Addressing Priority Populations

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Recommendations

It is recommended that the Board of Health receive this report for information.

Key Points

- Identifying priority populations is crucial for achieving equity, maximizing resource effectiveness, and improving overall population health.
- Ontario Health Teams (OHTs) selected six priority populations to focus on in the early years of OHT implementation:
    1. Diabetes population
    2. Chronic obstructive pulmonary disease (COPD) population
    3. Palliative Care Services at End of Life (PCEoL) population
    4. Heart Failure population
    5. Mental Health & Addictions (MHA) population
    6. Frail Elderly population
- The report details the Wellington-Dufferin-Guelph population that make up the six OHT priority populations.
- There are many upstream factors associated with each of the priority populations that can be addressed through strategies and interventions in the community.

Background

Wellington-Dufferin-Guelph Public Health (WDGPH) is mandated by the Ontario Public Health Standards (OPHS) to conduct population health assessments, which requires the following.[1]

"[Public Health] shall use population health, social determinants of health, health inequities, and other sources of information to assess the needs of the local population, including the identification of populations at risk of negative health outcomes, to determine those groups that would benefit most from public health programs and services (i.e., priority populations).

[Public Health] shall tailor public health programs and services to meet identified local population health needs, including those of priority populations."

Importance of Identifying Priority Populations

Identifying priority populations is crucial for achieving equity, maximizing resource effectiveness, and improving overall population health. Priority populations often experience significant health disparities due to socioeconomic, cultural, environmental, or systemic factors.[2] Identifying these groups enables targeted interventions to reduce inequities and improve health outcomes. Efficiently allocating the use of public health resources involves identifying priority populations to ensure that efforts are focused where they are most needed. This approach helps optimize the impact of health programs and initiatives.

Different populations have unique health needs, risks, and barriers to care. By identifying priority groups, the design and implementation of programs can be tailored in a culturally, linguistically, and contextually appropriate way. Priority populations may face barriers such as lack of transportation, language differences, or financial constraints.[3] Identifying these groups helps address systemic issues and ensures equitable access to health services.

The aim of public health is to provide the community with the opportunity to achieve optimal health. Early identification of at-risk groups can prevent further health deterioration or crises.[4] Focused prevention and treatment efforts can mitigate long-term negative health outcomes. Recognizing and addressing the needs of priority populations aligns with the broader goal of social and health equity. Highlighting data on priority populations can influence policymakers to enact changes that address systemic inequities. It supports advocacy efforts to secure funding, legislative support, and program development.[7]

Definition of a Priority Population

Vulnerable populations are those that are experiencing and/or at increased risk of poor health outcomes due to the burden of disease and/or factor for disease, the determinants of health including the social determinants of health, and/or the intersection between them.[5] They are identified using local, provincial and/or federal data sources; emerging trends and local context; community assessments; surveillances; epidemiological and other research studies.

Priority populations are the groups that a program or intervention has chosen to focus on to reduce health inequalities because of their investigation of vulnerable populations.[6]

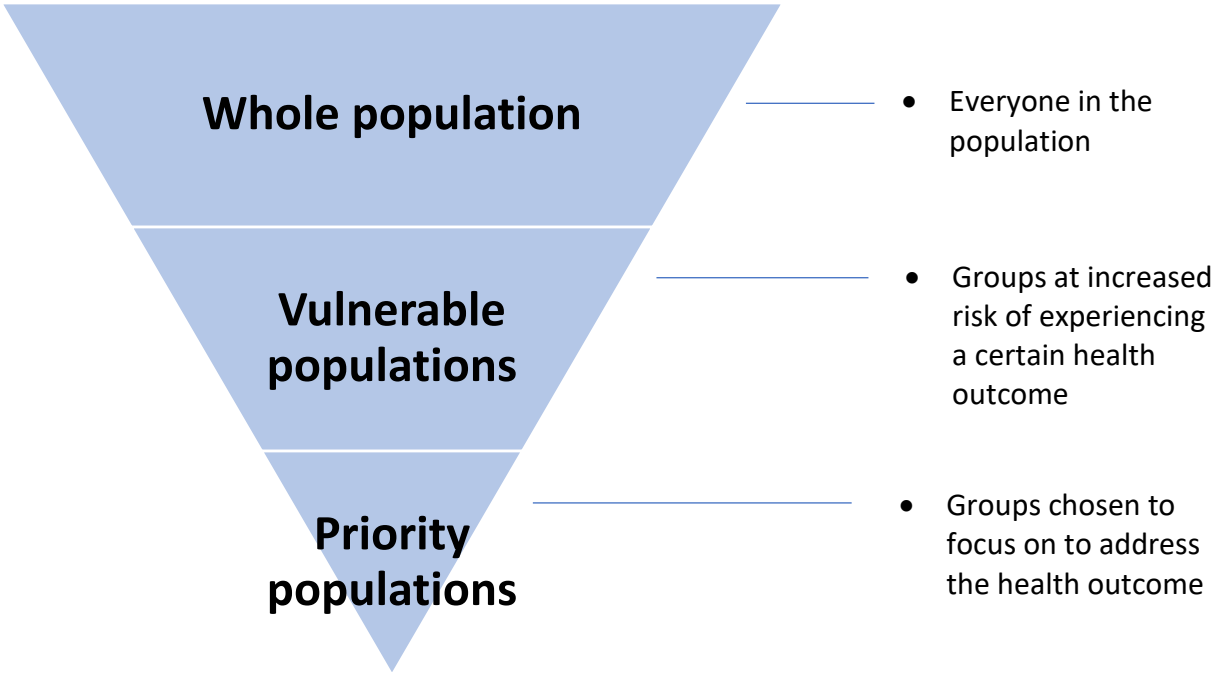

Figure 1. A pyramid chart displaying the selection of priority populations from vulnerable populations, groups at increased risk of experiencing certain health outcomes, and the whole population.

Ontario Health Priority Populations

The Government of Ontario established Ontario Health Teams (OHTs) to better enable patients, families, communities, and providers to work together and build on the Ontario health care system.[7] Under OHTs, health care providers and other social and community services (including public health) work as one coordinated team providing care to the population. OHTs are clinically and fiscally responsible for coordinating and delivering a full continuum of care to their attributed populations.

OHTs were asked by the Ministry of Health to specify which population(s) they would focus on in the early years of OHT implementation. The top six priority populations selected by the OHTs were the following:

(1) Diabetes population
(2) Chronic obstructive pulmonary disease (COPD) population
(3) Palliative Care Services at End of Life (PCEoL) population
(4) Heart Failure population
(5) Mental Health & Addictions (MHA) population
(6) Frail Elderly population

In order to support the population, OHTs require data to inform care, decision making, and meet the health needs of their attributed population. Population attribution to an OHT is not based on geography or where one lives but rather where and with whom they access care. Table 1 shows the priority populations for the two OHTs that WDGPH coordinates with based on the overlapping populations that WDGPH serves, Guelph-Wellington OHT (GW OHT) and Hills of Headwaters Collaborative (HOHC OHT).

Table 1. Number of people and rate per 1,000 in each priority population group for GW OHT, HOHC OHT, and Ontario, 2023-2024[8].

	GW OHT		HOHC OHT		Ontario	
	Population	**per 1,000**	**Population**	**per 1,000**	**Population**	**per 1,000**
Diabetes population	20,527	94.7	7,606	94.5	1,717,764	123.0
COPD population	9,892	74.3*	4,421	90.8*	751,396	85.4*
PCEoL population	1,825	10	592	10	111,513	9.0
Heart Failure population	4,761	36.4	1,953	39.9	340,000	37.3
MHA population	18,941	86.7	8,244	101.7	1,341,682	96.4
Frail Elderly population	12,898	298.4†	4,567	292.7†	817,084	279.7†

Notes:
* Population per 1,000 who are 35-years-old and older.
† Population per 1,000 who are 65-years-old and older.

WDGPH expertise in identifying priority populations can both inform WDGPH's programs and support the OHTs in this list of priority populations. Different agency mandates may require different priority populations, such as public health addressing socioeconomic and/or upstream factors of health outcomes (e.g., WDGPH Strategic Goal 2 – focus on children's health), while the OHT priority populations are primary care focused. Despite this distinction between public

health and OHT priority populations, the discussion will demonstrate upstream factors to help further inform the coordination of care, programs, and services in the community for these identified groups.

One way that WDGPH is supporting the priority population work at the OHTs is through improving data collection and analysis to help identify and track disparities, ensuring that resources are directed to where they are most needed. Through the analysis of local data sources (e.g., Well-Being and Health Youth Survey, Cannabis Survey, Fast Overdose Alert System, and wastewater and well water testing) and development of dashboards and reports aligning with the needs of the OHTs, WDGPH can support the OHTs assess healthcare interventions and adjust strategies to better serve priority populations. Included in future operational planning is to develop a priority populations data dashboard to better assist the OHTs address these populations.

Discussion

Socio-economic Status

Low income and educational attainment are two upstream factors that are associated with each of the priority populations. In Wellington-Dufferin-Guelph (WDG), approximately 7.4% of individuals are classified as low income according to the Low-Income Measure (LIM) after tax, with Guelph being the highest at 8.2% of individuals, followed by Wellington County at 7.1% and Dufferin County at 6.3%.[9] In WDG, 11% of the population aged 15 years and over are considered to have low education, which is less than a high school diploma or equivalent. This is the lowest in Guelph (9.1%), followed by Dufferin County (11%) and Wellington County having the highest proportion (14%). When looking at the WDG population who are classified as low income, more than 1 in 4 (26%) have low education – more than double the proportion of the total population with low education.

Limited access to healthy foods due to financial constraints means a higher reliance on inexpensive, calorie-dense, and nutrient poor processed foods.[10] There are additional barriers to preventative care and medications, increasing the risk of heart disease and related complications. Lower levels of education can limit health literacy and awareness of preventative measures, which leads to reduced access to information on nutrition and healthy lifestyles and delayed healthcare-seeking behaviour.[11] Dietary habits and sedentary lifestyle are major factors for rapidly rising incidence of type 2 diabetes mellitus worldwide.[12]

When looking at COPD, individuals in lower income brackets are more likely to be exposed to occupational and environmental pollutants and have more barriers to accessing healthcare.[13] Financial difficulties often restrict access to smoking cessation programs and treatment for early symptoms. Lower education levels correlate with reduced knowledge about the risks of smoking

and environmental pollutants. These factors can also be related to living in poor housing conditions, which may include increased exposure to indoor air pollutants, mold, or inadequate ventilation – all contributing to poor lung health.

Older adults with lower income are more likely to experience poor nutrition, inadequate housing, and barriers to healthcare, which increase frailty risks. Limited financial resources restrict access to mobility aids, medications, and other support services that reduce the likelihood of falls leading to injury.[14] Lower education can limit awareness of preventative care and self-management strategies for chronic conditions.[15] Additionally, a lack of social support networks contributes to loneliness, depression, and reduced physical activity, which all exacerbate frailty. These factors also impact palliative care service access as lower income individuals may face cost barriers, which reduce the availability of services and limit choices for home-based care, medications, and advanced care planning. Misunderstandings about palliative care options and advanced directives may delay care initiation or lead to underutilization.[16]

Poverty increases stress, insecurity, and exposure to adverse living conditions, which can heighten the risk of mental health concerns and addictions.[17] Financial hardship can limit access to treatment for mental health and substance use disorders. Limited education opportunities are linked to reduced health literacy and coping skills, which increase vulnerability to mental health challenges. Lack of education may also limit employment opportunities, which can contribute to economic stress and exacerbate mental health and substance use challenges.

Environmental and Community Factors

Built environment refers to person-made surroundings like buildings, parks, roads and walkways where people live, work and play a large role in the risk and experiences of the priority populations.[18] Food deserts limit the availability of fresh fruits, vegetables, and whole grains in certain neighbourhoods.[19] Limited availability of affordable, nutritious food options promotes unhealthy diets high in sodium and processed fats, increasing the risk of heart failure and type 2 diabetes. Inconsistent access to nutritious food can also exacerbate stress and increase vulnerability to mental health issues.

Environments dominated by car-centric infrastructure discourage walking or cycling. Lack of safe spaces for physical activity, such as parks or sidewalks, discourages exercise. Poor neighborhood conditions, including violence, easy access to alcohol, tobacco, and illicit drugs, lack of green spaces, and overcrowding, can contribute to chronic stress, poor mental health, and addiction.[20] Unsafe or non-walkable neighborhoods limit physical activity and social engagement, increasing frailty risks.[21] While a lack of community resources, such as senior centers or exercise programs, further contributes to physical and social inactivity. Geographic isolation can limit access to palliative care facilities and home-based services. Challenges in

transportation and communication infrastructure for delivering care may disproportionately impact rural areas versus urban areas.

Rising instances of extreme weather events disrupt food production and availability, leading to increasing reliance on processed foods. An increased prevalence of wildfires and extreme weather events exacerbates exposure to air pollutants that can accelerate lung damage. Chronic exposure to particulate matter and pollutants increases the risk of cardiovascular diseases, including heart failure.[22] Natural disasters, displacement, and environmental changes contribute to anxiety, PTSD, and increased substance use in affected populations. Older adults are also more vulnerable to extreme weather events, such as heatwaves or cold spells, due to reduced physical resilience and inadequate housing.

Employment and Working Conditions

High-stress jobs contribute to poor dietary choices, lack of exercise, and metabolic imbalances. Many of these types of work can include long hours or shift work, which can disrupt sleep and meal patterns, contributing to insulin resistance in type 2 diabetes.[23] If there is a lack of work-life balance within job roles and responsibilities, this can contribute to hypertension and cardiovascular strain. Another contributing factor is sedentary jobs, which can indicate physical inactivity and a higher risk for type 2 diabetes and cardiovascular diseases.

Prolonged exposure to dust, chemicals, fumes, and vapors in certain industries (e.g., construction, mining, or farming) increases the risk of COPD.[24] Insufficient occupational health regulations and enforcement can contribute to prolonged harmful exposures highlighting the importance of workplace regulations.

Cultural and Societal Influences

Cultural and societal influences play a critical role in shaping the health outcomes and behaviors of the priority populations. Cultural norms often dictate dietary habits, such as diets high in refined sugars, sodium, and saturated fats. These habits are often deeply embedded in many communities and challenging to change without targeted interventions. Marketing and the media exacerbate these issues by aggressively promoting unhealthy foods and sugary beverages, disproportionately targeting low-income and marginalized groups.[25] Similarly, communities with societal norms surrounding tobacco use and smoking, particularly in regions with limited anti-smoking campaigns or policies, can perpetuate smoking and exposure to secondhand smoke.

In some communities, stigma surrounding mental health and addiction discourages individuals from seeking help, a challenge compounded by discrimination against marginalized groups such as 2SLGBTQ+ individuals and Black, Indigenous, and people of colour (BIPOC) communities.[27] Additionally, cultural norms regarding substance use may normalize risky behaviors and discourage seeking help for mental health issues.

Healthcare System Factors

Access to preventive and comprehensive healthcare is a critical determinant of health outcomes in the priority populations, yet numerous barriers persist, particularly in underserved and low-resourced areas. Limited access to routine screenings, diagnostic tools, and early interventions can delay the detection and treatment of conditions such as diabetes, respiratory diseases, and hypertension.[28] Inadequate healthcare infrastructure distribution and geographic barriers can further exacerbate disparities, which may leave many rural and low-income populations without essential services. Out-of-pocket expenses for medications and waiting times for diagnostic tests and specialist care may deter individuals from seeking treatment and lead to suboptimal management of chronic conditions.

Healthcare inequities, including implicit bias and discrimination, can contribute to delayed or inadequate treatment for marginalized populations, such as 2SLGBTQ+ individuals and BIPOC communities. Mental health and substance use services face additional access challenges, with the growing demand for services in the community, long waiting times, and navigation of services hindering timely and effective intervention. Similarly, developing a sufficient end-of-life care workforce, particularly in rural and underserved areas, can limit access to tailored care for older adults and those with serious illnesses.[29] If there are barriers with integration between palliative care and other health care services, this can lead to late referrals, which impacts the quality and availability of end-of-life care.

Policy and Regulatory Context

Policy decisions in one sector can have ripple effects that ultimately influence health outcomes. Agricultural subsidies, for example, have historically promoted the production of crops like corn and soy, which are often used in inexpensive, processed foods high in salt, sugar, and unhealthy fats.[30] When a policy decision results in low nutritional food items costing less than nutritional food it impacts the purchasing choices of consumers, particularly low-income consumers. An increased consumption of low-cost, unhealthy dietary options can increase the prevalence of obesity, diabetes, and cardiovascular diseases[31]. Similarly, policy decisions which affect housing availability/affordability can fail to ensure stable and healthy living conditions, exacerbating risks for chronic conditions, mental health issues, and overall health instability.[32]

Environmental and energy policies also have profound health implications. While tobacco control measures, such as taxation and marketing restrictions, address rates of smoking and secondhand smoke exposure, urban planning and air quality regulations in rapidly urbanizing areas can contribute to pollution-related respiratory illnesses.[33]

Broader economic and social policies further compound these issues. Adequate long-term care infrastructure and social services is an example of long-term policy decisions and planning which impacts future populations of frail elderly individuals, their families and the acute healthcare sector.[34] Another example is funding for public transportation infrastructure which has significant impacts on all priority populations but especially low-income, those with mobility challenges and the frail elderly.

Early Life and Intergenerational Factors

Early-life exposures and intergenerational factors play a significant role in shaping long-term health outcomes, linking environmental factors to chronic diseases across the lifespan.[35] Prenatal and early childhood experiences, such as maternal malnutrition or exposure to stress, can predispose individuals to conditions like type 2 diabetes, cardiovascular diseases, and chronic obstructive pulmonary disease (COPD).[36] Maternal smoking or exposure to pollutants during pregnancy, along with recurrent respiratory infections in childhood, may impair lung development and increase susceptibility to respiratory illnesses later in life.

Adverse childhood experiences (ACEs), including abuse, neglect, and household dysfunction, further compound health risks, particularly for mental health and substance use disorders.[37] Intergenerational trauma, often experienced by marginalized populations due to legacies of colonization, displacement, or systemic discrimination, can exacerbate mental health challenges and perpetuate inequities.[38] Lifelong exposure to cumulative stress, trauma, and discrimination amplifies these risks, contributing to a cycle of vulnerability and poor health outcomes.

Health Equity Implications

Identifying priority populations in public health is critical for addressing health disparities and ensuring equitable resource allocation, yet it presents several challenges. One challenge lies in defining priority populations in a way that captures the intersectionality of health determinants. Many individuals belong to multiple marginalized groups, such as BIPOC communities, low-income communities, and individuals with disabilities. Overlooking these overlapping identities can result in strategies that fail to address the full complexity of their needs. Additionally, implicit biases and systemic inequities within research and policymaking processes can lead to the prioritization of certain groups over others, perpetuating existing disparities.

Despite these challenges, addressing priority populations in public health has meaningful health equity implications as it directly affects the ability to address disparities and promote access to healthcare services for those at increased risk of negative health outcomes and behaviours. By focusing on priority populations, public health initiatives can help close gaps in access and outcomes, such as higher rates of chronic diseases in marginalized communities or lower vaccination rates among underserved populations.

Selecting priority populations ensures that resources, such as funding, healthcare infrastructure, and public health staff, are allocated to those most in need – reducing inequities across the health system. Including priority populations in planning processes promotes representation and builds trust, making programs and initiatives more effective and sustainable in these sub-groups of the population.

Broad policy changes, such as housing, education, and employment, can achieve long-term systemic equity improvements. Addressing the needs of priority populations in programs and initiatives can contribute to the forward momentum of long-term societal improvements. By addressing priority populations agreed upon by the Agency's OHT partners, public health can prevent overlooking or further marginalizing vulnerable groups.

Conclusion

Addressing priority populations is a fundamental step toward achieving equitable and effective public health outcomes. This process ensures that health disparities are addressed by focusing on groups that face the greatest challenges due to socioeconomic, cultural, or geographic barriers. By utilizing data, community engagement, and inclusive decision-making, public health can allocate resources more effectively, tailor programs and initiatives and specific needs, and foster long-term systemic change. For sustained impact, it is vital to continuously evaluate and refine selected priority populations for programs and initiatives based on outcomes and evolving community needs.

Ontario Public Health Standards

Foundational Standards

- ☒ Population Health Assessment
- ☒ Health Equity
- ☒ Effective Public Health Practice
- ☐ Emergency Management

Program Standards

- ☒ Chronic Disease Prevention and Well-Being
- ☒ Food Safety
- ☒ Healthy Environments
- ☒ Healthy Growth and Development
- ☒ Immunization
- ☒ Infectious and Communicable Diseases Prevention and Control
- ☒ Safe Water

☒ School Health

☒ Substance Use and Injury Prevention

2024-2028 WDGPH Strategic Goals

More details about these strategic goals can be found in WDGPH's 2024-2028 Strategic Plan.

☒ Improve health outcomes

☐ Focus on children's health

☐ Build strong partnerships

☒ Innovate our programs and services

☐ Lead the way toward a sustainable Public Health system

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