

American Samoa
Department of Health

NCD Prevention
& Control



Rowing Together to a Healthier American Samoa

Strategic Action Plan for Non-Communicable
Disease Prevention & Control

2013

Rowing Together to a Healthier American Samoa.

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Message by The Governor of American Samoa



LOLO M. MOLIGA
GOVERNOR



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LEMANU P. MAUGA
LIEUTENANT GOVERNOR

October 26, 2013

DEPARTMENT OF HEALTH -TERRITORIAL NCD COALITION PARTNERSHIP

**Subject: On the Occasion of the Official Launching of American Samoa's
First Territorial Non-Communicable Disease Plan**

The launching of American Samoa's First Territorial Non-communicable Disease (NCD) Plan is demonstrative of our collaborative commitment to boldly combat the relentless onslaught on the quality of life of our people and the financial wherewithal of the Territory by non-communicable diseases such as diabetes, cancer, and cardiovascular prevalence.

Physical evidence, manifested by the rising number of our people depending on the aid of dialysis, compels the demand for expansion of the Dialysis Unit at LBJ Tropical Medical Center and pressures the government to avail limited financial resources for this single treatment activity, which serves only a small sector of our population. While this appears to be an inequitable distribution of very scarce financial resources, the government in all good conscience cannot neglect the needs of every resident of American Samoa no matter the number or the size of the population.

The above scenario poses a formidable challenge for the government and the people of American Samoa and while the mitigation option is clear, as outlined in the American Samoa's Territorial Non-Communicable Disease Plan, it will take our collective will and political resolve to commit to the implementation of the strategies contained and recommended in the NCD Plan.

I commend and congratulate the public-community partnership between the Department of Public Health and the Territorial Non-Communicable Disease Coalition for the launching of the NCD Plan, charting the pathways for the Territory to traverse towards effectively reducing the incidence of Non-Communicable Diseases in American Samoa. The Government stands ready to support your efforts given the inherent fundamental monumental task of changing our people's mindset. Congratulations and thank you for your vigilance and dedication to issues affecting the lives of every resident of American Samoa.

Lolo Matalasi Moliga
Governor of American Samoa

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Message by The Director of Health



Talofa lava!

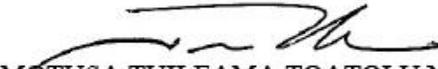
It is a pleasure to express and extend my heart-felt appreciation to all that have diligently committed time, effort and energy to finally producing this comprehensive plan: *American Samoa's Strategic Action Plan for Non-Communicable Disease (NCD) Prevention and Control*.

“American Samoan children are at risk and exposed to NCDs early in life as parents may find themselves burying their children first.” Startling and alarming statements of this nature were stated over and over again by medical professionals at a recent medical symposium hosted by our local LBJ Tropical Medical Center. These are statements supported by evidence-based practices and other data collection sources that every American Samoan must heed to begin addressing the level of NCD crisis we have reached. As a people, we must take NCD seriously and we must begin with educating the youngest members of the Territory.

The Department of Health's (DOH) focus is prevention through detection and education. The message of prevention will be continuously echoed through marketing campaigns, outreach programs, and community education programs which all must target the youth of American Samoa to ensure a healthier generation of American Samoans. Furthermore, I expect the department to lead by example and therefore, with the recent publishing of a Wellness Policy, employees will be expected to make personal health a priority by transforming lifestyles to change nutrition, health and wellness habits through fitness programs and health education.

“Rowing together to a healthier American Samoa” is a metaphor symbolic of teamwork in a sport that is a favored cultural pastime. Henry Ford said it best “**Coming together is a beginning, keeping together is progress and working together is success.**” Successfully rowing together requires all stakeholders national, regional and local to include leaders from the community, the churches and the government must “row” together with determination, commitment and in harmony while synchronizing efforts to achieve the goals laid out in this plan.

I am proud and honored to endorse this plan, however, successful implementation relies heavily upon the support of all DOH, its partners and stakeholders. Together, we can achieve Healthy Families, Healthy Communities and a Healthy American Samoa.


MOTUSA TUILEAMA TOATOLU NUA
Director of Public Health

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Message by The Co-Chair for the NCD Prevention Coalition



American Samoa Community College
Community and Natural Resources

28 October 2013

Motusa Nua
Director, Department of Health
American Samoa Government

Dear Director Motusa,

I write as the Co-Chair of the NCD Coalition in support of “Rowing Together To a Healthier American Samoa, a Strategic Action Plan for Non-Communicable Disease Prevention and Control 2013.”

Allow me to commend you for bringing together the political and cultural leadership, community partners, and the medical and public health professionals in this fight against NCD’s.

American Samoa has long needed a strategic planning framework based on scientific evidence and adapted to meet our local needs. *Faafetai tele* to you and your dedicated staff for accomplishing this task.

We, at ASCC CNR, look forward to working with you in eliminating NCD’s in our community and achieving health for all.



Ma le ava tele,

Tapaa Dr. Daniel Aga

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Acknowledgement

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Diabetes & Tobacco Coalition
Fofu Community Coalition
Ituau Community Coalition
Maoputasi Community Coalition
Sua Community Coalition
Tualauta I Community Coalition
Tualauta II Community Coalition
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List of Abbreviations

1. AA Alcoholic Anonymous Program
2. ACE Angiotensin-converting enzyme
3. ARB Angiotensin-receptor blocker
4. AS American Samoa
5. ASBCCEDP American Samoa Breast and Cervical Cancer Early Detection Program
6. ASCC American Samoa Community College
7. ASCCC American Samoa Community Cancer Coalition
8. ASCCCP American Samoa Comprehensive Cancer Control Program
9. ASCVD Atherosclerotic Cardiovascular Disease
10. ASG American Samoa Government
11. ASPA American Samoa Power Authority
12. BMI Body Mass Index
13. BRFSS Behavioral Risk Factor Surveillance System
14. CDC Centers for Disease Control and Prevention
15. CKD Chronic Kidney Disease
16. CME Continuing Medical Education
17. CNR Community and Natural Resources
18. CPRS Computerized Patient Record System
19. CVD Cardiovascular Disease
20. DHSS Department of Human and Social Services
21. DOA Department of Agriculture
22. DOE Department of Education
23. DOH Department of Health
24. DPS Department of Public Services
25. EBP Evidence Based Program
26. eGFR Estimated glomerular filtration rate.
27. EMR Electronic Medical Records
28. EPA Environmental Protection Agency
29. ESRD End Stage Renal Disease (Stage 5)
30. FBG Fasting Blood Glucose
31. HbA1C Hemoglobin A1C
32. HDL High Density Lipoprotein
33. HIS Health Information System

List of Abbreviations (con't)

34. LBJ	LBJ Hospital/LBJ Tropical Medical Center Authority
35. LDL	Low Density Lipoprotein
36. MCH	Maternal and Child Health
37. MDRD	Modification of Diet in Renal Disease
38. NCD	Non-Communicable Disease
39. NSAID	Non-steroidal anti-inflammatory drug.
40. PEN	Package of essential NCD interventions
41. PHC	Public Health Centers/Community Health Centers
42. PIHOA	Pacific Island Health Officers' Association
43. PVD	Peripheral Vascular Disease
44. RHD	Rheumatic Heart Disease
45. SBIRT	Screening Brief Intervention Referral Treatment
46. SPC	Secretariat for the Pacific Community
47. SNAP	Smoking, Nutrition, Alcohol and Physical Activity interventions
48. STEPs	WHO STEPwise approach to surveillance
49. TEOW	Territorial Epidemiological Outcome Workgroup
50. US	United States
51. USDA	United States Department of Agriculture
52. VA	Veteran Affairs
53. WBC	Well Baby Clinic
54. WHO	World Health Organization
55. WIC	Women, Infants and Children Program
56. YRBS	Youth Risk Behavior Survey

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Key Message

Non-Communicable diseases (NCDs) pose a significant public health and economic threat to American Samoa. Premature death, productivity losses and the high cost of health care due to chronic disease and disability erode recent gains in health and socio-economic progress. Cost-effective interventions – the “best buys” and “good buys” for NCD prevention and control – exist, and need to be fully implemented, using a strategic framework built around (1) supportive environments (policy change), (2) healthy lifestyle promotion, (3) appropriate clinical services, (4) community mobilization through advocacy and communication and (5) evidence-based action using surveillance and monitoring. Political and cultural leadership, supported through community partnerships, can fuel the journey away from NCD, towards a healthier future for American Samoa.



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Introduction

Today, NCDs have emerged as the major public health challenge in American Samoa.

When the islands were ceded to the United States of America, globalization and urbanization facilitated shifts in the environment and lifestyle that make American Samoa's communities susceptible to tobacco and alcohol use, unhealthy diets, and physical inactivity. In turn, these have caused NCD risk factor prevalence to rise. According to the WHO STEPs survey 2007 report, nearly all adults (93.5%) are overweight or obese, close to half (47.3%) have diabetes, and more than one-third (34.2%) have hypertension (Table 2). These are among the highest rates in the Western Pacific, and in the world.

Consequently, disease patterns have changed in recent years, with NCD overtaking infectious diseases. NCD have also surpassed infectious diseases as the leading cause of death; today, NCD claim the most number of lives in American Samoa. Three of every 5 deaths (60% of all deaths) are caused by NCD.

The costs of NCD to American Samoa are significant. Direct health care costs are compounded by the need for chronic health care services, including expensive overseas care. This is exemplified by the rising demand for dialysis. The Dialysis Center reported a 37% increase in patients requiring chronic dialysis from 2001 to 2007; it is estimated that 80 to 90% of these patients require dialysis because of complications arising from diabetes. Moreover, the disability resulting from NCD, such as, for example, after leg amputations from diabetes, result in significant productivity losses that adversely impact economic growth. Premature deaths from NCD deprive the workforce of able-bodied workers. Thus, at the societal level, NCD retard national development by draining health care budgets and impeding worker productivity. At the family level, the cost of caring for an individual with NCD can drain family resources and lead to impoverishment.

Unchecked, the NCD epidemic is like an ocean vortex, inexorably draining resources and pulling the whole of society into a downward spiral of chronic disability, early death, and poverty (Figure 2). Ironically, all of the NCD risk factors are preventable. Evidence-based interventions that are cost-effective even in low-resource settings exist. These "best buys" for NCD include a mix of policy interventions, population-level interventions to induce behavior change, and clinical interventions (Table 1). They can be implemented at very reasonable costs, with significant positive impact on risk factor prevalence, and over time, on disease prevalence and NCD-related mortality.

American Samoa has already begun the process for strategic action to halt the progression of NCD and its adverse health and socioeconomic consequences. This document contains the framework, vision, goal, objectives and strategic actions that have been identified through a collaborative and participatory process by the diverse NCD stakeholders in the Territory. Building on previous efforts to address NCD, and using the best available evidence, this strategic action plan seeks to integrate and coordinate action to pull away from the downward spiral of NCD-related death and disease, towards a healthier future for American Samoa. It is deliberately aligned to other relevant NCD frameworks, at the global and regional levels, while customizing specific interventions to American Samoa's unique socio-cultural and politic-economic context.

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Figure 2. The NCD vortex and its downward spiral

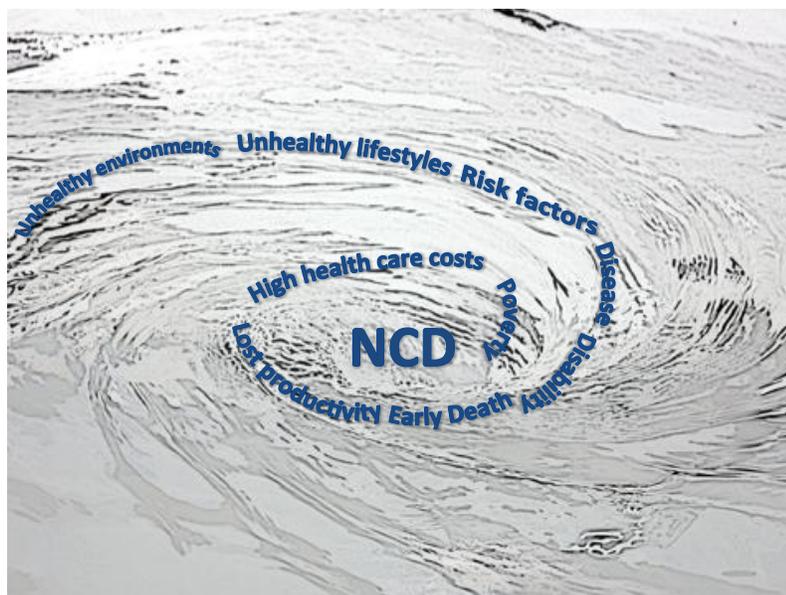


Table 1. NCD “Best Buys”

Condition	Interventions
Tobacco use	<ul style="list-style-type: none"> • Tax increases • Smoke-free indoor workplaces & public places • Health information / warnings • Advertising/promotion bans
Alcohol use	<ul style="list-style-type: none"> • Tax increases • Restrict retail access • Advertising bans
Unhealthy diet & physical inactivity	<ul style="list-style-type: none"> • Reduced salt intake • Replacement of trans fat • Public awareness about diet & physical activity
CVD & diabetes	<ul style="list-style-type: none"> • Counseling & multi-drug therapy (including glycemic control for diabetes) for people with >30% CVD risk (including those with CVD); • Treatment of heart attacks with aspirin
Cancer	<ul style="list-style-type: none"> • Screening & treatment of pre-cancerous lesions to prevent cervical cancer

Source: World Health Organization, 2012

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Background

The American Samoa Department of Health (DOH) conducted the World Health Organization (WHO) NCD STEPwise survey in 2004, to gather baseline information on NCD risk factors within the population. The report, published in 2007, established alarming rates of overweight/obesity and raised blood sugar, and elevated levels of other NCD risk factors within the general population (see Annex 1: American Samoa STEPS survey fact sheet).

From 2008 to 2012, American Samoa worked with several technical assistance providers, including WHO, the Secretariat for the Pacific Community (SPC), the US Centers for Disease Control and Prevention (CDC), Pima Prevention Partnership, and others, to expand NCD risk factor data gathering, complete the situational assessment and initiate a planning process towards a Territory-wide NCD strategic action plan. Meanwhile, regional and global events elevated NCD prevention and control as a public health and development priority. Some of the key milestones during this period include the following:

Political Commitment

- In 2010, American Samoa joined the other US-affiliated Pacific Islands in declaring NCD as a regional health emergency at the annual Pacific Island Health Officers' Association (PIHOA) meeting, highlighting NCD as a major priority for the Region.
- At the global level, in 2011, the United Nations General Assembly adopted the *Political Declaration on the Prevention and Control of Non-Communicable Diseases*. The Declaration recognized NCD as a major challenge to socioeconomic development and called for multisectoral action to address NCD prevention and control in both health and development national agendas.
- American Samoa and Samoa issued a *Joint Bilateral Resolution* in 2011 to prioritize NCD prevention and control, and re-affirmed this commitment at the *2012 American Samoa and Samoa Bilateral NCD Resolution*.

Planning process

- In 2009, following a WHO visit, a guideline for an NCD and Nutrition Strategy was drafted.
- In 2011, SPC awarded American Samoa an NCD strategic planning grant, which spurred the creation of the NCD Prevention Coalition.
- In 2012, after a WHO visit, a guideline/framework for an NCD Strategy was developed. The DOH and the Coalition worked with Pima Prevention Partnership on a community consultation and prioritization process to identify the strategic directions for an initial draft of the *American Samoa Strategic Plan for NCD Prevention*.
- In 2013, after further visits by WHO for feedback and discussions on the initial draft, the DOH led a systematic, inclusive, multidisciplinary review of the draft plan, resulting in a thematic "Five Pillars" framework with input from a diverse group of stakeholders.

Data and information gathering

- The Department of Health conducted CDC's *Behavioral Risk Factor Surveillance System (BRFSS)* survey in 2011.

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- In 2012, the *Community Lifestyle Survey* was implemented, further adding to the local database on NCD risk factor and disease prevalence.

The DOH established an NCD Committee during the early part of 2013. The Committee is tasked to lead the development and finalization of American Samoa's NCD Prevention and Control Strategic Plan, to coordinate with bilateral and international partners, the NCD coalition and other stakeholders in ensuring community engagement and buy-in during the planning process, and to oversee and monitor the implementation of the strategic plan. The Committee is currently working with diverse stakeholders to integrate work previously done with existing local and regional NCD-related plans to incorporate core elements into a Territory-wide strategic plan that encompasses the entire spectrum of NCD progression: from environmental determinants (including policy), to prevention, health promotion and clinical interventions.

This document represents the most updated version of American Samoa's strategic plan for NCD prevention and control, recognizing that the plan is a "living document" that can be constantly revised and adapted to address current issues and emerging priorities.

Table 2. NCD Risk Factor Profile for American Samoa

Risk Factor	Overall prevalence	Males	Females
Smoking, daily	29.9%	38.1%	21.6%
Current alcohol consumption	63.5%	72.7%	41.3%
Binge drinking		49.6%	33.9%
< 5 servings fruits and vegetables	86.7%	87.9%	85.6%
Low levels of physical activity	62.2%	58.6%	66%
Hypertension	34.2%	40.9%	27.5%
High blood sugar	47.3%	52.3%	42.4%
Overweight/obesity	93.5%	92.7%	94.4%
High cholesterol	23.4%	23.1%	23.7%
> 3 NCD risk factors (25-44 years old)	69.2%	74.6%	64.3%
> 3 NCD risk factors (45-64 years old)	76.7%	80.4%	73.1%

Source: American Samoa WHO STEPs survey, 2004 (data published 2007)

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Vision, Mission, Goal and Targets

Vision:

Healthy American Samoa: Health and wellness across the lifespan for all American Samoans.

Mission:

Promote healthy environments and lifestyles to mitigate the preventable consequences of NCD risk factors and diseases.

Goal:

Reduce the current and future preventable burden of NCD in American Samoa.

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Overall Targets and comparison to Pacific Regional NCD targets and WHO Global Voluntary targets:

	WHO global voluntary targets	American Samoa Targets	Pacific regional NCD targets
	2013-2020	2013-2018	2014-2020
Environment			
		Widespread awareness and acceptance of NCD plan.	
		Health promoting environment in all AS Government agencies.	
		Safe neighborhoods increased 10%.	
Risk Factor/Lifestyle			
Reduce tobacco use.	30%	10%	Under 5% prevalence.
Reduce harmful alcohol use.	10% (Harmful use)	10%	
Adolescent/adult obesity.	0% increase from baseline.	Reduce childhood by obesity 10%; reduce adult obesity by 5%.	0% increase from baseline.
Reduce physical inactivity.	10%	10%	
Reduce salt/sodium intake.	30%		
Clinical			
Decrease premature mortality.	25%		
Decrease hypertension.	25%	70% of hypertensive patients with BP controlled 70% of diabetics with controlled blood glucose.	
Decrease diabetes prevalence.	0% increase.	5% reduction.	10% reduction.
Coverage of multidrug therapy and counseling for CVD risk.	50%	5% reduction in CVD comorbidities.	50%
Essential NCD medicines and basic technologies.	80% of countries.		
Decrease cancer prevalence.		Increase screening by 25%.	
Decrease dialysis.		10%	
Reduce incidence of rheumatic heart disease (RHD).		20% reduction in progression from rheumatic fever to RHD.	

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Framework

American Samoa's strategic plan for NCD prevention and control acknowledges and builds upon the earlier work already accomplished. It is organized along the Pacific NCD framework (WHO, 2008) that highlights **5 key action areas**, also called the "5 Pillars" for effective action to prevent and control NCD:

1. Environmental interventions
2. Healthy lifestyle promotion
3. Appropriate clinical services
4. Advocacy and communication
5. Monitoring and surveillance

This framework recognizes that NCD burden arises along a continuum. Environmental determinants promote unhealthy lifestyles, giving rise to common behavioral and metabolic risk factors, which, if left unchecked result in established disease, ultimately causing premature death, chronic disability and economic losses (Figure 3). Comprehensive action is needed across the continuum; for each level of action, "Best buys" for NCD prevention and control exist. The actions at each stage of the continuum consist of the following:

1. At the **environmental** level, through *multisectoral policy and regulatory interventions*;
2. At the level of **common and intermediate risk factors** through promotion of *healthy lifestyle interventions* (population-level behavior change); and
3. At the level of **established disease** through *clinical interventions* targeting the entire population (screening), high-risk individuals (risk factor modification) and persons with established disease (clinical management), requiring strengthening of the health system for effective service delivery. A core set of evidence-based clinical interventions for reducing morbidity and mortality from NCD that are feasible for implementation through primary care in low resource settings have been identified and are collectively known as the WHO package of essential NCD interventions (PEN) (WHO, 2010).

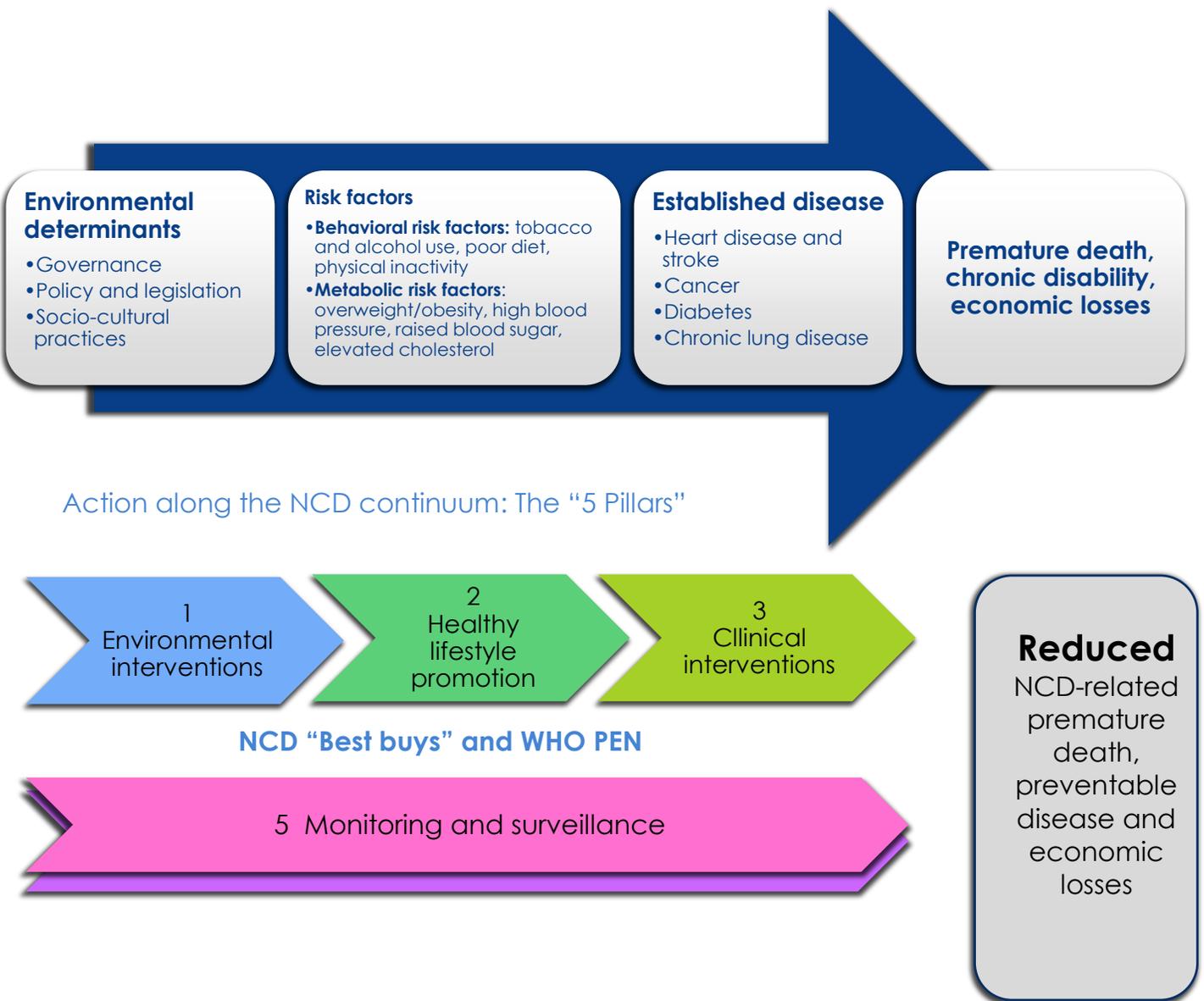
Advocacy and communication will be required across the continuum to engage community stakeholders and mobilize partnerships and to generate champions and leaders. Data will be needed to guide the selection of specific interventions and to monitor progress; hence, *monitoring and surveillance* will also be critical throughout the entire continuum.

If NCD risk factors and diseases are an ocean vortex, American Samoans are like people in a *fautasi* (long-boat), trying to paddle their way out of the vortex's pull. The oars they use to propel themselves away from danger are the 5 action areas; the largest (most effective) oars are the "best buys." The paddlers must work in a coordinated fashion to move quickly away from the vortex; this represents the value of partnerships and multisectoral coordination. There is someone at the helm who has his/her eyes trained on their destination (a healthier American Samoa), guiding the paddlers in the right direction. This represents leadership, guided by a vision. The canoe itself is the health care system—the vehicle through which actions must be carried out. Taken altogether, the entire plan can be captured by a pictograph, which pays homage to the seafaring tradition of American Samoa (Figure 1).

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Figure 3. The NCD continuum and American Samoa's "5 Pillars" or key action areas for NCD prevention and control



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Key Principles

American Samoa's Strategic Action Plan for NCD Prevention and Control is built around 5 core principles:

1. **Holistic approach** – The action plan recognizes that in American Samoa, the NCD epidemic has progressed beyond the incipient stage, with significant numbers of the population already with established disease and their long-term consequences. Thus, it encompasses the entire NCD continuum, and affirms the importance of a balanced approach to NCD. It addresses population-based interventions like policy and legislation, prevention/health promotion, lifestyle interventions to modify risk factors and screening, with targeted clinical interventions for high-risk individuals and groups.
2. **Evidence-based action** - The specific actions in this plan were selected utilizing the best available science and cost-effectiveness data, to maximize the population impact despite resource and capacity limitations. Likewise, the targets and priorities were identified using the most current local data, so that the plan addresses the most critical issues for American Samoa.
3. **Integration and multisectoral/multi-disciplinary collaboration** – The plan acknowledges and builds on earlier initiatives, and emphasizes multisectoral and multidisciplinary partnerships to achieve common health goals. It takes into account the various existing action plans that address specific NCD risk factors or chronic diseases, and seeks to incorporate these into an overall strategic approach. Because several critical actions for NCD prevention and control lie outside the sphere of the health sector, the plan reaches out to other sectors and the community, to engage their interest and seek their active participation in planning, implementation and monitoring.
4. **Life course perspective** – Recognizing that NCD risks can begin even before birth, and that consequences are usually lifelong, the plan utilizes a “womb to tomb” perspective that begins with maternal health and extends throughout the entire life spectrum.
5. **Equity in implementation** – The NCD burden affects all socio-economic groups, and interventions are needed across the board. Acknowledging that the burden of NCDs is disproportionately borne by the poorer and less advantaged groups, interventions must address the need to reduce disparities within the population to enable the attainment of healthy outcomes by all members of society.
6. **Tailored to the local socio-cultural context** – Specific actions and interventions were chosen to address the specific needs of American Samoa's people, with respect for the socio-cultural context and traditions of the society.

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Alignment with global and regional NCD strategies

While American Samoa's Strategic Action Plan is custom-designed for the local situation, the emphasis on evidence-based action ensures that it remains consistent and aligned with existing global and regional strategies. Table 3 demonstrates the alignment of the plan with the WHO global and regional NCD action plans. Table 4 demonstrates the alignment with the bilateral American Samoa and Samoa SNAPS Workplan.

Table 3. Comparison with WHO global and regional NCD plans

WHO Global NCD Action Plan 2013-2020 (Draft)	American Samoa Strategic Plan of Action for NCD prevention and control 2013-2018	WHO Western Pacific Regional NCD Action Plan 2014-2020
Obj 1: To strengthen advocacy and international cooperation and to raise the priority accorded to prevention and control of NCDs at global, regional and national levels and in the development agenda.	Advocacy and communication	Obj 1: To strengthen advocacy and international cooperation and to raise the priority accorded to prevention and control of NCDs at global, regional and national levels and in the development agenda.
Obj 2: To strengthen capacity, leadership, governance, multisectoral action and partnerships to accelerate country response for prevention and control of NCDs.	Environmental Interventions	Obj 2: To strengthen capacity, leadership, governance, multisectoral action and partnerships to accelerate country response for prevention and control of NCDs.
Obj 3: To reduce exposure to modifiable risk factors through creation of health promoting environments.	Healthy lifestyle promotion	Obj 3: To reduce exposure to modifiable risk factors through creation of health promoting environments.
Obj 4: To strengthen and reorient health systems to address NCD prevention and control through people-centered primary care and universal coverage.	Clinical Interventions	Obj 4: To strengthen and reorient health systems to address NCD prevention and control through people-centered primary care and universal coverage.
Obj 5: To promote and support national capacity for quality research and development for prevention and control of NCDs.	Monitoring and surveillance	Obj 5: To promote and support national capacity for quality research and development for prevention and control of NCDs.
Obj 6: To monitor NCD trends and determinants and evaluate progress of prevention and control of NCDs.		Obj 6: To monitor NCD trends and determinants and evaluate progress of prevention and control of NCDs.

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Table 4. Comparison with Bilateral American Samoa and Samoa SNAPS Workplan

Bilateral SNAPS Workplan Action Area Strategy/Objective	NCD Action Area	American Samoa Strategic Objective and action
Smoking		
Train all legislation enforcers on smoke-free implementation.	Enforcement of smoke-free legislation.	<p>Strategic Objective E-3: <u>Strategic action:</u> Mobilize and train enforcement staff on pollution and littering laws and regulations, enforcement procedures, penalties and fines.</p> <p>Strategic Objective A-3: <u>Strategic action:</u> Protect non-smokers through enforcement of American Samoa Smoke-Free Environment Act.</p>
Develop media campaign using television ads to educate community on smoke-free legislation.	Increase public awareness of smoke-free legislation.	<p>Strategic Objective A-3: <u>Strategic action:</u> Develop and disseminate a smoke-free media campaign.</p>
Implement a free quitline or text messaging for smoking cessation.	Smoking cessation.	<p>Strategic Objective L-1: <u>Strategic action:</u> Incorporate tobacco cessation interventions at all levels of clinical care and promote referrals to the appropriate level of care.</p> <p>Strategic Objective C-2: <u>Strategic action:</u> Provide smoking cessation for all smokers.</p>
Conduct smokefree workplace competitions.	Increase smoke-free awareness among workplace employees.	<p>Strategic Objective E-2: <u>Strategic action:</u> Create a worksite wellness policy for all Government agencies.</p> <p>Strategic Objective L-1: <u>Strategic action:</u> Enforce smoke free laws by placing signs in all schools and workplaces.</p> <p>Strategic Objective A-3: <u>Strategic action:</u> Reduce high levels of exposure of non-smokers to second and third hand smoke at indoor and public places through educational and awareness campaigns.</p>
Nutrition		
Ban the selling of sweetened beverages in school grounds and add to healthy eating to the curriculum. Promote/train caterers/food industries on high salt in processed foods and substitute with healthier alternatives.	Reduce salt/sugar intake – healthy food.	<p>Strategic Objective E-2: <u>Strategic action:</u> Increase access to healthier snacks and sugar-free drinks in school canteens and American Samoa Government (ASG) workplaces.</p>

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		<p>Strategic Objective L-3: <u>Strategic actions:</u> Establish a healthy vending machine policy in schools. Formulate and implement a healthy canteen policy for all schools.</p> <p>Strategic Objective L-5: <u>Strategic action:</u> Create healthy nutrition policies for American Samoa government agencies. For example, require workplace canteens to offer healthy options for all meals; and ensure that vending machines dispense water and 100% juice and healthy snack options.</p>
Increase accessibility of clean water for all school children.	Reduce salt/sugar intake – water access.	<p>Strategic Objective E-2 <u>Strategic action:</u> Ensure all schools have access to clean and safe drinking water.</p>
Set standards for amount of trans-fat in processed food.	Substitute/remove trans-fat from food supply.	No corresponding strategic objective/action.
Alcohol		
Regulate the alcohol content of beer through taxes. Promote parental supervision evidence-based programs like Strengthening Samoan Families.	Reduce number of alcohol-related injuries	<p>Strategic Objective L-2: <u>Strategic action:</u> Explore increasing alcohol tax.</p> <p><u>Strategic action:</u> Promote and/or continue to implement Evidence Based Programs (EBPs) such as Strengthening Samoan Families and Life Skills Training by the Substance Abuse Community Coalitions, for young children and their families.</p>
Physical activity		
Implement mandatory physical fitness program in AS school system.	Health and fitness curriculum in school system.	<p>Strategic Objective E-2: <u>Strategic action:</u> Strengthen daily physical activity program in combination with nutritional program in DOE curriculum.</p> <p>Strategic Objective L-2: <u>Strategic action:</u> Advocate for more outdoor facilities available for recreational activities.</p>
Legislate workplace wellness program. Implement incentives to garner employee buy-in.	Health and fitness in the workplace.	<p>Strategic Objective E-2: <u>Strategic actions:</u> Create a worksite wellness policy for all Government agencies. Implement worksite physical fitness/wellness programs in all Government agencies.</p> <p>Strategic objective L-4:</p>

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		clinicians in all DOH Health Centers, LBJ and VA clinic in management, referral and tracking of clients.
Set-up annual clinical meetings to exchange knowledge, ideas, skills on case management.	Networking and communication of health care providers.	No specific corresponding strategic objective/action.

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Strategic Objectives and Actions



Strategic objectives addressing the creation of an environment supportive of NCD prevention and control (Environmental)	Strategic objectives addressing behavioral and metabolic risk factors (Lifestyle)	Strategic objectives addressing established diseases and their consequences (Clinical)
1. By July 2014, ensure widespread awareness and acceptance of the NCD strategic plan throughout AS.	1. By 2018, reduce the prevalence of smoking by 10% from baseline.	1. By 2018, increase screening rates for breast, cervical, colon and prostate cancer by 25%.
2. By 2018, create a health-promoting environment across all ASG agencies.	2. Reduce heavy and binge drinking and underage drinking by 10% by 2018.	2. By 2018, 70% of diabetic and hypertensive patients will have their conditions under control based upon accepted guidelines.
3. By 2018, increase the number of safe and pollution-free neighborhoods through local initiatives and enforcement of existing environmental policies by 10% from baseline.	3. By 2018, reduce obesity among children aged 0-5 years by 10%.	3. By 2018 reduce the prevalence of comorbidities of CVDs by 5%.
	4. By 2018, reduce adult overweight/obesity prevalence by 5%.	4. By 2018 decrease the incidence of patients progressing to ESRD (Stage 5) by 10%.
	5. Promote healthy eating for all residents of American Samoa by December 2017.	5. By 2018, reduce the progression of rheumatic fever to rheumatic heart disease by 20%.
	6. By 2018, increase the physical activity level across the population.	
Strategic objectives addressing advocacy and communication		
1. Promote advocacy and educational activities to decrease the incidence of patients progressing to End Stage Renal Disease (ESRD) (Stage 5) by 10% by 2018. 2. Widely disseminate advocacy and educational activities to reduce the prevalence of diabetes by 5% by 2018. 3. Implement advocacy & educational outreach activities to reduce the number of adult smokers (18-65) by 10% by 2018. 4. By December 2013, distribute the NCD Plan to all members of the NCD Coalition. 5. By December 2014, develop evidence based wellness policy for all ASG Employees.		
Strategic objectives addressing data monitoring and surveillance		
1. By Dec. 2013, develop an annual evaluation plan to monitor progress in implementing the NCD Strategic Plan. 2. By 2018, ensure that all relevant data related to risk factors are available and used to make decisions by all NCD stakeholders. 3. By 2018, ensure that all relevant data related to NCD morbidity and mortality rates are available and used to make decisions by all NCD stakeholders. 4. By 2018, strengthen public health surveillance system for NCDs.		

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Strategic Objective E-1*: By July 2018, ensure widespread awareness and acceptance of the NCD strategic plan throughout American Samoa.

* This is a cross-cutting objective with Advocacy and Coordination.

Indicators:

1. Number of government agencies, community stakeholders and external partners who have received and endorsed the NCD Strategic Plan
2. Number of quarterly community events conducted to advocate for NCD plan
3. Number of government agencies and community stakeholders implementing activities identified in the NCD Strategic Plan

Baseline: As of October 2013, NCD strategic plan has not yet been distributed nor endorsed by any agency or organization

Target date for implementation: 2013-2018

Lead agency/stakeholder: Advocacy subcommittee, American Samoa Department of Health, community coalitions

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Mandate (through an Executive Order or other means) government agencies, private sector companies and community groups to adopt and implement relevant activities identified in the NCD Strategic Plan
Lifestyle	(See strategic objectives and activities under Risk Factors subsection)
Clinical	Collaborate with health care community to establish and strengthen partnerships between patients, families and community health centers in implementing the activities identified in the NCD Strategic Plan
Advocacy	Produce and widely disseminate user-friendly versions of evidence-based strategies to reduce NCD burden, such as the “best Buys” for NCD prevention and control Promote and support the NCD Strategic plan through a NCD prevention and control advocacy campaign
Surveillance, Monitoring and Evaluation	Add on a question to measure awareness of and support for the NCD Strategic Plan in existing NCD surveys, such as BRFSS, YRBS and/or WHO STEPs

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Strategic Objective E-2: Create a health-promoting environment by adopting at least 3 evidence-based approaches that improve the environment in relation to physical activity and nutrition across all American Samoa government (ASG) agencies by 2018.

Indicators:

1. Government wellness policy/plan established
2. Participation rate of Government employees in worksite wellness programs
3. Percentage decrease in employee absenteeism
4. Number of worksites with a worksite wellness policy
5. Number of villages with a fruit and vegetable garden.
6. Number of schools/workplaces offering healthier snacks and sugar-free drinks
7. Percentage of schools with clean and safe drinking water

Baseline: To be established

Target date for implementation: 2013-2018

Lead agency/stakeholder: American Samoa Department of Health, ASCC Land Grant, Department of Education, Community coalitions

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Create a worksite wellness policy for all Government agencies, starting with the Executive branch. Establish pilot community fruit and vegetable gardens in villages. Strengthen daily physical activity program in combination with nutritional program in DOE curriculum. Increase access to healthier snacks and sugar-free drinks in school canteens and ASG workplaces. Ensure all schools have access to clean and safe drinking water.
Lifestyle	Implement worksite physical fitness/wellness programs in all Government agencies.
Clinical	Incorporate clinical screening for hypertension and diabetes within worksite wellness programs.
Advocacy	Advocate and promote worksite wellness programs to agency leadership, human resource departments and to the workforce.
Surveillance, Monitoring and Evaluation	Monitor absenteeism rates before and after implementation of workforce wellness programs in government agency human resource records. Monitor overall prevalence of NCD risk factors and diseases before and after implementation of workforce wellness programs in existing NCD surveillance systems. Include a question to measure awareness of and support for the worksite wellness program in existing Government workforce surveys.

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Strategic Objective E-3: By 2018, increase the number of safe and pollution-free neighborhoods through local initiatives and enforcement of existing environmental policies by 10% from baseline.

Indicators:

1. Number of annual village clean-ups increased
2. Number of villages removed from the boil water list
3. Number of villages with functioning sewer lines increased
4. Animal control program implemented
5. Littering laws enforced; revenues from fines channeled back to NCD prevention activities

Baseline: to be established

Target date for implementation: 2013-2018

Lead agency/stakeholder: DOH, EPA, ASPA, DPS, DOE, Office of Samoan Affairs, House of Representatives, Faith-based Organizations, Community Coalitions (Multisectoral).

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Mobilize and train enforcement staff on pollution and littering laws and regulations, enforcement procedures, penalties and fines. Advocate for earmarking a portion of revenues from littering fines to support NCD prevention activities.
Lifestyle	Partner with Samoan Affairs, Faipules, Churches and other village entities to enforce and maintain regular village clean-ups.
Clinical	
Advocacy	Utilize media advocacy to raise awareness on the importance of creating safe environments to promote healthy lifestyles. Advocate with relevant stakeholders and decision makers to facilitate land rights and licenses for villages to access the ASPA sewer line. Advocate with relevant agencies to develop an implementation strategy for the stray animal control program.
Surveillance, Monitoring and Evaluation	Incorporate the indicators listed above into a monitoring framework to assess progress.

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Environmental

Risk factors

Diseases

Strategic Objective L-1: Reduce smoking prevalence by 10% by 2018.

Indicator: Reduction in youth and adult smoking prevalence

Baseline:

- Adult current smoking prevalence = 39.4% (WHO STEPs, 2007)
- Adult current smoking prevalence = 22% (2012 BRFSS)
- Youth current smoking prevalence = 16% (2011 YRBS)

Target date for implementation: 2013-2018

Lead agency/stakeholder: American Samoa Legislature and tobacco control/NCD coalitions

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Increase tobacco tax by \$1.00/pack, with a corresponding increase in tax for other tobacco products. Strictly enforce American Samoa Smoke-free Environment Act. Enforce tobacco vendors' compliance to tobacco law.
Lifestyle	Promote tobacco-free youth events (such as sports events, physical activities) and provide youth with healthy alternatives to tobacco use.
Clinical	Incorporate tobacco cessation interventions at all levels of clinical care and promote referrals to the appropriate level of care. Promote referrals to and utilization of the DOH Tobacco QUITLINE. Integrate tobacco cessation into SBIRT ((Screening Brief Intervention Referral Treatment-DHSS). Ensure that tobacco use screening and brief advice are part of the prenatal care for all pregnant women. At the primary care level, offer brief tobacco cessation interventions for all clinical encounters. Include nicotine patches for smokers who want to quit. Train all primary health care workers in brief tobacco cessation interventions.
Advocacy	Sustain and expand health education and outreach on the harmful effects of tobacco use and the benefits of quitting. Enforce smoke free laws by placing signs in all schools and workplaces.
Surveillance, Monitoring and Evaluation	Monitor adult and youth smoking and other tobacco use prevalence in existing NCD surveillance systems (BRFSS, YRBS, GYTS, WHO STEPs, Community Lifestyle Survey).

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Strategic Objective L-2: Reduce binge drinking and underage drinking for both adult and youth by 10% by 2018.

Indicator:

1. Reduction in adult heavy and binge drinking prevalence by 10% from baseline.
2. Reduction in current and binge drinking among high school youth by 10% from baseline.

Baseline:

1. Heavy drinking, adults: 3.0% (WHO STEPs, 2007)
2. Binge drinking, males, adults: 43.9% (WHO STEPs, 2007); females, adults: 33.5% (WHO STEPs, 2007)
3. Current drinking, high school students: 22.8% (YRBS, 2011)
4. Binge drinking, high school students: 14.3% (YRBS, 2011)

Target date for implementation: 2013-2018

Lead agency/stakeholder: American Samoa Legislature and tobacco control/NCD coalitions.

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Explore increasing alcohol tax. Enforce existing restrictions in retail access of alcohol products by limiting the hours during which alcohol products can be sold. Prohibit alcohol company sponsorship of youth events, physical activity events, and other health-related activities. Strictly enforce existing alcohol-related legislation in American Samoa. Promote existing and/or Implement a community night watch by coalitions and Aumaaga to ensure that alcohol-related incidents are prevented.
Lifestyle	Host youth alcohol-free events (sports and physical activities) to promote healthy alternatives to drinking alcohol. Promote and/or continue to implement Evidence Based Programs (EBPs) such as Strengthening Samoan Families and Life Skills Training by the Substance Abuse Community Coalitions, for young children and their families.
Clinical	Incorporate alcohol cessation screening and counseling (SBIRT) at all levels of clinical care and promote referrals to the appropriate level of care. Ensure that alcohol screening and brief advice are part of the prenatal care for all pregnant women. At the primary care level, ensure that alcohol screening/SBIRT is conducted for all clinical encounters. Train all primary health care workers in alcohol screening and brief interventions (SBIRT). Establish culturally relevant intensive alcohol counseling and detox programs, such as the Alcoholic Anonymous (AA) program.
Advocacy	Implement an advocacy campaign on the harmful effects and consequences of alcohol abuse.
Surveillance, Monitoring and Evaluation	Monitor adult and youth current alcohol consumption, binge drinking and heavy drinking in existing NCD surveillance systems (BRFSS, YRBS, WHO STEPs, Community Lifestyle Survey).

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Strategic Objective L-3: By 2018, reduce obesity among children aged 0-5 years by 10%.

Indicator: Reduced prevalence of obesity among children aged 0-5 years by 10% from baseline

Baseline: Obtain MCH and WIC data as baseline

Target date for implementation: 2013-2018

Lead agency/stakeholder: DHSS WIC, DOH, LBJ, DOE

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Endorse workplace policy establishing breastfeeding areas in all workplaces. Advocate for adoption of Baby Friendly policies in the Nursery and Maternity Ward, WIC program, etc. Establish a healthy vending machine policy in schools. Formulate and implement a healthy canteen policy for all schools.
Lifestyle	Promote Healthy People Guidelines amongst families and young adults considering becoming parents. Promote love for play and being active for thirty – sixty minutes minimum. Promote decreasing screen time. Promote drinking water, 2% milk and decrease sugary beverages. Promote adequate sleeping time up to eleven hours (including nap time).
Clinical	Promote breastfeeding for all newborns. Review and reinforce the implementation of Well Baby Clinic (WBC) policies. Promote fluoride supplementation/application in all WBCs. Reinforce monitoring of weight at all WBC visits, WIC offices, and refer all overweight/obese children for nutrition counseling.
Advocacy	Reinvigorate mass media campaign for good nutrition and breastfeeding. Aggressively promote “Baby Friendly” policies, including exclusive breastfeeding in the first 6 months.
Surveillance, Monitoring and Evaluation	Monitor child overweight/obesity prevalence through improved data collection at WBCs and WIC program and require monthly data reporting to HIS.

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Strategic Objective L-4: By 2018, reduce adult overweight/obesity prevalence by 5%.

Indicator:

1. Reduced prevalence of overweight/obesity among adults from 93.5% to 88.5%
2. Reduced prevalence of obesity among adults from 74.6% to 69.6%

Baseline:

1. Adults who are overweight or obese: 93.5% (WHO STEPs, 2007)
2. Adults who are obese: 74.6% (WHO STEPs, 2007)

Target date for implementation: 2013-2018

Lead agency/stakeholder: DHSS

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Advocate for more outdoor facilities available for recreational activities. Advocate for more safe walking pathways and adequate streetlights. Promote the “walking school bus” for the entire Territory. Support policies to address stray or unleashed dogs, so that streets are safe for pedestrians. Promote the use of local produce. Urge the Governor to endorse executive order for Wellness Programs in govt. agencies.
Lifestyle	Promote Healthy People Guidelines for families and young adults considering becoming parents. Promote love for play and being active for 20 minutes with moderate to vigorous exercise, at a minimum, daily (150 min/week). Promote decreasing screen time. Promote drinking water, 2% milk and decrease sugary beverages. Promote adequate sleeping time up to 7-8 hours. Promote 5 a day!
Clinical	Promote annual physical check-ups for adults in primary clinics and during outreach activities in villages. Ensure every adult knows his or her BMI. Promote health fairs in the villages and promote nutrition and physical activity. Monitor weight at all clinics and during outreach and refer all overweight/obese adults for nutrition and physical activity counseling.
Advocacy	Develop and disseminate a mass media campaign to promote overall wellness. (Guideline: Institute of Medicine for Healthy Communities)
Surveillance, Monitoring and Evaluation	Support data collection for BRFSS, YRBS, Nutrition Survey, Vital Statistics and DOH HIS, Future STEPS Survey, ASCC Wellness Center.

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Strategic Objective L-5: Promote healthy eating for all residents of American Samoa by 2018.

Indicator: Increased percentage of adults and youth consuming at least 5 servings of fresh fruits and vegetables daily.

Baseline:

1. Daily consumption of at least 5 servings of fresh fruits and vegetables – Adults 13.7% (WHO STEPs, 2007)
2. Ate fruit less than once a day – high school students: 40.0% (YRBS, 2011)
3. Ate vegetables less than once a day – high school students: 36.0% (YRBS, 2011)

Target date for implementation: 2013-2018

Lead agency/stakeholder: DHSS and NCD stakeholders

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Establish incentives for local farming. (Suggested examples: tax credits for local farmers, establishment of local farmers' markets, mandating all local supermarkets to carry local produce) Create healthy nutrition policies for American Samoa government agencies. For example, require workplace canteens to offer healthy options for all meals; and ensure that vending machines dispense water and 100% juice and healthy snack options. Promote family/community gardening through land grants. Legislate import restrictions and/or increased import taxes on unhealthy food products such as turkey tails and lamb flaps.
Lifestyle	Incorporate healthy foods with more vegetable and fruit selections at home and in social gatherings. Promote decrease in daily salt and sugar intake.
Clinical	Monitor weight screening at all health center visits and refer all overweight/obese individuals for nutrition counseling and weight control classes.
Advocacy	Reinvigorate mass media campaign for good nutrition and breastfeeding. Aggressively promote "baby Friendly" policies, including exclusive breastfeeding in the first 6 months.
Surveillance, Monitoring and Evaluation	Monitor proportion of the population consuming at least 5 servings of fresh fruits and vegetables daily through existing NCD surveillance mechanisms.

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Strategic Objective L-6: By 2018, increase physical activity level across the population.

Indicator: Increase in median time engaged in physical activity per day.

Baseline:

1. Median time spent in physical activity per day, adults: 12.9 minutes
2. Physically active for at least 60 minutes per day in the last 7 days, high school students: 86.2% (YRBS, 2011)

Target date for implementation: 2013-2018

Lead agency/stakeholder: Government agencies and NCD stakeholders

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Adopt a physical activity policy for all schools requiring 30 minutes of exercise daily. Provide worksite exercise opportunities as a part of an over-all worksite wellness program for both government and private sector workplaces. Establish American Samoa government properties as multipurpose facilities to support fitness activities and events. Fully enforce the stray animal policy.
Lifestyle	Incorporate physical activity opportunities into village and church events and other community events.
Clinical	Expand exercise and physical activity programs in Community Health Centers. Create links between clinical programs for NCD and community physical activity opportunities.
Advocacy	Identify and recruit popular government, faith-based and traditional leaders to spearhead an American Samoa physical fitness advocacy campaign. To support the creation of a community "Train the Trainers" program for all age groups in physical fitness advocacy.
Surveillance, Monitoring and Evaluation	Monitor median time spent on physical activities daily for the entire population through existing NCD surveillance mechanisms. BRFSS, YRBS, STEPS

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Strategic Objective C-1: By 2018, increase screening rates for breast, cervical, colon and prostate cancer by 25%.

Indicator: Increased utilization of evidence-based screening methods (i.e. mammogram, clinician breast exam, Pap smear, fecal occult blood test, etc.) in available areas within the recommended target population.

Baseline:

Target date for implementation: 2013-2018

Lead agency/stakeholder: NCD Coalition TSC Clinical, ASCCC, ASBCCEDP, ASCCCP, LBJ, AS Medicaid Office

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Increase access to cancer screening and management in all clinics within the Department of Health.
Lifestyle	Promote full implementation of lifestyle interventions designed to reduce the prevalence of cancer risk factors.
Clinical	<p>Use the best available technology to ensure timely diagnosis (i.e. digital mammography, telemedicine, etc.)</p> <p>Promote utilization of electronic health records (CPRS or new system) by all clinicians, and include mandatory fields related to cancer screening (i.e. reminder system), and provision of brief tobacco cessation advice.</p> <p>Improve Capacity building of clinicians and nurses on providing uniform and systematic standard of care and management for cancer screening.</p> <p>Develop a CME curriculum that adequately covers malignancy and screening based upon screening trends.</p> <p>Strengthen laboratory capacity through available trainings.</p>
Advocacy	Promote cancer prevention mass media campaigns.
Surveillance, Monitoring and Evaluation	<p>Strengthen the Health Information Systems (HIS) to provide periodic reports.</p> <p>Maintain capacity of the cancer registry.</p>

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Strategic Objective C-2: By 2018, 70% of diabetic and hypertensive patients will have their conditions under control based upon accepted guidelines.

(Note: Hypertension is actually a metabolic risk factor but is included under the clinical interventions because the specific actions mostly occur in the clinical setting. Combined management of diabetes and hypertension is considered a cost-effective intervention under PEN.)

Indicators:

- Percentage of diagnosed hypertensive patients with controlled BP at least 70%
- Percentage of diagnosed diabetics with controlled blood sugar at least 70%

Baseline:

Percentage of the population with increased blood pressure (SBP \geq 140 mm Hg and/or DBP \geq 90 mmHg) = 34.2%

Percentage with raised blood glucose = 47.3%

Target date for implementation: 2013-2018

Lead agency/stakeholder: Clinical services and NCD Program

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Promote the use of DOH Health clinics for diabetes management and control. Provide safe and supportive built environments that allow patients to manage and control their disease.
Lifestyle	Promote education and guidance in nutrition and physical activity to better control patients that are currently hypertensive and diabetic. Encourage focus groups/or buddy system to get people screened.
Clinical	Promote screening at the Community Health Centers (such as cancer) Increase access to diabetes and hypertension screening and management. Improve collaboration of all outreach programs with PHC providers and clinicians in all DOH Health Centers, LBJ and VA clinic in management, referral and tracking of clients. Promote breastfeeding in WBCs. Improve Capacity building of clinicians and nurses on providing uniform and systematic standard of care and management for Diabetic and Hypertensive patients. Take advantage of social media Use the best available technology to diagnosis and treat hypertensive and diabetic patients.
Advocacy	Promote hypertension and diabetes prevention mass media campaigns.
Surveillance, Monitoring and Evaluation	Monitor hypertension and diabetes prevalence through existing surveillance mechanisms. Use electronic health record. Consider conducting a mini-STEPs survey in between STEP's implementation to better track prevalence trends.

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Clinical Notes for Strategic Objective C-2:

Screening for Type 2 diabetes:

- Consider in children and adolescents who are overweight and have two or more additional risk factors for diabetes:
 - Family history of type 2 diabetes in first or second degree relative
 - Race/ethnicity (Pacific Islander, Asian American)
 - Signs of insulin resistance or conditions associated with insulin resistance
 - Acanthosis nigricans
 - Hypertension
 - Dyslipidemia
 - Polycystic ovary syndrome
 - Small for gestational age birth weight
- Adults of any age who are overweight or obese with one or more additional risk factors for diabetes
- Adults age 45 or older who are overweight with no additional risk factors

Clinical parameters:

	Hemoglobin A1c (HbA1c)	Fasting blood glucose (FBG)
Prediabetes	5.7-6.4%	100 mg/dL to 125 mg/dL
Diabetes	≥ 6.5%	≥ 126 mg/dL

Clinical monitoring guidelines:

- Blood Pressure every visit.
- HbA1c every 3 to 4 months.
- Home glucose monitoring if available.
- Lipid profile every 6 to 12 months.
 - Total Cholesterol, Triglyceride, High Density Lipoprotein (HDL), Low Density Lipoprotein (LDL)
- Check pedal pulses at least every 6 months.
- Dilated ophthalmologic exam annually.
- Check for peripheral neuropathy every 6 months.
 - Use a monofilament.
- Creatinine every 6 months if on metformin, or at least annually.
- Urine microalbumin annually.
- Estimated glomerular filtration rate (eGFR) using the abbreviated Modification of Diet in Renal Disease Study (MDRD) equation every 6 months or more frequent for someone with chronic kidney disease.

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Treatment goals**:

- FBG 80 to 130 mg/dL.
- 2 Hour postprandial <180 mg/dL.
- HbA1c <7.0%.
- Blood pressure <140/80 mmHg.
- LDL cholesterol <100 mg/dL.
- Smoking cessation for all tobacco users.
- Consider daily aspirin (75-162 mg per day).
- Add ACE inhibitor.
- Immunize annually for Influenza for all patients \geq 6 months of age.
- Administer Pneumococcal vaccine to all diabetics \geq 2 years of age.
- Adults should be advised to perform at least 150 min/week of moderate intensity aerobic physical activity (50-70% of maximal heart rate).
 - Adults should be encouraged to perform resistance training at least twice weekly if no contraindications.
- All children and should be encouraged to engage in at least 60 minutes of physical activity each day.

**Above recommendations taken from Diabetes Care volume 36, supplement 1 January 2013

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Strategic Objective C-3: By 2018 reduce the prevalence of comorbidities of CVD's by 5%.

Indicator: Decreased incidence of strokes, heart attack (acute myocardial infarction)

Baseline: Raised CVD risk: 69.2% (25-44 years); 76.7% (45-64 years)

Target date for implementation: 2013-2018

Lead agency/stakeholder: Clinical services and NCD Program

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Establish a health care policy such as the Package of Essential NCD (PEN) Interventions recommendations in all Community Health Centers. Educate public on early recognition of CVD (PVD's, Stroke, Heart Attack, etc.) symptoms.
Lifestyle	Promote full implementation of lifestyle interventions designed to reduce the prevalence of CVDs such as the Institute of Healthcare Improvement (IHI) Million Heart's Initiative.
Clinical	Educate providers on the importance of CVD management and screening with an emphasis on early screening starting on the pediatric population carrying on through adult-hood. Educate patients on the importance of maintaining their drug regimen (medication compliance). Promote utilization of electronic health records by all clinicians, and include mandatory fields related to CVD risk screening. Increase availability of training and updating capacity of health care providers for patient management. Develop a CME curriculum that adequately covers CVD management and screening based upon screening trends. Increase availability of essential pharmaceutical supplies, by prioritizing procurement of core list of medicines required for implementing PEN. Develop Territorial Laboratory capacity (i.e. appropriate training for technicians) to assess CVD risk by prioritizing the acquisition of essential technologies and tools for implementing PEN.
Advocacy	Promote CVD risk reduction and prevention mass media campaigns to increase education and knowledge of chronic disease, and its prevention. Use community health workers for home visit program to educate clients on CVD risk reduction. Maintain specific level of funding for CVD medications. Increase ASCC Capacity to include, at a minimum, certificate courses for all staff related to tertiary care.
Surveillance, Monitoring and Evaluation	Monitor CVD prevalence through existing surveillance mechanisms, including LBJ data. Consider conducting a mini-STEPs survey in between STEP's implementation to better track prevalence trends.

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NCD Prevention & Control

Clinical Notes for Strategic Objective C-3:

Treatment goals**:

- Control diabetes as above (see clinical notes for Strategic Objective C-2).
- Maintain blood pressure <140/80.
- Reduce LDL cholesterol to less than 100 mg/dL.
 - Reduce to less than 70 mg/dL in presence of atherosclerotic cardiovascular disease (ASCVD).
 - Coronary Artery Disease
 - Peripheral vascular disease
- Provide brief cessation advice and smoking cessation interventions for all tobacco users.
 - Counseling
 - Nicotine patches or gum
 - Bupropion

**Above recommendations taken from Diabetes Care volume 36, supplement 1 January 2013

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NCD Prevention & Control

Strategic Objective C-4: By 2018 decrease the incidence of patients progressing to End Stage Renal Disease (ESRD) (Stage 5) by 10%.

Indicator: Reduced incidence (new patients) of patients requiring dialysis for end stage renal failure from diabetes or hypertension

Baseline: Annual incidence of end stage renal disease requiring dialysis = 100 patients/year
Number of dialysis patients in 2010: 1127

Target date for implementation: 2013-2018

Lead agency/stakeholder: Clinical services and NCD Program

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Improve laboratory capacity to diagnose renal disease (EGFR). Establish a health care policy adopting PEN recommendations in all Community Health Centers.
Lifestyle	Promote full implementation of lifestyle interventions designed to reduce the prevalence of CVDs.
Clinical	Aggressively implement clinical interventions (e.g. ace inhibitor use) to reduce diseases that result in chronic kidney disease (i.e. diabetes, hypertension, gout, etc.). Incorporate education for physicians on renal disease and its prevention in CME.
Advocacy	Promote CVD risk reduction and prevention of chronic renal disease in mass media campaigns. Educate patients on what they can do to avoid chronic renal disease (e.g. medication compliance for blood pressure and blood glucose control). Advocate for health in all policies.
Surveillance, Monitoring and Evaluation	Establish baseline data for ESRD incidence. Monitor renal failure prevalence through existing surveillance mechanisms, including LBJ data. Consider conducting a mini-STEPs survey in between STEP's implementation to better track prevalence trends or risk factors for end stage renal disease.

Clinical Notes for Strategic Objective C-4:

Treatment goals**:

- Optimize glucose control.
 - FBG - 80 to 130 mg/dL
 - 2 hour postprandial <180 mg/dL
 - HbA1c <7.0%
- Optimize blood pressure control.
 - Blood pressure <140/80 mmHg
- Measure serum creatinine at least annually.
 - Use creatinine to estimate GFR (MDRD).
 - Stage the level of chronic kidney disease (CKD).

▪ Stage I	GFR \leq 90 mL/min/1.73m ²
▪ Stage II	60-89 mL/min/1.73m ²
▪ Stage III	30-59 mL/min/1.73m ²
▪ Stage IV	15-29 mL/min/1.73m ²
▪ Stage V	\leq 15 mL/min/1.73m ² or dialysis
- Add an ACE inhibitor or ARB to slow progression of proteinuria.
 - Monitor serum creatinine and potassium levels.
 - Continue to monitor urine albumin excretion to assess response to treatment or progression of disease.
- Evaluate and manage potential complications when eGFR <60 mL/min/1.73m².
- Minimize or avoid the use of NSAIDs in CKD.

**Above recommendations taken from Diabetes Care volume 36, supplement 1 January 2013

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NCD Prevention & Control

Strategic Objective C-5: By 2018 reduce the progression of rheumatic fever to rheumatic heart disease by 20%.

Indicator: Reduced incidence of children with rheumatic fever who develop echocardiographic findings of heart valve damage or clinical signs of heart failure.

Baseline: 165 children <17 years identified with rheumatic fever, currently 66% have progressed to rheumatic heart disease. (Prevalence 9 per 1,000; incidence 2.6 per 1000 new cases/year; mortality rate 11 per 100,000 per year among pediatric patients in American Samoa)

Target date for implementation: 2013-2018

Lead agency/stakeholder: Clinical services and NCD Program

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Establish and implement a policy to increase knowledge and recognition of rheumatic fever among clinicians and the community at large.
Lifestyle	Promote hygienic skin care and sleeping practices, limit shared utensils, promote hand washing to limit spread of streptococcal bacteria among the communities in American Samoa.
Clinical	Increase the capacity of physicians and mid-level providers at DOH and LBJ to promptly recognize and treat acute rheumatic fever by Implementing existing Rheumatic Fever and RHD protocols, including training for proper lab work-up and electronic documentation of support for rheumatic fever. Promote thorough cardiac evaluation including auscultation and measurement of PR interval at onset of disease. Build capacity for Radiology personnel to perform echocardiograms.
Advocacy	Raise awareness and knowledge about the importance of treating streptococcal skin and throat infections in a timely (< 9 days) manner to prevent rheumatic fever. Encourage patient/family support groups and educational programs to emphasize importance of continuous (every 3 week) antibiotic administration to prevent progression to rheumatic heart disease.
Surveillance, Monitoring and Evaluation	Develop and keep up-to-date an RHD prophylaxis registry, which is accessible by LBJ and DOH providers. Implement clinician outreach to track down non-compliant families and administer antibiotic prophylaxis to their children. Include RHD as a state performance measure in the MCH Program. Ensure patients undergo clinical evaluation by pediatricians every 4 – 12 months with documentation of cardiac auscultation and blood pressure in the electronic health record. Promote specialist evaluation by a cardiologist every 1-3 years with documentation of expert opinion and echocardiography results in the electronic health record.

Advocacy & Communication

Strategic Objective A-1: Promote advocacy and educational activities to decrease the incidence of patients progressing to End Stage Renal Disease (ESRD) (Stage 5) by 10% by 2018.

Indicator: Increased proportion of population who are aware of their diabetes, high blood pressure and gout states.

Baseline: Annual incidence of end stage renal disease requiring dialysis = 100 patients/year.

Target date for implementation: 2013-2018

Lead agency/stakeholder: LBJ & DOH

Strategic Action Area	Strategic Actions
Environment	Promote healthier food choices and increase water drinking at cultural events. Decrease "food deserts"/increase access to local fruits and vegetables in the territory using interventions identified in the ASCC Land Grant Study.
Lifestyle	Promote drinking water instead of sugary beverages through advocacy and public education campaigns. Promote the use of well-balanced meals such as the USDA "plate" through educational campaigns.
Clinical	Develop patient education campaigns to promote compliance in treatment regimens for hypertensive and diabetic patients. Advocate for increasing consistent renal stage follow-up of NCD related kidney disease patients. Conduct educational campaigns to improve early detection and management of chronic kidney disease.
Advocacy	Improve public education on water intake (i.e. signage, media, "water is life campaign, etc.).
Surveillance, Monitoring and Evaluation	Support advocacy to improve surveillance of NCD's that relate to chronic kidney disease, STEPS 2014.

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NCD Prevention & Control

Strategic Objective A-2: Widely disseminate advocacy and educational activities to reduce the prevalence of diabetes by 5% by 2018.

Indicators: Increase in percentage of population engaging in healthier eating and physical activity
Improvement in population mean BMI based on Pacific Islander BMI scale/SPC BMI Chart.

Baseline:

- Percent of adults consuming < 5 servings of fruits and vegetables/day: 62.1% (STEPS)
- Percent of adults with low levels of physical activity: 61.7% (STEPS)
- Mean population Body-Mass Index (BMI) = 34.9 (Normal: 18.5-25.0)

Target date for implementation: 2013-2018

Lead agency/stakeholder: American Samoa Government, Legislature, Coalitions, DOE, and private business sector (GHC Reid, McDonalds, etc.).

Strategic Action Area	Strategic Actions
Environment	Increase accessibility of clean water at school sites and ban the selling of sweetened beverages on school grounds.
Lifestyle	Establish a healthy eating educational curriculum.
Clinical	Improve diabetes management at all levels of healthcare through a proactive advocacy campaign for health workers and the general public.
Advocacy	Promote increased public awareness and knowledge of healthy eating and increased physical activity. Promote physical activity and wellness at school sites.
Surveillance, Monitoring and Evaluation	Support data collection for the Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Survey (YRBS), STEPs 2014.

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NCD Prevention & Control

Strategic Objective A-3: Implement advocacy and educational outreach designed to reduce the number of adult smokers (18-65) by 10% by 2018.

Indicator: Decreased smoking prevalence

Baseline: Current smoking, adults: 39.4% (STEPS)

Target date for implementation: 2013-2018

Lead agency/stakeholder: American Samoa Government, Legislature, Coalitions, etc.

Strategic Action Area	Strategic Actions
Environment	Protect non-smokers through enforcement of American Samoa Smoke-Free Environment Act.
Lifestyle	Reduce high levels of exposure of non-smokers to second and third hand smoke at indoor and public places through educational and awareness campaigns.
Clinical	Advocate for the establishment of tobacco cessation interventions at clinics and health centers.
Advocacy	Mobilize support for increasing the excise tax on tobacco products by \$1.00/pack of cigarettes and corresponding levels on other tobacco products. Develop and disseminate a smoke-free media campaign
Surveillance, Monitoring and Evaluation	Support data collection for the Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Survey (YRBS), STEPS 2014.

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NCD Prevention & Control

Strategic Objective A-4: By December 2013, distribute the NCD plan to all members of the NCD Coalition.

Indicators: Distribution list of NCD plans given to community stakeholders, DOH personnel, and external regional partners

Number of quarterly community events conducted to advocate for NCD plan

Baseline: 0 NCD Plans have been distributed

Target date for implementation: December 2013

Lead agency/stakeholder: NCD Coalition/Advocacy and Communication Territorial Subcommittee

Strategic Action Area	Strategic Actions
Environment	Advocate for awareness of the environment effects of NCDs in the territory.
Lifestyle	Advocate and mobilize population support for lifestyle behavior changes that will influence healthier decisions and reduce risk factors that contribute to NCDs.
Clinical	Collaborate with medical community to establish and strengthen partnerships between patients, families and community health centers in reducing NCD burden.
Advocacy	Translate and advocate for widespread adaptation and adoption of evidence-based strategies in daily/common use language that is easy to understand and implement.
Surveillance, Monitoring and Evaluation	Implement Surveys/Questionnaires to measure knowledge and understanding of NCD plan.

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NCD Prevention & Control

Strategic Objective A-5: By December 2014, develop evidence based wellness policy for all ASG Employees.

Indicator: Percentage of Government employee participation in wellness programs

Decrease in employee absenteeism and increase in productivity

Baseline: 0

Target date for implementation: By December 2014

Lead agency/stakeholder: NCD Coalition/Advocacy and Communication Territorial Subcommittee

Strategic Action Area	Strategic Actions
Environment	Collaborate with DOA on stray dog control to make streets safer for pedestrians. Advocate for paving more sidewalks to increase physical activity.
Lifestyle	Implement physical fitness programs (i.e. zumba, taebo, yoga, hothula, etc.) within the Government.
Clinical	Promote early detection of clients at high risk of developing NCD's.
Advocacy	Showcase evidence based success stories on wellness programs in workplaces. Promote for the strategic use of employee incentives (i.e. paid time off, travel, health promotional items, paid medication, etc.) to boost morale and increase the motivation to participate in worksite wellness activities.
Surveillance, Monitoring and Evaluation	Call for incorporating into existing surveillance systems the collection of data on short to mid-term indicators of improvements in NCD prevention and control such as decreases in work and school absenteeism and increase in productivity, as well as cost savings in medication and healthcare costs.

Monitoring and surveillance: DATA

Goal: Implement and maintain a systematic process that provides reliable data to achieve the goals and objectives within the NCD Plan.

Strategic Objective D-1: By December 2013, develop an annual evaluation plan to monitor progress in implementing the NCD Strategic Plan.

Strategic Objective D-2: By 2018, ensure that all relevant data related to risk factors are available and used to make decisions by all NCD stakeholders.

Strategic Objective D-3: By 2018, ensure that all relevant data related to NCD morbidity and mortality are available and used to make decisions by all NCD stakeholders.

Strategic Objective D-4: By 2018, strengthen public health surveillance system for NCDs.

Indicators:

1. Written Evaluation Plan developed and endorsed by all NCD partners.
2. Data on key NCD risk factors publicly available
3. Data on NCD morbidity and mortality publicly available
4. NCD surveillance mechanism with trend data for at least 3 data collection points in place

Baseline: TBD

Target date for implementation: 2013-2018

Lead agency/stakeholder: NCD Territorial Subcommittee Monitoring and Surveillance

Strategic Actions:

Strategic Action Area	Strategic Actions
Environment	Develop a village-based assessment to identify resources available and needed to support healthy living. Assess media campaigns/messages that are related to reducing the NCD burden.
Lifestyle	Support the addition of modules and added questions to the annual Behavioral Risk Factor Surveillance Survey (BRFSS). Support the implementation of the Youth Risk Behavioral System (YRBS) every 2 years. Support current NCD disease related databases/registries (i.e. Cancer, Diabetes, etc.). Partner with the Territorial Epidemiological Workgroup (TEOW) focusing on substance abuse (i.e. alcohol, tobacco, and other drugs). Support the planning and implementation of a territorial STEPS survey.

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Strategic Action Area	Strategic Actions
Clinical	Partner with DOH Community Health Centers, Manu'a Dispensaries, and LBJ Tropical Medical Center to access and utilize Electronic Medical Records (EMR) data.
Advocacy	Develop an assessment of the financial burden of NCD's. Identify gaps in the current surveillance system and the resources needed to gain a comprehensive understanding of the NCD's; prioritize needs for addressing gaps. Use currently available information such as the <i>Health Information System Assessment: Plan and Implementation Strategy</i> (Settimi, 2012).
Surveillance, Monitoring and Evaluation	Develop evaluation capacity (i.e. framework, logic models, etc.) and identify a Monitoring and Surveillance workgroup comprised of NCD Coalition members/partners. Identify new data resources as needed to monitor implemented strategies.

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NCD Prevention & Control

Annex 1: House Concurrent Resolution No. 33-4 – A House Concurrent Resolution Bringing Awareness to the Significant Public and Economic Threat those Non-Communicable Diseases (NCDs) Pose to the People and Territory of American Samoa, with the Goal of Promoting a Healthy Environment and Lifestyle to Mitigate the Consequences of NCDs in American Samoa



**THE THIRTY-THIRD LEGISLATURE
SECOND REGULAR SESSION**

H.C.R. NO. 33-04

HOUSE CONCURRENT RESOLUTION

A HOUSE CONCURRENT RESOLUTION BRINGING AWARENESS TO THE SIGNIFICANT PUBLIC AND ECONOMIC THREAT THOSE NON-COMMUNICABLE DISEASES (NCDs) POSE TO THE PEOPLE AND TERRITORY OF AMERICAN SAMOA, WITH THE GOAL OF PROMOTING A HEALTHY ENVIRONMENT AND LIFESTYLE TO MITIGATE THE CONSEQUENCES OF NCDs IN AMERICAN SAMOA.

WHEREAS, a Non-communicable disease, or NCD, is a medical condition or disease, which by definition is non-infectious and non-transmissible among people; and

WHEREAS, Non-communicable diseases (NCDs) are also known as chronic diseases. There are of long duration and generally slow progression. The four main types of non-communicable diseases are cardiovascular diseases, cancer, chronic respiratory diseases and diabetes; and

WHEREAS, all age groups and all regions are affected by NCDs. Children, adults and the elderly are all vulnerable to the risk factors that contribute to non-communicable diseases which derive from unhealthy diets, physical inactivity, exposure to tobacco smoke, or the effects of the harmful use of alcohol; and

WHEREAS, NCDs have emerged as the major public health challenge in American Samoa. Globalization and urbanization from the western influence has made American Samoa's communities susceptible to tobacco and alcohol use, unhealthy diets, and physical inactivity. According to the World Health Organization (WHO) survey in 2007, nearly all American Samoan adults are overweight or obese (93.5%), close to half have diabetes (47.3%) and more than one-third have hypertension (34.2%). These are among the highest rates in the Western Pacific, and in the world; and

WHEREAS, NCD claim the most number of lives in American Samoa, three of every five deaths are caused by NCDs; and

WHEREAS, the cost of NCD to American Samoa is significant. Direct health care costs are compounded by the need for chronic health care services, including expensive overseas care. This exemplifies the rising demand for dialysis, which has reported a 37% increase in patients from 2001 to 2007, of which

80% to 90% of these patients require dialysis due to complications arising from diabetes; and

WHEREAS, *the American Samoa Department of Health (DOH) established a NCD Committee early in 2013, which is tasked to lead the development and finalization of American Samoa's NCD Prevention and Control Strategic Plan. The plan is to coordinate with bilateral and international partners, the NCD coalition and other stakeholders in ensuring community engagement and buy-in during the planning process, and to oversee and monitor the implementation of the strategic plan; and*

WHEREAS, *the NCD Prevention and Control Committee is united under a vision that states: Healthy American Samoa: health and wellness across the lifespan for all American Samoans. The mission is to promote healthy environments and lifestyles to mitigate the preventable consequences of NCD risk factors and diseases with a goal to reduce the current and future preventable burden of NCDs in American Samoa; and*

WHEREAS, *American Samoa's strategic plan for NCD prevention and control acknowledges and builds upon work that is currently progress. It is established upon these five Key Action areas; 1. Environmental interventions; 2. Promotion of healthy lifestyles; 3. Appropriate clinical services; 4. Advocacy and communication; and 5. Monitoring and surveillance; and*

WHEREAS, *the American Samoa Strategic Plan is custom-designed for the local situation while being consistent with existing global and regional NCD action plans. The objective is to ensure the widespread awareness and acceptance of the NCD strategic plan throughout all of American Samoa; and*

WHEREAS, *American Samoa has already begun the process to halt the progression of NCD and its adverse health and socioeconomic consequences in order to fuel a journey away from NCDs and towards a healthier future for American Samoa. It is in the best interest of the people and Territory of American Samoa to heed the call to action.*

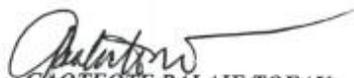
NOW, THEREFORE, BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE TERRITORY OF AMERICAN SAMOA, THE SENATE CONCURRING:

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NCD Prevention & Control

THAT, the Legislature of American Samoa, heeds the call to bring awareness to Non-communicable diseases and the adverse consequences to the people and Territory of American Samoa; and

BE IT FURTHER RESOLVED, that the Chief Clerk of the House of Representatives is requested to transmit this concurrent resolution to the Honorable Lolo M. Moliga, Governor of American Samoa; and copies to Motusa Tuileama Nua, Director of the Department of Public Health, and Dottie Siavi'i, Department of Health, NCD Coordinator.


GAOTEOTE PALAIE TOFAU
President of the Senate


SAVALI TALAVOU ALE
Speaker, House of Representatives

NOFOA'IGA TOLUSEFULU-TOLU
FONO TELE LONA LUA

I.M.F.M.S. NU. 33-04

I'UGAFONO MALILIE FA'ATASI MAOTA O SUI

O SE I'UGAFONO MALILIE FA'ATASI A LE MAOTA O SUI INA IA NOFOUTA AI LE MAMALU LAUTELE I LE AAFIAGA TAU LE TAMAOAIGA O TAGATA MA LE TERITORI ONA O GASEGASE LE PIPISI MA LE SINI INA IA MAUA SE SI'OMAGA MA AGA SOIFUAMALOLOINA LELEI INA IA FO'IA AI AAFIAGA E ALIALI MAI ONA O GASEGASE LE PIPISI I AMERIKA SAMOA.

TALUAI, *o se gasegase le pipisi, poo le NCD, o se tulaga tau falemai poo se faamai foi, lea e faauigaina e le pipisi ma le fe'avea'ia foi i le vā o tagata; ma*

TALUAI, *o gasegase ia, e ta'ua foi o gasegase faifaipea. E faaumiumi ma alualu malie. O ituaiga autu e 4 o gasegase nei e i ai gasegase tau le fatu, kanesa, gasegase e i ai le sela ma le suka; ma*

TALUAI, *ona e aafia soo se tupulaga ma vaega uma o le atunuu i gasegase nei. O tamaiti, tagata matutua ma matua tausī e ono lamatia uma lava i aga e faaono oo ai ina maua i gasegase le pipisi e mafua mai i taumafa e le tusa ai ma le tausiga o le soifuamaloloina, o le lē gaoioi, aafia i le asu o le tapaa, poo le faaoga foi e le tusa ai o le 'ava malosī; ma*

TALUAI, *o gasegase nei ua tulai mai ai se luitau tele tau le soifuamaloloina i Amerika Samoa. O tū ma aga mai fafo atoa ai ma le gasolo mai mau i tua i le taulaga, ua aliali mai ai amioga ia ua lamatia ai le soifuamaloloina o Amerika Samoa. E tusa ai ma suesuega a le Faalopotopotoga o le Soifuamaloloina a le Lalolagi (WHO) i le 2007, o le 93.5% o tagata matutua o Amerika Samoa ua lapopo'a tele, e latalata i le 'afa o latou ia poo le 47.3% ua maua i le suka, ae 34.2% ua maua i le toto maualuga. O nisi nei o fuainumera aupito sili ona maualuga i le Pasefika i sisifo ma le lalolagi; ma*

TALUAI, *o gasegase nei ua aupito tele tagata maliliu ai i Amerika Samoa, afai e toalima tagata maliliu, o le to'atolu e mafua ona o gasegase nei e le pipisi; ma*

TALUAI, *e matua tele lava le tupe e alu i gasegase nei o NCD. O le tau sa'o lava ia o le tausiga o le soifuamaloloina, ua taugata atili ai pe a tuufaatasī ma auauunaga faifaipea e pei moomia mo gasegase ia, e aafia ai ma le tausiga i fafo. Ua fai ai lea ma faataitaiga i le tupu pea o le mana'oga mo le faamamaina o le toto, lea ua lipotia mai se faaopoopoga e 37% mai le*

2001 e oo i le 2007, ma o le 80 i le 90% o ia gasegase e mafua mai ona faamama toto ona o le ma'i suka; ma

TALUAI, o le 2013 na faavae ai e le Matagaluega o le Soifuamaloloina (DOH) se Komiti a le NCD, lea ua tuu i ai le galuega e ta'ita'ia le atina'e ma le faamae'aina o se Fuafuaga mo le Puipuia ma le Pulea Lelei o Gasegase le pipisi. O le fuafuaga ina ia galulue faatasi ma pa'aga voavaalua faapena foi pa'aga faalevaomalo, o le vaega a le NCD ma isi foi e aafia uma i lenei mataupu ina ia mautinoa le auai ai i le faagasologa o fuafuaga, ma ta'ita'ia ma vaaia le faagaoioia o le fuafuaga taua lenei; ma

TALUAI, e tuufaatasia le Komiti o le Puipuia ma le Pulea lelei o le NCD i lalo o se vaaiga e faapea: Amerika Samoa Soifuamaloloina lelei: soifuamaloloina ma le soifua manuia mo tagata uma o Amerika Samoa. O le savali ina ia una'ia se si'omaga soifuamaloloina ma ni tū e soifua ai ina ia foia ai aafiaga e po'iagofie ai ma le faamoemoe ina ia faamāmā ai le avega e mafai lava ona taofia nei ma le humanai mo Amerika Samoa ona o gasegase nei; ma

TALUAI, o le fuafuaga lea i le puipuia ma le pulea o le NCD e faailoa ai ma fausia i luga o galuega o loo faaauau nei. E faavae i luga o gaioioiga autu nei e lima:

1. Fesoasoani atu tau le Siomaga;
2. Una'ia o le soifua ina ia ola maloloina;
3. Auaunaga tata ai i totonu o le falemai;
4. Fautuaga ma fesoootaiga; ma
5. Siakiina pea ma vaaia; ma

TALUAI, o le Fuafuaga a Amerika Samoa e faatatau tonu lava mo le tulaga i totonu lava ia o le lotoifale, ae amana'ia ai foi fuafuaga o loo i ai i le lalolagi atoa foi ma le itulagi lenei. O le faamoemoe ina ia mautinoa ai le faalauaitele o le silafia ma le taliaina o le fuafuaga o le NCD ia Amerika Samoa atoa; ma

TALUAI, ua uma ona amata e Amerika Samoa le faagasologa e taofia ai le tupu pea o gasegase nei atoa ma ona aafiaga le lelei i le soifuamaloloina ma le soifua manuia ina ia tata'isea ai tagata mai le aafia i ia gasegase ae agai atu i se humanai soifua lelei mo Amerika Samoa. O se mea ua matua alagata ai tagata ma le teritori o Amerika Samoa ona lagona le vala'au ina ia gaioi loa e fo'ia lenei faafitauli.

O LENEI, O LE MEA LEA, IA FAAIUGAFONOINA AI E LE MAOTA O SUI O LE TERITORI O AMERIKA SAMOA, LAGOLAGOINA E LE MAOTA MAUALUGA:

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E FA'APEA, ua lagona e le Fonofaitulafono a Amerika Samoa le vaia'au ina ia faailoa ma ia malamalama i gasegase le pipisi atoa ai ma aafiaga le lelei e oo mai ai i tagata ma le Teritori o Amerika Samoa; ma

IA TOE FA'AI'UGAFONOINA FOI, e faapea e talosagaina le Failautusi a le Maota o Sui e faaoo atu lenei iugafono malilie faatasi i le Afioga ia Lolo M. Moliga, Kovana o Amerika Samoa; ma ni kopi mo le Faatonusili o le Soifuamaloloina, Motusa Tuileama Nua, ma Dottie Siavii, o ia lea o loo gafu ma lenei porokalama i le Matagaluega a le Soifuamaloloina.


GAOTEOTE PALAIE TOFAU
Peresetene, Maota Maualuga


SAVALI TALAVOU ALE
Fofoga Fetalai, Maota o Sui

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NCD Prevention & Control

Annex 2: American Samoa WHO STEPs Survey Report 2007

American Samoa STEPs Survey			
Fact Sheet			
<p>The STEPs survey of chronic disease risk factors in American Samoa was carried out from June, 2004 to August, 2004. The STEPs survey in American Samoa was a population-based survey of adults aged 25-64. A stratified cluster sampling design sample design was used to produce representative data for that age range in American Samoa. A total of 2,072 adults participated in the American Samoa STEPs survey.</p>			
Results for adults aged 25-64 years (incl. 95% CI)	Both Sexes	Males	Females
Step 1 Tobacco Use			
Percentage who currently smoke tobacco daily	29.9% (26.6 - 33.1)	38.1% (33.5 - 42.7)	21.6% (18.2 - 24.9)
<i>For those who smoke tobacco daily</i>			
Average age started smoking (years)	20.6 (20.1 - 21.1)	20.1 (19.4 - 20.9)	21.3 (19.9 - 22.8)
Average years of smoking	19.0 (17.9 - 20.1)	19.9 (18.8 - 21.0)	17.4 (15.4 - 19.4)
Percentage smoking manufactured cigarettes	96.3% (94.9 - 97.7)	96.3% (94.8 - 97.9)	96.2% (94.7 - 97.7)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	13.5 (12.3 - 14.8)	14.2 (12.6 - 15.8)	12.4 (11.1 - 13.7)
Step 1 Alcohol Consumption			
Percentage of abstainers (who did not drink alcohol in the last year)	36.5% (29.4 - 43.6)	27.3% (21.7 - 32.9)	58.8% (48.4 - 69.1)
Percentage of current drinkers (who drank alcohol in the past year)	63.5% (56.4 - 70.6)	72.7% (67.1 - 78.3)	41.3% (30.9 - 51.6)
<i>For those who drink alcohol in the last year</i>			
Percentage who drank alcohol on 4 or more days in the last week	3.0% (0.9 - 5.1)	3.4% (1.1 - 5.7)	1.3% (0.0 - 3.8)
Percentage of women who had 4 or more drinks on any day in the last week			33.9% (22.4 - 45.4)
Percentage of men who had 5 or more drinks on any day in the last week		49.6% (43.1 - 56.0)	
Step 1 Fruit and Vegetable Consumption			
Mean number of days fruit is consumed	2.4 (2.3 - 2.5)	2.1 (2.0 - 2.3)	2.6 (2.5 - 2.8)
Mean number of servings of fruit consumed per day	1.6 (1.5 - 1.7)	1.5 (1.4 - 1.6)	1.7 (1.6 - 1.8)
Mean number of days vegetables consumed	4.2 (3.9 - 4.6)	3.7 (3.4 - 4.0)	4.2 (3.9 - 4.6)
Mean number of servings of vegetables consumed per day	2.4 (2.2 - 2.5)	2.4 (2.1 - 2.6)	2.4 (2.2 - 2.6)
Percentage who ate less than 5 of combined servings of fruit & vegetables per day	86.7% (84.1 - 89.2)	87.9% (85.0 - 90.0)	85.6% (80.1 - 91.1)
Step 1 Physical Activity			
Percentage with low levels of activity (defined as <600 MET-minutes/week)	62.2% (56.0 - 68.4)	58.6% (51.8 - 65.3)	66% (60.1 - 71.8)
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes/week)	2.4% (1.6 - 3.3)	4.2% (2.4 - 6.0)	0.6% (0.2 - 1.05)
Median time spent in physical activity per day (minutes)	12.9 (0.0 - 72.9)	15.0 (0.0 - 90.0)	8.6 (0.0 - 57.9)
Mean time spent in physical activity per day (minutes)	68.5 (50.0 - 87.1)	85.1 (62.5 - 107.6)	51.7 (36.5 - 66.8)

American Samoa STEPS Survey			
Fact Sheet			
Results for adults aged 25-64 years (incl. 95% CI)	Both Sexes	Males	Females
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m ²)	34.9 (34.7 - 35.1)	33.7 (33.2 - 34.1)	36.2 (35.9 - 36.5)
Percentage who are overweight or obese (BMI ≥ 25 kg/m ²)	93.6% (92.1 - 94.3)	92.7% (91.6 - 93.9)	94.4% (92.8 - 95.9)
Percentage who are obese (BMI ≥ 30 kg/m ²)	74.6% (73.1 - 76.1)	69.3% (67.2 - 71.3)	80.2% (77.0 - 83.5)
Average waist circumference (cm)	104.8 (103.4 - 106.2)	104.7 (103.7 - 105.6)	104.8 (101.8 - 107.8)
Mean systolic blood pressure - SBP (mmHg), excluding those currently on medication for raised BP	129.6 (128.1 - 131.1)	134.1 (132.0 - 136.2)	125.1 (124.0 - 126.1)
Mean diastolic blood pressure - DBP (mmHg), excluding those currently on medication for raised BP	81.8 (80.5 - 83.1)	83.5 (81.7 - 85.4)	80.0 (79.1 - 80.8)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	34.2% (28.4 - 40.0)	40.9% (33.9 - 47.8)	27.5% (22.3 - 32.6)
Percentage with raised BP (SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised BP)	16.9% (12.8 - 21.1)	20.8% (14.4 - 27.2)	13.5% (10.8 - 16.1)
Step 3 Biochemical Measurement			
Mean fasting blood glucose (mmol/L), excluding those currently on medication for raised blood glucose	6.7 (6.5 - 6.9)	6.8 (6.6 - 7.1)	6.5 (6.3 - 6.8)
Mean fasting blood glucose (mg/dl), excluding those currently on medication for raised blood glucose	120.3 (116.4 - 124.1)	123.0 (118.0 - 128.1)	117.5 (113.3 - 121.7)
Percentage with raised blood glucose as defined below or currently on medication for raised blood glucose <ul style="list-style-type: none"> • plasma venous value ≥ 7.0 mmol/L or ≥ 126 mg/dl • capillary whole blood value ≥ 6.1 mmol/L or ≥ 110 mg/dl 	47.3% (44.0 - 50.7)	52.3% (48.6 - 56.0)	42.4% (38.2 - 46.5)
Mean total blood cholesterol (mmol/L)	4.7 (4.7 - 4.8)	4.7 (4.7 - 4.8)	4.8 (4.7 - 4.8)
Mean total blood cholesterol (mg/dl)	183.6 (181.7 - 185.4)	183.3 (181.0 - 185.6)	183.8 (181.8 - 185.8)
Percentage with raised total cholesterol (≥ 5.2 mmol/L or ≥ 200 mg/dl)	23.4% (18.7 - 28.0)	23.1% (18.4 - 27.7)	23.7% (18.8 - 28.5)
Percentage with raised total cholesterol (≥ 6.5 mmol/L or ≥ 250 mg/dl)	2.7% (0.9 - 4.4)	3.2% (0.6 - 5.7)	2.2% (1.0 - 3.4)
Summary of combined risk factors			
<ul style="list-style-type: none"> • current daily smokers • less than 5 servings of fruits & vegetables per day • Low level of activity (<600 MET-minutes) 	<ul style="list-style-type: none"> • overweight or obese (BMI ≥ 25 kg/m²) • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP) 		
Percentage with low risk (i.e. none of the risk factors included above)	0.4% (0.1 - 0.8)	0.6% (-0.4 - 1.4)	0.4% (-0.03 - 0.8)
Percentage with raised risk (at least three of the risk factors included above) aged 25 to 44 years old	69.2% (62.2 - 72.2)	74.6% (65.8 - 83.4)	64.3% (58.1 - 70.5)
Percentage with raised risk (at least three of the risk factors included above) aged 45 to 64 years old	76.7% (72.1 - 81.4)	80.4% (72.5 - 88.3)	73.1% (68.4 - 77.8)

Annex 3: Cancer Incidence and Mortality in American Samoa, 2012

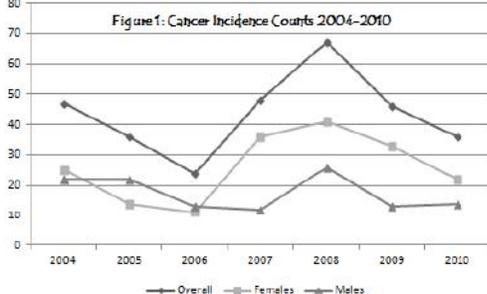


What we know about **cancer incidence & mortality** in American Samoa

Cancer is the second leading cause of death in American Samoa.

Incidence
Cancer incidence is the number of new cancer cases in a population over a certain period of time. The American Samoa Cancer Registry captures cases of cancer diagnosed in the territory and some cases of residents who were diagnosed off-island. Data from 2004-2010 shows 304 new cases of cancer were diagnosed in 182 women and 122 men. Many patients diagnosed as 'possible cancer' cases go off-island for further evaluation and are not captured in the local registry.

Figure 1: Cancer Incidence Counts 2004-2010



Year	Overall	Females	Males
2004	47	24	23
2005	35	21	14
2006	23	12	11
2007	47	36	11
2008	67	41	25
2009	46	32	14
2010	35	21	14

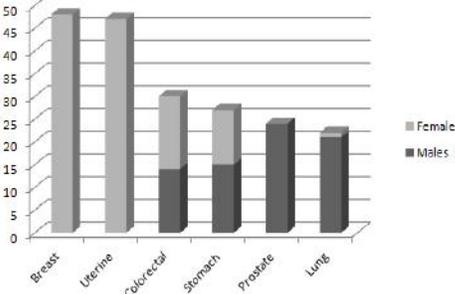
Cancer incidence counts peaked in 2008 for both males and females (Figure 1). Over the seven-year period, 2006 saw the lowest overall incidence counts. It is likely that more patients were lost to follow-up during this particular year. The low number of new diagnoses in more recent years seems typical in the cancer registry. New diagnoses are captured over time as some patients return from off-island after treatment is received, or after a definitive diagnosis is made.

From 2004-2010, cancer was found in more than 20 different sites. The most common cancer sites include 1) Breast, 2) Uterine/Endometrial, 3) Colorectal, 4) Stomach, 5) Prostate and 6) Lung, reflecting little change compared to 1998-2002 statistics. When combined, these sites account for over 65 percent of newly diagnosed cases over the seven-year period.

Most Common Male Sites		Most Common Female Sites	
	# cases		# cases
Prostate	24	Breast	48
Lung/Bronchus	21	Uterine	47
Stomach	15	Colorectal	16
Colorectal	14	Stomach	12
Head/Neck	7	Ovary	10
Liver	6	Cervix	9

Gender-specific cancers present a particular burden, especially in women. Breast and uterine/endometrial cancers account for more than half (52 percent) of the total incidence in women. The most common cancers for men include prostate (20 percent), lung (17 percent), stomach (14 percent) and colorectal (11 percent). Aside from prostate cancer, lung cancer is significantly more common in men (Figure 2). Males accounted for 21 of the 22 lung cancer cases in 2004-2010. The average incidence of cancer was 43 new cases per year – 26 in women and 17 in men.

Figure 2: Incidence Counts for the Top Cancer Sites 2004-2010



Site	Females	Males
Breast	48	0
Uterine	47	0
Colorectal	16	16
Stomach	12	15
Prostate	0	24
Lung	1	21

American Samoa Comprehensive Cancer Control Factsheet Series 2012



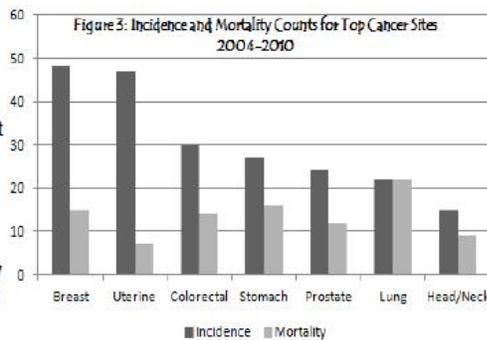
What we know about **cancer incidence & mortality** in American Samoa

Mortality

Cancer mortality is the number of deaths, with cancer as the underlying cause of death, occurring in a population during a year. Of the 304 cases of cancer diagnosed between 2004-2010, 49 percent are believed to have died from the disease, 71 women and 79 men. These numbers do not take into account those patients who have likely expired off-island.

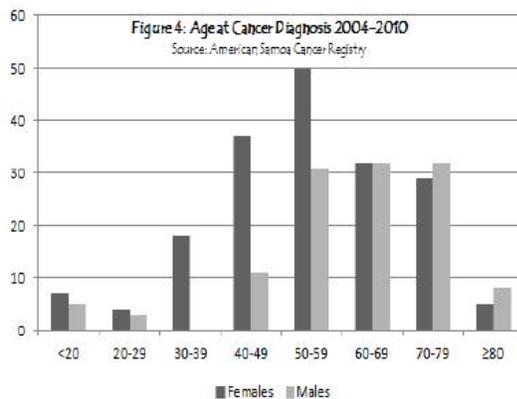
Figure 3 shows the incidence and mortality counts for the overall top cancer sites from 2004-2010. Although breast and uterine cancers account for over half of the new cancer cases in women, these cancers

have the lowest incidence-to-mortality ratio, with 69% and 85%, respectively, being survivors. This can be attributed to early detection through ongoing screening efforts, further demonstrating the importance of early screening practices. Lung cancer, on the other hand, has the highest mortality with all of those diagnosed falling victim to the disease. 68 percent of lung cancer patients expired within 3 months of diagnosis. Overall, although more women were diagnosed with cancer, 61% are survivors compared to 35% of men.



Trends

Age at cancer diagnosis ranges from 3 to 90 years of age (Figure 4). The average age of diagnosis is 54 years for women and 61 years for men. The majority of women (84 percent) were diagnosed at ages 40 and older. The same percentage of men were diagnosed at least a decade later at ages 50 and older. Of the 122 male incidence cases, not one was diagnosed between the



age ranges of 30-39 years. Females, however, tend to be diagnosed at earlier ages compared to males, indicating the need for women to be screened early and often. Screening history is not always recorded in the medical chart, so overall screening rates are unknown.

Life after a cancer diagnosis can be alarmingly short. Out of the 150 cancer deaths, 85% of women and 87% of men expired in the same year of diagnosis or the in following calendar year. Nearly 30% of both males and females are diagnosed with cancer at a later stage, after metastasis has occurred.

Sources

(1) Cancer in American Samoa. *Pacific Health Dialogue*. 11(2). 2004. (2) American Samoa Cancer Registry March 2012 (3) Mishra, Si et al. Cancer among Indigenous Populations: The Experience of American Samoans. *Cancer*. 78(8):1553-1557. 1996.