

Pacific Island Health Officers Association  
65th Executive Board Meeting

# NCD Crisis Response in Palau

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March 27, 2019  
Koror, Republic of Palau

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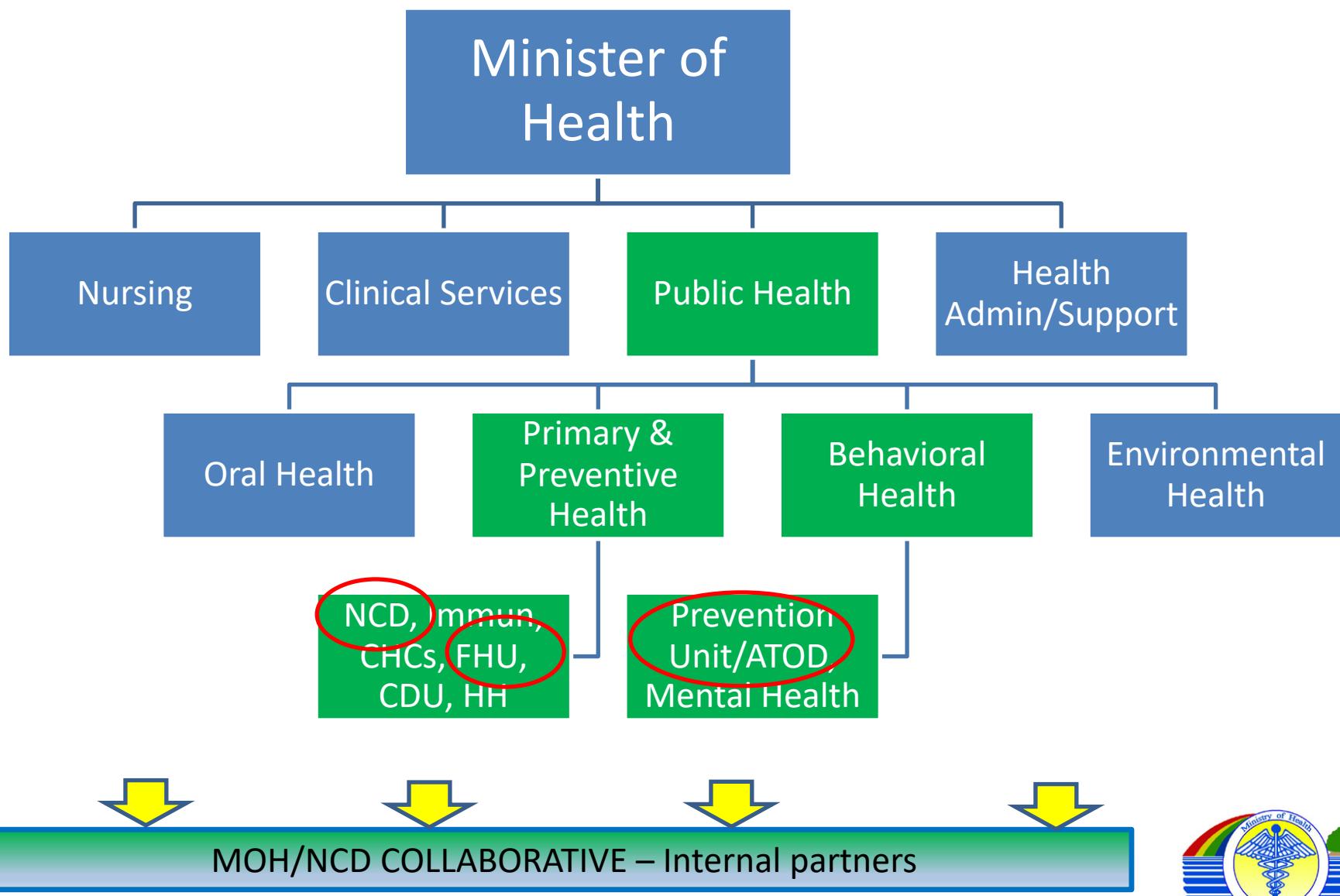


# Objectives

- The response structure
- The burden in Palau
- The response - progress
- Challenges
- Opportunities



# The Response Structure



# Community/External partners

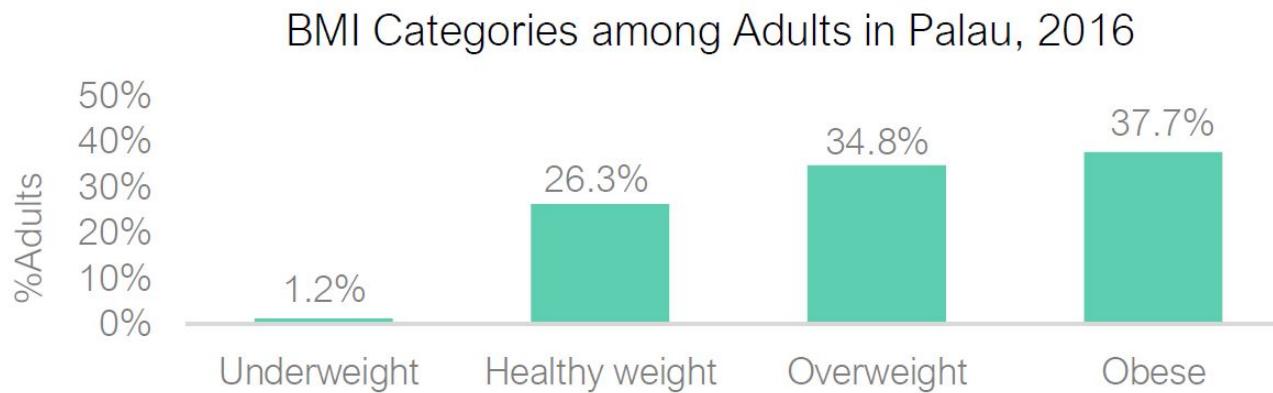


# Burden of NCDs



# Overweight/Obesity

Body Mass Index (BMI) is calculated based on height and weight measurements. Based on these measurements, almost 3 out of 4 (72.5%) adults in Palau are overweight or obese.

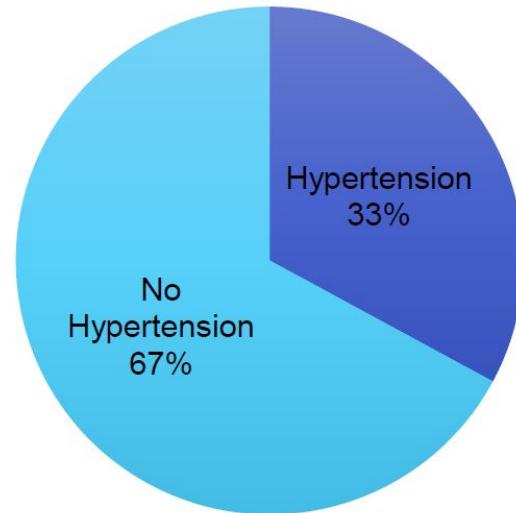


Women and older age groups have a higher prevalence of overweight/obesity than men and younger age groups. Additionally, Palauans have higher prevalence of overweight/obesity than non-Palauans.



# Hypertension

One-third (32.9%) of adults in Palau had high blood pressure ( $\geq 140/90$ ) during screening or self-reported having hypertension for which they took medication.



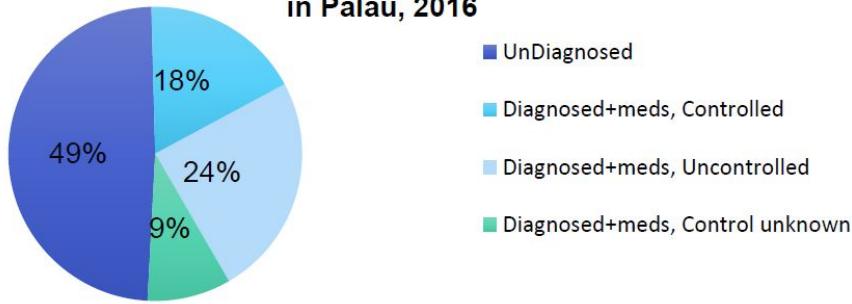
Hypertension prevalence increases with age, with almost two-thirds (68.8%) of adults 65 and older having hypertension. Hypertension prevalence was higher in Palauans compared to non-Palauans.



# Hypertension DX and Control

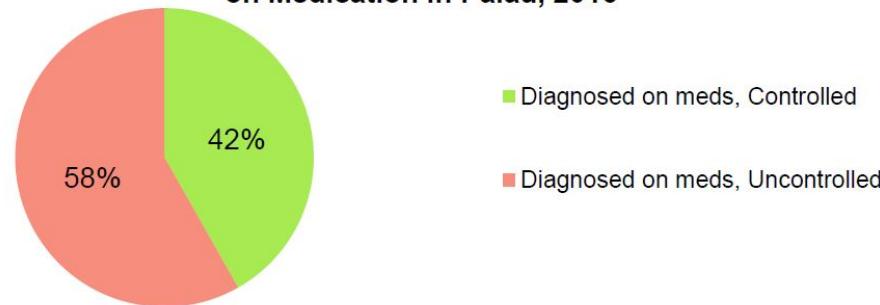
Among those adults with hypertension, about half of adults (49%) with hypertension in Palau are undiagnosed.

**Diagnosis and Control Status among Adults with Hypertension in Palau, 2016**



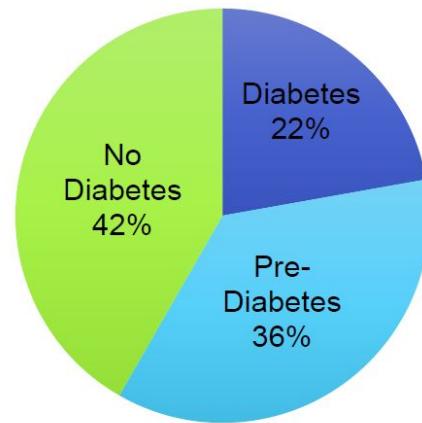
Among those adults who are diagnosed and taking medication, over half (58%) remain uncontrolled.

**Control Status among Adults Diagnosed with Hypertension and on Medication in Palau, 2016**



# Diabetes

22.2% of adults had measured high fasting blood sugar ( $\geq 126\text{mg/dL}$ ) or self-reported having diabetes for which they were taking medication. 36.1% of adults self-reported having pre-diabetes or had a fasting blood sugar  $\geq 100\text{mg/dL}$ .



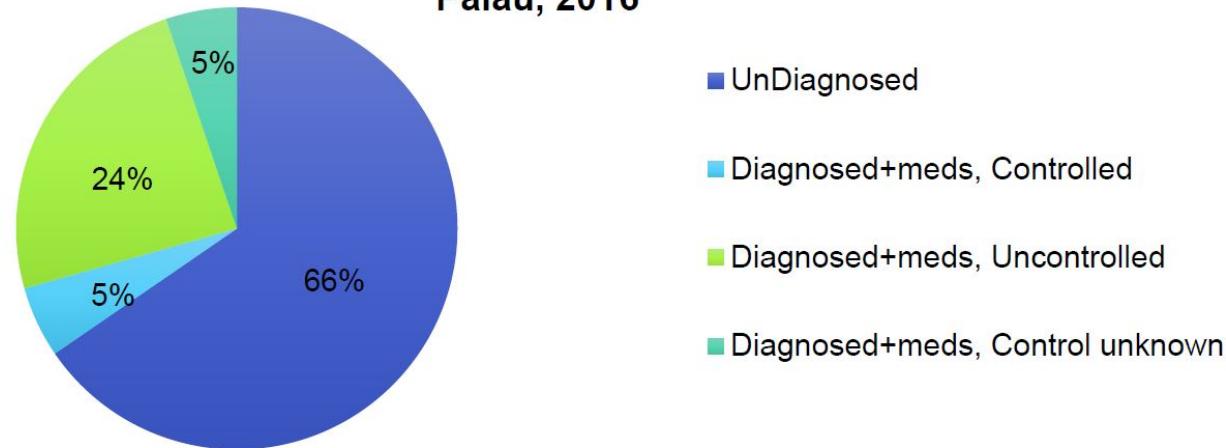
High blood sugar / diabetes prevalence increases with age, and is more prevalent in Palauans compared to non-Palauans.



# Undiagnosed Diabetes

Among those adults in Palau classified as having diabetes, two-thirds of these adults (66%) are undiagnosed.

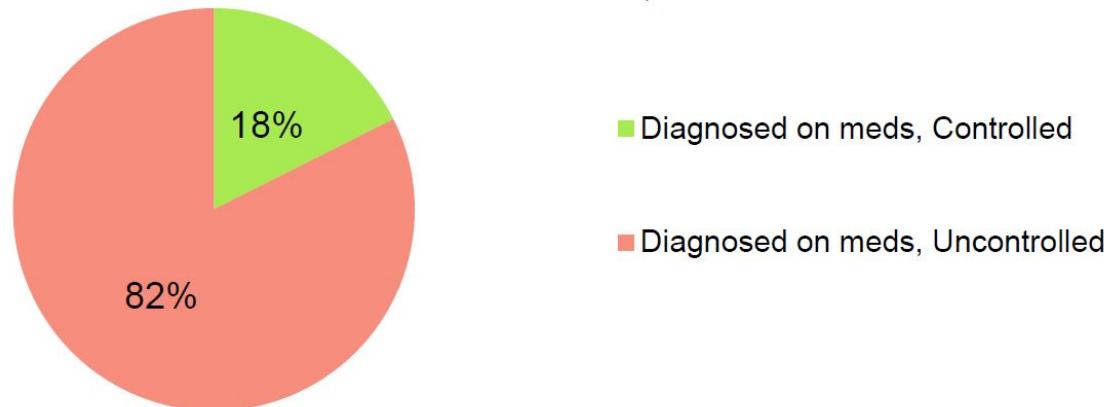
**Diagnosis and Control Status among Adults with Diabetes in  
Palau, 2016**



# Diabetes Control

Among those adults who are diagnosed and taking medication, the majority of these adults (82%) remain uncontrolled

**Control Status among Adults Diagnosed with Diabetes and on Medication in Palau, 2016**



# Progress?

## Reducing the prevalence of NCDs

Indicator	Baseline (2014 or earlier)	Today (2018)	Status	Target (2020)	New Target (2020)
Raised blood pressure, adults	49%	30.1%		44%	27%
Raised blood glucose, adults	20.4%	21.1%		18%	
School aged children who are overweight or obese	33%	32%		30%	
Adults who are overweight or obese*	77.6%	71.7%		?	

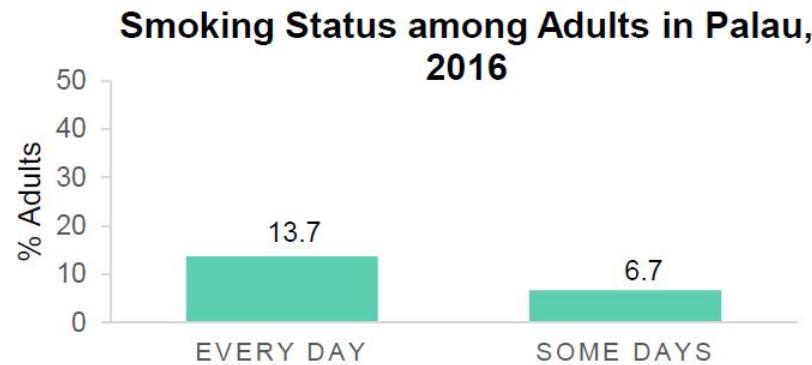
\* - Revised baseline from original table in RAP

\*\* - New indicator and data



# Smoking Prevalence

1 out of 5 adults (20.4%) in the Palau reported cigarette smoking in the last 30 days. The majority of these adults smoke every day. 71% of these smokers reported that they want to quit.

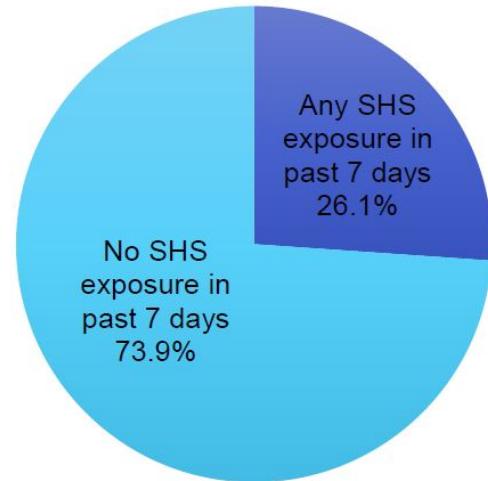


Smoking prevalence was highest among men, young adults, and less educated individuals.



# Second Hand Smoke

Over one-quarter (26.1%) of all adults in the Palau reported some sort of exposure to second-hand smoke (SHS) at home, in a vehicle, or at work in the past 7 days.

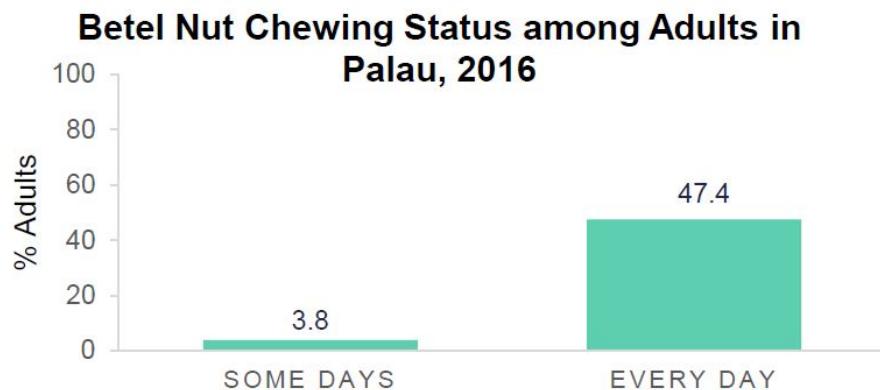


The most common place of second-hand smoke exposure was at work, although over 10% of adults reported second-hand smoke exposure at home and in a vehicle.



# Betel Nut Use

Over half (52.6%) of adults in Palau reported betel nut use in the past 30 days. Most betel nut chewers chew every day. 87% of respondents who use betel nut add tobacco. 60% of respondents who used betel nut said they wanted to quit.



Betel nut chewing is more prevalent among women and those individuals with a lower education. Betel nut chewing is highly prevalent among Palauans (68.5%).



# Progress

## Tobacco control

Indicator	Baseline (2014 or earlier)	Today (2018)	Status	Target (2020)
Overall smoking prevalence, adults	17%	20.6%	Red	12%
Smoking prevalence, adult males	24%	30.7%	Red	17%
Smoking prevalence, adult females	8%	9.9%	Red	6%
Overall chewing betel nut with tobacco, adults	54.2%*	46.2%	Green	28%
<b>E-cigarette use**</b>	---	1.7%	White	?
Overall smoking prevalence, youth	41%	46.8%	Yellow	29%
Smoking prevalence, youth males	58%	55.6%	Yellow	41%
Smoking prevalence, youth females	42%	39.0%	Yellow	29%
Overall smokeless tobacco use, youth**	35%	27.7%	Green	<b>TBD</b>
Youth male smokeless tobacco use**	40.1%	32.3%	Green	<b>TBD</b>
Youth female smokeless tobacco use	30.6%	23.1%	Green	<b>TBD</b>

\* - Revised baseline from original table in RAP

\*\* - New indicator and data

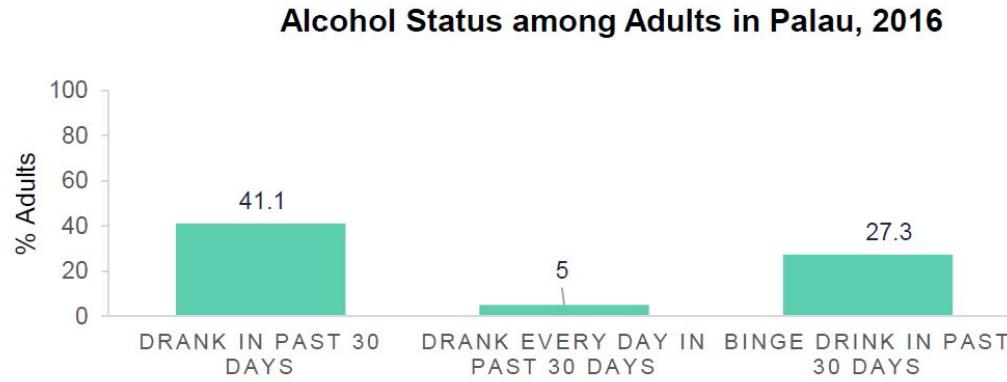
TBD – to be decided



# Alcohol and Binge Drinking

Almost half of adults in Palau (41.1%) reported alcohol use in the past 30 days. 5% of all adults reported drinking alcohol every day in the past 30 days. Almost one-third of adults (27.3%) reported binge drinking\* in the past 30 days.

\*(binge drinking is defined as drinking 4 or more standard drinks on one occasion for women and 5 or more standard drinks on one occasion for men)



Binge drinking is more prevalent among men compared to women and more Palauans compared to non-Palauans.



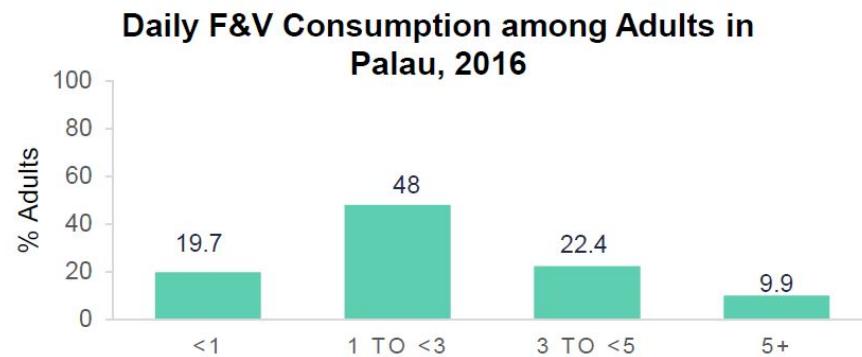
# Progress - Alcohol

Indicator	Baseline (2014 or earlier)	Today (2018)	Status	Target (2020)	New Targets (2020)
Current alcohol consumption, adult males	50%	54.5%	Red	45%	
Binge drinking, adult males	44%	38.7%	Green	40%	36%
Current alcohol consumption, adult females	23%	32.5%	Red	21%	
Binge drinking, adult females	17%	19.6%	Red	15%	
Overall alcohol consumption, youth	43%	37.4%	Green	39%	36%
Current alcohol use, youth males	51%	43.8%	Green	46%	43%
Current alcohol use, youth females	38%	31.8%	Green	34%	31%
Binge drinking, youth	33%	24.1%	Green	30%	22%
Binge drinking, boys	40%	31.2%	Green	36%	30%
Binge drinking, girls	26%	17.8%	Green	23%	16%



# Diet

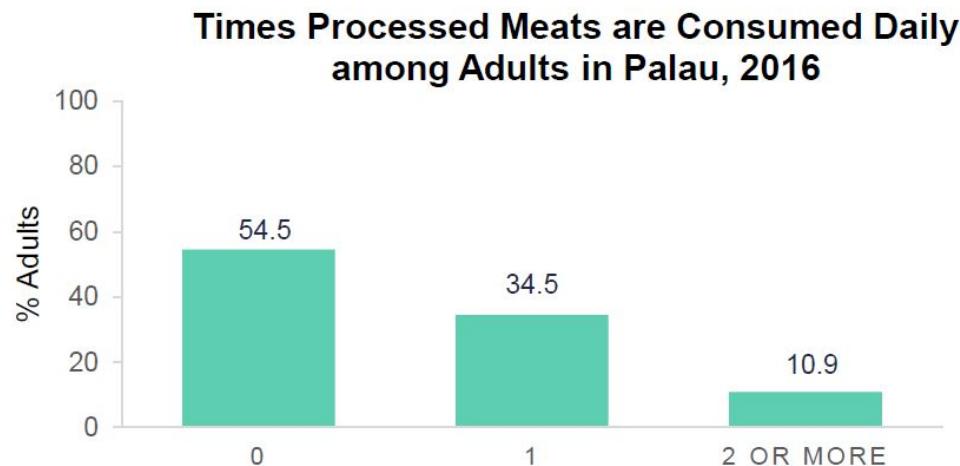
9 out of 10 (90.1%) adults in Palau consume less than the recommended daily servings of fruits and vegetables (5 per day), and 2 out 10 (19.7%) consume <1 serving of fruits and vegetables daily.



Very low fruit and vegetable consumption (<1 serving per day) was more prevalent among less educated individuals and Palauans.

# Diet

Almost half (45.5%) of adults in Palau consume processed meat at least once per day.



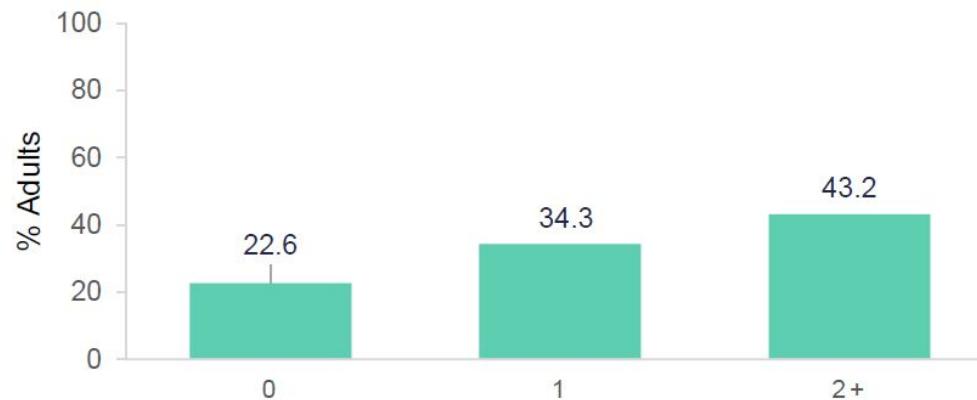
Heavy consumption of processed meats (2+ times per day) is most prevalent among younger adults, especially those 18-24 years old.



# Diet

More than 3 out 4 adults (77.4%) in Palau consume at least one sugar-sweetened beverage (SSB) each day. Almost half of adults (43.2%) consume 2 or more SSBs daily.

**SSBs Consumed Daily among Adults in Palau, 2016**



Heavy consumption of SSBs is most prevalent among males, younger individuals, less educated individuals, and Palauans.



# Progress - diet

## Improving nutrition

Indicator	Baseline (2014 or earlier)	Today (2018)	Status	Target (2020)	New Targets (2020)
Salt intake: no previous indicator New indicator: % adults watching salt intake**	---	69% adults watch their salt intake		30% reduction in salt intake from baseline	75% adults watch salt intake
Fruit and vegetable consumption, 5 or more servings per day	8%	9.9%		12%	
% mothers who breastfeed infants up to 6 months*	---	47% breastfeed exclusively for 6 months		50% increase from baseline	70.5% breastfeed 6 months+
Youth consumption of fruit** (YRBS and school health data)	---	36.7% no fruits in past 24 hours		30% decrease from baseline	
Youth consumption of vegetables** (YRBS and school health data)	---	24.8% no vegetables in past 24 hours			

\* - Revised baseline from original table in RAP

\*\* - New indicator and data

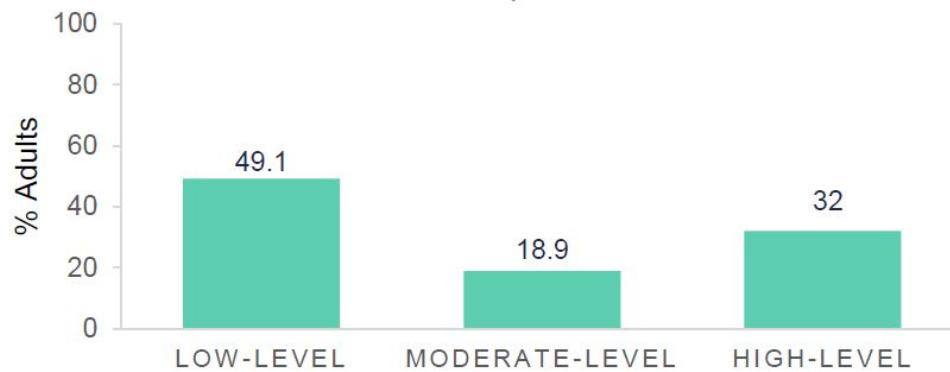


# Physical activity

Physical activity is defined by amount of time spent being physically active through work, transportation, or leisure. Based on a comprehensive assessment, 1 out of 2 adults in the Palau are classified as having a low-level of physical activity.



**Physical Activity Levels among Adults in Palau, 2016**



Low-level physical activity is most prevalent among women, older adults, and Palauans.



# Physical activity

## Physical activity

Indicator	Baseline (2014 or earlier)	Today (2018)	Status	Target (2020)
Adults who are physically active at least 30 minutes a day on all or most days	72% men 58% women 65% all adults	65.7% men 39.9% women 53.1% all adults		90% men 72% women 81% all adults
% school age children participating regularly in sports	60.4%	52.7%		75%



# Political Commitment

Palau wants to see oceans, non-communicable diseases, included in Sustainable Development Goals

[LISTEN](#) / [DOWNLOAD](#)



Tommy Remengesau Jr.

The President of the Pacific island nation of Palau is calling for greater global action on behalf of the world's oceans. Speaking in the [UN General Assembly](#) on Wednesday evening, President Tommy Remengesau Jr. proposed that the oceans should have their own Sustainable Development Goal in the post-2015 development agenda. He said this was something that was missing from the Millennium Development Goals ([MDGs](#)) whose deadline is fast approaching. *"The oceans cover two-thirds of the world's surface and connect 90 percent of its population. A billion people are dependent on its fish. The ocean's health is unalterably linked to our culture, our societies and our economies. Yet in the MDG's the ocean received no attention. As these MDG's wind down in 2015, we need a new paradigm. It is therefore time to enunciate our commitment to our oceans with a sustainable development goal that will deal exclusively with the oceans."*

President Remengesau said the Sustainable Development Goals (SDGs) should also focus on non-communicable diseases which are accountable for two-thirds of the world's 57 million annual deaths.



2010-2012- NCD declared "state of health emergencies in the USAPIs and other PICs

2013 –President declared that NCDs should be a focus of the SDGs

2015- Palau NCD Plan and Coordinating Mechanism

2016 – RPPL 9-57 to allocate 10% of tobacco and alcohol tax for NCD prevention

2016- National Health Insurance Coverage for sixty years and older.

2018 – Declared as “Year of Good Health”

2018 – Presidential Directive to formalize a Worksite Wellness Committee to plan and implement wellness activities in the Executive Branch of the Gov’t.

2018- Presidential Directive – Physical Check up through National Health Insurance. Emphasis on Preventive Health.

2019- Award half million toward community based programs on health promotion ( NCD Funds)



# Leadership, governance, infrastructure

- Partnerships (Multi sectoral NCD “taskforce”) – NGO/CBOs, Government, private sector, regional and international partners
- National strategy addressing NCDs and risk factors – Palau NCD Plan
- Public Health programs – dedicated to NCDs
- Local Funding ( NCD Funds)
- Community Health Center Improvement Project- infrastructure improvement to support primary and preventive health.
- Health Assistant Training Program- Workforce development initiative to train locals to fill health positions to serve community ( Nurses, community behavioral health workers, dental assistants)
- Explicit NCD indicators and targets



# Surveillance & Monitoring

- Population risk factor prevalence survey for adults
- Population risk factor prevalence survey for youth
- Child growth monitoring
- Routine cause- specific mortality
- NCD management data
- MANA Dashboard – leadership, governance, policies, health systems, monitoring



# Policy and Environment

- Tobacco health warnings – amendments to tobacco control legislation
- Ongoing awareness on Tobacco Industry Interference and development of guidelines on TII
- Alcohol advertising regs under development
- Alcohol excise taxation system in place, based on beverage type and ethanol content
- Healthy food policies in schools, RPPL 10-13, draft policies
- Food based dietary guidelines
- Compulsory PE in schools
- Enforcement of laws and regulations related to 2 NCD risk factors
- Healthcare Fund Act – Universal healthcare coverage
- Worksite wellness initiative



# Health System Strengthening Initiatives

- Informed decision making – institutional data
- Follow up and referral processes
- Screening/Early Detection (cancer, BMI, alcohol & tobacco use, HTN, lipid disorder, DM screening, Stress) - HPOT
- Integrated Approach to Healthcare (IEA/CCM). Example: Diabetes management – NCD Collaborative Team
- Nutrition counseling , BTI, oral health education in NCD clinics
- Family Health: well baby clinics, family planning, GYN clinics, male health clinics, school health program
- Immunization Campaigns in Schools and Communities
- Cancer survivorship/palliative: Caregiver/palliative care curriculum, Community based cancer survivorship group



# Community-clinical linkages

- Certified CDSME trainers
- Community partners, resource centers
- Diabetes prevention program with AAPCHO, initial stages



# Community-based programs, resources



- Certified CDSME trainers
- Community partners, resource centers
- Diabetes prevention program with AAPCHO, initial stages



# Palau MANA DASHBOARD

Category: Indicators	2017	2019	Evidence: documented statement/paragraph, source and weblink
<b>Leadership and governance</b>			
L1. Multi-sectoral NCD taskforce	★★★	★★★	Executive Order 379
L2. National strategy addressing NCDs and risk factors	★★	★★	Republic of Palau NCD Prevention and Control Strategic Plan of Action
L3. Explicit NCD indicators and targets	★★★	★★★	Republic of Palau NCD Prevention and Control Strategic Plan of Action
<b>Preventive policies</b>			
<b>Tobacco</b>			
T1. Tobacco excise taxes	★★★	★★★	PNC 40
T2. Smoke-free environments	★★	★★	RPPL 8-27
T3. Tobacco health warnings	●	●	Amendments to the comprehensive Tobacco Control Legislation (RPPL 8-27) including health warnings are being developed
T4. Tobacco advertising, promotion and sponsorship	★★★	★★★	RPPL 8-27
T5. Tobacco sales and licencing	★★★	★★★	RPPL 8-27
T6. Tobacco industry interference	●	●	ongoing education awareness on TII; NCD Plan Update includes raising awareness and development of guidelines for Tobacco Industry Interference
<b>Alcohol</b>			
A1. Alcohol licencing to restrict sales	★★★	★★★	PNC 11
A2. Alcohol advertising	●	●	Alcohol advertising regulations are under development
A3. Alcohol taxation	●	●	Alcohol excise taxation system is in place and based on beverage type or ethanol content
A4. Drink driving	★★	★★	PNC 42
<b>Food</b>			
F1. Reducing salt consumption	★	★	
F2. Trans-fats	●	●	
F3. Unhealthy food marketing to children	NA	NA	Not applicable in Palau
F4. Food fiscal policies	●	●	
F5. Healthy food policies in schools	●	●	RPPL 10-13, draft policies
F6. Food-based dietary guidelines	●	●	Palau Health Eating and Active Living Guidelines
<b>Physical Activity</b>			
P1. Compulsory physical education in school curriculum	●	●	PE is mandatory in all schools, letter grade
<b>Enforcement</b>			
E1. Enforcement of laws and regulations related to NCD risk factors	●	●	A government-level enforcement system in place with retail and/or wholesale inspections documented within the past year for 2 NCD risk domain (tobacco & alcohol) - 2018 Synar Report & ABTPC Inspection Report
<b>Health system response programmes</b>			
H1. National guidelines for care of main NCDs	★★	★★	PEN, ADA, MOH National Treatment Guidelines
H2. Essential drugs	●	●	
H3. Smoking cessation	★	●	NRTs are available; Cessation services are fully cost-covered
H4. Marketing of breast milk substitutes	★★★	★★★	RPPL 7-23
H5. Baby friendly hospitals	●	●	
H6. Maternity leave and breastfeeding	●	●	
<b>Monitoring</b>			
M1. Population risk factor prevalence surveys - adults	★★	★★	Palau STEPS, Palau Hybrid
M2. Population risk factor prevalence surveys - youth	★★★	★★★	School Health Screening Survey, YRBS, PYTS
M3. Child growth monitoring	★	★	Well Baby data
M4. Routine cause-specific mortality	★★	★★	HIS routine collection



# Barriers

- Misconception – Solution lies with the individual as NCDs result from each person's lifestyle choices
- Vicious cycle –poverty and NCDs
- Social determinants of health (education, poverty, etc.) not fully understood
- Cultural issues
- Competing priorities, limited resources



# Continue...

- Sustained political commitment/maintain momentum or sense of urgency
- Effective, consistent communication and coordination
- Strategic planning (revisions)
- Robust NCD surveillance systems
- Focus on policy and environment
- Health workforce/partners capacity enhancement
- Community resources



# Ko mesulang.

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