PAHO Webinar Series: Tackling NCDs, Risk Factors And Mental Health During The Time Of Covid-19

Situation of COVID-19 in the Americas and Impact on Priority Health Programs

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Assistant Director
Pan American Health Organization
Noncommunicable Diseases are the Leading Causes of Death in the Americas

- **81%** NCDs
- **9%** Injuries
- **10%** Communicable, maternal, perinatal and nutritional conditions

**5.8 million** (81%)
All deaths are caused by NCDs

**7.1 million**
Estimated total deaths

**34%**
NCD deaths are premature (30-70 years)

PAHO Mortality Database, 2020
## Risk Factor Prevalence in the Americas

### Behavioural Risk Factors

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Male</th>
<th>Female</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol per capita consumption in adults</td>
<td>12.2</td>
<td>3.6</td>
<td>2</td>
</tr>
<tr>
<td>Prevalence of physical inactivity in adults</td>
<td>33.1%</td>
<td>45.2%</td>
<td>1</td>
</tr>
<tr>
<td>Prevalence of current tobacco smoking in adults</td>
<td>19.3%</td>
<td>11.1%</td>
<td>5</td>
</tr>
<tr>
<td>Prevalence of current tobacco use in adolescents (12-15 years of age)</td>
<td>12.1%</td>
<td>10.5%</td>
<td>3</td>
</tr>
<tr>
<td>Salt intake in adults (grams/day)</td>
<td>9.4</td>
<td>8.6</td>
<td>NO DATA</td>
</tr>
</tbody>
</table>

### Biological Risk Factors

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of raised fasting blood glucose</td>
<td>8.5%</td>
</tr>
<tr>
<td>Prevalence of raised blood pressure</td>
<td>8.1%</td>
</tr>
<tr>
<td>Prevalence of raised blood pressure</td>
<td>20.3%</td>
</tr>
<tr>
<td>Prevalence of overweight and obesity in adults</td>
<td>14.8%</td>
</tr>
<tr>
<td>Prevalence of overweight and obesity in adults</td>
<td>64.1%</td>
</tr>
<tr>
<td>Prevalence of obesity in adults</td>
<td>60.9%</td>
</tr>
<tr>
<td>Prevalence of obesity in adolescents (10-19 years of age)</td>
<td>25.9%</td>
</tr>
<tr>
<td>Prevalence of obesity in adolescents (10-19 years of age)</td>
<td>31.0%</td>
</tr>
<tr>
<td>Prevalence of obesity in adolescents (10-19 years of age)</td>
<td>14.0%</td>
</tr>
<tr>
<td>Prevalence of obesity in adolescents (10-19 years of age)</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

### Ranking Among WHO Regions

1. Prevalence of current tobacco smoking in adults
2. Prevalence of raised fasting blood glucose
3. Prevalence of raised blood pressure
4. Prevalence of overweight and obesity in adults
5. Prevalence of salt intake in adults
6. Prevalence of obesity in adolescents

Source: NCDs at a Glance: NCD mortality and risk factor prevalence in the Americas. PAHO. Available at: [https://bit.ly/2Rmm6Pg](https://bit.ly/2Rmm6Pg)
Risk of Dying Prematurely from NCDs

Unconditional probability of dying between 30-70 years old from one of the four main NCDs, by sex (2000-2016 with projections for 2025)

Source: NCDs at a Glance: NCD mortality and risk factor prevalence in the Americas. PAHO. Available at: https://bit.ly/2Rmm6Pg


THE REGION IS NOT ON TARGET TO MEET THE GLOBAL GOAL OF 25% REDUCTION IN NCD PREMATURE MORTALITY
The Americas is the Region most affected by COVID-19

54,800,639 Total COVID-19 cases (as of March 25 2021)

44% Of global cases are in the Americas region

1,319,522 Total COVID-19 deaths (as of March 25 2021)

48% Of global cases are in the Americas region
COVID-19: Economic Impact in LAC

OVERALL 7.7% FALL IN GDP IN LAC IN 2020

PER CAPITA GDP REDUCTION OF 8.5% IN LAC, WITH INCREASE IN POVERTY

MAJOR IMPACT ON CARIBBEAN ECONOMIES, DUE TO COLLAPSE OF TOURISM SECTOR

AN EXPECTED 5 – 10 YEARS TO MAKE UP FOR LOST ECONOMIC GAINS IN LAC

HIGHLY DEPENDENT ON CONTROL OF COVID-19 AND VACCINE DEPLOYMENT

OUTLOOK IS HIGHLY UNPREDICTABLE

SUSTAINED AND INCLUSIVE ECONOMIC GROWTH?

2021 - 2025: A Return to Sustained Slow Growth

Dire Impact on the Most Vulnerable Populations and Leading to Social Unrest

Dimensions of social unrest

- Socioeconomic structure
- Distribution of resources
- Questioning privilege and inequality

- Political dimensions
- Exercise of political power
- Dissatisfaction with exercise of power

- Social relations
- Social ties
- Negative social relationships


POPULATIONS DISPROPORTIONATELY AFFECTED BY COVID-19:

- Women
- Indigenous and Afro-descendant populations
- Migrants and refugees
- People over 60 years of age (85 million) and people with disabilities (70 million) in LAC
Impact of Disparities: Reductions Life Expectancy due to COVID-19, USA 2020

Source: Andrasfay T, Goldman N. Proc US Nat Acad Sciences 2021 [https://doi.org/10.1073/pnas.2014746118]
Years of Life Lost due to COVID-19 in 81 Countries of the World

COUNTRIES IN THE AMERICAS RANKED AMONG HIGHEST IN THE WORLD

Source: Pifarré I Arolas H et al. Scientific Reports 2021 [www.nature.com/scientificreports/]

PAHO
### Leading Causes of deaths in the Americas

#### 2020

<table>
<thead>
<tr>
<th>Causes</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ischaemic heart disease</td>
<td>1,101,131</td>
<td>15.2</td>
</tr>
<tr>
<td>2 Stroke</td>
<td>481,933</td>
<td>6.7</td>
</tr>
<tr>
<td>3 Alzheimer disease and other dementias</td>
<td>393,987</td>
<td>5.5</td>
</tr>
<tr>
<td>4 Chronic obstructive pulmonary disease</td>
<td>381,710</td>
<td>5.3</td>
</tr>
<tr>
<td>5 Lower respiratory infections</td>
<td>319,730</td>
<td>4.4</td>
</tr>
<tr>
<td>6 Diabetes mellitus (excluding CKD due to Diabetes)</td>
<td>286,605</td>
<td>4.0</td>
</tr>
<tr>
<td>7 Trachea, bronchus, lung cancers</td>
<td>258,414</td>
<td>3.6</td>
</tr>
<tr>
<td>8 Kidney diseases</td>
<td>256,314</td>
<td>3.5</td>
</tr>
<tr>
<td>9 Interpersonal violence</td>
<td>195,485</td>
<td>2.7</td>
</tr>
<tr>
<td>10 Hypertensive heart disease</td>
<td>158,710</td>
<td>2.2</td>
</tr>
<tr>
<td>11 Road injury</td>
<td>156,173</td>
<td>2.2</td>
</tr>
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<td>12 Cirrhosis of the liver</td>
<td>144,343</td>
<td>2.0</td>
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<td>13 Colon and rectum cancers</td>
<td>134,939</td>
<td>1.9</td>
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<tr>
<td>14 Breast cancer</td>
<td>110,446</td>
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<td>15 Prostate cancer</td>
<td>98,415</td>
<td>1.4</td>
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<td>16 Self-harm</td>
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<td>17 Neonatal conditions</td>
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<td>1.2</td>
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<td>18 Drug use disorders</td>
<td>86,758</td>
<td>1.2</td>
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<tr>
<td>19 Pancreas cancer</td>
<td>82,659</td>
<td>1.1</td>
</tr>
<tr>
<td>20 Falls</td>
<td>81,271</td>
<td>1.1</td>
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#### 2020 (forecast)*

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<td>2 COVID-19</td>
<td>890,000</td>
<td>11.0</td>
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#### Source:
WHO Mortality Database. 2020 Forecasting based on 2019 assuming uniform causes throughout the year.

*Forecasting based on 2019 including the number of estimated deaths due to COVID-19 and assuming uniform causes of non-COVID-19 causes throughout the year (effect direct of COVID-19 as underlying cause of death).
COVID-19 Presents Greater Challenges For PLWNCDs

- 250 MILLION PERSONS IN THE AMERICAS LIVE WITH A CHRONIC CONDITION.
- PEOPLE WITH HYPERTENSION, DIABETES OR OTHER NCDS AT HIGHER RISK OF DEVELOPING COVID-19.
- MORE SEVERE CASES OF COVID-19 IN THOSE WITH HYPERTENSION, CARDIOVASCULAR DISEASES, DIABETES, SMOKING, CHRONIC OBSTRUCTIVE PULMONARY DISEASE, CANCER, AND CHRONIC KIDNEY DISEASE.
- IN THE USA: 6-FOLD HIGHER HOSPITALIZATIONS AND 12-FOLD HIGHER MORTALITY IN THOSE WITH COVID AND UNDERLYING CONDITIONS VS. THOSE WITHOUT.
- OLDER AGE, HYPERTENSION, DIABETES, COPD AND CVDS WERE ASSOCIATED WITH GREATER RISK OF DEATH FROM COVID-19 INFECTION.
- THE COVID-19 PANDEMIC WILL TRIGGER A MAJOR MENTAL HEALTH CRISIS, IF URGENT ACTION IS NOT TAKEN.
NCDs and Increased Risk of Severe COVID-19

Population percentage distribution by number of underlying conditions

<table>
<thead>
<tr>
<th>Region of the Americas</th>
<th>No conditions</th>
<th>One condition</th>
<th>Two or more conditions</th>
<th>Increased risk for severe COVID-19 (at least one condition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region of the Americas</td>
<td>76%</td>
<td>18%</td>
<td>6%</td>
<td>24%</td>
</tr>
<tr>
<td>Latin America</td>
<td>78%</td>
<td>17%</td>
<td>6%</td>
<td>22%</td>
</tr>
<tr>
<td>Non-latin Caribbean</td>
<td>71%</td>
<td>22%</td>
<td>7%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Region of the Americas

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<th>Increased risk (at least one condition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both sexes</td>
<td>771.8 (76%)</td>
<td>183.8 (18%)</td>
<td>65.3 (6%)</td>
<td>249.1 (24%)</td>
</tr>
<tr>
<td>Men</td>
<td>394.0 (78%)</td>
<td>83.3 (17%)</td>
<td>26.0 (5%)</td>
<td>109.3 (22%)</td>
</tr>
<tr>
<td>Women</td>
<td>377.8 (73%)</td>
<td>100.5 (19%)</td>
<td>39.3 (8%)</td>
<td>139.8 (27%)</td>
</tr>
</tbody>
</table>

Source: Tool to estimate comorbidities, NMH-PHE, PAHO/LSHTM
Distribution of Underlying Health Conditions by Age

LATIN AMERICA AND THE CARIBBEAN

22%
145 million

Source: Tool to estimate comorbidities, NMH-PHE, PAHO/LSHTM
COVID-19 and Links to NCDs

STAY AT HOME MEASURES ARE LEADING TO AN INCREASE IN NCD RISKS

• Unhealthy diets
• Insufficient physical activity
• Smoking tobacco
• Drinking alcohol

Disruptions in provision of health care services, closures

FEAR OF ATTENDING CARE FACILITIES HAVE RESULTED IN:

• Reduced elective clinic visits and lower access to renal dialysis,
• Reduced cancer care
• Delays in high priority treatments for patients with NCDs.

Patients at higher risk of complications and death from NCDs which we know how to treat
NCD services in COVID-19 plans

Percentage of countries where the continuity of NCD services were included in the list of essential health services in the country’s COVID-19 response plan

- **Yes**: 69% (20/29)
- **No**: 21% (6/29)
- **Don't Know**: 7% (2/29)
- **No Response**: 3% (1/29)

PAHO Survey on NCD service disruptions during COVID-19, 2020
**Type of NCD Services Disrupted during COVID-19**

Percentage of countries with activities disrupted by COVID-19.

- Hypertension Management: 3% (No disrupted), 45% (Partially disrupted), 52% (Completely disrupted), 17% (Don't know), 3% (No response)
- Cardiovascular emergencies: 3% (No disrupted), 17% (Partially disrupted), 52% (Completely disrupted), 79% (Don't know), 3% (No response)
- Diabetes and Diabetic Complications Management: 3% (No disrupted), 45% (Partially disrupted), 59% (Completely disrupted), 41% (Don't know), 3% (No response)
- Urgent dental care: 7% (No disrupted), 7% (Partially disrupted), 41% (Completely disrupted), 28% (Don't know), 3% (No response)
- Cancer Treatment: 10% (No disrupted), 14% (Partially disrupted), 28% (Completely disrupted), 28% (Don't know), 3% (No response)
- Asthma services: 14% (No disrupted), 24% (Partially disrupted), 55% (Completely disrupted), 34% (Don't know), 3% (No response)
- Rehabilitation services: 24% (No disrupted), 31% (Partially disrupted), 38% (Completely disrupted), 3% (Don't know), 3% (No response)
- Palliative care services: 3% (No disrupted), 3% (Partially disrupted), 3% (Completely disrupted), 3% (Don't know), 7% (No response)

PAHO Survey on NCD service disruptions during COVID-19, 2020
Strategies Used to Overcome NCD Service Disruptions

Percentage of countries with strategies to overcome NCD service disruptions

- Triaging to identify priorities: 71% (17/24)
- Telemedicine deployment to replace in-person consults: 63% (15/24)
- Novel supply chain and/or dispensing approaches for NCD medicines: 58% (14/24)
- Redirection of patients with NCDs to alternate health care facilities: 54% (13/24)
- Task shifting / role delegation: 38% (9/24)
- Others: 4% (1/24)

PAHO Survey on NCD service disruptions during COVID-19, 2020
Maintaining NCD Services During COVID-19

• Ensure chronic disease management in primary care maintained, if possible, via tele-medicine, or with a reduction in provider encounters
• Provide 3-month supply of medication
• Counsel on self-management
• Concentrate 24-hour acute care services at designated hospital emergency units and ensure public awareness
• Promote basic infection-prevention measures
• Maintain availability of essential NCD medicines and supplies
• Create a platform for reporting inventory/stockouts, and for coordination of re-distribution of supplies
COVID-19 and Mental health

- Globally, in situations of emergency, 1 in 5 persons presents with a mental health condition

- Mental health and substance use disorders already account for 34% of total disability in the Americas

- Increased symptoms of depression, anxiety, and substance use related to COVID-19

- Canada: 20-25% of those aged 18-54 years have increased their alcohol consumption during COVID-19

- USA: 45% of adults indicated negative mental health impact due to worry and stress over the virus
Mental Health among General Population and Healthcare Workers, Argentina 2020

**Symptoms of Anxiety**
- **General Population**
  - Present: 935, 47%
  - Absent: 1050, 53%
- **Healthcare Workers**
  - Present: 249, 24%
  - Absent: 810, 76%

**Symptoms of Depression**
- **General Population**
  - Present: 924, 47%
  - Absent: 1061, 53%
- **Healthcare Workers**
  - Present: 201, 19%
  - Absent: 858, 81%

Source:
The pandemic led to unprecedented loss of life; disruptions of health systems and services; and societies. Those living in vulnerable situations were most impacted. The pandemic demonstrated an unexpected interplay between NCDs, mental health and an infectious disease - for which health systems were unprepared. Key to ensure that NCDs and mental health are integrated into national COVID-19 response plans.
CONCLUSIONS

- Critical to preserve the public health gains - Improve policies and fiscal measures for **NCD risk factors**: scale up the Best Buys

- Integrate **NCDs and mental health** in strengthened primary health care – maintaining the innovations such as Digital health;

- **Strategic investments** will be required for a transformed health system able to respond to **future catastrophic emergencies**

- Strengthen **surveillance and research for NCDs**, with resilient and comprehensive information systems for health including data on NCDs and related COVID-19 outcomes