Guam Non-Communicable Disease Strategic Plan

A collaborative project of the
Department of Public Health and Social Services
and the
Non-Communicable Disease (NCD) Consortium

May 2011

Non-Communicable Disease (NCD) Consortium
Guam Hilton Resort and Spa
January 14, 2011

EDDIE BAZA CALVO
Governor

RAY TENORIO
Lieutenant Governor

Office of the Governor of Guam

Keeping Guam Healthy

Hafa Adai! The health and well being of every member of this community is so vital to the future of this island. As leaders of the next generation, we have a duty to educate and promote the importance of maintaining healthy and active lifestyles.

Heart disease, diabetes, stroke and cancer are among the leading causes of death in this community. Guam, and other islands throughout the region are needlessly suffering the harmful affects of non-communicable and preventable diseases.

Major progress is being made to address these issues through the efforts of the Non-Communicable Disease Consortium. This includes representatives from government agencies, non-profit organizations and individuals from the private sector. Their development of the Guam Non-Communicable Disease Strategic Plan will further assist community initiatives to prevent disease and educate the public.

Un dangkolo na Si Yu'os Ma'ase to the Guam NCD Consortium for encouraging everyone to lead healthier, active lifestyles. Your work and contributions are helping to build a healthy, vibrant community.

Si Yu'os Ma'ase,

EDDIE BAZA CALVO

RAY TENORIO

Ricardo J. Bordallo Governor's Complex • Adelup, Guam 96910
Tel: (671) 472-8931/6 • Fax: (671) 477-4826 • www.governor.guam.gov

SENATOR DENNIS G. RODRIGUEZ, JR.

Chairman,
Committee on Health & Human Services, Senior Citizens, Economic Development, & Election Reform

Member,
Committee on Public Safety, Law Enforcement, & Judiciary

Member,
Committee on Youth, Cultural Affairs, Procurement, General Government Operations, & Public Broadcasting

Member,
Committee on Municipal Affairs, Tourism, Housing & Recreation

Member,
Committee on Rules, Federal, Foreign & Micronesian Affairs, & Human & Natural Resources

Member,
Committee on the Guam Military Buildup & Homeland Security

Member,
Committee on Appropriations, Taxation, Public Debt, Banking, Insurance, Retirement, & Land

Member,
Committee on Utilities, Transportation, Public Works, & Veterans Affairs

Assistant Majority Whip

MESSAGE FROM THE CHAIRMAN, COMMITTEE ON HEALTH & HUMAN SERVICES, ECONOMIC DEVELOPMENT, SENIOR CITIZENS AND ELECTION REFORM

Buenas yan Hafa Adai! I congratulate the Department of Public Health and Social Services in spearheading the development of the first **Guam Non-Communicable Disease Strategic Plan** in collaboration with the **NCD Consortium**. Making our island healthy is everyone's responsibility.

Guam is plagued with an epidemic of non-communicable diseases (NCD) such as heart disease, stroke/CVA, cancer, diabetes, asthma, etc. NCDs are preventable by adopting healthy lifestyles through proper nutrition, increased physical activity and prevention of risk behaviors such as alcohol and tobacco use. This plan will be the roadmap in our efforts in addressing the NCDs and ultimately improving the health and quality of life our citizens.

The 31st Guam Legislature, specifically the Committee on Health & Human Services, Economic Development, Senior Citizens and Election Reform, of which I am the Chairperson, is committed to working closely with all stakeholders, especially the Department of Public Health & Social Services to introduce legislation that will ensure public policy in favor of promoting the health and welfare of our people. Likewise, I am also offering you my personal support in your endeavors in making this Plan into a reality.

Si Yu'os Ma'ase.

Senseramente,

SEN. DENNIS G. RODRIGUEZ, JR.
Chairperson
Committee on Health & Human Services,
Economic Development, Senior Citizens
and Election Reform

Ufisinan Todu Guam • 31st Guam Legislature
176 Serenu Avenue, Suite 107, Tamuning, Guam 96931 / Telephone: 671-649-TODU (8638) / Facsimile: 671-649-0520
E-mail: senatordrodriguez@gmail.com

Foreword

Hafa Adai!

The Secretariat of the Pacific Community is proud to be associated with the publication of the first Guam Non-Communicable Disease Strategic Plan.

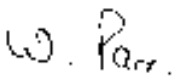
Non-communicable diseases are on the rise in Guam increasing the burden placed on individuals, families, communities, and governments. The good news though is that we know how we can reduce premature death and disability through the elimination of key risk factors such as poor nutrition and inadequate levels of physical activity, and by controlling harmful use of alcohol and having a strong and effective tobacco control strategy.

Key principles that have guided the development of this plan have been broad multidisciplinary participation and multi-sectoral working. The plan is the result of extensive consultation. It is evidence based, and has prioritized the actions that have the greatest potential for success.

The plan provides a road map for Guam, with practical achievable and cost effective strategies which will ensure that interventions will achieve a reduction in NCD risk factor prevalence and NCD mortality and morbidity.

We commend the work of both government and non government partners, and in particular the NCD Coalition, in highlighting the issue of non-communicable disease prevention and control and placing it amongst the highest public health priorities.

The Secretariat of the Pacific Community looks forward to being a partner and assisting with the implementation of the Guam Non-Communicable Disease Strategic Plan.



William (Bill) Parr
Director, Public Health Division
Secretariat of the Pacific Community

GOVERNMENT OF GUAM
DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES
DIPATTAMENTON SALUT PUPBLEKO YAN SETBISION SUSIAT

EDDIE BAZA CALVO
GOVERNOR

RAY TENORIO
LIEUTENANT GOVERNOR

JAMES W. GILLAN
DIRECTOR

LEO G. CASIL
DEPUTY DIRECTOR

Hafa Adai! Chronic diseases, such as heart disease, stroke, and diabetes, and cancer have long plagued our island. In fact, these diseases are the four leading causes of death on Guam with heart disease being number one. These diseases have high mortality rates, are expensive to treat, and have long term effects. Chronic diseases are also preventable.

The Pacific Island Health Officers Association (PIHOA) has declared a regional state of health emergency in the United States Affiliated Pacific Islands (USAPI) due to the epidemic of non-communicable diseases (NCDs) in the region. The USAPI is made up of Guam, American Samoa, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the Commonwealth of Northern Mariana Islands.

A collaborative effort was needed to combat and address the burden NCDs placed on families and communities The **NCD Consortium**, a group made up of representatives from various government agencies, not-for-profit organizations and private sector, answered the call to action in response to the NCD epidemic. Through their hard work and dedication, the first ***Guam Non-Communicable Disease Strategic Plan*** was developed.

The Department of Public Health and Social Services is ready to assist in implementing the objectives of this important plan.

JAMES W. GILLAN
Director

LEO G. CASIL
Deputy Director

123 CHALAN KARETA, MANGILAO, GUAM 96913-6304
www.dphss.guam.gov • Ph.: 1.671.735.7102 • Fax: 1.671.734.5910

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ACS:	American Cancer Society Guam Office
BCHS	Bureau of Community Health Services, Dept. of Public Health and Social Services
BMI:	Body Mass Index
BNS:	Bureau of Nutrition Services, Department of Public Health and Social Services
BPSS:	Bureau of Professional Support Services, Dept. of Public Health and Social Services
BRFSS:	Behavioral Risk Factor Surveillance System
BTI:	Basic Tobacco Intervention Skills Training
CYFFN:	Community, Youth, Family, Food and Nutrition, University of Guam
D & A:	Drug and Alcohol Division, Dept. of Mental Health and Substance Abuse
DMHSA:	Department of Mental Health and Substance Abuse
DOE:	Department of Education
DPHSS:	Department of Public Health and Social Services
DYA:	Department of Youth Affairs
EFNEP:	Expanded Food and Nutrition Education Program, University of Guam
FHP:	Family Health Providers Clinic
GCCCC:	Guam Comprehensive Cancer Control Coalition
GCPF&S:	Governor's Council on Physical Fitness and Sports
GCR:	Guam Cancer Registry
GDCC:	Guam Diabetes Control Coalition
GHRA:	Guam Hotel and Restaurant Association
GMHA:	Guam Memorial Hospital Authority
GWHS:	George Washington High School, Dept. of Education
GVB:	Guam Visitors Bureau
HFF:	Healthy Futures Fund
HIV:	Human Immunodeficiency Virus
HPSA:	Health Professional Shortage Area
IHOM:	Immaculate Heart of Mary Church
MAP:	Medicaid Assistance Program
MIP:	Medically Indigent Program
NCD:	Non-Communicable Disease(s)
OB/GYN:	Obstetrics and Gynecology
P.E.:	Physical Education
PSA:	Public Service Announcement
SAMHSA:	Substance Abuse Mental Health Services Administration, US DHHS
SBIRT:	Screening, Brief Intervention, Referral and Treatment for alcohol
SDA:	Seventh Day Adventist Wellness Center
SPC:	Secretariat of the Pacific Community
TOT:	Training of Trainers
UOG:	University of Guam
WHO:	World Health Organization
WIC:	Special Supplemental Food and Nutrition Program for Women, Infants, and Children
YFY:	Youth for Youth LIVE! Guam
YRBS:	Youth Risk Behavior Surveillance System

The Guam Non-Communicable Disease Strategic Plan is the result of the efforts of many individuals and organizations that volunteered significant time, energy, expertise, and other resources. The plan was developed with the guidance of Angelina G. Mummert, MPA, under contract with the Department of Public Health and Social Services.

NON-COMMUNICABLE DISEASE (NCD) CONSORTIUM

The NCD Consortium is the group that developed the plan with technical and financial support from the Secretariat of the Pacific Community (SPC) under the advisement of Ms. Jeannie McKenzie. The coordination of the Consortium was spearheaded by the Department of Public Health and Social Services. The Consortium's Steering Committee provided leadership in the plan development and preparation process. Their contribution of time and expertise is greatly appreciated.

NCD CONSORTIUM STEERING COMMITTEE

Roselie V. Zabala, MSW, Administrator, Bureau of Community Health Services, & NCD Program Administrator, Department of Public Health and Social Services

Barbara S.N. Benavente, Administrator, Prevention and Training Branch, Department of Mental Health and Substance Abuse

Patrick Luces, Program Coordinator IV, Diabetes Prevention and Control Program, Department of Public Health and Social Services

Annette M. David, MD, MPH, Health Partners, LLC

Nutrition and Obesity Team Leaders:

- Charles H. Morris, Administrator, Bureau of Nutrition Health Services, Department of Public Health and Social Services
- Jesse Rosario, State Program Officer for Nutrition, Department of Education

Physical Activity Team Leaders:

- John Wesolowski, President, Guam Running Club, and Asst. Principal, FBLG Elementary School, Department of Education
- Lawrence Alam, Program Coordinator, Preventive Health and Health Services Block Grants, Department of Public Health and Social Services

Alcohol Prevention and Control Team Leaders:

- Audrey Topasna, Program Coordinator, Department of Mental Health and Substance Abuse
- Rebecca Respicio, Program Coordinator, Department of Youth Affairs
- John Pangelinan, Department of Military Affairs

Tobacco Prevention and Control Team Leaders:

- Marisha D. Artero, Program Manager of Community Initiatives, American Cancer Society Guam Office
- Cerina Y. Mariano, Program Coordinator IV, Guam Comprehensive Cancer Control Program, Department of Public Health and Social Services

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SDA Wellness Center:	• Keith Horinouchi, DrPH, MPH, CNS
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ALCOHOL PREVENTION AND CONTROL COMMUNITY FORUM WORKING GROUP	
Department of Agriculture:	• John Borja • Ed Camacho
Department of Military Affairs:	• Mary Jane Flores • John B. Aquino
Department of Public Health and Social Services:	• Arcy M. Castillo
Department of Revenue and Taxation:	• Gerald Salas • John Garrido
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Department of Mental Health and Substance Abuse:	• Athena Duenas • Gayle Osborn
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University of Guam:	• Alicia Borja • Kristina Balajadia

TOBACCO PREVENTION AND CONTROL COMMUNITY FORUM WORKING GROUP	
American Cancer Society Guam Office:	• Elyze McDonald Iriarte
Department of Administration:	• Kathy Diaz
Department of Education:	• Paul Nededog
Department of Education:	• Paul Nededog
Department of Mental Health and Substance Abuse:	• Peter Cruz • Remy Malig
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Healthy island, Healthy People: Guam

Islandwide

Policies support the healthy choice as the easy choice for our people:

- Workplaces, schools and public places are tobacco free and support healthy lifestyles.
- Safe biking and pedestrian lanes, alternate transportation and recreational opportunities are easily accessible, safe and affordable.
- Healthy foods are easily accessible and affordable.
- Schools offer health education and physical fitness education in every grade level.

Policies protect adults and children from unhealthy influences:

- Schools, worksites and public places are tobacco free.
- Enforcement of alcohol and tobacco control laws and policies.

Awareness and education messages promote non-communicable disease prevention through promotion of healthy eating, physical activity and prevention and control of tobacco use and harmful use of alcohol, as well as early detection and management of NCDs.

Information about health status and economic cost of non-communicable disease is collected and reported.

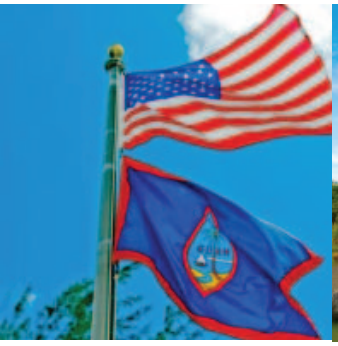
All Communities

Optimal Availability of:

- NCD self-management programs
- Healthy food choices (fresh and local produce)
- Physical activity opportunities

Minimal exposure or access to:

- Secondhand smoke
- Tobacco products
- Alcohol
- Unhealthy foods
- Advertising and promotion of tobacco and alcohol



GUAM – OUR LOCATION, OUR HISTORY, OUR CULTURE, OUR PEOPLE, OUR COMMUNITY

LOCATION. Guam, an unincorporated Territory of the United States, is located approximately 3,700 miles west of Hawaii and 1,300 miles southeast of Japan with a total land area of 541.3 sq km, approximately three times the size of Washington, DC. The capital of Guam is Hagatna. The island of Guam is the largest and southernmost island of the Marianas Islands. Guam is a melting pot that reflects the cultures of its original Chamorro inhabitants and the influences of European, American, Asian, Micronesian, and other people who have occupied, visited and immigrated to Guam since the 16th Century.

HISTORY. Guam has an ancient history and rich cultural heritage. The indigenous people of Guam, Chamorros, are widely believed to have been of Indo-Malaya descent sharing linguistic and cultural similarities to Malaysia, Indonesia and the Philippines. Guam's first contact with the West occurred in 1521 with the visit of Ferdinand Magellan. The island was formally claimed by Spain in 1565 and Jesuit missionaries arrived in 1668 to establish their brand of European civilization, Christianity and trade.


Pictured above is Gadao's Cave with ancient Chamorro drawings.

During this period, the Catholic Church became the focal point for village activities and Guam became a regular port-of-call for the Spanish galleons that crisscrossed the Pacific Ocean. Guam was ceded to the United States following the Spanish American War in 1898. The island was formally purchased from Spain in 1899. Under the administrative jurisdiction of the United States Navy, Guam experienced many improvements in the areas of agriculture, public health, sanitation, education, land management, taxes, and public works. The U.S. Navy continued to use Guam as a refueling and communication station until 1941, when the island fell to invading Japanese forces shortly after the

attack on Pearl Harbor. Guam remained under Japanese occupation until reclaimed by American forces in July 1944. In 1949, President Harry S. Truman signed the Organic Act, making Guam an unincorporated territory of the United States with limited self-governing authority, which it remains to this day. Approximately a third of Guam is controlled by the U.S. military, which maintains naval and air force bases on island.

CULTURE AND LANGUAGES. Guam is a cosmopolitan community with a unique culture, the core of which is Chamorro with heavy influences as a result of Spanish occupation and the Catholic Church. American influence is evident in regard to celebration of public holidays and the form of government. Guam's culture has also been influenced and enriched by Filipino, Japanese, Korean, Chinese and Micronesian immigrants. The official languages of Guam are English and Chamorro. However, because of a diverse population, Philippine dialects, other Pacific Island languages and other Asian languages are used throughout the community.

POPULATION. In 2000, 42% of the total population (U.S. Census, total population = 154,805) were full or part Chamorro (Guam's indigenous people), 26% were Filipino and 7% were Caucasian and just over 1% were Black/ African American. Other Asians (i.e., Chinese, Japanese, Korean, etc.) constitute nearly 8% of the population, while Native Hawaiian and Other Pacific Islanders (i.e., Carolinian, Chuukese, Kosraean, Marshallese, Palauan, Pohnpeian, Yapese and Other Pacific Islander) make up over 6%. Overall, over 82% of Guam's population is of Asian or Pacific Islander ethnicity.

The total population of Guam based on July 2010 estimates is 180,865 with a growth rate of 1.346% and a total life expectancy of 78.18 years (male: 75.14 years; female: 81.41 years). Seven percent of the population is 65 years of age and older (2010 est.). The average life expectancy at birth on Guam at the time of the 2000 Census was 76.9 years which was nearly identical to that of the U.S. at 77.0. An estimated 93% of the population lives in urban areas (2008)

There are an estimated 14,000 service members and family members living on Guam. According to the U.S. Government Accountability Office's Report (September 2007), the Guam military buildup population growth is estimated at 39,130 for service members and their families. This does not include long-term civilian workers needed to support the troops or influx of immigrants moving to Guam for opportunities as a result of Guam's military buildup. Those 39,130 people alone would increase the island's population of 180,865 by nearly 23%. However, there is an anticipated population growth of at least 15% within a window of 4 to 5 years for the construction phase. This growth will shift, meaning that initially it will comprise of construction related labor force and once the construction phase is completed, the majority of that workforce will leave island and the military will eventually move to Guam over the next few years.

VULNERABLE POPULATIONS. A total of 7,928 households (26,662 individuals) were enrolled in the Supplemental Nutrition Assistance Program/Food Stamp Program (2007), with a total of $52.9 million in assistance. In November 2010, the monthly number of persons participating in the Food Stamp Program was 39,469, up 13.4% from 34,810[1] reported for November 2009, and up 48.0% from the figures shown for the average number recorded for 2007. In addition, an average of 8,058 (FY 2010) women, infants and children were enrolled in the Special Supplemental Food and Nutrition Program for Women Infants and Children (WIC). This is up 23.3% from FY 2007 (n = 6,533) with $5.1 million in assistance distributed in FY 2007 and $6.2 million in FY 2010.

The average number of recipients on public assistance in 2007 was 30,131 with annual expenditures of $35.5 million. A total of 28,574 individuals were enrolled in Medicare (2007), 25,004 were aged, and the remaining 3,570 disabled.

ECONOMY. Sharp fluctuations in the economy have arisen over the past forty years. During the 1980s and 1990s, the island experienced rapid economic development fueled both by rapid growth in the tourism industry as well as increased U.S. Federal Government spending. In the late 1990s, the Asian economic crisis, which impacted Japan, severely affected Guam tourism. Deep military cutbacks in the 1990s also disrupted the island's economy. During the same time period, the island's economic recovery was further hampered by devastation from Super typhoons Paka in 1997 and Pongsona in 2002, as well as the effects on travel and tourism of the September 11, 2001 terrorist attacks in the United States. Guam's economy depends largely on tourism and US military spending. Total US grants, wage payments, and procurement outlays amounted to $1.396 billion in 2009[2]. Over the past 40 years, the tourist industry has grown to become the largest income source following national defense.

Table 1 illustrates health related statistics for Guam 2008 compiled by Andiara Schwingel, PhD, from the University of Illinois at Urbana-Champaign during her presentation at the Guam Fitness and Sports Health Summit held on May 14, 2010. However, the population estimates have been updated and obtained from the Bureau of Statistics and Plans 2008 Statistical Workbook, as well as the adult tobacco use rates from the Behavioral Risk Factor Surveillance Survey 2009.

TABLE 1. GUAM - PROFILE 2008

HEALTH STATISTICS	*RATE/VALUE*
Total Population [July 2010 (1)]	180,865
Life Expectancy	78.9 years
Birth Rate	20.48 per 1,000
Mortality Rate	3.97 per 1,000
Leading Causes of Death	Heart Disease and Cancer
Population Lack Current Health Insurance	21.3% (Guam) vs. 16.9% (U.S.) [BRFSS 2009]
Per Capita GNP	$21,000
Mortality Due to Cardiovascular Disease	200.1 per 100,000
Prevalence of Cancer	1,580 per 100,000
Diabetes	2,500 per 100,000
Obesity	2,700 per 100,000
Tobacco Use (2) (BRFSS 2009)	Total: 24.1% Males: 30.9% Female: 17.1%

Sources: AD Lab, Aging and Diversity Lab, Fitness and Sports Health Summit, Tamuning, Guam. National Center for Chronic Disease Prevention & Health Promotion. Behavioral Risk Factor Surveillance System: Prevalence and Trends Data – Guam (2008 and 2009). Guam: Cancer Facts and Figures 2003-2007 (2009). Department of Public Health and Social Services. Note: (1) Data from Government of Guam, Bureau of Statistics and Plans, 2008 Statistical Workbook. (2) Source: BRFSS 2009 – Guam. Unless specified data is for the year 2008.

HEALTHCARE INFRASTRUCTURE

The only civilian inpatient medical facility on Guam is the Guam Memorial Hospital Authority (GMHA), which has 158 beds, an emergency room, inpatient wards, surgical suites, a pharmacy, laboratory and x-ray services, physical therapy services, and health administration and data management offices.

The U.S. Naval Hospital is the military's central facility for general acute care. The hospital also provides outpatient services in the various medical disciplines and maintains a dental clinic. The medical center is staffed to provide for the medical needs of active military personnel and their dependents, military retirees, veterans and their eligible dependents.

The Government of Guam's Department of Public Health and Social Services (DPHSS) maintains vital statistics in the Office of Vital Statistics. It also maintains the Guam Cancer Registry (GCR) operated through Memorandum of Agreement with the University of Guam's Cancer Research Center. The department sponsors some programs in non-communicable disease (NCD) prevention and control within the Bureau of Nutrition Services (BNS), the Bureau of Community Health Services (BCHS), and the Bureau of Primary Care Services. Some of the NCD programs include the Breast and Cervical Cancer Early Detection Program, the Guam Comprehensive Cancer Control Program, the Diabetes Prevention and Control Program, Preventive Health and Health Services Block Grants,

the Tobacco Prevention and Control Program and the Guam Office of Minority. The Department also maintains a Diabetes Registry but registration is completely voluntary. More than 50 years ago the DPHSS operated village health clinics in every major village on Guam (14 total), but budget restrictions and loss of public health nursing positions have resulted in the closure of all but three facilities, the Central Regional Community Health Center, the Northern Regional Community Health Center, and the Southern Regional Community Health Center. The Northern and Southern Regional Community Health Centers have been renovated and operate as state of the art out patient facilities serving the community.

The Department of Mental Health and Substance Abuse (DMHSA) administers several programs related to prevention and control for alcohol, tobacco and other drugs, as well as out-patient treatment "New Beginnings" for alcohol and drug abuse addiction. They also promote a social marketing campaign, "One Nation" for alcohol prevention.

The DPHSS not only administers the Medicaid (MAP) and Medicare Assistance Programs, but also operates a 100% locally-funded Medically Indigent Program (MIP) designed to pay for medical expenses of low-income families without other health insurance. However, financial support for the program has been reduced although the demand has increased. Many private physicians practicing in Guam now refuse to accept MIP and MAP patients because of chronically late payments, low reimbursement rates, and denial of claims. The MIP program, a 100% locally funded health assistance program, is the safety net for those who cannot afford health insurance/care and do not qualify for Medicaid. Failure by the government to keep pace with the rising costs of health care services has caused undue burden to health care providers who accept MIP clients. "One clear disadvantage of being part of the MIP is that private doctors and clinics will not and cannot treat MIP patients. All private doctors and clinics stopped accepting those patients because the government failed to pay their bills, and Public Law 27-30 requires all MIP members to seek primary care services at the Southern or Northern Primary Care Centers at the DPHSS.Some but not all employers in Guam provide their staff with the option to purchase health insurance. There are a number of insurance companies in Guam and rates vary from provider to provider.

In addition to concerns regarding the cost and availability of insurance, access to health care, diagnostic and treatment services remain a leading problem for island residents. Many are forced to travel to overseas health centers to receive diagnostic or treatment services not available in Guam. This further exacerbates an already chronic problem of trying to find adequate resources to meet the needs of a medically underserved population.

HEALTH PROFESSIONAL SHORTAGE AND MEDICALLY UNDERSERVED AREA DESIGNATIONS.

Guam was designated a Health Professional Shortage Area (HPSA) for Primary Medical Care by the U.S. DHHS in 1988 and continues to this day. There is a need for more OB/GYN and Family Practice physicians on Guam, especially for low income families. In 2009, Guam was also designated as a Medically Underserved Area. These designations give Guam the advantage needed to compete for healthcare experts from the National Health Service Corps.

According to the 2008 Guam Statistical Workbook, there are an estimated 30 pharmacies and 77 clinics on island. Guam has only two cardiologists (one in pediatric cardiology) serving our entire civilian population and no full time cardiothoracic surgeon or rehabilitation facilities for heart patients. However, twice a year, visiting physicians and their team from Valley Heart Associates and Medical Relief Foundation of Modesto California travel to Guam to provide cardiac surgery and care for needy patients.

With respect to cancer treatment Guam's capacity has improved. As of April 2010, Guam has both medical oncology and radiation therapy available on island. Prior to April 2010, patients needing radiation therapy had to go off-island for treatment. As of February 2011, there are now the full-time equivalent of 3-and-1/2 medical oncologists on Guam, up from 1 in 2007.

There are a total of 303 physicians licensed to practice medicine on Guam in 2011[3]. Not all these licensed physicians live on Guam but periodically come to Guam to see patients at special clinics or perform services as needed. As noted on existing NCD care, there are four licensed cardiologists who treat heart disease. However, of the four, only two are full-time cardiologists who live on Guam, one of whom is a pediatric cardiologist. There are five medical oncologists who treat cancer patients, but of the five, only three have a full-time practice. The fourth medical oncologist has a part time practice and the fifth travels to Guam as needed. There are three licensed radiation oncologists, but only one resides on Guam and practices on a full-time basis. There is only one endocrinologist (a specialist who treats diabetes), but does have 45 physicians licensed in internal medicine, and 47 licensed in family practice or family medicine. The combination of cardiologists, oncologists, internal medicine, and family medicine practitioners are the core of Guam's existing NCD care base.


GUAM NON-COMMUNICABLE DISEASE BURDEN, TRENDS AND ISSUES

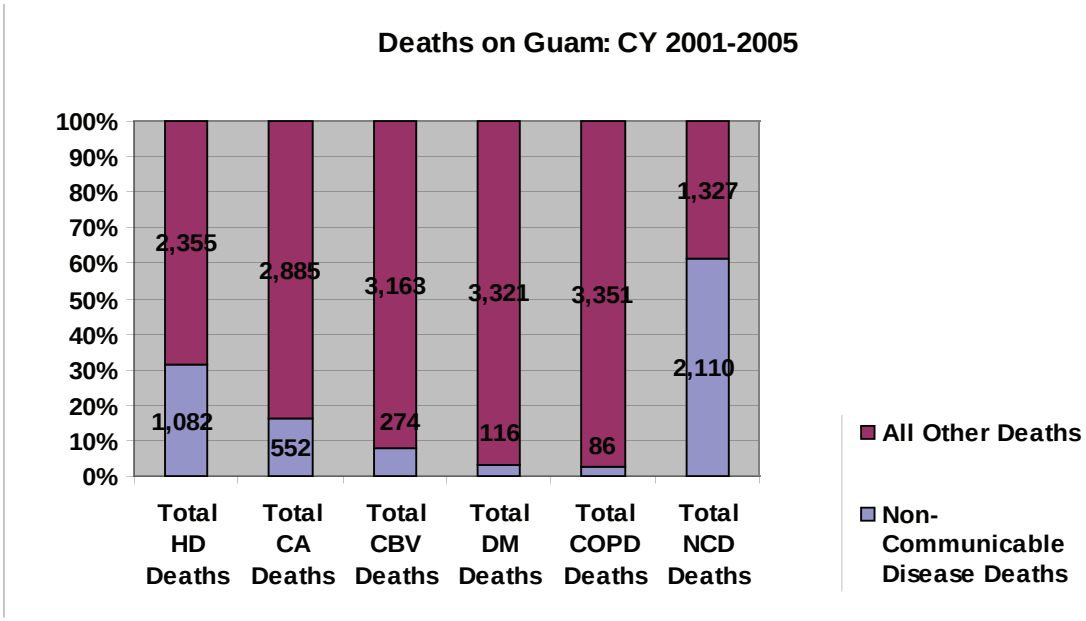
Non-communicable diseases (NCDs) such as heart disease, cancer, diabetes mellitus, and chronic respiratory diseases accounted for 61.4% of all deaths in Guam. Table 2 shows that for the time period 2001 to 2005, heart disease accounted for 31.5% of all deaths, cancer accounted for 16.1%, cerebrovascular disease/stroke 8.0%, diabetes 3.4%, and chronic obstructive pulmonary disease 2.5%.

TABLE 2. NON-COMMUNICABLE DISEASE DEATHS, GUAM: 2001-2005

	NCD DEATHS	*NON-NCD DEATHS*	*TOTAL DEATHS*	*PERCENT OF NCD DEATHS / ALL DEATHS*
Total Heart Disease Deaths	1,082	2,355	3437	31.5%
Total Heart Disease Deaths	552	2,885	3437	16.1%
Total Cerebrovascular Deaths	274	3,163	3437	8.0%
Total Diabetes Deaths	116	3,321	3437	3.4%
Total Chronic Obstructive PulmonaryDisease Deaths	86	3,351	3437	2.5%
Total	2,110	1,327	3437	61.4%

Source: Government of Guam, Department of Public Health and Social Services, Office of Vital Statistics.

FIGURE 1. TOP NON-COMMUNICABLE DISEASE (NCD) DEATHS ON GUAM: CY 2001-2005



NOTE: HD – Heart Disease, CA – Cancer, CBV – Cerebrovascular Disease, DM – Diabetes, COPD – Chronic Obstructive Pulmonary Disease, NCD – Non-Communicable Diseases

Figure 1 shows the top NCD deaths on Guam for the time period 2001 to 2005. Heart disease was the primary cause of deaths with 1,082 deaths, followed by 552 cancer deaths, 274 cerebrovascular disease/stroke deaths, 116 diabetes deaths, and 86 deaths due to chronic obstructive pulmonary disease.

Almost half of NCD-related deaths occur prematurely. The causes of NCDs are known. *(Refer to Table 3 below.)*

TABLE 3. CAUSES OF NCD RELATED DEATHS

Non-Modifiable:	• Age • Heredity
Modifiable:	• Tobacco Use • Lack of Physical Activity • Alcohol Abuse • Poor Nutrition / Diet • Obesity

The majority of these risk factors are largely modifiable such as tobacco use, sedentary lifestyle, poor nutrition, obesity and harmful use of alcohol. The chart on the page following depicts the NCD causation pathways beginning with underlying determinants, common risk factors, intermediate risk factors leading to the main chronic or non-communicable diseases such as heart disease, cancer, stroke, chronic respiratory diseases and diabetes. The Guam NCD strategic plan will primarily focus on reducing modifiable risk factors.

Non-Communicable Disease Causation Pathways

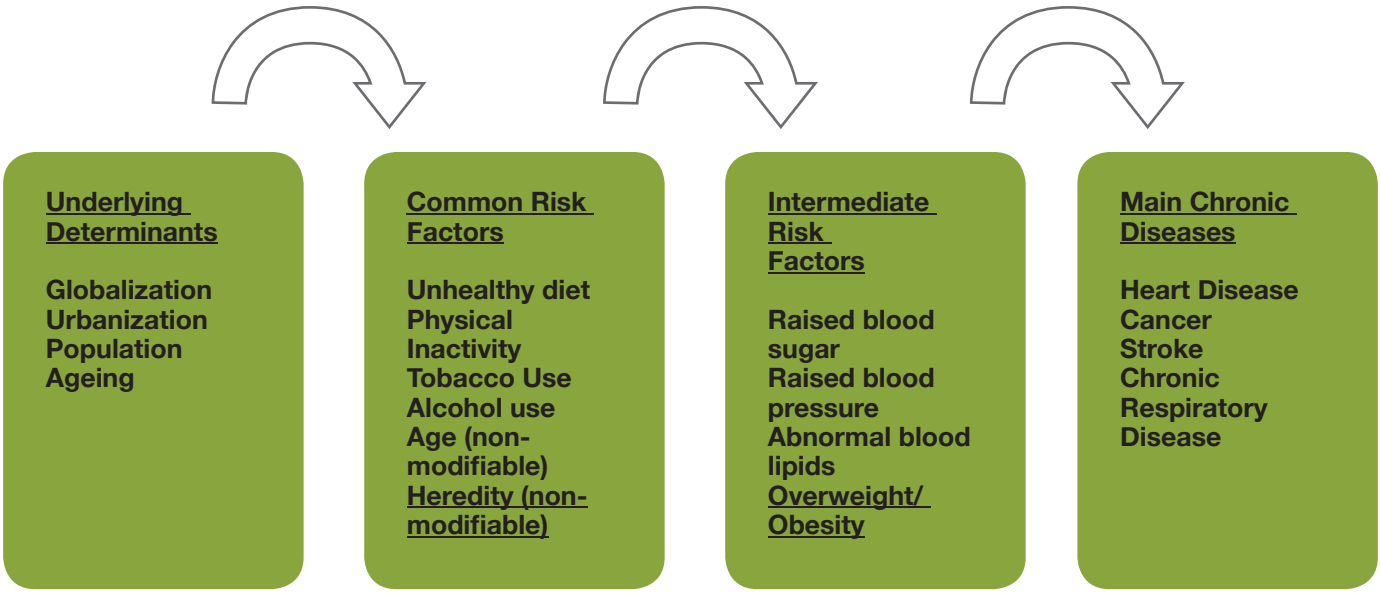


Table 4 depicts the age-adjusted death rates for 2007 and compares Guam's rate (694.9) which is **8.6%** lower than the U.S. rate of 760.2 per 100,000 population. In 2007, Guam's death rate for heart disease, cerebrovascular disease/ stroke, and diabetes were ***higher*** than the U.S. rate, except for cancer death rates which were lower than the U.S. rate. The Guam diabetes death rate was ***double*** that of the U.S.

TABLE 4. AGE ADJUSTED DEATH RATES PER 100,000 POPULATION, GUAM AND U.S., 2007

NUMBER OF DEATHS PER 100,000 POPULATION, 2007		
	GU (1)	US (2)
Deaths, All Causes	694.9	760.2
Heart Disease	228.4	190.4
Cancer	122.3	178.4
Cerebrovascular Disease/Stroke	50.1	42.2
Diabetes	44.0	22.5
Total	2,110	

Notes: Age-adjusted rates per 100,000 U.S. standard population. Since death rates are affected by the population composition of a given area, age-adjusted death rates should be used for comparisons between areas because they control for differences in population composition.

Sources: The Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics Report Volume 58, Number 19, May 2010, Table 29. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf.

Footnotes:
1. Age-adjusted death rates for Puerto Rico, Virgin Islands, and Guam are calculated using different age groups in the weighting procedure.
2. The death rate for the U.S. does not include data from Puerto Rico, Virgin Islands, and Guam.

When comparing 2007 non-communicable disease death rates, Guam's **heart disease death rate** (228.4) was 20.0% higher than the U.S. rate (190.4). The **cerebrovascular death rate** for Guam of 50.1 per 100,000 population was 18.7% higher than the U.S. rate (42.2). Guam's **diabetes death rate** (44.0) was **95.6% higher** than the U.S. rate (22.5). Guam's **cancer death rate (122.3), however, was 31.4% lower** than the U.S. rate (178.4).

Although economic costs of NCDs on Guam are not available, the Department of Public Health and Social Services Bureau of Health Care Finance Administration provided information on expenditures incurred by the Government of Guam's Medically Indigent Program (MIP) and Medicaid program for enrollees composed mainly of economically disadvantaged individuals and families. The data shows that a total of **$6,080,315.26** was expended for certain NCDs (cancer, diabetes, hypertension, ischemic heart disease, cardiovascular disease, congestive heart failure, cerebrovascular disease) as a primary diagnosis in FY 2010 (October 1, 2009 to September 30, 2010). When combined with other diagnoses, the total expenditures increased to **$29.8 million**. *(Refer to Table 5.)*

Table 5. Medicaid and Medically Indigent Program (MIP) Expenditures for NCDs, Guam: FY 2010

DIAGNOSIS CODE		*DESCRIPTION*	*AS PRIMARY DIAGNOSIS ONLY – TOTAL EXPENDITURE FOR FY 2010*			*WITH OTHER DIAGNOSIS – TOTAL EXPENDITURE FOR FY 2010*		
From	Thru	Disease	Medicaid	MIP	Total	Medicaid	MIP	Total
1400	2399	Cancer	$ 1,732,986.36	$ 1,196,186.92	$ 2,929,173.28	$2,524,829.09	$2,040,519.15	$5,858,346.56
V100	V1091	History malig-nancy	$ 2,139.19	$ 2,585.40	$ 4 ,724.59	$25,866.21	$31,010.33	$56,896.54
25000	25090	Diabetes Mel-litus	$ 532,990.85	$ 1,007,930.73	$ 1,540,921.58	$2,910,380.80	$4,674,816.27	$7,585,197.07
4011	4049	Hypertension	$ 195,708.95	$ 173,752.02	$ 369,460.97	$3,391,829.12	$4,335,972.98	$7,727,802.10
4100	4149	Ischemic Heart Disease	$ 582,478.16	$ 1,014,803.17	$ 1,597,281.33	$1,003,547.88	$1,603,310.53	$2,606,858.41
4151	4179	Diseases of Pulmonary Circulation	$1 2,254.79	$ 4,022.07	$ 16,276.86	$1,082,884.99	$129,328.96	$1,212,213.95
4280	4289	Congestive Heart Failure	$ 356,717.87	$ 497,205.02	$ 853,922.89	$960,357.78	$1,035,893.19	$1,996,250.97
4300	4389	Cerebrovascu-lar Disease	$ 671,167.71	$ 1,031,283.92	$ 1,702,451.63	$1,031,283.92	$1,698,375.97	$2,729,659.89
			$ 4,086,443.88	$ 4,927,769.25	$ 6,080,315.26	$12,930,979.79	$15,549,227.38	$29,773,225.49

As mentioned earlier, six out of ten leading causes of death on Guam are preventable by maintaining healthy lifestyles especially through diet and exercise, and quitting tobacco use and alcohol. Guam's population has challenges adopting healthy lifestyle behaviors due to systemic barriers, high levels of poverty, and increasing economic and social hardships. Economic and social hardships have been increasing on Guam, consequently affecting family and personal health[5]. In addition, the physical environment is not conducive to supporting physical activity.

HEART DISEASE BURDEN

Heart disease refers to several different types of heart conditions, the most common of which is coronary artery disease, also known as coronary heart disease. Coronary heart disease is the leading cause of death in Guam and the U.S. As reported in 2010, the estimated costs attributed to heart disease in the United States were approximately $316.4 billion. The estimate includes the cost of health care services, medications, and lost productivity.[6] The overall economic costs for Guam are not available but preliminary data from the Medicaid and Medically Indigent Program administered by the Department of Public Health and Social Services, estimates the medical costs for enrolled participants diagnosed with

heart disease (ischemic heart disease, diseases of pulmonary circulation, congestive heart failure) to be over $2.5 million (primary diagnosis) and over $4.7 million (with other diagnosis) in FY 2010.

Table 6 compares the age-adjusted death rates due to diseases of the heart for Guam and the U.S. Guam's heart disease death rate in 2007 was **19.6% higher** than the U.S. rate. Heart disease was (and continues to be) the number one killer of Guam's people accounting for 31.5% or 1,082 of all deaths (n=3,347) between 2001 to 2005.

Table 6. Number of Deaths Due to Diseases of the Heart per 100,000 Population, 2007

GUAM	*US*
228.4[1]	190.9[2]

Notes: Age-adjusted rates per 100,000 U.S. standard population. Populations used for computing death rates are postcensal estimates based on the 2000 census. Since death rates are affected by the population composition of a given area, age-adjusted death rates should be used for comparisons between areas because they control for differences in population composition. Data are for 2007.

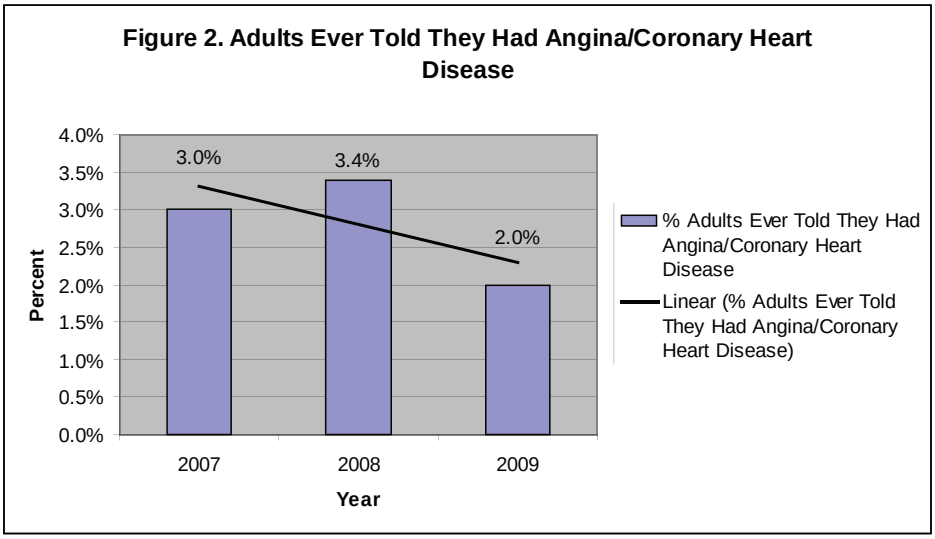
Sources: The Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics Report Volume 58, Number 19, May 2010, Table 29. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf.

Definitions: Causes of death attributable to heart disease mortality include ICD-10 Codes I00-I09; I11;I13;I20-I51

Footnotes: 1. Age-adjusted death rates for Puerto Rico, Virgin Islands, and Guam are calculated using different age groups in the weighting procedure.
2. The death rate for the U.S. does not include data from Puerto Rico, Virgin Islands, and Guam.

The "2005 Household Income and Expenditure Survey" conducted by the University of Guam under the Department of Public Health and Social Services' Health Uninsured Special Program Grant reported that 3.9% of Guam's people have been "told by a doctor that they had a heart attack." One in three of those who had a heart attack were uninsured. Nearly the same number of Guam adults who had coronary heart disease, (27%) were uninsured as well. *(Refer to Table 7.)*

Figure 2. Adults Ever Told They Had Angina/Coronary Heart Disease



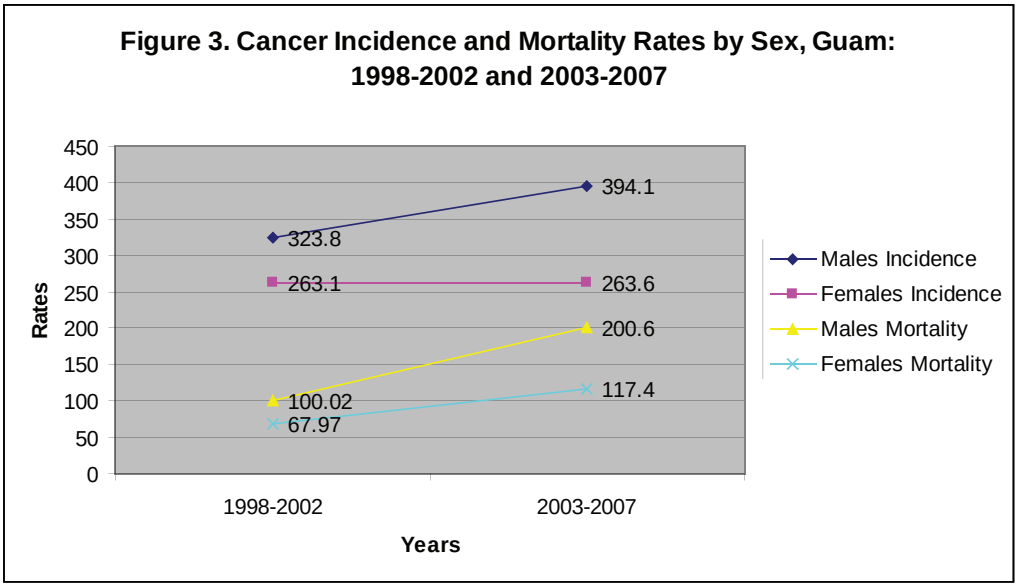
Despite higher mortality rates for Guam, the most recent Behavioral Risk Factor Surveillance Survey of 2009, showed the prevalence rate for "coronary heart disease" at 2.0% of adults (age 18 and older), and 2.4% "heart attack" rate. Both were lower than the U.S. rates. Additionally, Guam's coronary heart disease rate showed a **33.3% reduction** from the rate of 3.0% reported in 2007. *(Refer to Figure 2.)* Fewer Guam adults (71.9%) reported having had blood cholesterol checked compared to the U.S. national average (80.8%). Guam's rate (24.4%) of high blood cholesterol was also lower than the U.S. rate (37.5%). *(Refer to Table 7.)*

TABLE 7. HEART DISEASE & RELATED DATA, GUAM AND U.S.

ITEM	*GUAM*	*U.S.*
Heart Disease Mortality/Deaths (Source: National Vital Statistics Report, Deaths: Final Data for 2007, Vol. 58, No. 19, May 20, 2010)	228.4 age adjusted rate (2007) 234 heart disease deaths (2007) 30.3% of all deaths (2007) [All Deaths = 778]	190.9 age adjusted rate (2007) 25.4% of all deaths (2007)
HEART DISEASE PREVALENCE		
Adults ever told they had coronary heart disease[7]: Adults ever told they had heart attack[8]: (Source: BRFSS 2009)	2.0% 2.4%	3.8% 4.0%
Have you ever been told by doctor, nurse or other health professional that you have had a heart attack? (Source: 2005 Guam Health Survey, DPHSS)	3.9% or estimated 6,204 individuals ever told they had a heart attack 30.8% or estimated 1,913 of those ever told they had heart attack were uninsured	4.0% (BRFSS 2009)
Have you ever been told by a doctor, nurse or other health professional that you have high blood cholesterol? (Source: 2005 Guam Health Survey, DPHSS)	13.6% or estimated 20,118 individuals ever told they have HBC 32.4% or estimated 6,514 of those with HBC were uninsured	37.5% (BRFSS 2009)
Have you ever been told by a doctor, nurse or other health professional that you have angina or coronary heart disease (CHD)? (Source: 2005 Guam Health Survey, DPHSS)	4.9% or an estimated 7,878 individuals ever told they had CHD 27% or estimated 2,126 of those with CHD were uninsured	3.8% (BRFSS 2009)
SCREENING FOR HIGH BLOOD CHOLESTEROL		
Adults have ever had blood cholesterol checked Adults had blood cholesterol checked and told it was high (Source: BRFSS 2009)	71.90% 24.40%	80.80% 37.50%

CANCER BURDEN

Between 2003 through 2007, there were 720 deaths on Guam due to cancer (Guam Cancer Facts and Figures: 2003-2007). Guam's top three priority areas, based on cancer incidence rates were: 1) lung and bronchus, 2) breast, and 3) colorectal. Incidence rates for each of these cancers can be reduced and prevented by avoiding tobacco, being physically active, eating a healthy diet and routine screening for breast and colorectal cancer.



Source: Guam Cancer Facts and Figures 2003-2007, Guam Comprehensive Cancer Control Coalition, Department of Public Health and Social Services, University of Guam Cancer Research Center, Guam Cancer Registry

Figure 3 depicts the cancer incidence and mortality rates for Guam males and females comparing the two five-year periods, 1998-2002 with 2003-2007. The age-adjusted incidence rates for Guam females remained nearly the same with only a very slight increase of 0.2% (from 263.1 to 263.6). Mortality rates for Guam females, however, showed a sharp 73% increase (from 67.97 to 117.4). Among Guam males, the age-adjusted incidence rates increased by 22% (from 323.8 to 394.1). **Men experienced a 100% increase in cancer mortality rates (from 100.2 to 200.6)** comparing the two time periods.

Unlike most of the neighboring islands in the region, Guam has been successful in obtaining funds for cancer prevention and treatment programs. Island residents also benefit from the presence of the American Cancer Society. The Guam chapter of the American Cancer Society was established in 1969 as part of the Hawaii Pacific Inc. Division. For several years, Guam had a functioning radiation and chemotherapy clinic. Unfortunately, in December 2002, the island was hit by Super typhoon Pongsona and the facility was completely destroyed – suspending on-site services indefinitely. Funding was never secured to repair the facility; however, as of April 2010, radiation therapy is again available in Guam through a newly established Island Cancer Center. Chemotherapy is available to patients on island through three private clinics: Cancer Center of Guam, FHP Clinic Cancer Center and Latte Stone Cancer Care Clinic.

Cancer treatment for patients in Guam differs greatly from their neighbor island counterparts. Guam currently has three full-time medical oncologists and one radiation oncologist, so cancer patients can now remain on island for their treatment. Some residents of Guam are fortunate enough to have the option and financial resources to seek more specialized treatment in Hawaii, the Philippines or the United States mainland as needed.

The existing dilemma for Guam is developing an efficient healthcare system without the access to much needed funding for stability. Although Guam receives more money for their annual healthcare budget than almost all of the other U.S. Pacific Basin islands combined, programs and facilities still fall short in necessary funding each year. The shortfall could be attributed to many factors, including the deficient infrastructure or lack of government support. Nevertheless, these problems can be solved. With the necessary foundation in the form of government support, community buy-in, and sustainable funding sources, cancer care in Guam could set precedence for the rest of the Pacific Island jurisdictions.

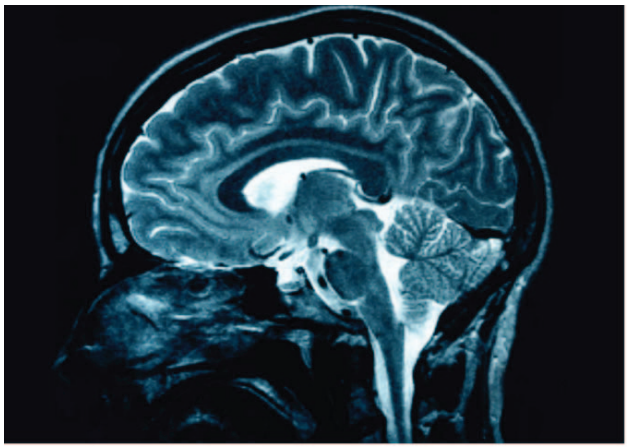
More Guam males than females were diagnosed with cancer at a ratio of 1.5 to 1. Guam's males and females had a lower cancer incidence and mortality rate than U.S. males and females. **What is of concern is that Guam's cancer screening rates for breast (16.0% lower), cervical (19.7% lower), prostate (37.8% lower), and colorectal cancers (38.4% lower) were lower than U.S. rates.** *(Refer to Table 8.)* Because early detection is paramount to successful treatment, the present rate of cancer screening is troubling.

TABLE 8. CANCER INCIDENCE, MORTALITY, AND CANCER SCREENING RATES, GUAM AND U.S.

ITEM	*GUAM*	*U.S.*
Adults cancer incidence[9] :	Data not available for all sites Guam[10]: 263.6 cases [Females] N = 694 cases 394.1 cases [Males] N = 886 cases Total cancer cases (CY 2003-2007): 1,580 Source: Guam Cancer Facts and Figures, 2003-2007	U.S.[11]: 467.6 cases (all sites combined) 409.4 [Females, 2007] 543.2 [Males, 2007] Source: Rates for New Cancer Cases and Deaths by Race/Ethnicity and Sex, CDC
Cancer Mortality Rates[12]	122.3 (CY 2007, CDC) Guam: 117.4 [Females] (N = 281 deaths) 200.6 [Males] (N = 439 deaths) Total cancer deaths (CY 2003-CY2007): 720	U.S.[13] : 186.9 (all sites combined) 150.9 [Females, 2007] 217.8 [Males, 2007]

BREAST CANCER SCREENING		
Women aged 40+ who have had a mammogram within the past two years (BRFSS 2008)	Guam: 63.8%	U.S.: 76.0%
CERVICAL CANCER SCREENING		
Women aged 18+ who have had Pap test within the past three years (BRFSS 2008)	Guam: 66.6%	U.S.: 82.9%
PROSTATE CANCER SCREENING		
Men aged 40+ who have had a PSA test within the past two years (BRFSS 2009)	Guam: 34.1%	U.S.: 54.8%
COLORECTAL CANCER SCREENING		
Adults aged 50+ who have had a blood stool test within the past two years (BRFSS 2008)	Guam: 21.9%	U.S.: 21.0%
Adults aged 50+ who have ever had a sigmoidoscopy or colonscopy (BRFSS 2008)	Guam: 38.3%	U.S.: 62.2%

CEREBROVASCULAR DISEASE (STROKE) BURDEN



Cerebrovascular disease or stroke is the third leading cause of death in the United States. About 137,000 Americans die of stroke every year.[14] On Guam, stroke is also the third leading cause of deaths, accounting for 274 deaths between 2001 and 2005; an annual average of 54.8 deaths. In 2007, stroke accounted for 55 deaths. Guam's CY2007 rate of 50.1 stroke deaths per 100,000 population is **18.7% higher** than the U.S. rate of 42.2. *(Refer to Table 9.)*

A stroke, sometimes called a brain attack, occurs when a clot blocks the blood supply to the brain or when a blood vessel in the brain bursts. The risk factors for stroke can be greatly reduced through lifestyle changes and, in some cases, medication. Stroke can cause death or significant disability, such as paralysis, speech difficulties, and emotional problems.

According to the American Heart Association, in 2009, stroke will cost the United States $68.9 billion. The total includes the cost of health care services, medications, and missed days of work. The Guam MIP and MAP programs in FY 2010 incurred over $4.4 million for care and treatment of individuals diagnosed with stroke. *(Refer to Table 5.)*

Individuals can reduce their risk of succumbing to stroke by making healthy choices, and managing any existing medical conditions. Modifiable risk factors for stroke include tobacco use, physical inactivity, eating a diet high in salt, poor nutrition/unhealthy eating, and drinking too much alcohol. Primary medical conditions that contribute to stroke include high blood pressure, high blood cholesterol, diabetes, overweight and obesity.

Table 9. Number of Deaths Caused by Stroke and other Cerebrovascular Diseases per 100,000 Population, Guam and U.S. 2007[15]

GUAM	*U.S.*
50.1	42.2

Notes: Age-adjusted rates per 100,000 U.S. standard population. Populations used for computing death rates are postcensal estimates based on the 2000 census. Since death rates are affected by the population composition of a given area, age-adjusted death rates should be used for comparisons between areas because they control for differences in population composition. Data are for 2007. Stroke is also known as a cerebrovascular accident or disease.

Sources: The Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics Report Volume 58, Number 19, May 2010, Table 29. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf.

Footnotes:
1. Age-adjusted death rates for Puerto Rico, Virgin Islands, and Guam are calculated using different age groups in the weighting procedure.
2. The death rate for the U.S. does not include data from Puerto Rico, Virgin Islands, and Guam.

Table 10 provides data on cerebrovascular disease or stroke prevalence, mortality and risk factors rates. Additionally, the table compares Guam's rates with the U.S. rates (when available) and includes data that was collected in the 2005 Guam Health Survey conducted by the University of Guam Cooperative Extension Service under a contract with the Department of Public Health and Social Services. Alarmingly, the Health Survey revealed that ***17.8% of those surveyed told they had a stroke and 26.7% of those with high blood pressure were uninsured.*** Individuals without health insurance are less likely to see a doctor regularly and are unlikely to have the financial resources to pay for medication. Access to health care and taking appropriate medication is crucial to controlling cerebrovascular disease.

Guam's stroke prevalence rate was slightly lower at 2.1% than the U.S. rate of 2.4%. High blood pressure prevalence rates for Guam were also lower at 22.2%, compared to the U.S. rate of 28.7%. Nonetheless, ***fewer Guam people who have high blood pressure stated that they are taking medicine for their condition (69.9% vs. 79.6%)*** compared to the U.S. *(Refer to Table 10.)* Individuals suffering from high blood pressure who do not take medication to control their condition are at greater risk of succumbing to a heart attack or stroke.

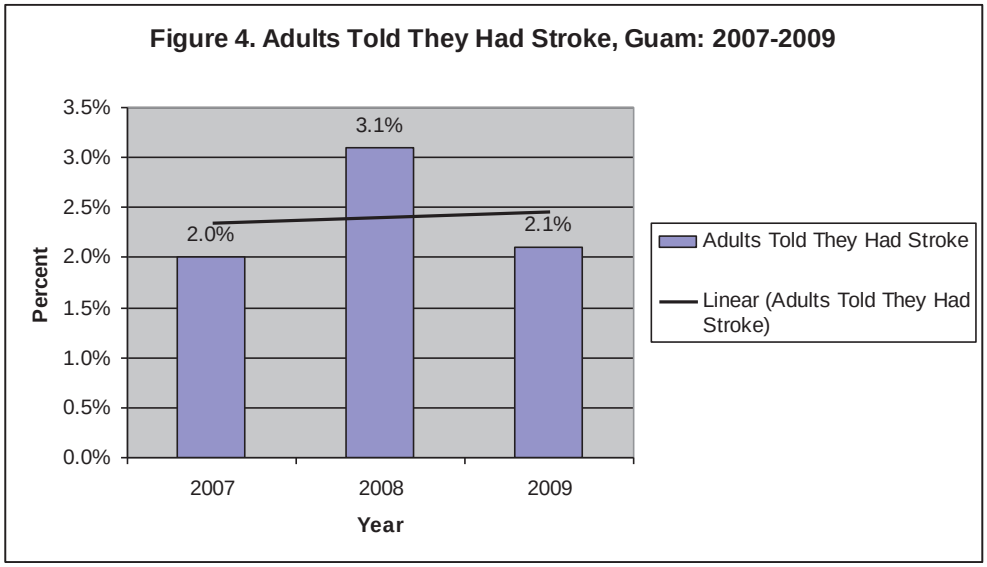


Figure 4 shows a slight increase in 2009 compared to 2007 (from 2.0% to 2.1%) of adults who were "told they had a stroke," and a 32.1% decrease from the 2008 figure of 3.1%.

Table 10. Cerebrovascular Disease or Stroke Prevalence, Mortality, and Related Data, Guam and U.S.

ITEM	*GUAM*	*U.S.*
Stroke Mortality Rates 2007	50.1 per 100,000 population (age-adjusted rate) N = 55 stroke deaths	42.2 per 100,000 population (age-adjusted rate)
(Source: National Vital Statistics Report, Deaths: Final Data for 2007, Vol. 58, No. 19, May 20, 2010)	7.1% of all deaths All deaths = 778	5.6% of all deaths
CEREBROVASCULAR DISEASE OR STROKE PREVALENCE RATES		
Adults ever told they had a stroke[16]: (Source: BRFSS 2009)	2.1%	2.4%
HYPERTENSION OR HIGH BLOOD PRESSURE		
Adults ever told they had high blood pressure (Source: BRFSS 2009)	22.2%	28.7%
Adults taking medicine for high blood pressure control (Source: BRFSS 2007)	69.9%	79.6%

2005 GUAM HEALTH SURVEY, DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES		
ITEM	*GUAM*	*U.S.*
Have you ever been told by a doctor, nurse or other health professional that you had a stroke?	2.8% or an estimated 4,501 individuals were told they had a stroke 17.8% or an estimated 800 were uninsured	Not applicable
Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure (HBP)?	28.2% or an estimated 45,248 individuals were told they had HBP 26.7% or an estimated 12,662 of those with HBP were uninsured	Not applicable

DIABETES BURDEN

America is facing an epidemic of diabetes, a serious disease that damages the body and shortens lives. In the next four decades, the number of U.S. adults with diabetes is estimated to double or triple, according to CDC scientists. That means anywhere from 20 to 33 percent of adults could have the disease. About 1 in 10 American adults have diabetes now.

Guam's diabetes epidemic occurs at a rate of 9.1% which is 9.6% higher than the U.S. rate of 8.3%. *(Refer to Table 11.)* Moreover, the Guam diabetes death rates were double that of the U.S. rates (44.0 vs. 22.5). *(Refer to Table 12.)* On Guam, diabetes was the fifth leading cause of deaths, accounting for 116 deaths (3.4%) between 2001 and 2005; an annual average of 23.2 deaths. In 2007, diabetes accounted for 43 Guam deaths, or nearly 1.9 times the annual average. Pacific Islanders such as Chamorros (Guam's indigenous people) and Micronesians were more likely to develop Type 2 diabetes than the population as a whole. The modifiable risk factors for diabetes as with other non-communicable diseases are overweight/obesity, unhealthy eating, physical inactivity, and tobacco use. Unhealthy cholesterol levels can also raise risk levels for Type 2 diabetes and heart disease. When analyzing the BRFSS 2009 for diabetes by age groups, 13.2% of those who reported they had diabetes were under 45 years of age; 11.7% were age 45-54 years; 19.9% were 55-64 years of age; and 22% were 65 years of age and older.[17]

Table 11. Percent of Adults Who Have Ever Been Told by a Doctor that They Have Diabetes, 2009[18]

	GUAM *%*	*US* *%*
Yes	9.1%	8.3%
Yes, Pregnancy-Related	1.8%	0.7%
No	87.9%	89.5%
No, Pre-Diabetes or Borderline Diabetes	1.1%	1.1%

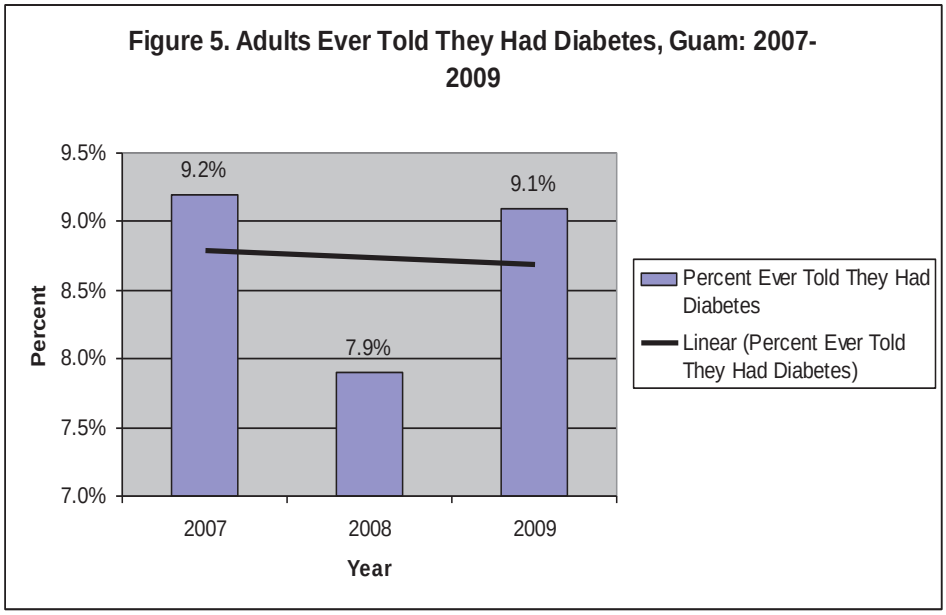


Figure 5 above shows a 14.1% decrease of diabetes rates from 2007 to 2008, and a 15.1% increase from 2008 to 2009. So although the rate decreased in 2008 compared to 2007, in 2009 it returned to nearly the same rate as 2007.

Table 12. Number of Diabetes Deaths per 100,000 Population, 2007[19]

	GUAM	*US*
Diabetes Mortality	44.0[1]	22.5[2]
Percent of All Deaths	5.5% of all deaths	2.9% of all deaths

Notes: Age-adjusted rates per 100,000 U.S. standard population. Populations used for computing death rates are postcensal estimates based on the 2000 census. Since death rates are affected by the population composition of a given area, age-adjusted death rates should be used for comparisons between areas because they control for differences in population composition. Data are for 2007.

Sources: The Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics Report Volume 58, Number 19, May 2010, Table 29. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf.

Footnotes:
1. Age-adjusted death rates for Puerto Rico, Virgin Islands, and Guam are calculated using different age groups in the weighting procedure.
2. The death rate for the U.S. does not include data from Puerto Rico, Virgin Islands, and Guam.

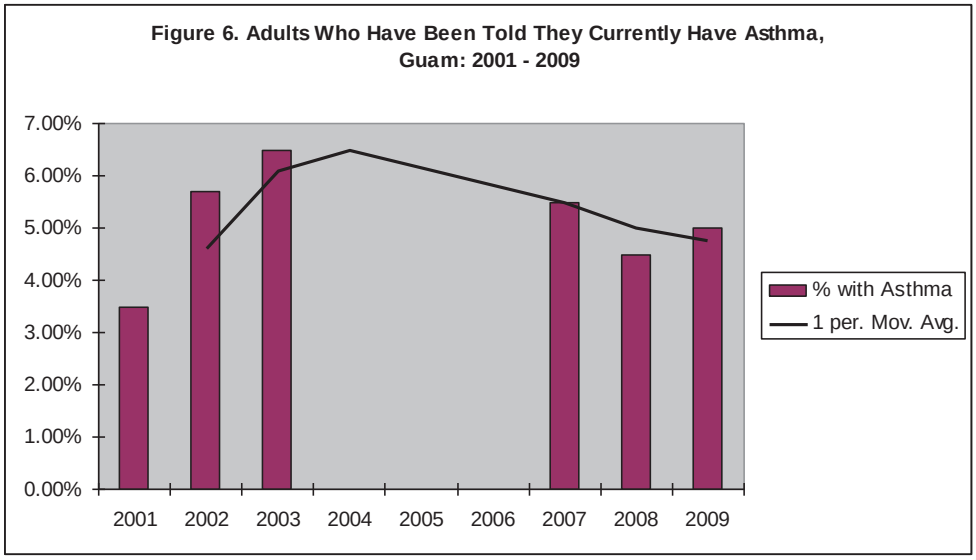
"The national cost of diabetes in the U.S. in 2007 exceeds $174 billion. The cost includes $116 billion in excess medical expenditures attributed to diabetes, as well as $58 billion in reduced national productivity. People with diagnosed diabetes, on average, have medical expenditures that are approximately 2.3 times higher than the expenditures would be in the absence of diabetes. **Approximately $1 in $10 health care dollars is attributed to diabetes.** Indirect costs include increased factors such as absenteeism, reduced productivity, and lost productive capacity due to early mortality."[20] [Source: American Diabetes Association website, http://www.diabetes.org/advocate/resources/cost-of-diabetes.html, last accessed 9/29/2010.] The Guam MIP and MAP programs reported incurring **over $9.0 million for diabetes related health services.** *(Refer to Table 5.)*

Table 13. Diabetes Prevalence, Mortality, and Related Data, Guam and U.S.

ITEM	*GUAM*	*U.S.*
Diabetes Mortality (2007) (Source: National Vital Statistics Report, Deaths: Final Data for 2007, Vol. 58, No. 19, May 20, 2010)	44.0 per 100,000 population (age-adjusted rate) N = 43 stroke deaths 5.5% of all deaths All deaths = 778	22.5 per 100,000 population (age-adjusted rate) 2.9% of all deaths
DIABETES PREVALENCE RATES		
Adults ever told they had diabetes (Source: BRFSS 2009)	9.0%	8.3%
2005 GUAM HEALTH SURVEY, DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES		
Have you ever been told by a doctor that you have diabetes?	An estimated 8,889 individuals answered "YES." 18% of those with diabetes were uninsured An estimated 1,028 individuals reported having gestational diabetes An estimated 7,861 had either Type 1 or Type 2 diabetes	Not applicable

CHRONIC RESPIRATORY DISEASES

Very little information is collected about asthma on Guam. Although the Behavioral Risk Factor Surveillance Survey 2009 reported that 5.0% of Guam adults had been "told that they currently have asthma," which is lower than the 8.8% average for the U.S.



Source: Behavioral Risk Factor Surveillance Survey, 2009. Note: BRFSS was not conducted in Guam 2004-2006.

The 2005 Guam Health Survey of the Department of Public Health and Social Services reported that an estimated 17,431 individuals "had ever been told by a doctor, nurse or health professional that they had asthma;" 8,463 currently have asthma, and 3,978 no longer have asthma. A total of 4,437 of those with asthma were uninsured.

Between 2001 and 2005, chronic obstructive pulmonary disease (COPD) accounted for 2.5% (n = 86 deaths) of all deaths. Data on COPD are not readily available and Guam Vital Statistics reports have not been published since the 1990s. The only information available is a list of the top ten causes of death last compiled in 2005. The Behavioral Risk Factor Surveillance Survey (BRFSS) does not include survey questions on COPD.



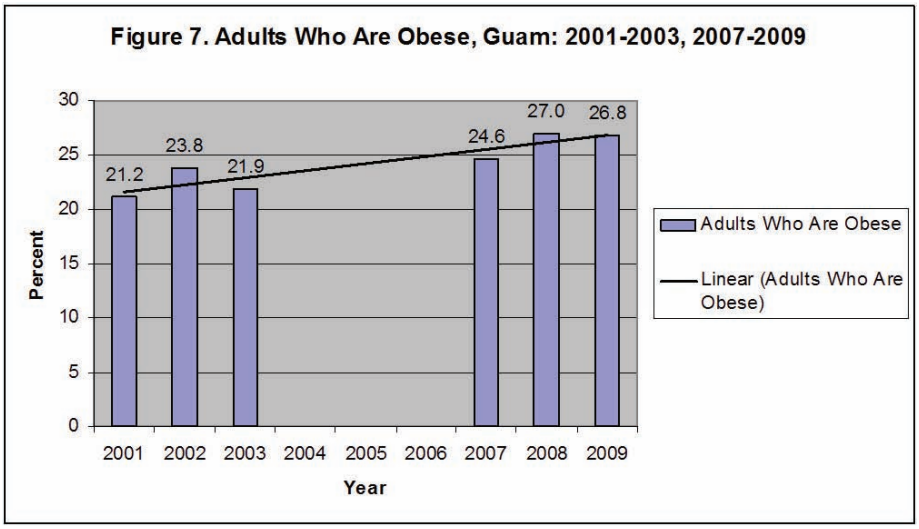
MODIFIABLE RISK FACTORS FOR NON-COMMUNICABLE DISEASES

OVERWEIGHT AND OBESITY

"More than one third of U.S. adults—more than 72 million people—and 16% of U.S. children are obese. Since 1980, obesity rates for adults have doubled and rates for children have tripled. Obesity rates among all groups in society—irrespective of age, sex, race, ethnicity, socioeconomic status, education level, or geographic region—have increased markedly."[21]

"Obesity has physical, psychological, and social consequences in adults and children. Children and adolescents are developing obesity-related diseases, such as Type 2 diabetes, that were once seen only in adults. Obese children are more likely to have risk factors for cardiovascular disease, including high cholesterol levels, high blood pressure, and abnormal glucose tolerance. One study of 5- to 17-year-olds found that 70% of obese children had at least one risk factor for cardiovascular disease and 39% of obese children had at least two risk factors."[22]

OBESITY AND OVERWEIGHT DATA FOR GUAM



Source: Behavioral Risk Factor Surveillance Survey 2001-2003, 2007-2009

Note: BRFSS was not conducted on Guam during 2004-2006.

Figure 7 shows the trend for adult obesity in Guam. The obesity rate increased an average of 2.9% per year, for a total increase of 26.4% from 2001 to 2009 (from 21.2 to 26.8). Researchers at the University of Guam studied nutrition and health status of adults on Guam. Their study found that 66% of the participants were overweight and 35% were obese. However, when looking at ethnicity, Chamorros (indigenous people of Guam) had a higher proportion of obesity at 49% compared to Filipinos (20%).[23]

Table 14 compares the overweight and obesity rates for adults and youth. Most of the Guam adult and youth rates for both overweight and obesity were lower than the U.S. rates, with the exception of the high school youth rates for obesity which were higher when compared to the overall U.S. high school youth rate. Twenty-six percent of middle school boys and 24% of girls surveyed in the YRBS 2007 described themselves as "slightly to very overweight."

While there is some data available on adult overweight and obesity rates, and for youth in high school and middle school, there is a dearth of data on obesity measures of younger children. In addition, there is no data on the environmental and behavioral factors affecting their dietary and physical behavior and their caregivers. The lack of data critically affects Guam's ability to develop programs and practices which promote healthy eating and physical activity for younger children and their caregivers. The University of Guam recently received a five-year USDA/ National Institute of Food and Agriculture research grant to reduce childhood obesity with the goal of developing an intervention, education, and outreach component. It is hoped that this will provide evidence-based interventions for elementary and pre-school children.

Table 14. Adults and Youth Who Were Overweight and Obese, Guam Compared to the U.S.

ITEM	*GUAM*	*U.S.*
Adults who are overweight (BMI 25.0-29.9) (Source: BRFSS 2009)	Total: 34.4% Males: 41.7% Females: 26.4%	Total: 36.2% Males: 42.6% Females: 29.8%
Adults who are Obese (BMI > 29.9) (Source: BRFSS 2009)	Total: 26.8% Males: 29.0% Females: 24.4%	Total: 26.9% Males: 28.6% Females: 26.0%
High School Youth who are Overweight (BMI >85th percentile and <95th percentile) (Source: YRBS 2007)	Total: 15.3% Males: 15.2% Females: 15.4%	Total: 15.8%
High School Youth who are Obese (BMI > 95th percentile) (Source: YRBS 2007)	Total: 15.9% Males: 20.6% Females: 10.5%	Total: 13.0%

TOBACCO USE/SMOKING

TOBACCO USE HARMS. "Tobacco use is the single most preventable cause of death and disability in the world."[24] Smoking harms nearly every organ of the body, causes many diseases and reduces the health of smokers in general.[25] The adverse health effects from cigarette smoking account for nearly one of every five deaths, each year in the United States.[26] More deaths are caused each year by tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, alcohol use, motor vehicle injuries, suicides, and murders combined.[27] Smoking causes an estimated 90% of all lung cancer deaths in men and 80% of all lung cancer deaths in women. An estimated 90% of all deaths from chronic obstructive lung disease are caused by smoking. Compared with nonsmokers, smoking is estimated to increase the risk of coronary heart disease by 2 to 4 times, stroke by 2 to 4 times, men developing lung cancer by 23 times, women developing lung cancer by 13 times, and dying from chronic obstructive lung diseases (such as chronic bronchitis and emphysema) by 12 to 13 times."[28]

Coronary heart disease, the leading cause of deaths in Guam, can be attributed to smoking. Smoking also has been proven to cause lung cancer and lung diseases (e.g., emphysema, bronchitis, chronic airway obstruction) by damaging the airways and alveoli (i.e., small air sacs) of the lungs.[29] In addition, lung cancer is the leading cause of cancer related deaths on Guam. Smoking also causes other types of cancers such as: acute myeloid leukemia; bladder cancer; cancer of the cervix; cancer of the esophagus; kidney cancer; cancer of the larynx (voice box); cancer of the oral cavity (mouth); cancer of the pharynx (throat); stomach cancer; and cancer of the uterus.[30]

TOBACCO USE/SMOKING RATES. Both Guam adults and high school youth have the highest tobacco use rates in the U.S. The Guam adult tobacco use rate (24.1%) is **34.6% higher** than the U.S. rate (17.9%). When looking at smoking rates by sex, in 2009 three out of ten (30.9%) Guam adult males were current smokers, and their tobacco use rate was ***1.6 times higher*** than the U.S. rate (19.6%). There were fewer Guam adult female current smokers (17.1%) compared to Guam males (30.9%). The Guam adult female tobacco use rate was 2.4% higher than the U.S. female rate. *(Refer to Table 15.)*

Although the Guam adults who were current smokers was the highest in the nation, it is important to also note that the rate has *decreased* t.8% from 31.2% in 2001 to 24.1% in 2009. *(Refer to Figure 8.)* Given Guam's high smoking rates, it is easy to understand why non-communicable diseases account for 61% of all deaths on Guam, with heart disease as the leading cause of all deaths, and lung cancer the leading cause of cancer related deaths.

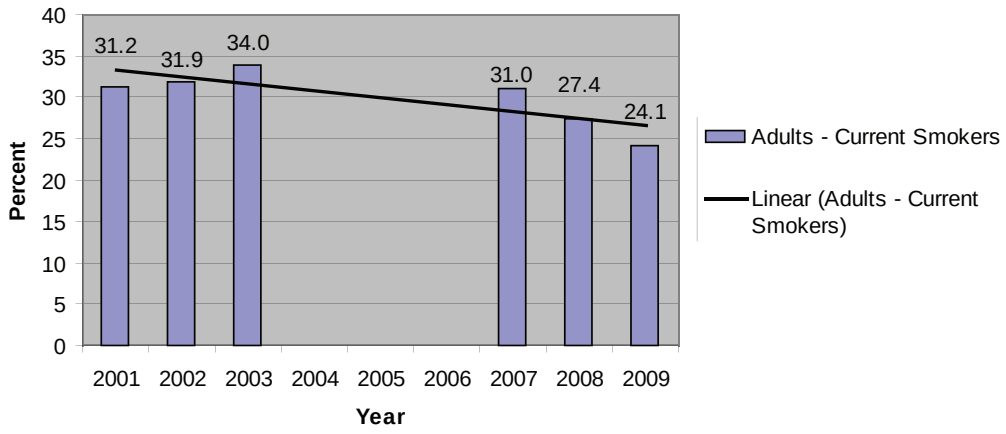
In 2007, the rate of Guam high school youth who were ***current smokers*** was 23.1%. This rate was **15.5% higher** than the U.S. rate of 20.0%. One in four Guam high school males were current smokers (25.4%) compared to nearly one in five (21.3%) U.S. male youth. The Guam female youth smoking rate at 20.4% was 9.1% higher than the U.S. female youth rate of 18.7%, but nearly the same as the U.S. male youth rate (21.3%). When comparing Guam male versus female youth current smokers, the Guam male youth rate at 25.4% was 24.5% higher than the female youth rate (20.4%). Guam male youth are more likely to smoke than females. *(Refer to Table 15.)*

High school youth (Guam) ***frequent cigarette use*** **was higher at 12.5%** compared to 8.1% for the U.S. Guam's high school male "frequent cigarette use" rate at 13.9% was also higher than the U.S. male rate (8.7%). The Guam high school female rates for "frequent cigarette use" were 44.6% higher than the U.S. female rate. When comparing Guam male versus female youth "frequent cigarette use," the male rate at 13.9% was 29.9% higher than the female rate (10.7%). *(Refer to Table 15.)*

Table 15. Adults and Youth Who Smoked Cigarettes, Guam Compared to the U.S.

	ITEM	GUAM	U.S.
ADULT	Adult Tobacco Use Rates (BRFSS 2009)	Total: 34.4% Males: 41.7% Females: 26.4%	Total: 36.2% Males: 42.6% Females: 29.8%
YOUTH	High School Youth Current Cigarette Use Rates (YRBS 2007)	Total: 26.8% Males: 29.0% Females: 24.4%	Total: 26.9% Males: 28.6% Females: 26.0%
YOUTH	High School Youth Current Frequent Cigarette Use (YRBS 2007)	Total: 15.3% Males: 15.2% Females: 15.4%	Total: 15.8%

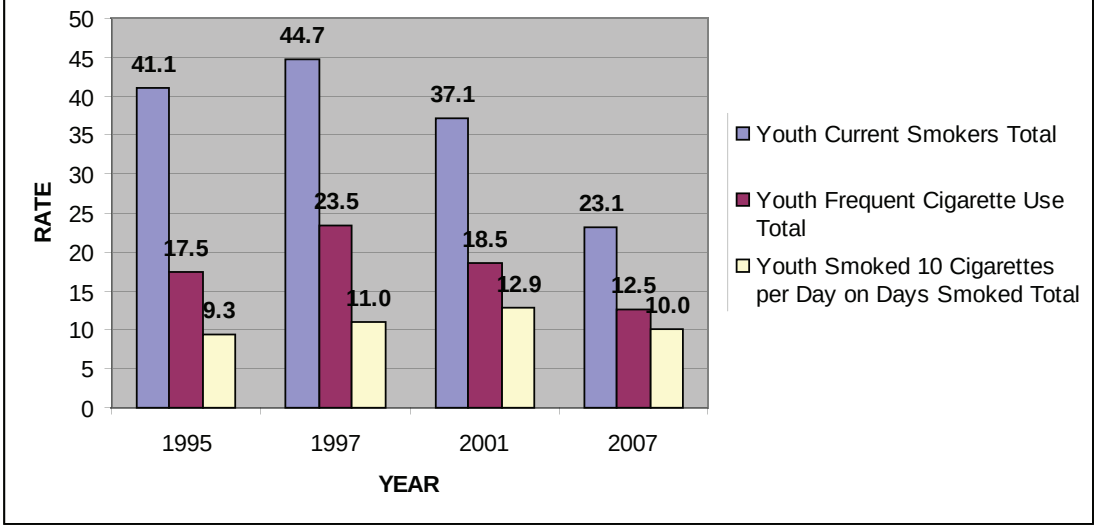
Figure 8. Adults - Current Smokers, Guam: 2001-2003, 2007-2009



Source: BRFSS 2001-2003, 2007-2009

Although the Guam high school youth who are smokers was the highest in the nation, it is important to also note that the rate has *decreased 43.8%* from 41.1% in 1995 to 23.1% in 2007; frequent cigarette use decreased 28.6%; but the rate *increased* by 7.5% for those youth who smoked 10 *cigarettes per day* on the days they smoked (during the 30 days before the survey). *(Refer to Figure 9.)*

Figure 9. Youth Smoking Rates, Guam: 1995, 1997, 2001, 2007



Source: YRBS 1995, 1997, 2001, 2007

The school health profile entitled, "Guam Chronic Disease Prevention Fact Sheet, Profiles 2008" reported that the ***"percentage of schools that prohibited all tobacco use at all times in all locations" was 36.4%, YET the "percentage of schools that posted signs marking a tobacco-free school zone" was 100%.*** Based on the results of the Profiles survey, there is a significant disparity between the tobacco-free policy and enforcement/ compliance with the policy. The "percentage of schools that sometimes, almost always, or always required students who were caught smoking cigarettes to participate in an assistance, education, or cessation program" was 70.0%. The "percentage of schools that provided tobacco cessation services for students, faculty, and staff at school or through arrangements with providers not on school property" was 36.4%.

[NOTE: The School Health Profiles is a system of surveys assessing school health policies and programs in states, territories, and large urban school districts. This profile survey was conducted in 2008 among representative samples of middle and high school principals and lead health education teachers. Website: www.cdc.gov/healthyyouth/ profiles]

NUTRITION AND PHYSICAL ACTIVITY

Nutrition

Overall, Guam adults consumed nearly the same recommended servings of fruits and vegetables as U.S. adults. Guam's youth, however, showed a 23.4% lower rate than U.S. youth (16.4% vs. 21.4%) for consuming fruits and vegetables. *(Refer to Table 16.)* **More Guam high school boys (46.2%) and girls (45.6%) reported NOT eating green salad, compared to U.S. girls (31.3%) and boys (40.6%).** When reviewing the 2007 Youth Risk Behavior Survey, 22.1% of Guam high school youth drank a can, bottle, glass of soda or pop at least one time per day compared to 29.2% for the U.S. The rates for both Guam high school boys and girls were nearly the same at 22.1% and 22.3% respectively.

When reviewing the school environment, the "Guam Chronic Disease Prevention Fact Sheet, Profiles 2008," also included findings on nutrition aspects. ***On nutrition, there were NO "schools that always offered fruits or non-fried vegetables in vending machines and school stores, canteens, or snack bars, and during celebrations when foods and beverages were offered."*** (The median for the Profiles was also low at 5.3%.) The "percentage of schools that did not sell less nutritious foods and beverages anywhere outside the school food service program" was high at 90.9% (compared to the median 81.2%). The "percentage of schools that taught 14 key nutrition and dietary behavior topics in a required health education course" was higher at 72.7% compared to the median of 69.4%. As for advertising, 54.5% of Guam "schools prohibited all forms of advertising and promotion of candy, fast food restaurants, or soft drinks in all locations" (median was 69.4%).

It is important to scan the active environment to determine if access to healthy foods is a barrier to eating healthy. There was a pilot study of food stores in Northern Guam conducted in 2010 that concluded that there is a serious lack of variety of nutritious products in stores and Guam food prices were higher than the cost of foods in Hawaii and the continental U.S. A majority of the food stores averaged five missing categories from the 14 established categories of the USDA Thrifty Food Plan (TFP) and only 12% of the stores surveyed had one or fewer missing categories. More than 84% of the items in the TFP were not available in about 88% of the establishments. In comparing costs of food using the TFP for Hawaii and Alaska, cost for food in the Northern part of Guam were 15% higher than the cost of foods in Hawaii, and 49% higher than the cost of food in the continental U.S.[31] (Wong et al. 2010)

PHYSICAL ACTIVITY

Physical activity data indicates only 47.4% of Guam's adults were moderately physically active compared to 51.0% of U.S. adults. Guam's adult females (59.4%) tended to be more active than the males (46.0%).

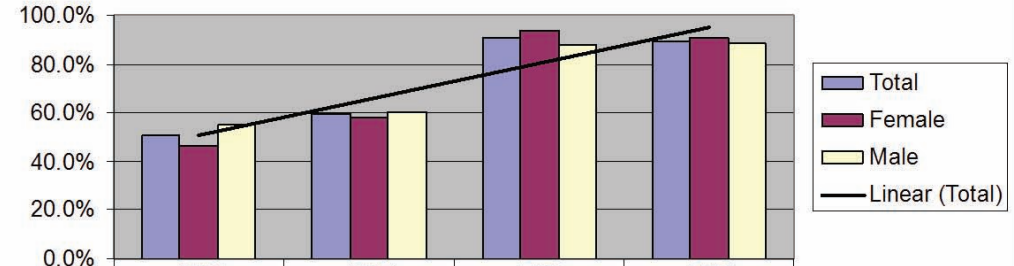
Forty-seven percent of Guam high school youth surveyed reported watching 3 or more hours of TV per day on an average school day, compared to 35% of U.S. youth. The rate of Guam high school youth meeting the recommended 60 minutes of physical activity daily on five or more days is lower than the U.S. rate (31.3% vs. 34.7%). A total of 89.3% of Guam high school youth did NOT attend physical education class daily compared to 69.7% in the U.S. (Refer to Table 16.) Youth who did NOT attend physical education class daily progressively worsened since 1995 from one in two Guam high school youth (50.7%) NOT getting physical education daily, to nearly 9 out of 10 students (89.3%) in 2007. (Refer to Figure 8.)

The fact that a little more than half of the schools taught a required physical education course in all grades may be a significant contributing factor to the increase. As shown by the "Guam Chronic Disease Prevention Fact Sheet, Profiles 2008," the ***"percentage of schools that taught a required physical education course in all grades in the school" was only 54.5%.*** The median among the four participating U.S. Pacific Territories/ Commonwealth was 72.0%. The "percentage of Guam schools in which those who teach physical education were provided with key materials for teaching physical education" was slightly higher at 63.6% compared to the median of 57.8%. Even so, the "percentage of schools that provided parents and families with health information to increase parent and family knowledge of physical activity" was very low at 27.3% compared to the median of 61.9%. Guam did rate high (100%) in the "percentage of schools that offered opportunities for all students to participate in intramural activities or physical activity clubs."

Table 16. Adults and Youth Who Consumed Fruits and Vegetables Five or More Times Per Day and Physical Activity Data, Guam Compared to the U.S.

ITEM	*GUAM*	*U.S.*
Fruits and Vegetables Consumed Five or More Times Per Day		
Adults Who Consumed Fruits and Vegetables Five or More Times Per Day (BRFSS 2009)	Total: 24.3% Males: 22.9% Females: 25.8%	Total: 23.4% Males: 19.2% Females: 27.7%
High School Youth Who Ate Fruits and Vegetables Five or More Times Per Day (YRBS 2007)	Total: 16.4% Males: 16.0% Females: 16.5%	Total: 21.4% Males: 22.9% Females: 19.9%
Physical Activity		
Adults Participated in any Physical Activity (Moderate – 20 minutes or more 5 times/ week, or vigorous activity 20 minutes 3 or more days/week) (BRFSS 2009)	Total: 47.4% Males: 46.0% Females: 59.4%	Total: 51.0% Males: 46.6% Females: 51.4%
Adults Participated in any Physical Activity – 20 plus minutes of vigorous activity 3 times per week (BRFSS 2009)	Total: 26.5% Males: 63.8% Females: 83.5%	Total: 29.4% Males: 65.4% Females: 75.0%
Adults participated in any physical activity during past month (BRFSS 2009)	74.6%	76.3%
High School **Youth** Met Recommended Levels of Physical Activity (60 minutes per day, 5 or more days during the 7 days before the survey) (YRBS 2007)	Total: 31.1% Males: 36.9% Females: 24.7	Total: 34.7% Males: 43.7% Females: 25.6%
High School **Youth** Physically Active (at least 60 minutes per day, less than 5 days during the 7 days before the survey) (YRBS 2007)	Total: 68.9% Males: 63.1% Females: 75.3%	Total: 65.3% Males: 56.3% Females: 74.4%
High School **Youth** Did NOT Attend Physical Education Classes Daily (YRBS 2007)	Total: 89.3% Males: 88.1% Females: 90.6%	Total: 69.7% Males: 66.8% Females: 72.7%

Figure 8. Did NOT Attend Physical Education Classes Daily, Guam High School Youth: 1995, 1997, 2001, 2007



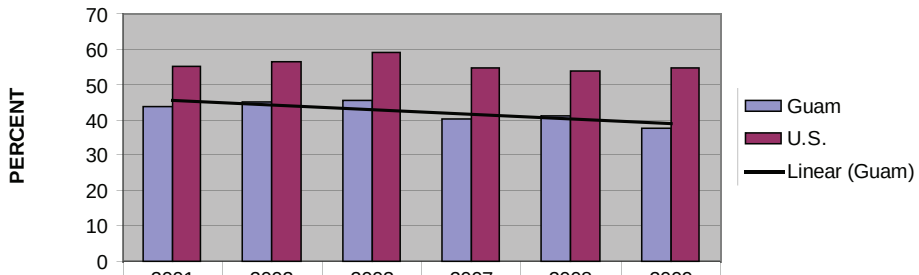
	1995	1997	2001	2007
Total	50.7%	59.2%	90.7%	89.3%
Female	46.1%	58.3%	93.2%	90.6%
Male	55.0%	60.3%	87.9%	88.1%

Year

HARMFUL USE OF ALCOHOL

According to the "Guam Substance Abuse State Epidemiological Profile 2008," alcohol was a factor in 44% of 2007 traffic crash fatalities. About 30% of suicides were associated with the use of alcohol, and alcohol related arrests involved primarily young males of Chamorro or other Micronesian ethnicity.

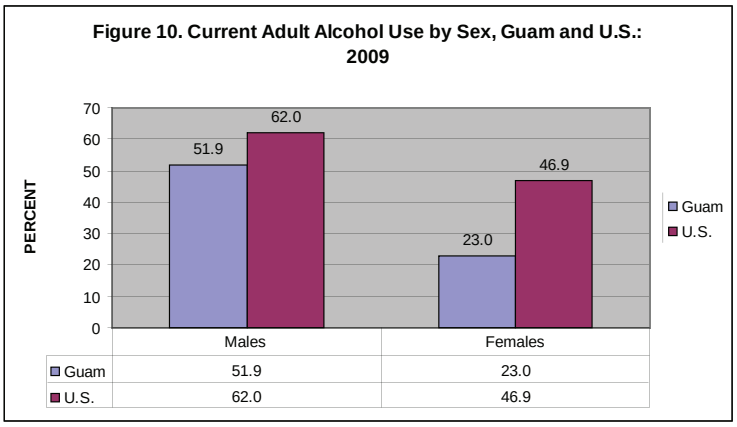
Figure 9. Current Alcohol Consumption, Guam and U.S.: 2001-2003, 2007-2009



	2001	2002	2003	2007	2008	2009
Guam	43.6	45.1	45.7	40.4	41.2	37.7
U.S.	55.3	56.6	58.9	54.7	53.8	54.7

YEAR

The report also noted that current alcohol consumption remains relatively unchanged among adults on Guam, although the rate has been consistently lower than the U.S. rate (BRFSS 2001-2003, 2007-2009).[32] (Refer to Figure 9.) Current alcohol use as defined by the BRFSS survey is having one drink of alcohol within 30 days before the survey. When comparing 2009 current adult alcohol use by sex, between Guam and the U.S., Guam's adult males had lower current alcohol use (51.9%) than the U.S. (62.0%). In addition, Guam's females also had lower current alcohol consumption rates than U.S. rates (23.0% vs. 46.9%). (Refer to Figure 10.)



As reported in the BRFSS 2009, Guam's adult "binge drinking" is higher than the U.S., and Guam's rate is also slightly higher for "heavy drinking." When comparing adult males, Guam's males had higher "binge drinking" rates than the U.S. national average. Guam's adult female "binge drinking" rates were lower than the U.S. female rates. (Refer to Table 17.)

Table 17. Adults and Youth Alcohol Use, Guam Compared to the U.S.

ITEMS	*GUAM*	*U.S.*
Adult Current Alcohol Use Rate (1 drink in the 30 days prior to the survey) (BRFSS 2009)	Total: 37.7% Males: 51.9% Females: 23.0%	Total: 54.7% Males: 62.0% Females: 46.9%
Adult Binge Drinkers (men 5 or more alcohol drinks and women more than 4 drinks on one occasion) (BRFSS 2009)	Total: 21.8% Males: 33.9% Females: 9.6%	Total: 15.8% Males: 21.3% Females: 10.6%
Adult Heavy Drinkers (men more than 2 drinks per day, women more than 1 drink/day) (BRFSS 2009)	Total: 5.8% Males: 8.1% Females: 3.6%	Total: 5.1% Males: 5.8% Females: 4.2%
High School Youth – Binge Drinking (Had 5 or more drinks of alcohol in a row within 2 hours on at least 1 day during the 30 days before the survey) (YRBS 2007)	Total: 19.2% Males: 21.6% Females: 16.3%	Total: 26.0% Males: 27.8% Females: 24.1%
High School Youth Current Alcohol Use Rates (Had at least one drink of alcohol on at least one day during the 30 days before the survey) (YRBS 2007)	Total: 34.9% Males: 36.2% Females: 33.4%	Total: 44.7% Males: 44.7% Females: 44.6%

Unlike Guam adult females, Guam high school females are drinking as much as their male counterparts. On the positive side, Guam's youth are drinking less than U.S. youth. *(Refer to Table 17.)* Guam's binge drinking rates for high school youth was 19.2% compared to 26.0% for the U.S. Guam's current alcohol use rate for high school youth was 34.9% versus 44.7% for the U.S. When comparing the percent of Guam high school youth that reported drinking alcohol before 13 years of age, Guam's rate of 24.0% was nearly the same as the U.S. rate of 23.8%. The Guam high school girls' rate of 22.2% was a little higher than the U.S. girls rate (20.0%). The Guam boys' rate of 25.5% was also lower than the U.S. boys rate (27.4%).

GUAM NCD ACTION PLAN

SUMMARY OF GUAM NCD STRATEGIES

LEVEL	*GOAL*	*OBJECTIVES*	*INTENDED TARGET*	*TARGET DATE*	*LEADING AGENCY*
Aim	Reduce Burden of NCDs	•Reduce growth in NCD related deaths •Reduce growth in NCD prevalence •Reduce growth in NCD incidence and hospitalizations	10% reduction	2013	DPHSS
Impacts	Reduce Prevalence of NCD Risk Factors	• Reduce tobacco smoking, harmful use of alcohol • Increase levels of physical activity and better nutrition	10% reduction	2013	DPHSS
Objective 1	Strengthen NCD Coordination	• Strengthen integrated NCD coordi nation and administration by estab lishing NCD steering committee and employing an NCD coordinator.	80% of outputs delivered	2011	DPHSS
PHYSICAL ACTIVITY					
Objective 2-1	Reduce overweight and obesity in Guam's school-aged children through increased levels of physical activity	• Implement existing health screening guidelines for body fat (BMI) and physical fitness and establishing a follow-up and referral system for overweight and obese children. • Reduce by 5% the proportion of children and adolescents who are overweight.		2011-2013	Physical Activity Working Group
Objective 2-2	To improve existing recreational facilities on Guam	• Develop policies that establish a system (standard operating procedures) that promotes public private partnerships to improve recreational facilities.	10% increase per year		Physical Activity Working Group
Objective 2-3	To increase the number of sporting options on Guam	• Increase participation rates in sporting activities for youth and adults by supporting Parks and Recreation and local sports organizations in promoting their programs and activities for the community.	10% increase per year		Physical Activity Working Group

NUTRITION AND OBESITY					
Objective 3-1	To reduce obesity among adults and youth through healthy eating	• Increase the number of adults who consume at least 5 servings of fruits/ vegetables per day by establishing community gardens in schools, villages, and community organizations with a link to cultural traditions.	80% of outputs delivered	2011-2013	Nutrition & Obesity Working Group
Objective 3-2	To reduce obesity among school-aged children in Guam	• Reduce the prevalence of overweight in children and adolescents in the Guam Dept. of Education by 2% per year through 2013, by planning for and providing children with opportunities to learn about healthy eating.	80% of outputs delivered	2011-2013	Nutrition & Obesity Working Group
Objective 3-3	To reduce adult and childhood obesity	• Decrease the consumption of sweetened beverages by increasing the availability of unsweetened beverages and advocating for all vending machines at schools and worksites to meet 50% vending policy for healthier choices.	80% of outputs delivered	2011-2013	Nutrition & Obesity Working Group
TOBACCO PREVENTION AND CONTROL					
Objective 4-1	To eliminate tobacco use on Guam	• Reduce tobacco use rates for adults by 3%, and to increase the individuals accessing the tobacco quitline by 5%, through development and implementation of a mass media campaign.	80% of outputs delivered	2011-2013	Tobacco Control Working Group
Objective 4-2	To eliminate exposure to second- and third-hand smoke	• Strengthen the Natasha Protection Act by advocating for enforcement of the provisions of the Act, and by advocating for incorporation of provisions that provide further protection from second-hand and third-hand exposure to tobacco smoke.	80% of outputs delivered	2011-2013	Tobacco Control Working Group
Objective 4-3	To advocate for all clinicians to adopt tobacco screening and intervention standards	• Improve the clinical screening for tobacco use at all health clinics by providing training and resources for health care professionals in basic tobacco intervention skills (5As).	80% of outputs delivered	2011-2013	Tobacco Control Working Group

ALCOHOL PREVENTION AND CONTROL					
Objective 5-1	To reduce the prevalence of alcohol use and abuse/ underage drinking through enforcement and policy	• Increase the number of policies and laws that directly or indirectly provide resources for prevention and/or create the environmental conditions that encourage healthy choices through increasing the alcohol tax to directly fund alcohol prevention and control programs	80% of outputs delivered	2011-2013	Alcohol Control Focus Group
Objective 5-2	To reduce the prevalence of alcohol use and abuse/ underage drinking through promoting healthy lifestyles	• Reduce adult and youth alcohol use rates by 10% by creating and implementing a media and social marketing advocacy campaign for healthy lifestyles and healthy choices among civilian and military communities	80% of outputs delivered	2011-2013	Alcohol Control Focus Group
Objective 5-3	To reduce the prevalence of alcohol use and abuse/ underage drinking through promoting clinical protocols	• Increase the number of people who are assessed, and as needed receive an intervention and are referred to treatment by establishing a standardized protocol for clinicians to conduct alcohol screening assessments and referrals.	80% of outputs delivered	2011-2013	Alcohol Control Focus Group
MONITORING, EVALUATION AND SURVEILLANCE					
	Monitoring, Evaluation and Surveillance of Outputs & Outcomes	• Develop and implement monitoring and evaluation framework for NCD action plan. • Conduct NCD risk factor surveillance at a national, community and individual levels.	80% of outputs delivered	2011-2013	NCD Coordin-ation Commit-tee/ NCD Consortium


NCD PLAN COORDINATION AND ADMINISTRATION

NCD COORDINATION AND ADMINISTRATION ACTION PLAN

OBJECTIVE 1: TO ESTABLISH A NCD PROGRAM

Group Name:	Non-Communicable Disease (NCD) Consortium		
Team Members:	Interim Team Leaders: Roselie Zabala and Patrick Luces Members: Charles Morris, Jesse Rosario, Audrey Topasna, Rebecca Respicio, John Wesolowski, Lawrence Alam, Marisha Artero, Cerina Mariano, and NCD Coordinator (to be determined)		
Plan GOAL:	To strengthen NCD coordination and administration		
Plan OBJECTIVE 1-1:	By the end of 2011, establish an NCD program within the Department of Public Health and Social Services that integrates all NCD related programs and activities		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	• To strengthen integrated NCD coordination and administration by establishing an NCD steering committee and employing an NCD Coordinator. • To coordinate implementation, monitoring and evaluation of NCD Plan and related program activities. • To increase awareness of NCD Plan in the public and private sectors, and the community.		
	For this STRATEGY, please indicate:		
What are you trying to MEASURE?	Establishment of NCD program and recruitment of NCD Coordinator		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Minutes of regular NCD Consortium meetings; personnel recruitment action
How much do you want to change this measurement? *(Indicate a number or percentage here)*	• Recruitment of a full time NCD Coordinator • Establishment of an NCD Program component within the DPHSS		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
1.1-1 Recruit NCD Coordinator • Obtain funding and approval for recruitment • Establish organizational structure for NCDs • Interview eligible applicants and select qualified applicant • Orientation and training of NCD Coordinator	Rose Zabala (DPHSS)	Patrick Luces (DPHSS)	NCD related programs	Funding for position	June - Dec. 2011
1.1-2 Coordinate with DPHSS Director, Governor's Health Program Advisor, and Legislative Health Committee Chair to insure that NCD will become priority	Rose Zabala (DPHSS)	Patrick Luces (DPHSS)	Competing priorities for funding support	Political and community support for NCD Plan	June - Dec. 2011
1.1-3 Coordinate with each NCD working group/ partners to assure that activities are implemented • Conduct regular meetings of the NCD Consortium • Assist in writing reports and monitoring the progress of the NCD Plan	NCD Coordinator	Rose Zabala and Patrick Luces (DPHSS)	Existing networks and partnerships with organizations involved in NCD programs and activities	Conference Room for meetings	June 2011 – Dec. 2013
1.1-4 Conduct community awareness educational campaign on the NCD plan and strategies	NCD Coordinator	Rose Zabala and Patrick Luces (DPHSS	Existing networks and partnerships with organizations involved in NCD programs and activities	Review existing policies and research evidence based policies	June 2011 – Mar. 2012

1.1-5 Draft a comprehensive policy for the prevention and control of major NCDs, and for the reduction of modifiable risk factors	NCD Coordinator	Rose Zabala and Patrick Luces (DPHSS)	Existing networks and partnerships with organizations involved in NCD programs and activities	Review existing policies and research evidence based policies	June 2011 – Mar. 2012
1.1-6 Coordinate implementation, monitoring and evaluation of the NCD Plan • Arrange for training of NCD participants in monitoring and evaluation • Monitor progress of NCD Plan based on M & E Framework • Strengthen surveillance systems and standardized data collection on risk factors, disease incidence and mortality	NCD Coordinator	Rose Zabala and Patrick Luces (DPHSS) DPHSS, DMHSA PEACE State Epidemiolo-gical Work Group	NCD Plan 2011-2013 NCD Monitoring and Evaluation Framework Report Vital Statistics, BRFSS, YRBS	Funds to implement and evaluate planned activities Need technical assistance to conduct training in M & E based on the Framework developed Funds to automate the vital statistics data collection	June 2011 – Dec. 2013

PHYSICAL ACTIVITY

PHYSICAL ACTIVITY ACTION PLAN
OBJECTIVE 2-1: TO REDUCE OVERWEIGHT AND OBESITY IN GUAM'S SCHOOL AGED

Group Name:	Physical Activity (PA) Working Group		
Team Members:	Team Leaders: Lawrence Alam, John Wesolowski Members: Andrea Ada, Marie Auyong, Joanie Barcinas, Donna Baker, Maria Blas, Carole Crisostomo, Rena Cruz, Swingli Dismas, LeVonne Guerrero, Mike Lender, Patrick Luces, Joe Mendiola, Johanna Mesa, Amy Pangelinan, Alyssa Uncangco, Renee Veksler, Patrick Wolff		
Plan GOAL:	To reduce overweight and obesity in Guam's school aged children		
Plan OBJECTIVE 2-1:	• By 2013, to decrease overweight and obesity rates for school children by fully implementing existing health screening guidelines for body fat (BMI) and physical fitness and establishing a follow-up and referral system for overweight and obese children. • By 2013, to reduce by 5% the proportion of children and adolescents who are overweight (at or above the sex- and age-specific 95th percentile of Body Mass Index (BMI) based on CDC Growth Charts: United States) from 15.9% (baseline) for high school youth.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	To fully implement an effective preventive health screening in Guam schools using BMI measurements and physical fitness tests, and to include a follow-up and referral system for identified overweight and obese children.		
	For this STRATEGY, please indicate:		
What are you trying to MEASURE?	Measurement of overweight and obesity in school children using body mass index (BMI) and testing for levels of physical fitness		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[ ] Increase [X] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	BMI data collected by DOE; and Youth Risk Behavior Surveillance Survey (YRBS), Behavioral Risk Factor Surveillance System (BRFSS)
How much do you want to change this measurement? *(Indicate a number or percentage here)*	5% per year from baseline data Overweight and Obesity Rates • 34.4% of Guam adults are overweight and 26.8% are obese (Behavioral Risk Factor Surveillance System (BRFSS, 2009). The obesity rate for Guam's adults has increased by 26.4% from 21.2% in 2001 to 26.8% in 2009. (BRFSS 2001, 2009) U.S. rates: 36.2% overweight; 26.9% obese. 15.3% of Guam's youth are overweight and 15.9% are obese. (Youth Risk Behavior Surveillance Survey (YRBS, 2007)		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
2-1.1 To review and adopt official guidelines for Physical Activity for children and adults on Guam.	Patrick Wolff (Governor's Council on Physical Fitness and Sports)	Patrick Luces (DPHSS), Lawrence Alam (DPHSS)	CDC Guidelines for Physical Activity, WHO Guidelines for Physical Activity, Governor's Council on Physical Fitness and Sports	Education Policy Board member, DOE Div. of Curriculum and Instruction, endorsement by PE and Health teachers	April 2011 – July 2012
2-1.2 To support our partner DOE in the development and preparation of uniform procedures for collecting, analyzing, and reporting data on school children's BMI	Lawrence Alam (DPHSS)	Jessica Camacho (DOE Student Support Services) Renee Veksler (GMHA)	BMI data already being collected but information not uniformly collected across all schools	Technical assistance and training of staff on the procedures after it's completed. Funds for analyst to review data and prepare annual report. Data is not being analyzed or applied to planning and decision making to reduce childhood overweight/ obesity	April – October 2011
2-1.3 To obtain support and approval from DOE to insert health score (BMI) on annual School Report Card	Paul Nededog (DOE)	Jesse Rosario (DOE), Lawrence Alam (DPHSS), John Wesolowski (DOE)	DOE partners, DPHSS partners, Guam Comprehensive Cancer Control Coalition, and Get Healthy Guam Coalition, Sustancia, Guam Diabetes Coalition	PE teachers, Parents & Teachers Organizations	April – October 2011

2-1.4 To support the DOE in full application/ enforcement of Physical Activity content requirement for school children by determining evidence based ways to assist teachers to better integrate physical activity into daily class activities/ lesson plans	John Wesolowski (DOE)	School Nurses DPHSS	WHO Physical Activity guidelines, CDC Physical Activity Guidelines	Training, materials, and educational resources for teachers to integrate physical activity into school classrooms. Survey of teachers to determine their interest. Technical assistance from curriculum experts. P.E. specialists.	2011 – 2013
2-1.5 To develop partnerships and provide support for our partners/ stakeholders planned activities on physical activity to include employees worksite wellness health programs, and school health initiatives	Renee Veksler (GMHA)	Lawrence Alam (DPHSS), Jesse Rosario (DOE)			2011-2013
2-1.6 Continue to support DOE's monitoring of school students and teachers BMI semi-annually	Jesse Rosario (DOE)	DOE Student Support Services	DOE Nutrition Council	Procedural guidelines for monitoring of BMI	2011-2013
2-1.7 Teacher/Nurse education of students/parents (especially those with problems of overweight or obesity)	Jesse Rosario (DOE)	DOE Student Support Services	DOE Nutrition Council	Funds for training and stipends Referral procedures and guidelines	Ongoing

PHYSICAL ACTIVITY ACTION PLAN

OBJECTIVE 2-2: TO IMPROVE EXISTING RECREATIONAL FACILITIES ON GUAM

Group Name:	Physical Activity Working Group		
Team Members:	Team Leaders: Lawrence Alam, John Wesolowski *Members: Andrea Ada, Marie Auyong, Joanie Barcinas, Donna Baker, Maria Blas, Carole Crisostomo, Rena Cruz, Swingli Dismas, LeVonne Guerrero, Mike Lender, Patrick Luces, Joe Mendiola, Johanna Mesa, Amy Pangelinan, Alyssa Uncangco, Renee Veksler, Patrick Wolff*		
Plan GOAL:	To improve existing recreational facilities on Guam		
Plan OBJECTIVE 2-2:	By 2013, PA stakeholders will develop policies that establish a system (SOP) that promotes public/ private partnerships to improve recreational facilities.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	Improve recreational facilities		
FOR THIS STRATEGY, PLEASE INDICATE:			
What are you trying to MEASURE?	Number of sponsored, well-maintained facilities		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? (Check One)	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Number of MOU's/Policies Number of Village Facilities
How much do you want to change this measurement? (Indicate a number or percentage here)	10% per year Baseline: To be determined.		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
2.2-1. Develop a memorandum of understanding related to sponsorship of recreational facilities/ areas • Create value for sponsors • Establish minimum terms of sponsorship • Establish a specific fund for each facility/ area • Solicit money and volunteer participation (referees, event facilitators, and other resources) and In-Kind donations (materials, supplies, and other equipment)	Department of Parks and Recreation	Existing sponsors	Facility/ Recreation Area Resource Guide/ Inventory list List of organizations that utilize each facility/ recreation area	Education Policy Board member, DOE Div. of Curriculum and Instruction, endorsement by PE and Health teachers	July 2010-June 2013
2.2-2 Establish a maintenance funding source • Solicit corporate sponsorships. • Establish minimum terms of sponsorship • Establish use rates and charge organizations/ leagues that use facilities/ recreation areas (PABL, GHRA Leagues, Gov Guam Leagues, MFL, and others) • Generate revenue from healthy vending machines at all facilities/recreation areas • Solicit events that generate revenue (sports camps, league playoffs, and other events)	Department of Parks and Recreation		Sports leagues that utilize the facilities Guam National Olympic Committee	Information on maintenance shortfalls Information of expenses of each facility/ recreation area Calendar of events Vending machines Vending machine policy List of organizations that utilize each facility/ recreation area	July 2010-June 2013
2-2.3 Advocate for Enforcement of Public Law 29-98 • Advocate for the creation of bike paths and sidewalks on new and reconstruction, as required by public law.	DPHSS	Legislative Champions	Existing public law (P.L. 29-98) Senator Ben Pangelinan	Legislative Support Dept. of Public Works Support	July 2010-June 2013

PHYSICAL ACTIVITY ACTION PLAN

OBJECTIVE 2-3: TO INCREASE THE NUMBER OF SPORTING OPTIONS ON GUAM

Group Name:	Physical Activity Working Group		
Team Members:	Team Leaders: Lawrence Alam, John Wesolowski Members: Andrea Ada, Marie Auyong, Joanie Barcinas, Donna Baker, Maria Blas, Carole Crisostomo, Rena Cruz, Swingli Dismas, LeVonne Guerrero, Mike Lender, Patrick Luces, Joe Mendiola, Johanna Mesa, Amy Pangelinan, Alyssa Uncangco, Renee Veksler, Patrick Wolff		
Plan GOAL:	To increase number of sporting options on Guam		
Plan OBJECTIVE 2-3:	By 2013, utilizing existing sporting facilities, PA stakeholders will increase the participation rates in sporting activities for youth and adults		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	Lifestyle: To support the Department of Parks and Recreation and local sports organizations in promoting their programs and activities for the community.		
FOR THIS STRATEGY, PLEASE INDICATE:			
What are you trying to MEASURE?	Participation in sporting activities		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? (Check One)	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Calendar of Events
How much do you want to change this measurement? (Indicate a number or percentage here)	10% per year Baseline: To be determined.		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
2.3-1 Creation of calendar • Compile a list of all physical activity events for the year • Publicize calendar via website • Market website as a resource for physical activity information • Collect and record participation rates from participating organizations annually	Pat Luces (DPHSS)	Website Administrator for DPP website	DPHSS Diabetes Prevention Program website	Directory of organizations/ Resource Guide Schedule of events (hikes, runs, sports leagues, and other events) Organizational support	June 2011-July 2013
2-3.2 Intramural Sports Day • Obtain support for Sports Day from DOE, and school administrators, faculty, students and parents • Recruit partner organizations • Identify pilot school(s) for intramural sports day participation • Determine activities to be included in sports day • Arrange for training of volunteers/teachers/ parents/ students on coordination of sports day • Promote sports day with emphasis on physical activity health benefits • Facilitate sports day and evaluate success	Donna Baker (Strides for the Cure)	John Wesolowski (DOE) Volunteer teachers or Yamashita Teacher's Corps	Funding availability Strides for the Cure	Pilot project location Transportation Partner organizations	October 2011-March 2012
2-3.3 Training of Teachers • Instruct teachers in how to integrate the importance of physical activity into daily curriculum • Coordinate with the nutrition working group, the DOE Nutrition Council, UOG CYFFN, and other organizations and coalitions engaged in nutrition and physical activity in schools	Pat Wolff (Governor's Council on PF&S)	DPHSS	DOE Nutrition Council Governor's Council on Physical Fitness and Sports	Funding P.E. Teachers UOG P.E. Faculty Training Materials and Resources	October 2011-March 2012

2-3.4 Advocate for a Wellness Coordinator/PE Specialist for Physical Activity Program to coordinate DOE Wellness Policy Implementation • Advocate for physical fitness in Nutrition & Physical Activity (NUPA) Panel • Work with DOE and the Prevention Action Team of the Guam Comprehensive Cancer Control Coalition, NCD Nutrition Working Group to advocate for recruitment of PE specialist to coordinate Wellness Policy implementation in all schools	Lawrence Alam (DPHSS)	Pat Luces (DPHSS) Jesse Rosario (DOE)	Get Healthy Guam Coalition Guam Comprehensive Cancer Control Coalition – Prevention Action Team Healthy Futures Fund	Support from DOE Administration and Board Funding for maintenance of position	May 2011-December 2011
2-3.5 Create Safe Paths to School to Promote Walking Work with Mayor's Council and DOE to create safe paths to school program Identify a school for a pilot program (e.g., GWHS) Install signage and way markers • Eliminate obstacles to walking (overgrown brush, uneven sidewalks, stray dogs, trash, other hazards)	Mangilao Mayor's Office Guam Visitor's Bureau		Mayors' Council DOE GWHS	Corporate Sponsors Construction company Dept. of Public Works Highway Maintenance	October 2011-June 2012 July 2011-June 2013
2-3.6 Create youth/ coaching sports clinics with athletes/ coaches from visiting sports teams (Tokyo Giants, and others) • Get annual commitment for participation from visiting athletes/ teams • Promote the clinics to Guam's youth and coaches	Patrick Wolff (Governor's Council on PF&S)	Dept. of Parks and Recreation	GNOC Sports Federations Strides for the Cure	Support of Sports Federations and GNOC	Aug. 2011 – Jul. 2013

NUTRITION AND OBESITY

NUTRITION AND OBESITY ACTION PLAN

OBJECTIVE 3-1: TO REDUCE OBESITY AMONG ADULTS THROUGH HEALTHY EATING

Group Name:	Nutrition and Obesity Working Group		
Team Members:	Team Leaders: Charles Morris and Jesse Rosario Members: Greg C. Artero, John Borja, Bonnie Brandt, Ed Buendicho, William Castro, DeAnndra Chargualaf, Karen Cruz, Shirley A. Cruz, Deborah Delgado, Dr. Keith Horinouchi, Rosanna Hunt, Dr. Rachael Leon Guerrero, Joy Manalo, Doreen Mendiola, Chris Mullins, Dr. Yvette Paulino, Patti B. Portodo-Hernandez, Rachel B.L. Ramirez, Kirk P. Scharff, Frances Salas, Barbara San Nicolas, Cathy San Nicolas,		
Plan GOAL:	To reduce obesity among youth and adults through healthy eating		
Plan OBJECTIVE 3-1:	To increase the number of adults who consume at least 5 servings of fruits/vegetables per day from 24.3% in 2009 to 36.0% by 2013.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Lifestyle] To promote the establishment of community gardens in schools, villages, and community organizations with a link to cultural traditions		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	Fruit/vegetable intake (behavioral change)		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	BRFSS
How much do you want to change this measurement? *(Indicate a number or percentage here)*	From 24.3% in 2009 to 36.0% by 2013		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
3-1.1 Increase the number of home/ community gardens • Provide intra-agency/ partner organization letters of support and/or memorandums of understanding committing to support efforts • Recruit private partners to help sustain gardens by providing necessary resources (top soil, gardening tools, and other supplies) • Recruit volunteers from within each village to help establish and maintain community gardens (church organizations, Boy Scouts and Girl Scouts, and other organizations) • Establish community gardens in all elementary schools • Establish 4H Clubs in all high schools w/ interscholastic competition (e.g. the island-wide science fair)	John Borja (Department of Agricul-ture)	Local Farmers Department of Agriculture Local Mayor's Offices Jesse Rosario (DOE)	Seedlings from Department of Agriculture Existing school community gardens	Nurseries Hurao Academy Private sector businesses (Home Depot, Benson) Government Lands Community Support Mayors Offices Farmers Co-op	July 2011 – June 2013

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
• Establish an agricultural cultivation component of all Chamorro Studies curriculums • Identify potential sites for gardens in each village (public lands, Chamorro land trust land, and donated land) • Establish a community garden in each village • Create and enact a seedling distribution program from each village's community garden to allow residents to start their own home gardens • Establish cultivation workshops held by local farmers and/or Department of Agriculture at the village mayor's offices to provide training to residents on how to establish and maintain community and home gardens	Doreen Mendiola (Island Girl Power)	Cooperative Extension Service Immaculate Heart of Mary (IHOM) Parish	Department of Agriculture Seedlings Public Service Announcements	Nurseries Farmers Co-op Hurao Academy Department of Chamorro Affairs	July 2011 – June 2013

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
3-1.2 Promote home/ community gardens through multimedia • Create a public information campaign regarding the creation of community gardens and the availability of resources for the creation of home gardens (free seedlings for village residents) • Recruit partner organizations/ businesses to co-promote community and home gardens • Create village festivals to celebrate the harvest of a specific fruit or vegetable (Agat Mango Festival, Santa Rita Tomato Festival, Talofofo Banana Festival, and others) • Promote village festivals to tourist organizations to create business opportunities for village residents				Pacific Home and Garden Payless GHRA GVB Media Organizations	July 2011 – June 2013
3-1.3 Promote benefits of fruit/vegetable consumption • Create and launch a public information campaign detailing the benefits of fruit and vegetable consumption	Deborah Delgado (DPHSS)	Jesse Rosario (DOE) Dr. Rachel T. Leon Guerrero (EFNEP) HS Student Organizations IHOM	Public service announcements	Farmers Co-Op Hurao Academy Department of Chamorro Affairs Payless GHRA GVB	July 2011 – June 2013

NUTRITION AND OBESITY ACTION PLAN

OBJECTIVE 3-2: TO REDUCE OBESITY AMONG SCHOOL AGED CHILDREN IN GUAM

Group Name:	Nutrition and Obesity Working Group		
Team Members:	Team Leaders: Charles Morris and Jesse Rosario Members: Greg C. Artero, John Borja, Bonnie Brandt, Ed Buendicho, William Castro, DeAnndra Chargualaf, Karen Cruz, Shirley A. Cruz, Deborah Delgado, Dr. Keith Horinouchi, Rosanna Hunt, Dr. Rachael Leon Guerrero, Joy Manalo, Doreen Mendiola, Chris Mullins, Dr. Yvette Paulino, Patti B. Portodo-Hernandez, Rachel B.L. Ramirez, Kirk P. Scharff, Frances Salas, Barbara San Nicolas, Cathy San Nicolas, Michael R. Unsiog		
Plan GOAL:	To reduce obesity among school aged children in Guam		
Plan OBJECTIVE 3-2:	To reduce the prevalence of overweight in children and adolescents in the Guam Department of Education by 2% per year through 2013 by planning for and providing children with opportunities to learn about healthy eating.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Clinical] To establish uniform BMI monitoring and surveillance systems in the public schools in accordance with the DOE Wellness Policy and increase opportunities for learning about and creating an environment conducive to healthy behaviors in schools.		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	Body Mass Index (BMI)		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[ ] Increase [X] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Guam DOE BMI data
How much do you want to change this measurement? *(Indicate a number or percentage here)*	2% per year Baseline: To be determined		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
3-2.1 To measure BMI of all students enrolled in the Guam DOE system • Provide intra-agency/ partner organization letters of support and/or memorandums of understanding committing to support efforts • Train health counselors to accurately record BMI for student populations • Establish a central repository for BMI data recorded • Establish reporting standards for BMI data recorded. • Record all student BMI data • Issue a health score to students based on BMI data	Jesse Rosario (DOE) Deanndra Chargualaf Chris Mullins New Special Project Coordinator in Nutrition	Jesse Rosario (DOE) Deanndra Chargualaf (DOE)	Dr. Rachael Leon Guerrero (EFNEP) DPHSS Guam CCC	Funding Special Project Coordinator positions (DOE)	July 2011 – June 2013
3-2.2 To develop a coordinated nutrition education curriculum/ strategy • Provide intra-agency/ partner organization letters of support and/or memorandums of understanding committing to support efforts • Develop skilled nutrition/dietetic professionals • Create a curriculum to be installed in concert with existing health education • Launch curriculum in all DOE schools.	Jesse Rosario (DOE)	Deanndra Chargualaf (DOE) Dept. Parks & Recreation	High School Student Organizations Governor's Council on Physical Fitness & Sports	Fitness Centers Village parks/ gyms Sidewalks SDA Wellness Center	July 2011 – June 2013

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
3-2.3 To coordinate activities with the Physical Activity Action Team	Charlie Morris (DPHSS) Jesse Rosario (DOE)	Lawrence Alam	Network and partnership between DPHSS and DOE	Periodic joint meetings	Quarterly June 2011 – July 2013

NUTRITION AND OBESITY ACTION PLAN

OBJECTIVE 3-3: TO REDUCE ADULT AND CHILDHOOD OBESITY

Group Name:	Nutrition and Obesity		
Team Members:	Team Leaders: Charles Morris and Jesse Rosario Members: Greg C. Artero, John Borja, Bonnie Brandt, Ed Buendicho, William Castro, DeAnndra Chargualaf, Karen Cruz, Shirley A. Cruz, Deborah Delgado, Dr. Keith Horinouchi, Rosanna Hunt, Dr. Rachael Leon Guerrero, Joy Manalo, Doreen Mendiola, Chris Mullins, Dr. Yvette Paulino, Patti B. Portodo-Hernandez, Rachel B.L. Ramirez, Kirk P. Scharff, Frances Salas, Barbara San Nicolas, Cathy San Nicolas, Michael R. Unsiog		
Plan GOAL:	To reduce adult and childhood obesity		
Plan OBJECTIVE 3-3:	To decrease the consumption of sweetened beverages by increasing the availability of unsweetened beverages and advocating for all vending machines at schools and worksites to meet 50% vending policy for healthier choices.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Environmental] To increase opportunities for healthy behaviors by promoting healthy eating by advocating to have all vending machines at worksites and schools meet 50% vending policy.		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	Availability of vending machines that meet 50% vending policy guidelines. Baseline: To be determined.		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Public Health Policy
How much do you want to change this measurement? *(Indicate a number or percentage here)*	100% compliance in government worksites and schools		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
3-3.2 To advocate for a sugar tax on sweetened beverages • Gauge readiness for change and identify barriers to tax • Identify key arguments for the passage of the tax • Identify successes from other locales having previously passed a sugar tax • Identify beverages to be taxed • Establish guidelines for the usage of tax proceeds • Identify legislative champions • Create a public information campaign regarding the dangers of sweetened beverages and the intended benefit of the proposed legislation	Chris Mullins	High School Student Organizations Jesse Rosario	DPHSS UOG CYFFN Guam CCC	Department of Revenue and Taxation Dental Clinics SDA Take Care WHO Legislative Champions	July 2011 – June 2013
3-3.3 To advocate for vending machines that meet the vending machine policy in private sector • Gauge readiness for change and identify barriers to policy • Identify key arguments for the passage of the policy • Create incentives for those who meet or exceed policy guidelines	Lawrence Alam	Deborah Delgado	DPHSS UOG CYFFN Guam CCC	Dept. of Revenue & Taxation (DRT) (Business License) Pepsi Foremost	July 2011 – June 2013

TOBACCO PREVENTION AND CONTROL

TOBACCO PREVENTION AND CONTROL ACTION PLAN

OBJECTIVE 4-1: TO ELIMINATE TOBACCO USE ON GUAM

Group Name:	Tobacco Prevention and Control		
Team Members:	Team Leaders: Marisha Artero and Cerina Mariano Members: Gail Afaisen, Allan Angcao, Peter Cruz, Dr. Annette David, Baron Mafnas, Remy Malig, Rowena Morales, Gil Suguitan, and Dr. John R. Taitano		
Plan GOAL:	To eliminate tobacco use on Guam.		
Plan OBJECTIVE 3-1:	• To reduce tobacco use rates for adults by 3% from 24.1% to 23.4% by 2013. • To increase the individuals accessing the tobacco Quitline by 5% by the end of the promotional campaign.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[(Lifestyle) To develop a comprehensive mass media campaign/ plan to reduce tobacco use and increase calls to the quitline.		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	The number of individuals accessing the tobacco Quitline as a result of this campaign		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Quitline reports
How much do you want to change this measurement? *(Indicate a number or percentage here)*	+5% higher than baseline data (baseline = 3 months prior to campaign launch, to be determined) Reduce adult current smoker baseline by 3%. Baseline: Adult current smokers: 24.1% (BRFSS 2009)		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
4-1.1 Identify and partner with all programs that conduct tobacco education activities	DPHSS	Tobacco control partners	People/Partners	People/Partners	March 2011
4.1-2 Review existing local, regional and national plans/ products to identify what can be adapted. Include current calendar review for overlap (synergies)	DPHSS	To be determined	Video, print and digital media material. People/Partners	Time and commitment. Meeting space	May 2011
4-1.3 Develop a three year plan targeting specific groups (e.g., age, ethnicity, pregnant women, etc.) • Specify type of media (print, tv, radio, social marketing) • Gather community and ensure testing prior to use in the community • Ensure plan includes evaluation of efforts through Quitline reports	DPHSS	To be determined	People/partners	Time and commitment	August 2011

TOBACCO PREVENTION AND CONTROL ACTION PLAN

OBJECTIVE 4-2: TO ELIMINATE EXPOSURE TO 2ND AND 3RD HAND SMOKE

Group Name:	Tobacco Prevention and Control		
Team Members:	Team Leaders: Marisha Artero and Cerina Mariano Members: Gail Afaisen, Allan Angcao, Peter Cruz, Dr. Annette David, Baron Mafnas, Remy Malig, Rowena Morales, Gil Suguitan, and Dr. John R. Taitano		
Plan GOAL:	To eliminate exposure to 2nd and 3rd hand smoke.		
Plan OBJECTIVE 4-2:	To strengthen the Natasha Protection Act by advocating for enforcement of the provisions of the Act and by advocating for incorporation of provisions that provide further protection from second-hand and third-hand exposure to tobacco smoke.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Environmental] Advocate for enforcement and strengthening of the Natasha Protection Act.		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	Successful passage of legislation to strengthen Natasha Protection Act (NPA).		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Passage of new public law.

How much do you want to change this measurement? *(Indicate a number or percentage here)*	1 By one new law.

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
4-2.1 Review existing policy (NPA) and identify gaps that need to be addressed, such as smoking in cars, bars, hotel room, outdoor areas and outdoor covered areas. Include revisions for third hand smoke exposure		Church			
4-2.2 Conduct research to identify legislative policies in other places	American Cancer Society	DPHSS DMHSA Youth for Youth UOG IHOM Church	People/Partners Existing Legislation	Time/ Commitment	October 2011
4-2.3 Identify champions for policy change (e.g., legislature, legal, community, Lou Leon Guerrero, physicians and PEACE Advisory Council)	American Cancer Society	DPHSS DMHSA Youth for Youth UOG IHOM Church	People/Partners Existing Legislation	Time/ Commitment	November 2011
4-2.4 Conduct behind-the-scene polls, advocacy visits, mobilize community and coalition and cultivate media awareness	American Cancer Society	DPHSS DMHSA Youth for Youth UOG IHOM Church	People/Partners Existing Legislation	Time/ Commitment	Ongoing
4-2.5 Identify a champion in the legislature to introduce legislation and a champion at the Governor's office	American Cancer Society	DPHSS DMHSA Youth for Youth UOG IHOM Church	People/Partners Existing Legislation	Time/ Commitment	Based on legislative calendar

TOBACCO PREVENTION AND CONTROL ACTION PLAN

OBJECTIVE 4-3: ALL CLINICIANS WILL ADOPT TOBACCO SCREENING AND INTERVENTION STANDARDS

Group Name:	Tobacco Prevention and Control		
Team Members:	Team Leaders: Marisha Artero and Cerina Mariano Members: Gail Afaisen, Allan Angcao, Peter Cruz, Dr. Annette David, Baron Mafnas, Remy Malig, Rowena Morales, Gil Suguitan, and Dr. John R. Taitano		
Plan GOAL:	All clinicians will adopt tobacco screening and intervention standards.		
Plan OBJECTIVE 4-3:	To improve the clinical screening for tobacco use at all health clinics by providing training and resources for health care professionals in basic tobacco intervention skills (5A's) by the end of 2013		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Clinical] Adopt a standard system for the health sector to ensure tobacco screening and intervention and provide training for health professionals in BTI (Basic Tobacco Intervention Skills Training)		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	The number of clinicians who are trained to use the BTI (5A's) standards.		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Attendance numbers at training
How much do you want to change this measurement? *(Indicate a number or percentage here)*	25 doctors, nurses, physician assistants, and medical assistants		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
4-3.1 Understand existing process/system for tobacco screening and intervention • Identify barriers and possible champions in the medical community • Consider survey of GMA members					

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
4-3.2 Adopt and promote the BTI/5A's standards • Identify 5A's for screening • Consider including questions for second and third hand exposure	DMHSA	DPHSS ACS UOG Youth for Youth IHOM Church	People/Partners Access to medical community	Time	September 2011
4-3.3 Pilot test standards before conducting training • Consult with clinics to obtain their feedback	DMHSA	DPHSS ACS UOG Youth for Youth IHOM Church	People/Partners Access to medical community	Time	November 2011
4-3.4 Provide training and resources to clinicians for screening and referral • Consider conducting trainings with GMA, GNA, GMS. • Provide interventions and resources for patients via clinicians.	DMHSA	DPHSS ACS UOG Youth for Youth IHOM Church	People/Partners Access to medical community	Time	February 2012



ALCOHOL PREVENTION AND CONTROL

ALCOHOL PREVENTION AND CONTROL ACTION PLAN
OBJECTIVE 5-1: TO REDUCE THE PREVALENCE OF ALCOHOL USE AND ABUSE/UNDERAGE DRINKING THROUGH ENFORCEMENT AND POLICY

Group Name:	Alcohol Prevention & Control		
Team Members:	Team Leaders: Rebecca Respicio, Audrey J.A. Topasna, & John Pangelinan Members: John Aquino, Ed Camacho, Arcy M. Castillo, Athena Duenas, Darlene Flores, Mary Jane Flores, Gayle Osborn, Sean Rupley, Wenona Shmull, and John Wesley		
Plan GOAL:	To reduce the prevalence of Alcohol Use and Abuse / Underage Drinking through enforcement and policy.		
Plan OBJECTIVE 5-1:	To increase the number of policies and laws that directly or indirectly provide resources for prevention and/or create the environmental conditions that encourage healthy choices.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Environment] Increase Alcohol Tax to directly fund alcohol prevention and control programs Baseline: To be determined.		
	For this STRATEGY, please indicate:		
What are you trying to MEASURE?	Amount of Tax being collected from Alcohol Sales and what portion directly goes to fund prevention programs.		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	Revenue and Taxation Sales Tax, Alcohol Importation (Guam Customs & Quarantine)
How much do you want to change this measurement? *(Indicate a number or percentage here)*	To increase tax by 10%. Baseline: Current tax on malted fermented beverages is $0.07 per 12 oz. container; $4.95 per gallon for vinous beverages; and $18.00 per gallon for distilled spirits.		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
5-1.1 Advocate with legislature to provide resources for alcohol prevention and control programs	Sean Rupley, YFY President	Youth for Youth Live! Guam Organization, Faith based and NGO's	Use current Tobacco Tax Increase Law as an example	Letters of Support from community Sponsor senator(s	July 2011 – June 2012
5-1.2 Work with sponsoring senator(s) to draft bill	Sean Rupley, YFY President	Youth for Youth Live! Guam Organization, Faith based and NGO's	Key members and advisors	Legislative research staff (bill writer)	July 2011 – June 2012
5-1.3 Work with partners to promote public awareness of bill	Sean Rupley, YFY President	Youth for Youth Live! Guam Organization, Faith based and NGO's	Key members, advisors, email, PSA (radio), flyer distribution to village mayor's office, schools, etc.	Print Ads, TV ads	July 2011 – June 2012
5-1.4 Work with partners in preparation for Public Hearing	Sean Rupley, YFY President	Youth for Youth Live! Guam Organization, Faith based and NGO's		Letters of Support, Testimonials at public hearing	July 2011 – June 2012

NOTE: Safe Homes, Safe Streets Fund created by P.L. 27-104, 50% of alcohol excise tax collected is deposited in this account to be expended for public safety and social programs that enforce alcohol regulations, reduce underage drinking, support traffic safety, reduce drug-related violence and abuse, and/or support community-based drug and substance abuse prevention programs at the Guam Police Department, the Guam Public School System, the Department of Public Health and Social Services, the Department of Youth Affairs, the Department of Mental Health & Substance Abuse and other agencies deemed appropriate by I Liheslaturan Guahan. All expenditures of the Safe Homes, Safe Streets Fund shall be by appropriation by I Liheslaturan Guahan. The other 50% goes to the Healthy Futures Fund (HFF).

ALCOHOL PREVENTION AND CONTROL ACTION PLAN

OBJECTIVE 5-2: TO REDUCE THE PREVALENCE OF ALCOHOL USE AND ABUSE/UNDERAGE DRINKING THROUGH PROMOTING HEALTHY LIFESTYLES

Group Name:	Alcohol Prevention & Control		
Team Members:	Team Leaders: Rebecca Respicio, Audrey J.A. Topasna, & John Pangelinan Members: John Aquino, Ed Camacho, Arcy M. Castillo, Athena Duenas, Darlene Flores, Mary Jane Flores, Gayle Osborn, Sean Rupley, Wenona Shmull, and John Wesley		
Plan GOAL:	To reduce the prevalence of Alcohol Use and Abuse / Underage Drinking through promoting healthy lifestyles.		
Plan OBJECTIVE 5-2:	To reduce adult and youth alcohol use rates by 10% by the end of 2013, by creating and implementing a media and social marketing advocacy campaign for healthy lifestyles and healthy choices among civilian and military communities.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Lifestyle] Implement an alcohol prevention and social marketing campaign		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	Alcohol Use Among Adults and Youth		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[ ] Increase [X] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	BRFSS, YRBS
How much do you want to change this measurement? *(Indicate a number or percentage here)*	Reduce alcohol use and abuse by 10% by the end of the 3rd year of the project. Baseline: Adult heavy drinking rate: 5.8% (BRFSS 2009); Adult binge drinking rate: 21.8% (BRFSS 2009); Youth Current Alcohol Use Rate: 34.9%; Youth Binge Drinking Rate: 19.2%		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
5-2.1 Collaborate with partners to strengthen and support the "One Nation" Alcohol Prevention Social Marketing Campaign	Christine Camacho (DMHSA) and Rebecca Respicio (DYA)	DMHSA and DYA	Current One Nation Alcohol Prevention Social Marketing Campaign already in existence	NCD Funding $100K	Throughout entire project period

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
5-2.2 Support and promote "One Nation" Alcohol Prevention Social Marketing Campaign through Media and Outreach Events in the community that promote healthy living	Audrey Topasna and Rebecca Respicio	DMHSA, DYA, YFYLG	Promotional items (t-shirts, stickers, posters, water bottles)	Funding for Media: radio, TV ads and print	July 2011 – T June 2012
5-2.3 Collaborate with partners to evaluate "One Nation" Alcohol Prevention Social Marketing Campaign	Christine Camacho	DMHSA, DYA	Survey tools, staff to compile	Funding for printing evaluation report(s)	July 2011 – June 2012

ALCOHOL PREVENTION AND CONTROL ACTION PLAN

OBJECTIVE 5-3: TO REDUCE THE PREVALENCE OF ALCOHOL USE AND ABUSE/UNDERAGE DRINKING THROUGH PROMOTING CLINICAL PROTOCOLS

Group Name:	Alcohol Prevention & Control		
Team Members:	Team Leaders: Rebecca Respicio, Audrey J.A. Topasna, John Pangelinan Members: John Aquino, Ed Camacho, Arcy M. Castillo, Athena Duenas, Darlene Flores, Mary Jane Flores, Gayle Osborn, Sean Rupley, Wenona Shmull, and John Wesley		
Plan GOAL:	To reduce the prevalence of Alcohol Use and Abuse / Underage Drinking through promoting clinical protocols.T		
Plan OBJECTIVE 5-2:	To increase the number of people assessed and referred to treatment and/or receive intervention by establishing a standardized protocol for clinicians to conduct alcohol screening assessments and referrals.		
PRIORITY STRATEGY (if applicable) or NEW STRATEGY:	[Clinical] Implement Evidence Based Program: Screening Brief Intervention Referral and Treatment (SBIRT)		
FOR THIS STRATEGY, PLEASE INDICATE			
What are you trying to MEASURE?	Number of people assessed and referred to treatment / receive brief intervention.		
Do you want to INCREASE or DECREASE or MAINTAIN this measurement? *(Check One)*	[X] Increase [ ] Decrease [ ] Maintain	What DATA will be used to support this effort? (e.g. BRFSS, YRBS)	BRFSS, Drug and Alcohol Treatment Data
How much do you want to change this measurement? *(Indicate a number or percentage here)*	Increase proper diagnoses for treatment plans by 20% in the first year and increase by 5% every year after. Baseline: To be determined		

Describe each activity / task we need to do so we can implement the priority strategy	Lead person(s) for this activity / task (Names)	Key member(s) to assist with activity/task	Resources we HAVE	Resources Needed	Timeframe for completion
5-3.1 Bring experts from SAMHSA to train clinicians at DMHSA, DPHSS and private clinics	Don Sabang Supervisor, (DMHSA Drug & Alcohol)	DMHSA Drug & Alcohol staff	DMHSA Drug & Alcohol – Certified Substance Abuse Counselors; funding DPHSS – certified clinicians Private Clinics SAMHSA – SBIRT program	Additional funding TBD – based on costs for TOT, total number of participants and DMHSA funding allotted for training	October - December 2011
5-3.2 Implementation of SBIRT Pilot Project within DMHSA, DPHSS and private clinics	DMHSA (D&A) and DPHSS (lead agencies)	SBIRT Trained Professionals from DMHSA, DPHSS and private clinics	DMHSA Drug & Alcohol DPHSS – certified clinicians Private Clinics SAMHSA – SBIRT program kit	Additional funding TBD – based on costs for TOT, total number of participants and DMHSA funding allotted for training	February 2012
5-3.3 Collect and analyze data from assessments tools of SBIRT; determine effectiveness of program	DMHSA (D&A)	SBIRT Trained Professionals from DMHSA, DPHSS and private clinics	Trained staff from DMHSA Drug & Alcohol , DPHSS and private Clinics	Additional funding TBD – based on costs for TOT, total number of participants and DMHSA funding allotted for training	June 2012

MONITORING AND EVALUATION

The primary evaluation objectives for this plan are to ensure that programs implemented as a product of the Guam NCD Plan are monitored; and that outcomes correlate to objectives and strategies outlined in the plan. The NCD Program under the Department of Public Health and Social Services (DPHSS) will establish and oversee an evaluation system that will monitor both short- and long-term outcomes.

The Bureau of Professional Support Services of the DPHSS has been tasked with establishment of the NCD Program. They requested technical assistance from the Secretariat of the Pacific Community (SPC) through the joint SPC/WHO 2-1-22 Pacific Regional NCD Program for development of a Monitoring and Evaluation (M&E) Framework for the Guam NCD Program. Mr. Greg Keeble, Monitoring, Evaluation and Surveillance Officer, Public Health Division of the SPC came to Guam in January 2011 during the week of Guam's NCD Community Planning Forum and prepared the framework in collaboration with the DPHSS. The M&E Framework and recommendations will be incorporated into the NCD Program as funds and capacity allow. The Framework is intended to assess the progress and impact of the NCD strategic plan 2011-2013. It provides a mechanism for monitoring the performance of the implementation of the plan as well as assessing the impact of behavioral interventions on the health status of the population. The information gathered through the framework will inform formal evaluations of the performance and impact of the NCD strategy over the three year period of implementation.

The Framework comprises three components: an **IMPACT monitoring framework** which assesses progress towards the priority actions specified in the plan, and **OUTCOME monitoring framework** which assesses progress towards the planned strategic objectives, and an **OUTPUT monitoring framework** which assesses the impact of the implementation of the plan on population health outcomes. The pages following list the appropriate sections of the M&E Framework that are hereby incorporated as guidelines to the NCD Plan.

GUAM NCD STRATEGY					
STRATEGIC GOAL	*IMPACT TARGET*	*IMPACT INDICATORS*	*INDICATOR DEFINITION*	*MEANS OF VERIFICATION*	*RISKS & ASSUMPTIONS*
#1: To reduce the prevalence and burden of NCDs in the population	Reduction in death rate from NCDs by 2% per year by 2013	NCD mortality rate	Number of NCD related deaths per 100,0000 population (by cause & sex)	Vital Statistics Register WHO CHIPs DPHSS Annual Report	NCD mortality data available at national level through vital registration system
	Reduction in incidence rates of NCDs by 3% per year	NCD incidence rate (diagnosed cases)	Number of new diagnosed NCD cases per 100,000 population (by NCD & sex)	WHO CHIPs DPHSS Annual report NCD Registers	HMIS system updated and capacity to collect, analyze and disseminate data.
	Reduction in prevalence rates of NCDs by 10% by 2013	NCD prevalence rate (estimated & diagnosed)	Number of diagnosed NCD cases per 100,000 population (by NCD & sex)	National Health Surveys WHO GBD estimates NCD registers	HMIS system updated and capacity to collect, analyze and disseminate data.
	Reduction in hospital admission rates of NCDs by 10% by 2013	NCD hospitalisation rate	Percentage of hospital admissions for treatment of NCDs and complications (by NCD & sex)	DPHSS Annual report Hospital Admission registers	HMIS system updated and capacity to collect, analyze and disseminate data.

STRATEGIC GOAL	IMPACT TARGET	IMPACT INDICATORS	INDICATOR DEFINITION	MEANS OF VERIFICATION	RISKS & ASSUMPTIONS
# 2: To increase the levels of physical activity in the population	Increase the proportion of adults who are physically active by 10%	Levels of physical activity among adults	Percentage of persons aged 18-64 doing physical activity for one hour, five days per week (by sex)	National Health Survey Report (BRFSS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Increase the proportion of youth who are physically active by 10%	Levels of physical activity among youth	Percentage of high school youth aged 14-18 being physically active for one hour per day, for five days. (by sex)	National Health Survey Report (YRBS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Increase the proportion of population in communities who are physically active by 10%	Levels of physical activity in community settings	Percentage of persons aged 15-64 doing more than 600 MET minutes of physical activity a week (by sex)	Sentinel Surveillance Reports (mini-STEPS, YRBS) (pre & post assessment)	Report completed and published in a timely manner with subsequent repeat assessments
STRATEGIC GOAL	IMPACT TARGET	IMPACT INDICATORS	INDICATOR DEFINITION	MEANS OF VERIFICATION	RISKS & ASSUMPTIONS
#3 To improve nutrition and reduce obesity in the population	Increase the consumption of fruits and vegetables amongst the adults by 10%	Prevalence of low consumption of fruits & vegetables among adults	Percentage of persons aged 18-64 consuming 5 or more servings of fruit and vegetables per day (by sex)	National Health Survey Report (BRFSS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Increase the consumption of fruits and vegetables amongst the youth by 10%	Prevalence of low consumption of fruits & vegetables among youth	Percentage of high school aged persons aged 14-18 consuming 5 or more servings of fruit and vegetables per day (by sex)	National Health Survey Report (YRBS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments

STRATEGIC GOAL	IMPACT TARGET	IMPACT INDICATORS	INDICATOR DEFINITION	MEANS OF VERIFICATION	RISKS & ASSUMPTIONS
#3 To improve nutrition and reduce obesity in the population	Increase the consumption of fruits and vegetables in community settings by 10%	Prevalence of low consumption of fruits & vegetables in community settings	Percentage of persons aged 15-64 consuming 5 or more servings of fruit and vegetables per day (by sex)	Sentinel Surveillance Reports (mini-STEPS, YRBS) (pre & post assessment)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in obesity amongst adults by 10%	Prevalence of obesity among adults	Percentage of persons aged 18-64 with BMI =>30 (by sex)	National Health Survey Report (BRFSS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in obesity amongst youth by 10%	Prevalence of obesity among youth	Percentage of persons aged 14-18 with BMI greater than 80th percentile (by sex)	National Health Survey Report (YRBS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in obesity amongst youth and adults in community settings by 10%	Prevalence of obesity in community settings	Percentage of persons aged 15-64 with BMI =>30 (by sex)	Sentinel Surveillance Reports (mini-STEPS, YRBS) (pre & post assessment)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in obesity amongst population aged 15 years and over by 10%	Prevalence of obesity among youth and adults	Percentage of persons aged 15 and over with BMI=>30 (by sex)	National Health Survey Report (BRFSS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
STRATEGIC GOAL	*IMPACT TARGET*	*IMPACT INDICATORS*	*INDICATOR DEFINITION*	*MEANS OF VERIFICATION*	*RISKS & ASSUMPTIONS*
# 4: To reduce tobacco use and resulting harm among population	Reduction in tobacco smoking amongst adults by 10%	Prevalence of daily tobacco use among adults	Percentage of persons aged 18-64 smoking tobacco daily (by sex)	National Health Survey Report (BRFSS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in tobacco smoking amongst youth by 10%	Prevalence of daily tobacco use and uptake by youth	Percentage of high school aged persons aged 14-18 smoking tobacco daily (by sex)	National Health Survey Report (YRBS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments

STRATEGIC GOAL	*IMPACT TARGET*	*IMPACT INDICATORS*	*INDICATOR DEFINITION*	*MEANS OF VERIFICATION*	*RISKS & ASSUMPTIONS*
# 4: To reduce tobacco use and resulting harm among population	Reduction in tobacco smoking amongst youth and adults in community settings by 10%	Prevalence of daily tobacco use in community settings	Percentage of persons aged 15-64 smoking tobacco (by sex)	Sentinel Surveillance Reports (mini-STEPS, YRBS)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in current tobacco smoking for population aged 15 years and over by 10%	Prevalence of current tobacco use in youth and adult population	Percentage of population aged 15 years and over who are current smokers (by sex)	(pre & post assessment)	Population census data on tobacco smoking is available by age and sex
STRATEGIC GOAL	*IMPACT TARGET*	*IMPACT INDICATORS*	*INDICATOR DEFINITION*	*National Health Survey Report (BRFSS, STEPS)*	*RISKS & ASSUMPTIONS*
# 5: To reduce the misuse of alcohol and the resulting harm among the population	Reduction in binge drinking amongst adults by 10%	Prevalence of alcohol misuse among adults	Percentage of persons aged 18-64 who binge drink during last week (by sex)	National Health Survey Report (BRFSS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in binge drinking amongst youth by 10%	Prevalence of alcohol misuse by youth	Percentage of high school aged persons aged 14-18 who binge drink during last week (by sex)	National Health Survey Report (YRBS, STEPS)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in binge drinking amongst adults and youth in community settings by 10%	Prevalence of alcohol misuse in community settings	Percentage of persons aged 15-64 who binge drink during last week (by sex)	Sentinel Surveillance Reports (mini-STEPS, YRBS) (pre & post assessment)	Report completed and published in a timely manner with subsequent repeat assessments
	Reduction in per capita alcohol consumption for population aged 21 years and over by 10%	Total quantity of imports of alcohol per capita	Gallons of pure alcohol per person aged 21 years and over per year	Trade Statistics Report	Trade import data available by detailed HS code

GUAM NCD STRATEGY 2011-2013
Monitoring and Evaluation Framework: Outcomes Monitoring

 # 1: INTEGRATED NCD ACTIVITIES

National Strategy	Expected Outcome	Performance Target	Performance Indicators	Means of Verification	Risks/ Assumptions
Strengthen implementation of NCD action plan	Priority activities are implemented according to NCD action plan	All priority action plan activities implemented	Percentage of activities implemented according to NCD action plan	Monitoring and evaluation reports	Resources available to implemented priority actions

 # 2: PHYSICAL ACTIVITY – OUTCOMES MONITORING

National Strategy	Expected Outcome	Performance Target	Performance indicators	Means of verification	Risks/ Assumptions
Increase number of sporting activities in Guam	Sporting options for youth and adults improved	Sponsored sporting activities increase by 10% per year	Number of sporting activities sponsored	Sport organization reports and official register of sports organizations	PA stakeholders willing to commit to increased sponsorship of sport
Improve existing recreation facilities in Guam	Policies promote public/private partnerships to improve recreational facilities	At least 10% of existing recreational facilities are improved each year	Number of recreational facilities improved	Dept of Parks and Recreation annual report	PA stakeholders willing to commit to improve recreation facilities
Increase number of physical activity programs in schools	Schools provide PA programs for all children	Number of schools with PA programs increases by 10% per year	Number of schools providing PA programs for school children	Dept of Education annual report	PA stakeholders willing to commit to increase PA programs in schools

# 3: NUTRITION AND OBESITY – OUTCOMES MONITORING					
National Strategy	Expected Outcome	Performance Target	Performance indicators	Means of verification	Risks/ Assumptions
Increase availability of unsweetened beverages in workplaces	Government workplaces comply with vending policy guidelines	Vending machines meet 50% of vending policy guidelines	Number of government workplaces complying with vending policy guidelines	DPHSS monitoring reports	Government willing to adopt vending policy guidelines
Reduce prevalence of overweight in children and adolescents	Reduced prevalence of overweight and obese adolescent children in population	Reduction in prevalence of overweight in adolescent children by 2% per year	Percentage of adolescent children who are overweight or obese	YRBS reports	YRBS continues to measure BMI and is published regularly
Increase number of adults who consume sufficient amount of fruit/ vegetables	Increased fruit and vegetable consumption by adult population	Increase percentage of adults who consume at least 5 servings of fruit and vegetables per day by 50%	Percentage of adults who consume at least 5 servings of fruit and vegetables per day	BRFSS reports	BRFSS continues to measure fruit and vegetable consumption and is published regularly

# 4: TOBACCO CONTROL – OUTCOMES MONITORING					
National Strategy	Expected Outcome	Performance Target	Performance indicators	Means of verification	Risks/ Assumptions
Conduct mass-media campaign to reduce tobacco use	Reduced tobacco smoking in adult population	Reduce tobacco smoking in high school aged population aged 14 and over by 10 percent by 2013	Percentage of high school aged population aged 14 and over who currently smoke	BRFSS reports	BRFSS continues to measure fruit & vegetable consumption and is published regularly
Develop standard system for tobacco screening and interventions	Tobacco screening and intervention guidelines developed	Screen at least 10% of population for tobacco use and offer intervention program	Percentage of population aged 14 and over who have been screened for tobacco use	Tobacco screening data	DPHSS has resources to conduct tobacco screening
Strengthen Tobacco Control Act to eliminate exposure to second hand smoke.	Legislation provides for establishment of smoke free places	All public place are designated as smoke free	Percentage of public places designated as smoke free	DPHSS reports	DPHSS has resources to register smoke free public places

# 5: ALCOHOL CONTROL – OUTPUTS MONITORING					
National Strategy	Expected Output	Performance Target	Performance indicators	Means of verification	Risks/ Assumptions
Implement evidence based programs for alcohol abuse prevention e.g. SBIRT	Clinicians trained in SBIRT program protocol	Increase in number of clinicians trained in SBIRT assessments	Number of sporting activities sponsored	Sport organization reports and official register of sports organizations	Resources available for training of clinicians
	SBIRT pilot program implemented in hospitals	Increase in SBIRT assessments conducted in hospitals	Number of clinicians trained in SBIRT program protocol	Training evaluation reports	Resources available for conducting assessments
	SBIRT program effectiveness analysed for use in private clinics	Increase in SBIRT assessments conducted in private clinics	Number of assessments conducted in hospitals	Assessment reports	Resources available for conducting assessments
Strengthen policies /legislation to provide resources for prevention of alcohol abuse	Advocacy for legislation on allocation of tax revenue for alcohol prevention activities	Increased funding for providing intervention programs from tax revenue	Percentage of tax collected from alcohol sales allocated to funding prevention programs	Tax revenue data and DPHSS annual budget	Government willing to commit tax revenue to fund prevention programs
	Environmental conditions encourage healthy drinking choices	At least one environmental policy change made to encourage healthy drinking choices	Number of policy changes made to encourage healthy drinking choices	DPHSS annual report	Policies to encourage responsible drinking adopted
	Alternative funding sources for alcohol abuse prevention identified	At least one other funding source identified for alcohol abuse prevention	Number of funding sources identified for alcohol abuse prevention	DPHSS annual report/budget	Government willing to use other revenue to fund prevention programs
Create & implement a social marketing strategy for healthy lifestyles and choices	Strengthened and supported One Nation campaign	One Nation campaign supported by NCD plan funding	Extent to which One Nation campaign is supported by NCD plan funding	NCD plan & One Nation campaign budget	NCD plan resources available to fund One Nation campaign
	Research on evidenced based SMC campaigns conducted	At least one research paper written on evidence based SMC	Number of research papers written on evidence based SMC campaigns	Research reports	Resources available to research SMC
	Evidenced based SMC campaigns implemented on island	At least one SMC campaign implemented each year	Number of SMC campaigns implemented	SMC evaluation report	Resources available to implement SMC

# 6: MONITORING, EVALUATION AND SURVEILLANCE – OUTPUTS MONITORING					
National Strategy	Expected Output	Performance Target	Performance indicators	Means of verification	Risks/ Assumptions
Develop and implement monitoring and evaluation framework for NCD action plan	NCD KPI are reported on a 6 monthly basis	All KPI are monitored on at least an annual basis	Number of key performance indicators regular monitored	NCD Monitoring report	Resources available to implement M&E plan
	NCD action plan components evaluated by 2013	All components of NCD action plan are evaluated	Number of components formally evaluated	NCD Evaluation report	Resources available to conduct independent evaluation
Conduct NCD risk factor surveillance at a national, community and individual levels	Population-based NCD risk factor surveillance conducted at a national level	At least one NCD risk factor survey every five years	Number of NCD risk factor surveys conducted	NCD risk factor report (BRFSS, STEPS)	Resources available to conduct survey
	Sentinel surveillance of NCD risk factors conducted in community settings	At least three sentinel sites established (workplace, school, community)	Number of sentinel sites under regular surveillance	NCD sentinel surveillance reports (mini-STEPS, YRBS)	Resources available to conduct regular sentinel surveillance
	Clinical surveillance of NCD diagnosed cases conducted	At least two NCD registers (cancer, diabetes) established and operating effectively	Number of NCD registers effectively operating	NCD register reports, Hospital morbidity statistics reports	Resources available to conduct clinical surveillance
	Clinical surveillance of NCD diagnosed cases conducted	At least two NCD registers (cancer, diabetes) established and operating effectively	Number of NCD registers effectively operating	NCD register reports, Hospital morbidity statistics reports	Resources available to conduct clinical surveillance

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Source: Guam Cancer Facts and Figures 2003-2007
[10]Source: CDC Chronic Disease Indicators: State/Area Profile, U.S. 2002-2006 (age-adjusted)
[11]Source: Guam Cancer Facts and Figures 2003-2007
[12]Source: CDC Chronic Disease Indicators: State/Area Profile U.S. 2002-2006 (age-adjusted)
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Pacific Islands Health Officers Association

Board Resolution #48-01

"Declaring a Regional State of Health Emergency
Due to the Epidemic of Non-Communicable Diseases
in the United States-Affiliated Pacific Islands"

The Burden of NCDs

WHEREAS, the United States Affiliated Pacific Islands (USAPI) include American Samoa, Guam, the Commonwealth of Northern Mariana Islands, the Republic of the Marshall Islands, the Republic of Palau and the Federated States of Micronesia (Pohnpei, Chuuk, Yap and Kosrae);

WHEREAS, the USAPI are home to more than 500,000 people, who speak dozens of languages and live on hundreds of islands and atolls spanning millions of square miles of ocean and crossing five Pacific time zones, an area significantly larger than the continental United States;

WHEREAS, the leading causes of morbidity and mortality for adults in the USAPI are from non-communicable diseases (NCDs), including obesity, cancer, cardiovascular disease, stroke, diabetes, depression, injury, and arthritis and gout;[1]

WHEREAS, the rates of NCDs and their risk factors in the USAPI are among the highest in the world, are rapidly increasing, are epidemic, and include high tobacco use, high alcohol consumption, a genetic predisposition towards obesity, significant environmental and behavioral health barriers to healthy eating and healthy families, a propensity toward injury, and a high prevalence of sedentary lifestyles;[2]

WHEREAS, NCDs cause a significant loss in longevity, quality of life, and loss to workforce productivity in the USAPI;

WHEREAS, the indigenous people of the USAPI are rich in culture but comparatively small in population; are fragile, isolated and endangered in multiple ways, including economically, socially and environmentally; have endured early decimation due to communicable diseases

contracted shortly after Western contact; and now face decimation and possible extinction due to diseases and changes in climate associated with Western lifestyles; [3]

WHEREAS, the NCD burden can be expected to worsen significantly over the next generation, due to the comparatively large percentage of youth in the USAPI population and the chronic outmigration of essential skills needed for effective health care; [4]

The Economic Cost of NCDs

WHEREAS, a significant majority of the USAPI health care budgets is consumed by the management and treatment of NCDs;

WHEREAS, the burden of NCDs in the USAPI impedes economic growth and prosperity, due to a sicker workforce and the economic drain of related health care;

WHEREAS, the local, national, and international funding for NCDs is inadequate: The annual health care budgets for the USAPI are a tiny fraction of the US per capita health care expenditure and cannot sustain or manage the costs of an epidemic of NCDs. In addition, funding for health care in the three Compact Nations, including the Republic of the Marshall Islands, the Republic of Palau and the Federated States of Micronesia, is inadequate and decreasing annually. The US Federal reimbursement for health care in Guam, American Samoa, and the Commonwealth of Northern Mariana Islands is inadequate and tied to unrealistic expectations of local financial matches. Finally, even within these budgets, there is insufficient *local* USAPI financial commitment to NCDs.

WHEREAS, the USAPI medical systems—given the current and rising rates of NCDs—are unable to manage the health complications of NCDs effectively due to the high cost and infrastructure required for end stage treatment, which include dialysis, cancer surgery, cancer chemotherapy and radiation therapy, intensive cardiac care for hospitalized patients, specialty stroke units, and sub-specialty medical care;

WHEREAS, many residents of the USAPI migrate to other parts of the USAPI and to the United States for medical care that cannot be accessed locally, and this medical migration stresses already burdened health systems in Guam, CNMI and the United States and causes suffering among USAPI families and communities, due to separation and financial strain;

WHEREAS, the cost and complexity of health care in the USAPI are increased exponentially due to the geographic isolation of small islands;

Overall Inadequacy of the Current Response

WHEREAS, many NCDs are preventable and have fewer complications with early intervention;

WHEREAS, many of the risk factors for NCDs can be effectively alleviated with known strategies and models of care;

WHEREAS, the current approach to NCD prevention and control in the USAPI is inadequate and generally ineffective for a variety of reasons, including the limitations of disease-specific donor funding, poor or absent public health planning, insufficient NCD data, ineffective systems of evaluation and quality assurance, weak lab infrastructure, a largely undertrained, under-skilled, and poorly-incentivized workforce, poor coordination and communications, and a misalignment between local priorities and donor funding;

WHEREAS, external funding for health care in the USAPI from the United States and other sources is unbalanced, with significant resources and mobilization dedicated to issues such as bioterrorism and pandemic influenza but comparatively fewer resources, effort and coordination focused on NCDs, a far more urgent issue for the region;

WHEREAS, the USAPI community infrastructure necessary for effective health is not adequate for the challenge of controlling NCDs. Such infrastructure includes sidewalks, dog control, night lighting, bike paths, safe beaches, car control, as well as appropriate preventive and primary services, such as nutrition, health education, community advocacy, school-based programs, and other prerequisites to healthy communities, including those prerequisites that are dependent upon other sectors, such as agriculture, fisheries, education, and trades and industry.

WHEREAS, the current health and education workforce in the USAPI is working hard to address the challenge of NCD but overall lacks the numbers, expertise, educational programs, salaries and support systems to effectively address the challenge;

WHEREAS, the United States Institute of Medicine's study on USAPI health and health care, entitled *Pacific Partnerships for Health: Charting a Course for the 21st Century*, made four significant recommendation, none of which have been adequately addressed since their publication in 1998, including:[5]

1) Adopting and supporting a viable system of community-based primary care and preventive services.
2) Improving coordination within and between the jurisdictions and the United States.
3) Increasing community involvement and investment in health care.
4) Promote the education and training of the health care workforce.

The Need for a PIHOA Regional Policy on NCDs

WHEREAS, the Board of Directors of the PIHOA is comprised of the Ministers, Secretaries, and Directors of Health of the USAPI;

WHEREAS, PIHOA's mission is to improve the health and well-being of communities in the USAPI by providing through consensus a unified credible voice on health issues of regional significance;

WHEREAS, most USAPI and NCD-related regional health association have NCD plans or strategies; however, the USAPI and their regional bodies still have not spoken with a clear, unified and cross-sectoral voice on the epidemic of NCDs in the region;

WHEREAS, a PIHOA Regional Policy on NCDs, developed in consultation with USAPI health agencies and health-related regional associations, would contribute significantly to focusing and coordinating more effectively the attention and resources of local, national and international agencies and leadership, with regards to the NCD epidemic in the USAPI;

On Declarations of Emergency and Emergency Preparedness and Response

WHEREAS, PIHOA acknowledges that Declarations of Emergency by non-governmental organizations have limited precedent and are not legally binding, though they can be ethically and morally binding;

WHEREAS, declarations of emergency commonly involve a discrete event, the activation of mutual aid, and benchmarks for ending the declaration;

WHEREAS, in the case of NCDs, the *event* is a health catastrophe that is slow moving; *the activation of aid* is a re-assessment, reorganization, and increase of resources that up until now have been fragmented, inadequate, and insufficiently effective; and *the benchmarks for ending the declaration* have yet to be clearly agreed upon and, when defined, are unlikely to be met within the timeframe commonly associated with emergency declarations and within this current generation;

WHEREAS, Emergency Preparedness and Response is often narrowly defined as a community effectively preparing for, and responding to, a discrete disaster event, such as a tsunami, landslide, earthquake or typhoon;

WHEREAS, Emergency Preparedness and Response must *also* be understood as reducing overall human susceptibility to emergencies (fostering healthy people); reducing exposure to emergencies (fostering healthy homes) and increasing resilience in the face of emergencies (fostering healthy communities);

AND WHEREAS, the epidemic of NCDs in the USAPI is both an emergency and a serious impediment to effective emergency preparedness and response in the USAPI;

NOW THEREFORE BE IT RESOLVED, that the Pacific Island Health Officers Association declares a Regional State of Health Emergency among the United States Affiliated Pacific Islands, due to the epidemic of NCDs;

BE IT FURTHER RESOLVED, that PIHOA encourages the Chief Executives in PIHOA member states to proclaim legally-binding national and territorial declarations of health emergency due to the NCD epidemic;

BE IT FURTHER RESOLVED, that PIHOA exhorts local, national, and international agencies and donors to devote the same or greater urgency and resource mobilization to the cause of and response to NCDs in the USAPI, as they have more recently devoted to pandemic influenza and bioterrorism;

BE IT FURTHER RESOLVED, that PIHOA shall develop a clear regional policy on Non-Communicable Diseases; that this policy shall respond effectively to the Declaration of Regional State of Health Emergency due to NCDs; and that this policy shall consist of a set of high level goals and recommendations that will provide voluntary and flexible guidance to PIHOA member states, donor agencies and regional partners, on addressing the epidemic of NCDs;

BE IT FURTHER RESOLVED, that the PIHOA Regional Policy on NCDs shall integrate and harmonize effectively with other regional and local NCD policies and plans;

BE IT FURTHER RESOLVED, that the PIHOA Regional Policy on NCDs shall include benchmarks for ending the Regional State of Health Emergency;

BE IT FURTHER RESOLVED, that the PIHOA Regional Policy on NCDs shall provide clear justification for its goals and recommendations, including clear, accurate and referenced data on NCDs and their impact on the USAPI;

BE IT FURTHER RESOLVED, that the PIHOA Regional Policy on NCDs shall identify whether, when, and how a Regional USAPI Plan for NCDs can and should be developed;

BE IT FURTHER RESOLVED, that this PIHOA NCD Policy shall include, but need not be limited to, recommendations to:

- Health Agencies of PIHOA Member States
- Donor and technical assistance agencies
- National and territorial legislatures
- PIHOA Affiliate Members and other USAPI-governed health-related regional associations
- USAPI Chief Executives, including the Micronesian Chief Executives Summit
- Government agencies and sectors other than health, including but not limited to education, environment, agriculture, fisheries, and parks and recreation.
- Traditional leaders, churches and faith-based organizations, and community groups.

BE IT FURTHER RESOLVED, that the PIHOA Regional Policy on NCDs shall be developed in effective consultation with PIHOA Member States and PIHOA Affiliate Members and other regional associations that are health-related and USAPI-governed, including:

- The Micronesian and American Samoan Chief Executives
- The Association of Pacific Island Legislatures
- The American Pacific Nursing Leaders Council
- The Pacific Basin Medical Association
- The Pacific Basin Dental Association
- The Pacific Substance Abuse and Mental Health Collaborating Council
- The Pacific Islands Primary Care Association
- The Pacific Chronic Disease Coalition
- The Pacific Partners for Tobacco Free Islands
- The Cancer Council of the Pacific Islands

- The Pacific Post-Secondary Education Council
- Pacific Resources for Education and Learning
- The Secretariat of the Pacific Community
- The Northern Pacific Environmental Health Association
- The Association of USAPI Laboratories
- The Pacific Islands Jurisdictions AIDS Action Group
- The Pacific Islands Tuberculosis Controllers Association

BE IT FURTHER RESOLVED, that PIHOA Regional NCD Policy shall be developed in consultation with other associations from other sectors that are not commonly considered health-related but whose work has a significant impact on NCDs, including regional associations in agriculture, education, fisheries, business, parks and recreations, arts and culture, and other sectors;

BE IT FURTHER RESOLVED, that PIHOA shall identify and work to secure resources necessary for the development and implementation of the PIHOA Regional Policy on NCDs;

BE IT FURTHER RESOLVED, that the PIHOA Secretariat will integrate all of its priority areas into NCD control, including Human Resources for Health, Quality Assurance and Improvement, Public Health Planning, Laboratory Strengthening, Health Data Systems, and Connectivity, and will report on progress to this end at the 49th PIHOA Meeting;

BE IT FURTHER RESOLVED, that the basic framework for a PIHOA Regional Policy on NCDs shall be completed and submitted to the PIHOA Board of Directors at the 49th PIHOA Meeting, when a timeline for its completion will be identified;

BE IT FURTHER RESOLVED that this resolution will be sent to the Chief Executives of PIHOA Member States; USAPI regional associations identified above; the health committees of national and territorial legislatures in the USAPI; ministers, secretaries and directors of non-health agencies in the USAPI, such as education, agriculture and environment; traditional leaders in the USAPI; local community groups and NGOs, including women's organizations, churches and faith based organizations; international and regional donor and technical assistance agencies, including those for health, education, agriculture and other relevant sectors; appropriate USAPI media; relevant US national associations, such as the Association of State and Territorial Health Officials and the National Association of Chronic Disease Directors; and others, as necessary.

Hon. Stevenson Kuartei, MD
Republic of Palau
PIHOA President

Hon. Vita Akapito Skilling, DCHMS, DipCH
Federated States of Micronesia
PIHOA Vice President

Everyone deserves clean air.
Keep all public places tobacco-free –it's the law!

GUAM TOBACCO CONTROL LAWS

Public Law 28-80

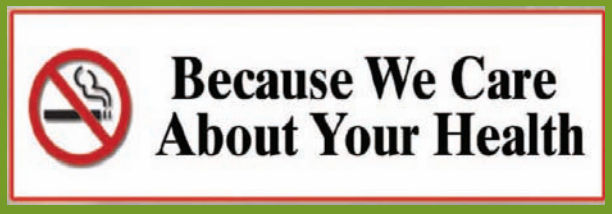
Clean Indoor Air Act known as the "Natasha Protection Act of 2005." This law prohibits smoking in public places including workplaces, service areas, bus stops, all means of public transport, restaurants, public and government buildings.

Executive Order 2007-18

Tobacco Free Workplace Environment. Mandates all Government of Guam workplaces be tobacco free.

Public Law 30-63

Prohibits smoking within twenty (20) feet of an entrance or exit of a public place where smoking is prohibited.



Live Healthy Guam!

To join the Non-Communicable Disease (NCD) Consortium or for more information, please contact the:

Non-Communicable Disease Control Program
Bureau of Community Health Services
Department of Public Health and Social Services

123 Chalan Kareta, Mangilao, Guam 96913-6304
Phone: 671-735-7295/7336 • Fax: 671-735-7500
Website: www.livehealthyguam.gov