass to Section 3) I don't know/Unsure 9 (Pass to Section 3)

Physical Activity (continued)

Question		Response
68	<p>On each of those days, approximately how much time in total did you walk for 10 consecutive minutes or more)?</p> <p>(or if the person cannot answer, ask: <i>“How much time in total did you walk from one place to another in the last 7 days?”</i>)</p>	<p>_____ hours _____ minutes a day</p> <p>_____ hours _____ minutes of the week</p>
<p>Section 3: Housework and Family Care Now think about the activities or efforts that you have made in the last 7 days in or around your home, such as manual work for housekeeping and work in the garden, patio or land around the dwelling for the care of your family.</p>		
69	<p>In the last 7 days, on how many days did you perform intense activities or efforts that made you breathe harder than normal in the garden, patio or land around your house (for 10 consecutive minutes or more)? <i>(Give examples)</i></p>	<p>Days of the week _____ No 0 (<i>Pass a la Preg. 71</i>) I don't know/Unsure 9 (<i>Pass a la Preg. 71</i>)</p>
70	<p>On each of those days, approximately how much time did you devote to those activities or efforts for 10 consecutive minutes or more?</p> <p>(or if the person cannot answer, ask: <i>“How much time in total did you devote to those activities or efforts in the last 7 days?”</i>)</p>	<p>_____ hours _____ minutes a day</p> <p>_____ hours _____ minutes of the week</p>
71	<p>In the last 7 days, how many days did you perform moderate activities or effort, that is, less intense than the previous activities, but still strenuous enough to make you breathe a little harder than normal in your garden, patio, or land around your house? <i>(Give examples)</i></p>	<p>Days of the week _____ No 0 (<i>Pass to Question 73</i>) I don't know/Unsure 9 (<i>Pass to Question 73</i>)</p>
72	<p>On each of those days, approximately how much time in total did you devote to those activities or efforts for 10 consecutive minutes or more?</p> <p>(or, if the person cannot answer: ask: <i>“How much time in total did you devote to those activities or efforts in the last 7 days?”</i>)</p>	<p>_____ hours _____ minutes a day</p> <p>_____ hours _____ minutes of the week</p>

Physical Activity (continued)

Question		Response
73	In the last 7 days, on how many days did you perform moderate activities or efforts that made you breathe a little harder than normal in your house for 10 consecutive minutes or more? <i>(Give examples)</i>	Days of the week _____ No 0 <i>(Pass to Section 4)</i> I don't know/Unsure 9 <i>(Pass to Section 4)</i>
74	On each of those days, how much time in total did you devote to those activities or efforts for 10 consecutive minutes or more? (or, if the person cannot answer, ask: "How much time in total did you devote to those activities or efforts in the last 7 days?")	_____hours _____ minutes a day _____horas _____ minutes of the week
Section 4: Physical Activity for Recreation, Sports and Free Time <i>Now, think about all the activities or efforts that you did in the last 7 days only for recreation, sport, or exercise in your free time. Please, do not include any activity that you have already mentioned.</i>		
75	Without counting any of the walks that you have already mentioned, in the last 7 days how many days did you walk for 10 consecutive minutes or more in your free time?	Days of the week _____ No 0 <i>(Pass to Question 77)</i> I don't know/Unsure 9 <i>(Pass to Question 77)</i>
76	On each of those days, approximately how much time in total did you walk in your free time for 10 consecutive minutes or more? (or, if the person cannot answer, ask: "How much time in total did you walk from one place to another in the last 7 days?")	_____hours _____ minutes a day _____hours _____ minutes of the week
77	In the last 7 days, on how many days did you perform intense activities or efforts that made you breathe harder than normal in your free time? <i>(Give examples)</i>	Days of the week _____ No 0 <i>(Pass to Question 79)</i> I don't know/Unsure 9 <i>(Pass to Question 79)</i>
78	On each of those days, approximately how much time in total of your free time did you devote to those activities or efforts for 10 consecutive minutes or more? (or, if the person cannot answer, ask: "How much time in total did you devote to those activities or efforts in the last 7 days?")	_____hours _____ minutes a day _____horas _____ minutes of the week

Physical Activity (continued)

Question		Response
79	In the last 7 days, on how many days did you perform moderate activities or efforts that were less intense than in the previous case, but still made you breathe a little harder than normal in your free time? <i>(Give examples)</i>	Days of the week _____ No 0 <i>(Pass to Question 81)</i> I don't know/Unsure 9 <i>(Pass to Question 81)</i>
80	On each of those days, how much time in total did you devote to those activities or efforts for 10 consecutive minutes or more? (or if the person cannot answer, ask: <i>"How much time in total did you devote to those activities or efforts in the last 7 days?"</i>)	_____ hours _____ minutes a day _____ hours _____ minutes of the week
81	In the last 7 days, approximately how much time did you spend sitting per day? (or, if the person cannot answer, ask: <i>"How much time in total did you spend sitting down on Wednesday?"</i>)	_____ horas _____ minutes a day _____ hours _____ minutes of the week
82	In the last 7 days, how much time in total did you spend sitting on a weekend day? (or, if the person cannot answer, ask: <i>"How much time in total did you spend sitting on Sunday?"</i>)	_____ horas _____ minutes a day _____ hours _____ minutes of the week
The following questions are about whether or not you practice some <i>exercise or sport regardless of whether you already included</i> in a previous response.		
83	Do you practice a sport or exercise at least once a week?	Yes, which sport? 1 <i>(Pass to Question 85)</i> _____ No 2
84	Have you tried to exercise more or to begin it in the last 6 months?	Yes, which sport? 1 <i>(Pass to Question 88)</i> _____ No 2
85	When did you begin?	Less than 4 weeks ago 1 1 to 6 months ago 2 More than 6 months ago 3 I don't know/Unsure 4

Physical Activity (continued)

Question		Response
86	How many time a week do you exercise/practice?	Days of the week _____
87	How long do you exercise/practice everyday	_____hours _____minutes a day
88	Has a doctor, nurse, or other health professional recommended that you increase your physical activity or exercise?	Yes 1 No 2 I don't know/Unsure 9
89	If you were to decide to begin exercising or already exercise, do you know some place where you can receive advice or assistance on how to proceed?	Yes 1 No 2 I don't know/Unsure 9
90	If you were to decide to begin exercising or already exercise, are there suitable places where you can exercise?	Yes 1 No 2 I don't know/Unsure 9

Body weight

"Now I am now going to ask you some questions about your weight."

Question		Response
91	Since you turned 18 years old, have you weighted yourself or been weighted?	Yes 1 No 2 (<i>Pass to Question 93</i>) I don't know/Unsure 9 (<i>Pass to Question 93</i>)
92	When was the last time that you weighed yourself?	Less than 1 year ago 1 Bestween 1 and 2 years 11 months 2 Between 3 to 5 years ago 3 More than 5 years 4 I don't know/Unsure 9
93	Has a doctor, nurse, or other health professional told you that you are overweight, obese, or weight more than you should?	Yes 1 No 2 I don't know/Unsure 9
94	Are you following a program or treatment to lose weight now?	Yes 1 No 2 (<i>Pass to Question 96</i>)
95	Are you following a program or treatment to prevent weight gain now?	Yes 1 No 2 I don't know/Unsure 9
96	How much do you think you weight?	_____ Kilograms
97	How much do you think you should weight?	_____ Kilograms
98	How much would you like to weight?	_____ Kilograms
99	Which of the following figures do you think looks like your body? (<i>Show drawings</i>)	_____

Question		Response
100	Which of these figures do you think it would be better to have? (<i>Show drawing</i>)	_____
101	If you were advised to lose weight, do you know where you could receive advice or assistance on how to do it?	Yes 1 No 2 I don't know/Unsure 9

Cholesterol

The following questions are about cholesterol.

Question		Response
102	Have you ever had your blood cholesterol measured?	Yes 1 No 2 (<i>Pass to Question 104</i>) I don't know/Unsure 9 (<i>Pass to Question 104</i>)
103	When was the last time that you had a cholesterol test?	Less than 6 months ago 1 Between 6 and 12 months 2 Between 1 and 2 years 3 Between 3 and 4 years 4 5 years or more 5 I don't know/Unsure 9
104	Has a health professional ever told you that your blood cholesterol is high?	Yes 1 No 2 (<i>Pass to Question 114</i>) I don't know/Unsure 9 (<i>Pass to Question 114</i>)
105	How old were you when they first told you that you had high cholesterol?	Age: _____ years
106	What treatment or program have they prescribed you for lowering cholesterol?	Some 1 No 0 (<i>Pass to Question 107</i>) I don't know/Unsure 9 (<i>Pass to Question 107</i>)
106.1	Drugs	Yes 1 No 2
106.2	A special diet?	Yes 1 No 2
106.3	Lose weight?	Yes 1 No 2
106.4	Regular exercise or physical activity	Yes 1 No 2
106.5	Home remedies (specify):	Yes 1 _____ No 2
106.6	Other:	Yes 1 _____ No 2
107	If you take drugs to lower your cholesterol, what are you taking? (<i>Ask the subject to show you the drug</i>)	

Cholesterol (continued)

Question		Response
107.1		
107.2		
108	During the last month, have you used any of the following treatment to control your high cholesterol?	
108.1	Drugs	Always or almost always 1 Sometimes 2 Never or almost never 3
108.2	A special diet	Always or almost always 1 Sometimes 2 Never or almost never 3
108.3	Lose weight:	Always or almost always 1 Sometimes 2 Never or almost never 3
108.4	Regular exercise or physical activity	Always or almost always 1 Sometimes 2 Never or almost never 3
108.5	Home remedies (specify):	Always or almost always 1 Sometimes 2 Never or almost never 3
108.6	Other:	Always or almost always 1 Sometimes 2 Never or almost never 3
109	Where do you have your cholesterol checked most of the time?	Publi hospital, health post, or health center 1 IGSS or company medical officer 2 Private doctor/Private clinic 3 Ont the Street 4 Family member or friend 5 By myself 6 No se la controla 7 Another way or place: 8 _____
110	In the last 12 months, how many times have you measured your blood cholesterol?	Number of times _____/year Never 0 I don't know/Unsure 9
111	Approximately how many times in the last 12 months have you seen a doctor or other health professional for your high cholesterol?	Number of times _____ Never 0 I don't know/Unsure 9
112	Do you usually find the drugs that the doctor prescribes you for high cholersterol?	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Can't find them 4
113	Do you usually have money or the means to obtain the drugs that your doctor prescribes for high cholesterol?	Yes, always 1 Yes, but not easily 2 Yes, but it is difficult 3 Cannot buy or obtain them 4

Smoking habit

I will now ask you several questions about smoking.

Question		Response
114	In you life, have you smoked at least 100 cigarettes, cigars, or pipes of tobacco?	Yes 1 No 2 (<i>Pass to Question 125</i>) I don't know/Unsure 9 (<i>Pass to Question 125</i>)
115	How old were you when you first started smoking in your life	_____years
116	How often do you smoke now?	Dialy 1 Occasionally 2 (<i>Pass to Question 121</i>) I don't smoke 3 (<i>Pass to Question 121</i>)
117	On the average, how many cigarettes/cigars/pipes have you smoked every day in the last 4 weeks?	_____
118	Approximately how long ago did you begin to smoke every day? (yers/months)	_____years/months
119	How soon after awakening do you smoke your first cigarette?	After 60 minutes 1 From 31 to 60 minutes 2 From 6 to 30 minutes 3 In the first 5 minutes 4
120	Do you want to try to stop smoking? (<i>Pass to Question 124</i>)	Yes, in the next month 1 Yes, in 1 to 6 months 2 Yes, in 7 months or more 3 No 4 I don't know/Unsure 9
121	In the last 4 weeks, how many cigarettes/cigars/pipes have you smoked?	_____
122	Have you ever smoked every day?	Yes 1 No 2 (<i>Pass to Question 124</i>) I don't know/Unsure 9 (<i>Pass to Question 124</i>)
123	How long ago did you stop smoking every day? (years/months)	_____years or months
124	In the last 12 months, has any health professional advised you to quit smoking?	Yes 1 No 2 I haven't seen a doctor in that time 3 I haven't smoked in the last 12 months 4 (<i>Pass to Question 125</i>)
125	How many times have you tried to quit smoking in the last 12 months?	_____veces
126	In the last 12 months, has any health professional asked you if you smoke?	Yes 1 No 2 I haven't seen a health professional in that time 3

Smoking habit (continued)

Question		Response
127	Do you believe that smoking harms the health of the smoker?	Yes 1 No 2 I don't know/Unsure 9
128	Do you believe that smoking harms the health of the people around the person who smokes?	Yes 1 No 2 I don't know/Unsure 9

Alcohol Consumption

"I will now ask you several questions about your drinking habits."

Pregunta		Respuesta
129	Have you ever drunk an alcoholic beverage in your life? (clarify: a beverage is equivalent to a can or bottle of beer, a glass of wine, a cocktail, or a drink of spirits.)	Yes 1 No 2 (<i>Pass to Question 141</i>) I don't know/Unsure 9 (<i>Pass to Question 141</i>)
130	Approximately how old were you when you had your first complete drink?	_____ years
131	In the last 12 months, have you had at least one alcoholic beverage?	yes 1 No 2 (<i>Pass to Question 141</i>) I don't know/Unsure 9 (<i>Pass to Question 141</i>)
132	When you drink, how many drinks do you usually consume?	_____
133	What do you usually drink?	Mild (beer, wine) 1 Strong (rum, whisky, etc) 2 Combination of mild and strong 3
134	In the last ones 4 weeks, have you drunk at least one alcoholic beverage?	Yes 1 No 2 (<i>Pass to Question 137</i>) I don't know/Unsure 9 (<i>Pass to Question 137</i>)
135	In the last 7 days, how many days did you drink any alcoholic beverage?	_____
136	Taking into account all sorts of alcoholic beverages, how many times have you had more than 5 drinks a day in the last 4 weeks?	_____
137	During the last year have you ever felt the need to reduce the amount of alcohol that you drink?	Yes 1 No 2 I don't know/Unsure 9
138	During the last year, have you ever been upset because someone criticized your drinking habits?	Yes 1 No 2 I don't know/Unsure 9

Alcohol Consumption (continued)

Question		Response
139	During the last year, have you ever felt bad or guilty about your drinking habits?	Yes 1 No 2 I don't know/Unsure 9
140	During the last year, have you ever had a drink in the morning to calm down?	Yes 1 No 2 I don't know/Unsure 9

Personal Data

Finally, I need some information about you and your family

Question		Response
141	Sex	Male 1 Female 2
142	Date of birth	____/____/____ Day Month Year
143	Age	____ Years
144	You are:	Single 1 Married/co-habiting 2 Separated/Divorced 3 Widowed 4
145	What was the last grade of school that you completed?	Select one: The number of years you studied in that level: Elementary ____ Middle School ____ High School ____ University ____
146	Do you know how to read and write?	Reads and writes without difficulty 1 Reads and writes with difficulty 2 Does not read or write 3
147	DO you speak Mayan language that your parents taught you?	Yes 1 No 2 I don't know/Unsure 9
148	How long have yo lived in the town of Villa Nueva?	<12 months 1 From 1 to 3 years 2 (<i>Pass to Question 150</i>) More than 4 years 3 (<i>Pass to Question 150</i>)
149	Wher have you lived most in the last 12 months?	Urban area 1 Other periurban 2 Rural area 3

Smoking habit (continued)

Pregunta		Response
150	Where were you born?	Urban area 1 Other periurban area 2 Rural area 3 Other country 4
151	Race:	Indigenous 1 Mixed-race 2 Caucasian 3 Black 4 Asian 5 Other 6


Occupational and Home Situation

Question		Response
152	What is your profession or trade?	_____
153	<i>(Only married or cohabitating subjects)</i> What is the profession or trade of your partner?	_____
154	Do you have paid work?	Yes 1 No 2 <i>(Pass to Question 156)</i> I don't know/Unsure 9 <i>(Pass to Question 156)</i>
155	What work do you do?	_____
156	In the last 12 months, how many months have you been without paid work?	_____ months

Occupational and Home Situation (continued)

Question		Response
157	How many people in your home have a paid job?	_____
158	Do you or someone in your home receive an income from rent or benefits?	Yes 1 No 2 I don't know/Unsure 9
159	The house where you live is:	Your own 1 Rented 2 Rent-free 3 Improvised (shack) 4 Other: 5 _____
160	How many rooms does your residence have, without counting the bath and kitchen? (<i>By observation</i>)	_____
161	Predominant flooring material in house	Ceramic tile, carpet, varnished wood 1 Granite floor 2 Poured cement, unfinished wood 3 Packed earth/Adobe 4 Panel, cardboard, straw, plastic 5 Other: 6
162	Predominant wall material in house	Cement block or brick 1 Prefabricated 2 Wood 3 Packed earth/Adobe 4 Panel, cardboard, straw, plastic 5 Other 6
163	Time of conclusion of interview	____:____

Appendix D: Blood Pressure and Physical Measurements

	<p>Multinational Survey of Diabetes Mellitus, Hypertension and Their Risk Factors Annex 2. Registry of Blood Pressure and Anthropometric Measures</p>
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Identification

1	Identification of interviewee	_ _ / _ _ _ _
2	Date of interview	_ _ / _ _ / _ _ _ _ Day Month Year
3	Name of interviewee:	
4	Sector	|_|_|
5	Subunit	|_|_|_|
6	Residence	|_|_|_|
7	Compact telephone	

Measurements

	Anthropometry	1 st Measurement	2 nd Measurement	3 rd Measurement
8	Weight (kg)	|_|_|_|,|_|_|	|_|_|_|,|_|_|	|_|_|_|,|_|_|
9	Height (cm)	|_|_|_|,|_|_|	|_|_|_|,|_|_|	|_|_|_|,|_|_|
10	Waist circum.	|_|_|_|,|_|_|	|_|_|_|,|_|_|	|_|_|_|,|_|_|
11	Hip circum.	|_|_|_|,|_|_|	|_|_|_|,|_|_|	|_|_|_|,|_|_|
12	Measurement made by (initials):			|_|_|

	Blood Pressure	1 st Measurement	2 nd Measurement	3 rd Measurement
13	Systolic pressure	|_|_|_|	|_|_|_|	|_|_|_|
14	Diastolic pressure	|_|_|_|	|_|_|_|	|_|_|_|
15	Pulse (beats per minute)	|_|_|_|	|_|_|_|	|_|_|_|
16	Time	|_|_|_|:|_|_|	|_|_|_|:|_|_|	|_|_|_|:|_|_|
17	Measurements made by (initials):			|_|_|

Annex D (continued)

	Extracción de sangre	
18	Time of blood extraction, fasting conditions	□□□.□□□
19	Time of intake of glucose load	□□□.□□□
20	Extracted by (initials):	□□□
21	Time of blood extraction 2 hours after glucose load	□□□.□□□
22	Extracted by (initials):	□□□

List of Abbreviations

BFRSS:	Behavioral Risk Factor Surveillance System
BMI:	Body mass index
CAMDI:	Central America Diabetes Initiative
CARMELA:	Cardiovascular Risk Factor Multiple Evaluation in Latin America Study
CDC:	Centers for Disease Control and Prevention
CVD:	Cardiovascular diseases
DM:	Diabetes mellitus
g:	grams
HTN:	Hypertension
IFG:	Impaired Fasting Glucose
IGT:	Impaired Glucose Tolerance
INCAP:	Institute of Nutrition of Central America and Panama
mg/dl:	milligrams per deciliter
mmHg:	millimeters of mercury
mmol/L:	millimols per liter
NHANES:	National Health and Nutrition Examination Survey
NCD:	Chronic non communicable diseases
OGTT:	Oral Glucose Tolerance Test
PAHO:	Pan American Health Organization
PSU:	Primary sampling units
WHO:	World Health Organization
95%–CI:	95% Confidence Interval



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