City-level monitoring guidance for the prevention and control of noncommunicable diseases and injuries

World Health Organization

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Foreword

As a discipline, public health began in cities. But with rates of urbanization rapidly expanding around the world, many cities are also unwittingly exposing their citizens to risk factors for two health threats that claim millions of lives each year: noncommunicable diseases (NCDs) and injuries.

Every year, over 80% of global deaths are due to these two health threats. Yet by reducing exposure to key risk factors, many of those deaths can be either prevented or postponed, offering the prospect of many more years of well-being and healthier lives.

At the global level, we know that policies to protect people from NCDs and injuries – such as promoting clean air, access to healthy food, safe streets and protecting people from the effects of harmful substances – are effective and essential. We also know that through the physical and policy environments that they create, city authorities play a critical role in advancing and enforcing these important areas of work. But until now, we have not focused on how their contribution can be monitored.

With this report, that changes.

I am delighted to introduce the World Health Organization (WHO) guidance on city-level indicators for tackling NCDs and injuries. It offers a set of indicators that city authorities and partners can use to guide and monitor their own progress on these critical issues within urban environments. The indicators are linked to evidence-based interventions for eight key areas connected to common NCD risk factors, as well as injury prevention for road safety and opioid overdose. Using these indicators allows cities to take ownership of their actions in these areas, and to demonstrate how their work is aligned and contributing to national and global commitments to health and well-being.

WHO recognizes the crucial role that cities play in ensuring healthy settings for all. While these indicators cover a specific set of topics, the interlinked nature of urban health challenges means that action in one sector can have benefits in many other sectors. By advancing the areas of work covered by these indicators, cities can move a step closer to ensuring better health for all – a mission that aligns them with national governments, the global health community, and with WHO.

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Abbreviations

GHO	Global Health Observatory
GSHS	Global School-based Student Health Survey
HIV	human immunodeficiency virus
ICD	International Classification of Diseases
OAMT	opioid agonists maintenance treatment
PM2.5	particulate matter ≤2.5µm diameter
NCDs	noncommunicable diseases
SBIRT	screening, brief intervention and referral to treatment
SDGs	Sustainable Development Goals
SSBs	sugar-sweetened beverages
STIs	sexually transmitted infections
TAPS	tobacco advertising, promotion and sponsorship
TB	tuberculosis
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

Indicator groups

AP1, AP2 etc.	air pollution reduction
AC1, AC2 etc.	alcohol control
OP1, OP2 etc.	overdose prevention
HD1, HD2 etc.	promoting healthy diets
RS1, RS2 etc.	road safety
WC1, WC2 etc.	safe walking and cycling
TC1, TC2 etc.	tobacco control
S1, S2 etc.	surveillance for NCDs and injuries

Disclosure of interests

Disclosed interests in the fields of air pollution reduction, alcohol control, overdose prevention, promoting healthy diets, road safety, safe walking and cycling, tobacco control and surveillance of noncommunicable diseases and injuries that may influence the opinions of the external contributors were reviewed by the WHO technical unit that oversaw the development process for the city-level monitoring guidance. It was determined that none of the listed contributors had any conflict of interest that hindered their ability to provide objective analysis of indicators in any of the topics.

Photo credit: WHO/Diego Rodriguez

1. Background

The world is undergoing rapid urbanization. By 2020, approximately 56% of the world's population had already moved to urban areas, and this trend is anticipated to accommodate an increasing majority of future population growth *(1)*. Given these circumstances, it is increasingly important that cities ensure supportive environments that promote health and well-being for their inhabitants.

Two of the major factors affecting health in cities are noncommunicable diseases (NCDs) – such as cardiovascular diseases, cancer, diabetes, and chronic lung diseases – and injuries. NCDs are responsible for 74% of all global deaths, killing approximately 41 million people each year *(2)*. Meanwhile unintentional injuries from multiple issues, including road traffic crashes, falls and drowning, are responsible for over 3 million annual deaths *(3,4)*.

Poorly planned urbanization, as well as the impact of urban lifestyles on living environments, employment conditions and incomes, can increase population exposure to multiple risk factors for NCDs and injuries *(5,6)*. Examples include polluted air, unsafe roads, a lack of opportunities for physical activity, obesogenic environments, and exposure to harmful substances. Yet many of these risk factors are modifiable and can be influenced in a positive way through optimal design of urban areas, and the policies their leaders enact and implement. The role of cities is therefore critical for creating safe, healthy urban environments for citizens by ensuring that exposure to these risk factors is minimized. In doing so, their actions are important to ensure local, national, and global progress on reducing NCDs and injuries.

The World Health Organization (WHO) recognizes the critical role of city-level authorities in the prevention and control of NCDs and injuries. While legislative authority varies between cities, there are a range of policy interventions that cities can adopt or advance to reduce citizen exposure to related risk factors. In 2019, a WHO global report outlined some of the actions that cities could take to protect people from NCDs and injuries *(5)*, and a regional publication highlighted the role of cities and local governments in tackling NCDs *(6)*. WHO also provides technical assistance to cities through programmes and initiatives such as the Partnership for Healthy Cities, a global network of cities working to protect people from NCDs and injuries.

Good data underpins any effective public health action. In relation to NCDs and injuries in urban settings, this can be divided into two main categories:

- City-level prevalence data on diseases and risk factors – disaggregated according to local needs – to show where the greatest health burdens are and who they are affecting.
- Information on the existence, implementation and enforcement of evidence-based policies that are known to reduce exposure to common risk factors.

Together, these data are a powerful resource that local authorities can use to assess progress across different areas and identify where further action can be taken.

This publication – *City-level monitoring guidance for prevention and control of noncommunicable diseases and injuries* – is intended to support this work. It is a tool intended to help city-level authorities to:

1. Assess the status of development, implementation and monitoring of key policy interventions for the prevention of NCDs and injuries.
2. Identify gaps the local health response to key issues and suggest steps that can be taken to strengthen these responses.
3. Monitor progress over time within a given city.
4. Provide a standardized assessment across time and place.

This guidance is intended to support cities to monitor their progress in the prevention and control of NCDs and injuries, by outlining key policy interventions and providing a monitoring framework, assessment methods and instrument, as well as a compendium of indicators. It also highlights other essential WHO publications, tools and standards for implementing these interventions.

Photo credit: WHO/Lindsay Mackenzie

What is a city?

The city, one of the biggest societal phenomena of the 21st century, has evolved significantly over time but definitions continue to vary between countries and regions. These definitions range from those using a single criterion (e.g. population threshold) to those using a mix of criteria (e.g. population size, density, administrative delimitation, and/or economic occupation). As a result, developing a consistent global monitoring definition for urban health data is not straightforward.

This guidance is intended to be used by any entity defined as a 'city' by local or national criteria. For the indicators, the data can come from whichever administrative region that a city would usually use, including but not limited to 'city proper', 'metropolitan area' or 'urban agglomeration'. However, an important factor is that the city authorities should have some degree of legislative or implementational authority over the policy action areas.

Source: Adapted from: What is a city? Nairobi: United Nations Human Settlements Programme (UN-Habitat); 2020 (https://unhabitat.org/sites/default/files/2020/06/city_definition_what_is_a_city.pdf, accessed 29 August 2023). *

2. Key policy interventions to tackle NCDs and injuries

The policy interventions covered in this guidance cover eight areas that are considered key to prevention and control of NCDs and injuries *(5)*:

- Air pollution reduction.
- Alcohol control.
- Overdose prevention.
- Promoting healthy diets.
- Road safety.
- Safe walking and cycling.
- Tobacco control.
- Surveillance for NCDs and injuries.

These are important contributing factors for reducing deaths from NCDs and injuries, and areas where the urban environment can play a significant role in increasing or diminishing risk exposure.

Air pollution is a major risk factor for human and environmental health, estimated to be responsible for more than 7 million deaths each year *(7)*. It includes both ambient (outdoor) air pollution and household (indoor) air pollution. Air pollution levels are typically higher in cities than in rural areas, and major sources of air pollution include a wide range of sectors in urban settings.

Diet-related risk factors are top causes of death and disease globally *(8)*. Substantial dietary transitions towards more convenient and highly processed food, which are higher in unhealthy fats, sugars or salt, are resulting in rising proportions of overweight and obese individuals, and consequent NCDs. This trend is particularly evident in urban areas.

Consumption of other harmful products also leads to health challenges. **Tobacco use** is responsible for more than 8 million deaths each year, including 1.3 million non-smokers who are exposed to second-hand smoke *(9)*. Policies such as smoke-free spaces (indoor and outdoor), and bans on tobacco promotion, advertising and sponsorship, have been shown to save lives and are typically within the remit of local authorities to enact or enforce. Harmful **alcohol consumption** is responsible for around 3 million deaths annually *(10)* and can similarly be reduced using pricing strategies, advertising bans and the enforcement of drink–driving regulations. Meanwhile, **opioid overdose** is estimated to cause around 120 000 deaths annually, despite the existence of effective treatment interventions for opioid dependence that can

decrease the risk of overdose. Less than 10% of people who need such treatment currently receive it *(11)*. In urban environments there is an opportunity to provide opioid overdose prevention services to significant numbers of people.

Road safety is another major issue. Around 1.3 million deaths each year are due to road traffic crashes, and they are the leading global cause of death for children and young adults aged 5–29 years old *(12)*. More than half of all road traffic deaths are among vulnerable road users (pedestrians, cyclists, and motorcyclists), making safe roads a priority, especially in cities where the intersection of vulnerable users with vehicle users are typically more common.

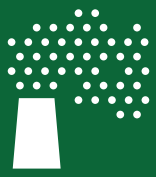
Safer roads are also linked to the importance of **safe walking and cycling** in urban environments. Physical activity has significant health benefits, particularly for prevention and management of NCDs, but more than 80% of the world's population is insufficiently active *(13)*. Numerous opportunities exist to promote active transport within urban environments, provided that appropriate infrastructure and policies are in place.

Finally, robust **NCD and injury surveillance** data are an essential baseline for understanding prevalence and in order to monitor trends over time. Within an urban context, surveillance can provide disaggregated data on patterns within specific geographic areas or sociodemographic groups, allowing for targeted policy responses or programmatic interventions.

Photo credits: WHO/Diego Rodriguez , WHO/Conor Ashleigh, WHO/Olivier Asselin, WHO/Violaine Martin, and WHO/Patrick Brown

WHO already has a strong evidence base for action at the global and national level for each of these factors. The key interventions in each topic area are aligned with global commitments, such as the Sustainable Development Goals (SDGs) *(14)* and the *Global action plan for the prevention and control of noncommunicable diseases 2013–2020 (15)* (now extended to 2030), the UN Decade of Action on Nutrition 2016–2025 *(16)* and the second Decade of Action on Road Safety 2021–2030 *(17)*. Yet subnational action is also important. Recognizing this, a set of 'best buys' and other recommended interventions has been identified where it is both feasible and important for cities to take action (*Table 1*).

TABLE 1. WHO 'best buys' and other recommended interventions by policy area

Policy area	Interventions
 **Air pollution reduction**	• Establish air quality monitoring programme • Ensure open access to air quality data and air quality health alerts • Establish air pollutant emission inventories for relevant sectors • Enforce compliance with air quality standards, regulations and emissions control strategies • Regularly monitor and report on household energy access (proxy for household air pollution) indicator
 **Alcohol control**	• Establish adequately funded comprehensive and intersectoral city level strategies and activities to reduce harmful use of alcohol through a designated institution with assigned responsibilities • Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale) • Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media) • Restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people • Enact and enforce drink–driving laws and blood alcohol concentration limits via sobriety checkpoints • Provide brief psychosocial intervention for people with hazardous and harmful alcohol use • Provide prevention, treatment and care for alcohol use disorders and comorbid conditions in health and social services • Establish minimum prices for alcohol where applicable • Carry out regular reviews of prices in relation to level of inflation and income • Regularly monitor and report on alcohol-related risk factors and outcomes
 **Overdose prevention**	• Ensure availability of key medications for opioid dependence treatment • Establish governance mechanisms for treatment of drug use disorders • Provide non-structured harm reduction services for people with drug use disorders • Provide take-home naloxone (opioid overdose treatment) within the city • Establish programmes for primary prevention and treatment of drug use disorders • Ensure access to interventions for drug use disorder treatment • Provide treatment for people with drug use disorders in prisons • Regularly monitor and report on coverage of drug use disorders treatment and mortality due to opioid overdose
 **Promoting healthy diets**	• Taxation on sugar-sweetened beverages as part of fiscal policies for healthy diets • Policies to protect children from the harmful impact of food marketing • Develop and implement nutrition standards for foods and beverages served and/or sold in public settings as well as in close proximity to settings where children gather • Develop and implement policies and programmes to improve the healthiness of foods and beverages being sold and served at restaurants and other food outlets • Develop and implement policies designed to limit the relative density of food outlets selling predominantly unhealthy foods and beverages compared to outlets selling predominantly healthy foods and beverages • Ensure that free, safely managed drinking-water is available in all public settings • Regularly monitor and report on dietary risk factors including salt intake, fruit and vegetable intake and obesity

Policy area	Interventions
 **Road safety**	• Enforce speed limit legislation • Implement road designs that limit speed and protect cyclists and pedestrians • Enact and enforce helmet use for two-wheelers • Enforce seat-belt legislation • Regularly monitor and report on road safety indicators including helmet use, seat-belt use and road traffic deaths per 100 000
 **Safe walking and cycling**	• Enact transport and mobility policies that recognize the value of and prioritize walking and cycling as travel modes and have action plans with time-bound targets and performance metrics for walking and cycling • Implement urban and transport planning and urban design, at all levels of government, to provide compact neighbourhoods providing mixed-land use and connected networks for walking and cycling and equitable access to safe, quality public open spaces that enable and promote physical activity and active mobility • Implement sustained, population wide, best practice communication campaigns to promote physical activity, with links to community-based programmes and environmental improvements to enable and support behaviour change • Provide and promote physical activity through provision of community-based (grass roots) sport and recreation programmes and conduct free mass participation events to encourage engagement by people of all ages and abilities • Regularly monitor and report on city travel behaviours disaggregated by walking and cycling, and perceptions of walking, cycling and public transport services and environment
 **Tobacco control**	• Increase excise taxes and prices on tobacco products • Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public spaces and public transport • Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship • Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and of second-hand smoke, and encourage behaviour change • Provision of cost-covered, effective population-wide support (including brief advice, national toll-free quit line services and mCessation) for tobacco cessation to all tobacco users • Regularly monitor and report tobacco use within the city
 **NCD and injury surveillance**	• Establish a surveillance system with periodic data collection regarding risk factors and outcomes of interventions related to NCDs and injuries • Monitor routine facility and patient monitoring for alcohol use/substance disorders and tobacco dependencies • Ensure access to cause-of-death certification and reporting

Source: Adapted from: Best buys and recommended interventions for the prevention and control of noncommunicable diseases. Geneva: World Health Organization; 2023.

In principle, city-level action is possible across all of these areas. In practice, each city has varying degrees of political, financial or legislative authority over each area of intervention, and will need to consider this when reviewing their own policies and programmes against these recommended interventions.

3. Monitoring the prevention and control of NCDs and injuries

Methodology for developing the monitoring framework and indicators

Standards-based monitoring frameworks to measure progress on the prevention and control of NCDs and injuries are well-established and implemented at national levels. However, the application of these frameworks at city level is not widespread. To address this gap, WHO has developed the *City-level monitoring guidance for the prevention and control of noncommunicable diseases and injuries*. The guidance offers cities a strategic approach for assessing the status of key interventions and enables them to consistently track their progress in tackling NCDs and injuries.

WHO prioritized the development of a minimum set of indicators in eight policy interventions areas where relevant actions have been progressing in cities. In 2019, WHO convened experts to undertake a comprehensive assessment of established WHO national-level indicators, considering their relevance and data collection feasibility at the city level. Potential indicators that might be important to city-level action but not significant on a national scale were also reviewed. From these indicator reviews, experts in each area of work identified important indicators that assessed various aspects of policy adoption, implementation, enforcement and compliance. National-level indicator definitions including measurement tools were adapted to city context where possible. This facilitates harmonious data collection, allowing cities to demonstrate not just progress towards their own health goals, but also their contribution to national or global targets, such as the SDGs.

A pilot study was conducted by WHO Technical Departments to determine the availability of proposed city indicators and to gather input from city-level authorities on their relevance and utility. After preliminary desk reviews on 63 proposed indicators, which included assessing availability in four pilot cities, the set of indicators was reduced to 56 indicators that were available and considered actionable within the city's purview. An additional 16 cities were then included in a pilot assessment to explore the applicability of indicators in cities with varying population sizes, in different geographical areas, and from countries in different income levels according to World Bank classification. The study also provided further insights on indicator definitions and other specifications such as scoring criteria and reporting frequency. It also guided decisions in the classification of indicators as core versus optional. Ultimately, 34 core indicators and 22 optional indicators were included in the framework (Table 2).

These indicators can be used to identify strengths and weaknesses in local policies and to guide evidence-informed action to bridge gaps. Using standardized and practical indicators to track progress in these policy areas promotes consistent and reliable monitoring of progress over time.

TABLE 2. Core and optional indicators, by policy area

Air pollution reduction

- ✪ Air pollution measurement capacity
- ✪ Availability of air quality information and trends
- ✪ Availability of emission estimates
- ✪ Existence and enforcement of air quality standards
- ● Proportion of population with primary reliance on clean fuels and technologies for cooking

Alcohol control

- ✪ Existence of comprehensive strategy, plan of action and activities to reduce harmful use of alcohol
- ✪ Existence of policy to restrict commercial and public availability of alcohol
- ✪ Existence of bans or comprehensive restrictions on alcohol advertising, promotion and sponsorship
- ✪ Existence and enforcement of drink–driving legislation
- ✪ Availability of brief intervention and treatment for problematic alcohol use
- ● Access to and use of price data on alcoholic beverages
- ● Prevalence of heavy episodic drinking in drinkers aged 15 years and over
- ● Age-standardized rates of liver cirrhosis, cancer and road traffic deaths

Overdose prevention

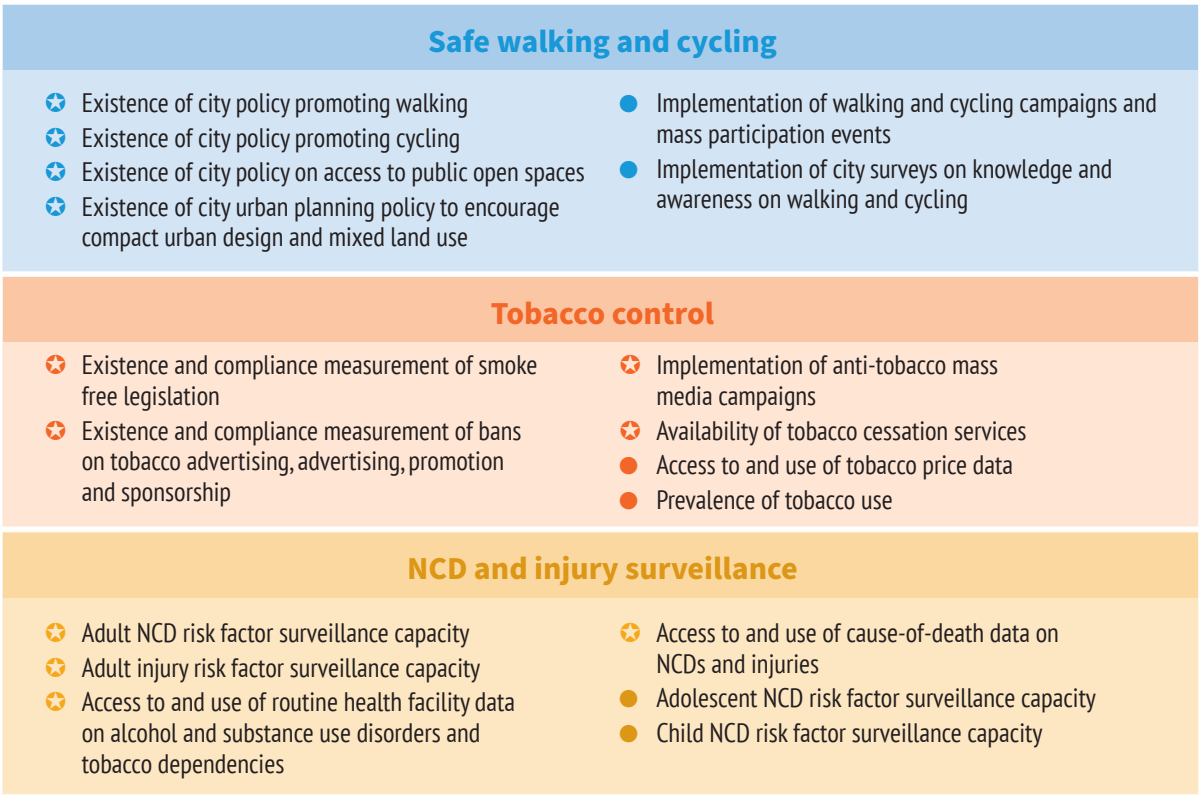
- ✪ Availability of key medications for opioid dependence treatment
- ✪ Existence of service governance mechanisms for drug use disorder treatment
- ✪ Availability of non-structured harm reduction services for people with drug use disorders
- ✪ Availability of take-home naloxone at city level
- ● Availability of programmes on primary prevention of drug use
- ● Service capacity for drug use disorder treatment
- ● Availability of drug use disorder treatment in prisons
- ● Coverage of drug use disorder treatment
- ● Opioid overdose mortality rate

Promoting healthy diets

- ✪ Existence and enforcement of policies to restrict marketing of unhealthy foods and non-alcoholic beverages
- ✪ Existence and enforcement of nutrition standards for foods and beverages served and/or sold in public settings
- ✪ Existence and enforcement of policies and programmes to improve healthy eating in restaurants, food outlets or vending machines
- ✪ Existence and enforcement of urban planning/zoning policies to increase healthier food options
- ✪ Existence and enforcement of policies to ensure that free safely managed drinking water is available in all public settings
- ● Access to and use of price data on sugar-sweetened beverages
- ● Mean population salt intake
- ● Prevalence of low fruit and vegetable intake in adults
- ● Prevalence of overweight and obesity in adolescents and adults

Road safety

- ✪ Existence and enforcement of speed limit legislation for private passenger vehicles
- ✪ Existence and implementation of road design standards that include speed management and safe infrastructure for pedestrians and cyclists
- ✪ Existence and enforcement of legislation on helmet use for two- and three-wheeled motor vehicles including helmet use standards and wearing requirements
- ✪ Existence and enforcement of legislation for seat-belt use
- ● Prevalence of helmet use among all motorized vehicle users
- ● Prevalence of seat-belt use in all seating positions
- ● Road traffic deaths per 100 000 by road user type



Implementing the monitoring framework

Cities may choose to apply this framework of indicators in one of two ways. The first option is to treat it as a reference source when considering which indicators to monitor within their own internal or external reporting systems. Specific indicator definitions or scoring criteria may be selected and integrated into a city's existing monitoring or reporting frameworks for any of the eight policy areas.

The second option is to use the indicators to conduct a baseline self-assessment of the current status of planning or implementation in one or more of the intervention areas. A self-assessment (see Fig. 1) provides city-level authorities with information on where they are seeing strong progress on NCDs or injury prevention, and allows them to identify gaps or areas that would especially benefit from further focus or investment. Cities may conduct a self-assessment themselves or request a third-party to do this on their behalf.

To facilitate the use of the indicators as a self-assessment exercise, the guidance includes an assessment instrument that can be used by cities to collate and review indicator data. The instrument provides a rating checklist for each indicator, linked to the achievement of the overarching public health objective, policy, or action it supports. It allows the creation of an aggregate score or rating, which indicates the level of achievement based on indicator scoring criteria. The rating uses three levels (nascent, developing, or advanced) and the scoring criteria vary by indicator. A sample indicator rating is shown in Table 3.

FIGURE 1. Stepwise self-assessment approach

Step 1: Topic selection

- City health leaders or technical teams can choose to review indicators for all topics or choose only certain indicators or topics. This will depend on their interests, priorities for a given city and capacity to carry out assessment activities.
- The self-assessment can be conducted by units or departments with responsibility for a particular policy area.
- Different units or departments may choose to conduct an assessment simultaneously for topic/s relevant to their work (e.g. transport and environment may both be interested in safe active mobility but lead different policy areas within that topic).

Step 2: Data collection

- The lead unit/s conduct a review of each indicator within a chosen topic, to understand whether information is available and/or collected by the city.
- Sources of information may include strategies, policies, legislation, databases and key informant interviews.
- To facilitate data collection, a monitoring tool is included in the guidance. This can be used for individual topics or for the complete set.

Step 3: Analysis and application

- City departments review the data and score each indicator based on the maturity criteria in the guidance using the assessment instrument.
- The results can be used to identify areas of relative strength or where improvement is needed.
- Based on local capacity, priorities and legislative remit, a city may choose to use these results to justify future work on a particular policy area. They can consult the guidance for additional support on how to strengthen a particular area, based on WHO-recommended actions and guidelines.

TABLE 3. Sample of indicator rating checklist

Level	Scoring criteria
Nascent	City is not covered by a policy, or covered at a very low level
Developing	City is covered by a policy outlining some but not all recommended policy measures
Advanced	City is covered by a policy outlining most or all recommended policy measures

Some indicators are more complex, covering multiple potential city actions from policy development to compliance monitoring. These complex indicators can be disaggregated into sub-components to allow detailed assessment and rating, and then summarized as a composite score. Scoring and weighting of indicators is also provided in the indicator definitions for these complex indicators. Some indicators reflect the outcomes and impacts of policy actions, including service coverage, risk factor prevalence and cause-specific mortality. The achievement criteria have not been specified for these indicators, but cities can assess their progress over time based on national/sub-national targets if city-specific targets are unavailable.

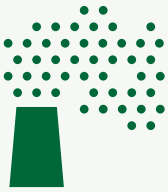
While the framework can be used as a stand-alone tool, it is not intended to be exhaustive or exclusive. City-level health authorities may choose to select specific indicators from the set or combine it with other indicators or monitoring tools that they consider relevant to their work, such as other health indicator sets from WHO *(18),* other UN agencies, or national authorities.

Assessing the indicators involves reviewing available information and data sources relevant to each area. Where possible, indicators should be sourced from existing information systems maintained by respective cities. In cases where this is not available, secondary sources may be used.

Some components of indicators may include assessing the existence of policies at the national level, and in these cases national or international data sources should be used. Potential data sources are specified for each indicator, including WHO sources where they exist.

A recommended frequency of data collection is provided for each indicator. The frequency will depend on a city's own internal data collection cycles, as well as available funding. A city may have more recent data available for indicator elements that are connected to established reporting mechanisms such as civil registration systems, routine health facility information systems and administrative records. Conversely, cities may collect data for some indicators less frequently because of a lack of financial or human resources, the absence of existing systems, or other local factors. In some cases, the suggested data source may only provide national-level data, but cities should supplement this with city-level or sub-national data where available. Cities may also choose to further disaggregate data on specific indicators to focus on the health needs of specific demographic groups or geographic areas of the city.

4. Indicators by policy area



4.1. Air pollution reduction

Intervention: Establish air quality monitoring programme	
Indicator AP1. Air pollution measurement capacity	**Suggested data sources**: • Air quality monitoring networks • Air quality management plans
Intervention: Ensure open access to air quality data and air quality health alerts	
Indicator AP2. Availability of air quality information and trends	**Suggested data sources:** • Air quality monitoring networks • Environmental agency websites • Air quality surveys
Intervention: Establish air pollutant emission inventories for relevant sectors	
Indicator AP3. Availability of emission estimates	**Suggested data sources** • Emissions inventories • Source apportionment studies • Air quality surveys
Intervention: Enforce compliance with air quality standards, regulations and emission control strategies	
Indicator AP4. Existence and enforcement of air quality standards	**Suggested data sources** • Air quality standards • Air quality management reports
Intervention: Regularly monitor and report on household energy access (proxy for household air pollution) indicator	
Indicator AP5. Proportion of population with primary reliance on clean fuels and technologies for cooking	**Suggested data sources** • Population-based surveys

AP1 Air pollution measurement capacity	
Purpose	To assess the capacity for measurement of air pollution
Definition	Availability of a network of air pollution monitoring stations. Additionally, an air quality monitoring network should have the following components/features: ● At least one monitoring station located in one populated urban area is available and has been operational for at least one year. ● Other monitoring stations are located near industries or roadways. ● Quality control procedures are applied to data before it is finally released. ● Sites are reviewed at least every five years to ensure they still meet the objectives of the network and are appropriate. ● City-level data on air pollution (PM2.5) weighted by population density are available.
Method of scoring	This indicator is considered advanced if an air pollution monitoring network is available in the city and the following components are included: (a) at least one monitoring station is available in a populated urban area and it has been operational for at least one year; (b) other monitoring stations are located near industries or roadways; (c) quality control procedures are applied to data before it is finally released; (d) sites are reviewed at least every five years to ensure they still meet the objectives of the network and are hence appropriate; (e) city-level data on air pollution (PM2.5) that is weighted by population density. This indicator is considered developing if air pollution monitoring is available in the city and two to three of the above components are included. This indicator is considered nascent if air pollution monitoring is not available or air pollution monitoring is available but only one of the above components is included.
Sources of data	Air quality monitoring networks, air quality management plans
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Ambient Air Quality Database Application (WHO) *(19)* Global Health Observatory: PM2.5 (WHO) *(20)*

AP2 Availability of air quality information and trend	
Purpose	To assess the availability of air quality information and trends in the past five years
Definition	Public availability of air quality information. Additionally, the following components should be included: • Air quality information available as raw or aggregated data. • Any mass media education and awareness campaign conducted in the past three years on air pollution. • Warning to the public issued during or before forecasted periods of poor air quality. • Stable or decreasing trends of air pollution for PM2.5.
Method of scoring	This indicator is considered advanced if air quality information is publicly available and the following components are included: (a) air quality information available as raw or aggregated data; (b) any mass media education and awareness campaigns conducted in the past three years on air pollution; (c) warnings to the public issued during or before forecasted periods of poor air quality; (d) stable or decreasing trends of air pollution for PM2.5. This indicator is considered developing if air pollution information is publicly available and two to three of the above components are included. This indicator is considered nascent if air pollution information is not publicly available or if air pollution information is publicly available but only one of the above components is included.
Sources of data	Air quality monitoring networks, environmental agency websites, air quality surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Ambient Air Quality Database Application (WHO) *(19)* Global Health Observatory: PM2.5 (WHO) *(20)*

AP3 Availability of emission estimates	
Purpose	To assess the availability of emission inventories for air pollution sources conducted in the past five years
Definition	Availability of emission inventories for air pollution sources conducted in the past five years. Additionally, emission estimates from various sources including residential emissions, power generating facilities, industrial emissions, traffic emissions and agricultural emissions are available.
Method of scoring	This indicator is considered advanced if emission inventories for air pollution sources were conducted in the past five years and emission estimates from various sources including: (a) residential emissions; (b) power generating facilities; (c) industrial emissions; (d) traffic emissions; (e) agricultural emissions are available. This indicator is considered developing if emission inventories for air pollution sources were conducted in the past five years and one to four emission source estimates are available. This indicator is considered nascent if no emission inventories for air pollution sources were conducted in the past five years.
Sources of data	Emission inventories, source apportionment studies, air quality surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Air pollution (WHO) *(21)* Air quality database (WHO) *(22)* Ambient air pollution (WHO) *(23)* Database on source apportionment studies for particulate matter (WHO) *(24)*

AP4 Existence and enforcement of air quality standards	
Purpose	To assess the enforcement of regulations ensuring compliance with air quality standards
Definition	Existence of air quality standards at national, regional (subnational) or city level and enforcement of regulations ensuring compliance with air quality standards. Additionally, the following components are included: • Ambient air quality standards such as limit values for acute effect (i.e. 24-hr time period). • Ambient air quality standards such as limit values for chronic effect (monthly or yearly averaging time). • Environmental impact assessments conducted before the construction of major new projects such as roads or industrial facilities. • Additional emission controls imposed on industry, or vehicle use restricted during episodes of particularly poor air quality. • Quality norms imposed on solid fuels to be used by households.
Method of scoring	This indicator is considered advanced if the city is covered by air quality standards – including both limit values for acute and chronic effects, and regulations to ensure compliance with air quality standards are enforced including: (a) environmental impact assessments conducted before the construction of major new projects such as roads or industrial facilities; (b) additional emission controls imposed on industry, or vehicle use restricted during episodes of particularly poor air quality; (c) quality norms imposed on solid fuels (coal and wood/biomass) to be used by households. This indicator is considered developing if the city is covered by air quality standards with limit values for either acute or chronic effects, and regulations to ensure compliance with air quality standards are enforced and include at least one but not all the above criteria. This indicator is considered nascent if the city is not covered by air quality standards or if the city is covered by air quality standards but do not include limit values for acute and chronic effects, and regulations to ensure compliance with air quality standards are not enforced.
Sources of data	Air quality standards, air quality management reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Air Quality Standards (WHO) *(25)*

AP5	Proportion of population with primary reliance on clean fuels and technologies for cooking
Purpose	To measure the proportion of the population with access to clean fuels and cooking technologies
Definition	Proportion of people with access to clean fuels and technologies for cooking
Numerator	Number of people with access to clean fuels and technologies for cooking
Denominator	Total number of people living in the city
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Clean household energy solutions toolkit (CHEST) (WHO) *(26)* Household energy database (WHO) *(27)* Global Health Observatory: Primary reliance on clean fuels (WHO) *(28)*

4.2. Alcohol control

Intervention: Establish adequately funded comprehensive and intersectoral city level strategies and activities to reduce harmful use of alcohol through a designated institution with responsibilities	
Indicator AC1. Existence of comprehensive strategy, plan of action and activities to reduce harmful use of alcohol	**Suggested data sources** • City strategy, plan, policy, reports
Intervention: Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)	
Indicator AC2. Existence of policy to restrict commercial and public availability of alcohol	**Suggested data sources** • National/subnational/city policy or legislation
Interventions: Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media); restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people	
Indicator AC3. Existence of bans or comprehensive restrictions on alcohol advertising, sponsorship and promotion	**Suggested data sources** • National/subnational/city policy or legislation
Intervention: Enact and enforce drink–driving laws and blood alcohol concentration limits via sobriety checkpoints	
Indicator AC4. Existence and enforcement of drink–driving legislation	**Suggested data sources** • National/subnational/city policy or legislation • City reports, surveys
Interventions: Provide brief psychosocial interventions for people with hazardous and harmful alcohol use; provide prevention, treatment, and care for alcohol use disorders and comorbid conditions in health and social services	
Indicator AC5. Availability of brief intervention and treatment for problematic alcohol use	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports

Interventions: Establish minimum prices for alcohol where applicable; carry out regular reviews of prices in relation to level of inflation and income	
Indicator AC6. Access to and use of price data on alcoholic beverages	**Suggested data sources** • City plans, programmes, reports • Surveys
Intervention: Regularly monitor and report on alcohol-related risk factors and outcomes	
Indicator AC7. Prevalence of heavy episodic drinking in drinkers aged 15 years and over **Indicator AC8.** Age-standardized rates of liver cirrhosis, cancer and road traffic deaths	**Suggested data sources** • Population-based surveys, school-based surveys • City health department, national statistics authority, civil registration and vital statistics systems with complete coverage and with medical certification of cause of death

AC1	Existence of comprehensive strategy, plan of action and activities to reduce harmful use of alcohol
Purpose	To assess city level policies and activities to reduce harmful use of alcohol
Definition	Existence of a city-level comprehensive strategy, plan of action and activities to reduce the harmful use of alcohol. Additionally, the strategy or policy should include the following measures: • Adequate funding including a designated budget with funds to cover salaries and operational costs. • Designated institution with responsibilities. • Broad access to information, effective education and awareness of programmes about the full range of alcohol-related harm, including harm to others. • Effective frameworks and responsible institutions for monitoring, surveillance and evaluation activities including periodic city surveys on alcohol consumption and alcohol-related harm, and on an annual basis (at least) reporting back to a broad group of constituents on progress made.
Method of scoring	This indicator is considered advanced if a city-level policy or strategy or action plan exists to reduce harmful alcohol use and the following measures are included: (a) adequate funding including a designated budget with funds to cover salaries and operational costs; (b) designated institution with responsibilities; (c) broad access to information, effective education and awareness of programmes about the full range of alcohol-related harm, including harm to others; (d) effective frameworks and responsible institutions for monitoring, surveillance and evaluation activities including periodic city surveys on alcohol consumption and alcohol-related harm, and on an annual basis (at least) reporting back to a broad group of constituents on progress made. This indicator is considered developing if a city-level policy or strategy or action plan exists and up to three but not all the above-mentioned measures are included. This indicator is considered nascent if no city-level policy or strategy or action plan exists, or if a city-level policy, strategy or action plan exists but does not include any of the above-mentioned measures.
Sources of data	City strategy, plan, policy, reports
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control (WHO) *(30)*

AC2	Existence of policy to restrict commercial and public availability of alcohol
Purpose	To assess policy restricting the commercial and public availability of alcohol
Definition	Existence of a law at national, regional (subnational) or city level to restrict commercial and public availability of alcohol in the city. Additionally, this is reflected by measures on the following: • Licensing of sales or production. • Monopolies on the production or sale of alcohol. • Restrictions on on-premises sales of alcohol. • Restrictions on off-premises sales alcohol. • Minimum legal age restriction for the sale of alcohol. • Restrictions on drinking in certain locations. • Quality control measures regarding the production and distribution of alcohol. • Regulations on informally produced alcohol. • Regulations on the combatting of illicit alcohol.
Method of scoring	This indicator is considered advanced if the city is covered by a policy or law restricting the commercial and public availability of alcohol, and there are measures on eight or more the following: (a) licensing of sales or production; (b) monopolies on the production or sale of alcohol; (c) restrictions on on-premises sales of alcohol; (d) restrictions on off-premises sales of alcohol; (e) minimum legal age restriction for the sale of alcohol; (f) restrictions on drinking in certain locations; (g) quality control measures regarding the production and distribution of alcohol; (h) regulations on informally produced alcohol; (i) regulations on the combatting of illicit alcohol. This indicator is considered developing if the city is covered by a policy or law restricting the commercial and public availability of alcohol in one to seven of the above-mentioned measures. This indicator is considered nascent if the city is not covered by a policy or law or if the city is covered by a policy or law that does not include the above-mentioned measures.
Sources of data	National/subnational/city policy or legislation
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control (WHO) *(30)*

AC3	Existence of bans or comprehensive restrictions on alcohol advertising, sponsorship and promotion
Purpose	To assess regulatory frameworks for alcohol marketing in the city
Definition	Existence of a regulatory framework for alcohol marketing at national, regional (subnational) or city level. Additionally, the regulatory framework should include the measures below. • Regulation of content and the volume of marketing. • Regulation of direct and indirect marketing in certain or all traditional media. • Regulation of new forms of alcohol marketing techniques, for instance on social media. • Regulation of sponsorship activities that promote alcoholic beverages. • Restriction or ban of promotions in connection with activities targeting young people.
Method of scoring	This indicator is considered advanced if the city is covered by a regulatory framework for alcohol marketing to reduce harmful alcohol use and all six of the following measures are included: (a) regulation of content and the volume of marketing; (b) regulation of direct and indirect marketing in certain or all traditional media; (c) regulation of new forms of alcohol marketing techniques, for instance on social media; (d) regulation of sponsorship activities that promote alcoholic beverages; (e) restriction or ban of promotions in connection with activities targeting young people; (f) public agencies or independent bodies of effective systems for surveillance of marketing of alcohol products. This indicator is considered developing if the city is covered by a regulatory framework for alcohol marketing to reduce harmful alcohol use, and two to five of the above-mentioned measures are included. This indicator is considered nascent if the city is not covered by a regulatory framework for alcohol marketing to reduce harmful alcohol use, or if the city is covered by a regulatory framework but it does not include at least two of the above-mentioned measures.
Sources of data	National/subnational/city policy or legislation
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control (WHO) *(30)*

AC4	Existence and enforcement of drink–driving legislation
Purpose	To assess drink–driving legislation applicable in the city
Definition	Existence of a drink–driving legislation at national, regional (subnational) or city level. Additionally, the following measures should be included: • Legal blood alcohol concentration limits. • Breath-testing at specific locations or times. • Graduated licensing for novice drivers with zero tolerance for drink–driving. • Use of mandatory ignition interlock imposed by courts to reduce/prevent people driving intoxicated. • Mandatory driver education. • Counselling or, as appropriate, treatment programmes for people found to have violated drink–driving regulations.
Method of scoring	This indicator is considered advanced if the city is covered by drink–driving legislation and at least four of the following six measures are implemented or enforced: (a)legal blood alcohol concentration limits; (b) breath-testing at specific locations or times; (c) graduated licensing for novice drivers with zero tolerance for drink–driving; (d) use of mandatory ignition interlock imposed by courts to reduce/prevent people driving intoxicated; (e) mandatory driver education; (f) counselling or, as appropriate, treatment programmes for people found to have violated drink–driving regulations. This indicator is considered developing if the city is covered by drink–driving legislation exists and two to three of the above-mentioned measures are implemented or enforced. This indicator is considered nascent if the city is not covered by drink–driving legislation or if the city is covered by drink–driving law but not more than one of the above-mentioned measures are implemented or enforced.
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	The recommended upper blood alcohol concentration limits for drivers are 0.05 grams per 100 millilitres of blood for general population and 0.02 grams per 100 millilitres of blood for novice and commercial drivers.
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control (WHO) *(30)*

AC5	Availability of brief intervention and treatment for problematic alcohol use
Purpose	To assess the availability of services for brief intervention and treatment for problematic alcohol use
Definition	Availability of brief intervention and treatment for problematic alcohol use. Additionally, the following facilities/services should provide brief interventions and treatment services: • Antenatal services. • Primary health care services. • School's/educational services. • Telephone/e-Health services. • Web-based services.
Method of scoring	This indicator is considered advanced if brief interventions and treatment for problematic alcohol use are provided through four or more of the following facilities/services respectively: (a) antenatal services; (a) primary health care services; (c) schools/educational services; (d) telephone/e-health services; (e) web-based services. This indicator is considered developing if brief interventions and treatment for problematic alcohol use are provided through two or three of the above-mentioned facilities/services respectively. This indicator is considered nascent if no brief interventions and treatment for problematic alcohol use are provided, or if brief interventions and treatment for problematic alcohol use are provided through only one of the above-mentioned facilities/services.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control (WHO) *(30)*

AC6	Access to and use of price data on alcoholic beverages
Purpose	To assess the city-level access to and use of price data on alcoholic beverages
Definition	Access to price data of alcoholic beverages at the city level. Additionally, historical price data should be used by the city to assess/monitor affordability of most-sold alcoholic beverages in the city.
Method of scoring	This indicator is considered advanced if the city has access to and uses historical price data on alcoholic beverages with latest estimates available within the past two years, to assess/monitor affordability of the most-sold alcoholic beverages. This indicator is considered developing if the city has access to and uses price data on alcoholic beverages to assess/monitor affordability of the most-sold alcoholic beverages, but historical data with latest estimates within the past two years are not available. This indicator is considered nascent if the city does not have access to nor use price data on alcoholic beverages.
Sources of data	City plans, programmes, reports; surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	SAFER technical package for alcohol control (WHO) *(30)* Global Health Observatory: Price measures (WHO) *(31)*

AC7	Prevalence of heavy episodic drinking in drinkers aged 15 years and over
Purpose	To measure outcome of alcohol control measures
Definition	Proportion of drinkers aged 15 years and over engaging in heavy episodic drinking, defined as having had at least 60 grams of pure alcohol on at least one occasion in the past 30 days. Drinkers are people who reported having consumed an alcoholic standard drink (10 grams) within the past 12 months.
Numerator	Number of drinkers aged 15 years and over surveyed, who reported engaging in heavy episodic drinking
Denominator	Number of drinkers aged 15 years and over surveyed
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control (WHO) *(30)* Global Health Observatory: Alcohol, heavy episodic drinking (15+), drinkers only, past 30 days (%) (WHO) *(32)*

AC8	Age standardized rates of liver cirrhosis, cancer and traffic crash mortality
Purpose	To measure the age-standardized rates of liver cirrhosis, cancer and traffic crash mortality
Definition	• Age standardized death rates for liver cirrhosis (per 100 000) • Age standardized death rates for traffic crashes (per 100 000) • Age standardized death rates for cancers likely to have alcohol-attributable fractions (per 100 000)
Numerator	Administrative data on deaths (age standardized) due to cirrhosis, traffic crashes and cancers likely to have alcohol-attributable fractions in the city
Denominator	Estimated city population
Sources of data	Civil registration and vital statistics system with complete coverage and with medical certification of cause of death
Recommended frequency of reporting	Annually
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Global Information System on Alcohol and Health (GISAH) (WHO) *(29)* SAFER technical package for alcohol control *((WHO) 30)*

4.3. Overdose prevention

Intervention: Ensure availability of key medications for opioid dependence treatment	
Indicator OP1. Availability of key medications for opioid dependence treatment	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports
Intervention: Establish governance for drug use disorder treatment	
Indicator OP2. Existence of service governance mechanisms for drug use disorders treatment	**Suggested data sources** • National/subnational/city health programme, plan, strategy, reports
Intervention: Provide non-structured (harm reduction) services for people with drug use disorders	
Indicator OP3. Availability of non-structured (harm reduction) services for people with drug use disorders	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports
Intervention: Provide take-home naloxone within the city	
Indicator OP4. Availability of take-home naloxone	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports
Intervention: Establish programmes for primary prevention and treatment of drug use disorders	
Indicator OP5. Availability of programmes on primary prevention of drug use	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports

Intervention: Ensure access to interventions for drug use disorder treatment	
Indicator OP6. Service capacity for drug use disorders treatment	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports
Intervention: Provide treatment for people with drug use disorders in prisons	
Indicator OP7. Availability of drug use disorder treatment in prisons	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports
Intervention: Regularly monitor and report on coverage of drug use disorder treatment and mortality due to opioid overdose	
Indicator OP8. Coverage of drug use disorders treatment **Indicator OP9.** Opioid overdose mortality rate	**Suggested data sources** • Population-based surveys • Civil registration and vital statistics systems with complete coverage and with medical certification of cause of death

OP1 Availability of key medications for opioid dependence treatment	
Purpose	To assess the availability of key medications for treatment of opioid dependence
Definition	Availability of key medications for opioid dependence defined as: • Registration of medication in the country/city. • Medication being present in health care facilities within the city. • Medication being used for treatment of opioid use disorders at city level. Additionally, medications for the treatment of opioids include: opioid agonists maintenance treatment (OAMT) namely methadone, buprenorphine (with or without naloxone); extended-release formulations of opioid agonists; oral and injectable opioid agonists (diacetylmorphine and hydromorphone); opioid antagonists for relapse prevention such as naltrexone; and other medications for withdrawal management such as alpha-2 adrenergic agonists.
Method of scoring	This indicator is considered advanced if at least two (both methadone and buprenorphine) OAMT medications, and opioid antagonists (naltrexone) are available in the city for treatment of opioid use disorders. This indicator is considered developing if at least one OAMT medication is available in the city for treatment of opioid use disorders (with or without naltrexone and alpha-2-adrenergic agonists). This indicator is considered nascent if none (or close to none) of the OAMT medications are available in the city for treatment of opioid use disorders.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality [United Nations Office on Drugs and Crime (UNODC) and WHO] *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP2 Existence of service governance mechanisms for drug use disorders treatment	
Purpose	To assess the existence of service governance mechanisms for drug use disorders treatment at the national/subnational or city level
Definition	Existence of service governance mechanisms for drug use disorders treatment at the national, regional (subnational) or city level. Additionally, the following should be included in governance: • Presence of a government unit or a government official in the country and/or city who is responsible for a policy regarding the prevention of drug use and the treatment of drug use disorders. • National and/or city-level policies for service development (defined as an official statement by a government or health authority that provides the overall direction for health development by defining a vision, values, principles and objectives), and by establishing a broad model for action to achieve that vision. • Presence of laws or legal regulations that protect people in treatment for substance use disorder, either on a national and/or city level. This can include voluntary treatment as an alternative or addition to criminal sanctions, and the existence of laws/legal regulations that protect the confidentiality of people in treatment for drug use disorders.
Method of scoring	This indicator is considered advanced if the city is covered by service governance mechanisms for drug use disorders and the following measures are included: (a) the presence of a government unit or government official in the country responsible for drug prevention policy; (b) national and/or city level policies for service development; (c) presence of laws or regulations that protect people in treatment for substance use disorders. This indicator is considered developing if the city is covered by service governance mechanisms for drug use disorders including one or two of the above measures. This indicator is considered nascent if the city is not covered by service governance mechanisms for drug use disorders or if the city is covered by service governance mechanisms that do not include any of the above measures.
Sources of data	National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP3	Availability of non-structured harm reduction services for people with drug use disorders
Purpose	To assess the availability of non-structured harm reduction services for people with drug use disorders
Definition	Availability of non-structured harm reduction services aimed to reduce the negative effects associated with drug use, and support people using drugs or affected with drug use disorders in the city. Additionally, the following non-structured services may be included: • Low-threshold community outreach services. • Drop-in services/centres. • Testing and counselling for infectious diseases (e.g. HIV, hepatitis, tuberculosis (TB) and sexually-transmitted infections (STIs). • Mutual help/peer support groups. • Open-access interventions (e.g. telephone helplines, web-based interventions). • Supervised injection sites. • Needle-exchange programmes for injecting drug users. .
Method of scoring	This indicator is considered advanced if there is high availability of five to seven types of the following non-structured harm reduction services are in the city; (a) low-threshold community outreach services; (b) drop-in services/centres; (c) testing and counselling for infectious diseases (HIV, hepatitis, TB and STIs); (d) mutual help/peer support groups; (e) open-access interventions (telephone helplines, web-based interventions); (f) supervised injection sites; (g) needle-exchange for injecting drug users. This indicator is considered developing if there is moderate availability of between three and four types of the above non-structured harm reduction services in the city. This indicator is considered nascent if there is no or limited availability of between one and two of the above non-structured harm reduction services in the city.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP4 Availability of take-home naloxone	
Purpose	To assess the availability of take-home naloxone within the city
Definition	Availability of take-home naloxone within the city in various access points, irrespective of insurance status and place of residence. Additionally, the following access points should be included: • Low-threshold community outreach services. • Drop-in services/centres. • Opioid use disorder treatment facilities. • Pharmacies. • Medical facilities/emergency medical services/primary health care providers. • Housing/shelters. • Prisons. • Supervised injection facilities.
Method of scoring	This indicator is considered advanced if there is high availability of take-home naloxone, meaning it is available in seven to eight types of the following access points within the city: (a) low-threshold community outreach services; (b) drop-in services/centres; (c) opioid use disorders treatment facilities; (d) pharmacies; (e) medical facilities/emergency medical services/primary health care providers; (f) housing/shelters; (g) prisons; (h) supervised injection facilities. This indicator is considered developing if there is moderate availability of take-home naloxone, in three to six of the above access points within the city. This indicator is considered nascent if there is no or limited availability of between one and two of the above access points within the city.
Sources of data	Routine facility reporting system, facility surveys; National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP5 Availability of programmes on primary prevention of drug use	
Purpose	To assess the availability of drug use prevention activities in the city
Definition	Availability of drug use prevention activities in the city. Additionally, the following components need to be covered in the programmes: • Mass media campaigns. • School-based programmes. • Workplace programmes. • Parental programmes. • Community-based programmes. • Allocated budget.
Method of scoring	This indicator is considered advanced if drug use prevention activities are available in the city and at least four of the following are covered in the programmes: (a) mass media campaigns; (b) school-based programmes; (c) workplace programmes; (d) parental programmes; (e) community-based programmes; (f) allocated budget. This indicator is considered developing if drug use prevention activities are available in the city and one to three of the above components are covered in the programmes. This indicator is considered nascent if there are no drug use prevention activities in the city.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP6 Service capacity for drug use disorders treatment	
Purpose	To assess availability of services for drug use disorders treatment in the city
Definition	Availability of comprehensive treatment services for people with drug use disorders at various points in the city. Key interventions include the following components: **1. Screening, brief intervention, and referral to treatment (SBIRT)**: (a) substance use screening tools; (b) screening in specialized services with expected high prevalence of substance use among patients and clients (e.g. mental health, infectious diseases); (c) brief interventions to patients and clients screened positively; (d) referral to other treatment modalities; (e) SBIRT for special populations (such as emergency health services and/or trauma centres; services for children and adolescents, in antenatal services, in employee assistance programmes). **2. Pharmacological treatment**: (a) Pharmacological treatment of substance-related emergency conditions (excluding withdrawal syndrome); (b) pharmacological treatment of withdrawal syndrome; (c) opioid agonists maintenance treatment (OAMT) for opioid dependence (with methadone and/or buprenorphine); (d) pharmacological treatment other than OAMT for substance dependence (naltrexone); (e) pharmacological treatment of co-morbid conditions (physical and mental health). **3. Psychosocial treatment**: (a) psychoeducation for patients with substance use disorders; (b) cognitive behavioural therapy for patients with substance use disorders; (c) motivational enhancement therapy/motivational interviewing for patients with substance use disorders; (d) family/couples therapy for patients with substance use disorders; (e) contingency management approach for patients with substance use disorders; (f) twelve-step approach. **4. Rehabilitation**: (a) Rehabilitation in-patient programmes; (b) rehabilitation out-patient programmes; (c) education programmes for people with substance use disorders; (d) employment assistance programmes for people with substance use disorders; (e) special housing services for people with substance use disorders; (f) welfare assistance/benefits for people with substance use disorders.
Method of scoring	This indicator is considered advanced if comprehensive treatment services are available for people with drug use disorders; including: SBIRT; pharmacological treatment; psychosocial treatment; rehabilitation, with at least four specific components available in each area. This indicator is considered developing if all four areas of drug use disorder service capacity are available and represented with at least three components in each area. This indicator is considered nascent if some areas of drug use disorder service capacity are available and represented with one or two components in each area.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports

OP6 Service capacity for drug use disorders treatment	
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP7 Availability of drug use disorder treatment in prisons	
Purpose	To assess availability of treatment for drug use disorders among people in prisons
Definition	This indicator is based on the city having availability of opioid agonists maintenance treatment (OAMT) that includes pharmacological management with methadone and/or buprenorphine available for persons in prisons as well as upon release from prison.
	This indicator is considered advanced if OAMT is available for people in prison and upon release from prison. This indicator is considered developing if OAMT is available for people in prison, but no OAMT availability upon release from prison. This indicator is considered nascent if OAMT is not available in prisons.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP8 Coverage of drug use disorders treatment	
Purpose	To measure the treatment coverage for drug use disorders
Definition	The number of people who receive drug use disorder treatment in a year divided by the total number of people with drug use disorders in the same year, multiplied by 100
Numerator	Number of people who received treatment for drug use disorders in a year
Denominator	Total number of people with drug use disorders in the same year
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

OP9 Opioid overdose mortality rate	
Purpose	To measure the overdose mortality rate in a given city
Definition	The prevalence of opioid overdose mortality per 100 000 people
Numerator	Number of people who died due to opioid overdose
Denominator	Estimated city population
Sources of data	Civil registration and vital statistics systems with complete coverage and with medical certification of cause of death
Recommended frequency of reporting	Annually
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Global Health Observatory: Resources for substance use disorders (WHO) *(33)* Opioid overdose: Preventing and reducing opioid overdose mortality (UNODC and WHO) *(34)* Community management of opioid overdose prevention (WHO) *(35)*

4.4. Promoting healthy diets

Intervention: Policies to protect children from the harmful impact of food marketing	
Indicator HD1. Existence and enforcement of policies to restrict marketing of unhealthy foods and non-alcoholic beverages	**Suggested data sources** • National, subnational, and city-level legislations, policies • City reports
Intervention: Develop and implement nutrition standards for foods and beverages served and/or sold in public settings as well as in close proximity to settings where children gather	
Indicator HD2. Existence and enforcement of nutrition standards for foods and beverages served and/or sold in public settings (e.g. schools, parks, settings where children gather)	**Suggested data sources** • National, subnational, and city-level legislations, policies • City reports
Intervention: Develop and implement policies and programmes to improve the healthiness of foods and beverages being sold and served at restaurants and other food outlets	
Indicator HD3. Existence and enforcement of policies and programmes to improve healthy eating in restaurants, food outlets and vending machines	**Suggested data sources** • National, subnational, and city-level legislations, policies, programmes • City reports
Intervention: Develop and implement policies designed to limit the relative density of food outlets selling predominantly unhealthy foods and beverages compared to outlets selling predominantly healthy foods and beverages	
Indicator HD4. Existence and enforcement of urban planning/zoning policies to increase healthier food and beverage options	**Suggested data sources** • National, subnational, and city-level legislations, policies • City reports
Intervention: Ensure free safely managed drinking-water is available in all public settings	
Indicator HD5. Existence and enforcement of policies to ensure free safely managed drinking-water is available in all public settings	**Suggested data sources** • National, subnational, and city-level legislations, policies • City reports

Intervention: Taxation on sugar-sweetened beverages as part of fiscal policies for healthy diets	
Indicator HD6. Access to and use of price data on sugar-sweetened beverages (SSBs)	**Suggested data sources** • City plans, programmes, reports • Surveys
Intervention: Regularly monitor and report on dietary risk factors including salt intake, fruit and vegetable intake and obesity	
Indicator HD7. Mean population salt intake **Indicator HD8.** Prevalence of low fruit and vegetable intake in adults **Indicator HD9.** Prevalence of overweight and obesity in adolescents and adults	**Suggested data sources** • Population-based or school-based surveys

HD1	Existence and enforcement of policies to restrict marketing of unhealthy foods and non-alcoholic beverages
Purpose	To assess policies restricting the marketing of unhealthy foods and non-alcoholic beverages
Definition	Existence of a policy or legislation to restrict both exposure to and power of marketing of unhealthy foods and non-alcoholic beverages at national, regional (subnational) or city level. Additionally, the policy or legislation is monitored and enforced as demonstrated by monitoring activities for compliance and enforcing sanctions in case of non-compliance.
Scoring	This indicator is considered advanced if the city is covered by a policy or legislation to restrict both exposure to and power of marketing of unhealthy foods and beverages and the policy/legislation is in line with recommendations in the WHO guideline on policies to protect children from the harmful impact of food marketing and is monitored and enforced, as evidenced by proof of monitoring activities for compliance and enforcing sanctions in case of non-compliance. This indicator is considered developing if the city is covered by a policy or legislation to restrict both exposure to and power of marketing of unhealthy foods and beverages, but the policy/legislation is not monitored or enforced. This indicator is considered nascent if the city is not covered by a policy or legislation to restrict both exposure to and power of marketing of unhealthy foods and beverages.
Sources of data	National/subnational/city policy or legislation, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global database on the Implementation of Nutrition Action (GINA) (WHO) *(36)* Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Food systems for health (WHO) *(38)* A framework for implementing the set of recommendations on the marketing of food and non-alcoholic beverages to children (WHO) *(39)* Action framework for developing and implementing public food procurement and service policies for a healthy diet (WHO) *(40)*

HD2	Existence and enforcement of nutrition standards for foods and beverages served and/or sold in public settings
Purpose	To assess policies on nutrition standards for foods and beverages served and/or sold in public settings
Definition	Existence of a policy or legislation setting standards for foods and beverages served and/or sold in public settings (e.g. schools, park, settings where children gather) at national, regional (subnational) or city level. Additionally, the policy or legislation is monitored and enforced as demonstrated by monitoring activities for compliance and enforcing sanctions in case of non-compliance.
Scoring	This indicator is considered advanced if the city is covered by a policy or legislation setting standards for foods and beverages served and/or sold in public settings (e.g. schools, parks, settings where children gather) covering two or more types of nutrients of concern including: (a) fats; (b) sugars; (c) salt/sodium; (d) energy, and the policy/legislation is monitored and enforced as evidenced by proof of monitoring activities for compliance and enforcing sanctions in case of non-compliance. This indicator is considered developing if the city is covered by a policy or legislation setting standards for foods and beverages served and/or sold in public settings (e.g. schools, parks, settings where children gather), less than two types of nutrients of concern, but the policy/legislation is not monitored or enforced. This indicator is considered nascent if the city is not covered by policy or legislation setting standards for foods and beverages served and/or sold in public settings (e.g. schools, parks, settings where children gather).
Sources of data	National/subnational/city policy or legislation, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global database on the Implementation of Nutrition Action (GINA) (WHO) *(36)* Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Food systems for health (WHO) *(38)* Action framework for developing and implementing public food procurement and service policies for a healthy diet (WHO) *(40)* SHAKE the salt habit (WHO) *(41)* REPLACE trans-fat (WHO) *(42)*

HD3	Existence and enforcement of policies or programmes to improve healthy eating in restaurants, food outlets or vending machines
Purpose	To assess policies to improve healthy eating in restaurants, food outlets or vending machines
Definition	Existence of policies, legislation or programmes at national, regional (subnational) or city level to improve the healthiness of foods and beverages being sold and served at restaurants and other food outlets or vending machines. Additionally, the policy, legislation or programme is monitored and enforced as demonstrated by monitoring activities for compliance and enforcing sanctions in case of non-compliance.
Scoring	This indicator is considered advanced if the city is covered by policies, legislation or programmes to improve the healthiness of foods and beverages being sold and served at restaurants and food outlets, and the policy/legislation/programme is monitored and enforced as evidenced by proof of monitoring activities for compliance and enforcing sanctions in case of non-compliance. This indicator is considered developing if the city is covered by policies and programmes to improve the healthiness of foods and beverages being sold and served at restaurants and food outlets, but the policy/legislation is not monitored or enforced. This indicator is considered nascent if the city is not covered by existing policies and programmes to improve the healthiness of foods and beverages being sold and served at restaurants and food outlets.
Sources of data	National/subnational/city policy, programme or legislation, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global database on the Implementation of Nutrition Action (GINA) (WHO) *(36)* Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Food systems for health (WHO) *(38)* Action framework for developing and implementing public food procurement and service policies for a healthy diet (WHO) *(40)* SHAKE the salt habit (WHO) *(41)* REPLACE trans-fat (WHO) *(42)*

HD4	Existence and compliance measurement of urban planning/zoning policies designed to increase the availability of healthier foods and beverages
Purpose	To assess policies on urban planning/zoning designed to increase the availability of healthier foods and beverages
Definition	Existence of a policy or legislation at national, regional (subnational) or city level designed to increase the availability of healthier foods and beverages, (e.g. increase fresh food markets or shops, reduce shops or outlets selling food high in fats, sugars and salt). Additionally, the policy or legislation is monitored and enforced as demonstrated by monitoring activities for compliance and enforcing sanctions in case of non-compliance.
Scoring	This indicator is considered advanced if the city is covered by policies designed to limit the density of food outlets that predominantly sell foods and beverages high in fats, sugars and salt and increase the density of outlets selling healthy foods and beverages, and the policy/legislation is monitored and enforced as evidenced by proof of monitoring activities for compliance and enforcing sanctions in case of non-compliance. This indicator is considered developing if the city is covered by policies designed to limit the density of food outlets that predominantly sell foods and beverages high in fats, sugars and salt and increase the density of outlets selling healthy foods and beverages, but the policy/legislation is not monitored or enforced. This indicator is considered nascent if the city is not covered by existing policies designed to limit the density of food outlets.
Sources of data	National/subnational/city policy or legislation, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global database on the Implementation of Nutrition Action (GINA) (WHO) *(36)* Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Food systems for health (WHO) *(38)* Action framework for developing and implementing public food procurement and service policies for a healthy diet (WHO) *(40)* SHAKE the salt habit (WHO) *(41)* REPLACE trans-fat (WHO) *(42)*

HD5	Existence and enforcement of policies that ensure free safely managed drinking-water is available in all public settings
Purpose	To assess policies ensuring free safely managed drinking-water
Definition	Existence of a policy or legislation at national, regional (subnational) or city level, ensuring free safely managed drinking-water is available in public settings. Additionally, the policy or legislation is monitored and enforced as demonstrated by monitoring activities for compliance and enforcing sanctions in case of non-compliance.
Scoring	This indicator is considered advanced if the city is covered by a policy or legislation ensuring free safe managed drinking-water is available in two or more of the following public settings: (a) childcare sites; (b) schools; (c) hospitals; (d) workplaces; (e) near childcare sites; (f) near schools, and the policy/legislation is enforced as evidenced by proof of monitoring activities for compliance and enforcing sanctions in case of non-compliance. This indicator is considered developing if the city is covered by a policy or legislation ensuring free safe managed drinking-water is available in some but not all public settings, but the policy/legislation is not monitored or enforced. This indicator is considered nascent if the city is not covered by a policy or legislation ensuring free safe managed drinking-water in public settings.
Sources of data	National/subnational/city policy or legislation, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Food systems for health (WHO) *(38)* Action framework for developing and implementing public food procurement and service policies for a healthy diet (WHO) *(40)*

HD6 Access to and use of price data on sugar-sweetened beverage (SSBs)	
Purpose	To assess the city-level access to and use of price data on SSBs
Definition	Access to price data on SSBs. Additionally, historical price data should be used by the city to assess/monitor affordability of SSBs in the city.
Scoring	This indicator is considered advanced if the city has access to and uses historical price data on SSBs with latest estimates available within the past two years, to assess/monitor affordability of two or more types of the following beverage product types: (a) carbonated soft drinks; (b) energy or sport drinks; (c) 100% fruit or vegetable juices; (d) fruit or vegetable drinks that are not 100% juice; (e) syrups and concentrates containing sugars; (f) sugar-sweetened flavoured waters; (g) sugar-sweetened teas or coffees or mate. This indicator is considered developing if the city has access to and uses price data on SSBs to assess/monitor affordability of at least one of the above beverage product types, but historical data with latest estimates within the past two years are not available. This indicator is considered nascent if the city does not have access to nor use price data on SSBs.
Sources of data	City plans, programmes, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	The intervention concerns taxes, which in most cases are adopted and enforced at national level. This city level indicator therefore focuses on policy activities that likely take place at that level (i.e. collecting, collating, analysing and using data on current prices of SSBs). Such data are essential for monitoring compliance with SSB taxes as part of the enforcement mechanism, and for evaluating their effect. The data could also be used to inform other related policy work to create healthier food environments in restaurant and retail sectors.
Related links	Global database on the Implementation of Nutrition Action (GINA) (WHO) *(36)* Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Food systems for health (WHO) *(38)* Action framework for developing and implementing public food procurement and service policies for a healthy diet (WHO) *(40)* WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets (WHO) *(43)*

HD7 Mean population salt intake	
Purpose	To measure the mean population salt intake among adults ages 18 years and over
Definition	Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years
Numerator	Sum of salt intake among adults 18 years and over surveyed
Denominator	All survey respondents
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	SHAKE the salt habit (WHO) *(41)* Noncommunicable diseases global monitoring framework: Indicator definitions and specifications (WHO) *(44)*

HD8 Prevalence of low fruit and vegetable intake in adults	
Purpose	To measure the proportion of adults aged 18 years and over who eat less than five servings of fruit and/or vegetables on average per day
Definition	Age-standardized prevalence of consuming less than five total servings (400 grams) of fruit and vegetables per day among adults aged 18 years and over
Numerator	Number of respondents aged 18 years and over consuming less than five servings of fruit and/or vegetables per day
Denominator	All survey respondents aged 18 years and over
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Noncommunicable diseases global monitoring framework: Indicator definitions and specifications (WHO) *(44)*

HD9 Prevalence of overweight and obesity in adolescents and adults	
Purpose	To measure the prevalence of overweight and obesity in adolescents and adults
Definition	Age-standardized prevalence of overweight and obesity in 1. Adolescents aged 10-19 years old or according to country definition (overweight if one standard deviation body mass index for age and sex, and obese if two standard deviations body mass index for age and sex, using WHO growth reference for school-aged children and adolescents). 2. Adults aged 18 years and over (overweight if body mass index ≥ 25 kg/m^2 and obese if body mass index ≥ 30 kg/m^2). Body mass index is calculated by dividing weight in kilograms by height in meters squared.
Numerator	1. Number of adolescents who are overweight; Number of adolescents who are obese 2. Number of adults who are overweight; Number of adults who are obese
Denominator	1. All adolescent survey respondents 2. All adult survey respondents
Sources of data	Population-based or school-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Noncommunicable diseases global monitoring framework: Indicator definitions and specifications (WHO) *(44)*

4.5. Road safety

Intervention: Enforce speed limit legislation	
Indicator RS1. Existence and enforcement of speed limit legislation enforcing speed limits for private passenger vehicles	**Suggested data sources** • National, subnational or city legislations • City reports, surveys
Intervention: Implement road designs that limit speed and protect cyclists and pedestrians	
Indicator RS2. Existence and implementation of road design standards that include speed management and safe infrastructure for pedestrians and cyclists	**Suggested data sources** • National, subnational or city legislations • City reports, surveys
Intervention: Enact and enforce helmet use for two- and three- wheelers	
Indicator RS3. Existence and enforcement of legislation on helmet use for two- and three-wheeled motor vehicles including helmet use standards and wearing requirements	**Suggested data sources** • National, provincial/state or city legislations • City reports, surveys
Intervention: Enforce seat-belt legislation	
Indicator RS4. Existence and enforcement of legislation for seat-belt use	**Suggested data sources** • National, provincial/state or city legislations • City reports, surveys
Intervention: Surveillance of road safety indicators including helmet use, seat-belt use and road traffic deaths per 100 000	
Indicator RS5. Prevalence of helmet use among all motorized vehicle users **Indicator RS6.** Prevalence of seat-belt use in all seating positions **Indicator RS7.** Road traffic deaths per 100 000 by road user type	**Suggested data sources** • Population-based surveys • Civil registration and vital statistics systems with complete coverage and with medical certification of cause of death

RS1	Existence and enforcement of speed limit legislation for motorized passenger vehicles
Purpose	To assess policies enforcing speed limit legislations for motorized passenger vehicles
Definition	Existence of a legislation on speed limits for motorized passenger vehicles, at national, regional (subnational) or city level. Additionally, these standards should be enforced and evidenced by a source document.
Scoring	This indicator is considered advanced if the city is covered by speed limit legislation limiting speed to 30 km/h in areas where vulnerable road users and vehicles mix in a frequent and planned manner, and 50 km/h in urban areas, and the legislation is enforced and evidenced by measures including infrastructure modifications, geofencing and intelligent speed assistance systems for drivers. This indicator is considered developing if the city is covered by speed limit legislation limiting speed to 30 km/h in areas where vulnerable road users and vehicles mix in a frequent and planned manner, and 50 km/h in urban areas – but does not include infrastructure modifications, geofencing and intelligent speed assistance systems for drivers or if the city is covered by a speed limit legislation with higher speed limits than mentioned. This indicator is considered nascent if the city is not covered by any legislation on speed limits.
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: National speed legislation *(45)* Global Health Observatory: Maximum speed limits *(46)* Save lives: a road safety technical package (WHO) *(47)* Speed management: a road safety manual for decision-makers and practitioners (WHO) *(48)*

RS2	Existence and implementation of road design standards that include speed management and safe infrastructure for pedestrians and cyclists
Purpose	To assess policy on technical design standards for new roads
Definition	Existence of technical design standards for the development of new roads and design standards provided for pedestrians and cyclists. Additionally, these standards should be implemented and evidenced by a source document.
Scoring	This indicator is considered advanced if the city has technical design standards for the development of new roads provided, and design standards for pedestrians and cyclists, and standards are implemented by the city as evidenced by a source document. This indicator is considered developing if the city has technical design standards for the development of new roads and design standards provided for pedestrians and cyclists, but standards are not implemented by the city. This indicator is considered nascent if no technical design standards for development of new roads exist and no design standards are provided for pedestrians and cyclists.
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Save lives: a road safety technical package (WHO) *(47)*

RS3	Existence and enforcement of legislation on helmet use for two- and three-wheeled motor vehicles including helmet use standards and wearing requirements
Purpose	To assess policies on helmet use for two- and three-wheeled motor vehicles
Definition	Existence of helmet use legislation at national, regional (subnational) or city level for drivers and passengers. Additionally, legislation should be enforced and evidenced by either official figures from published reports or a research/ academic study.
Scoring	This indicator is considered advanced if the city is covered by helmet use legislation meeting international harmonized standards, and legislation is enforced by the city and evidenced by a source document. This indicator is considered developing if the city is covered by helmet use legislation but the legislation does not meet international harmonized standards, or the legislation is not enforced by the city. This indicator is considered nascent if the city is not covered by helmet use legislation.
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Save lives: a road safety technical package (WHO) *(47)* Global Health Observatory: Motorcycle helmet (WHO) *(49)* Global Health Observatory: Motorcycle helmet laws (by occupant) (WHO) *(50)* Helmets: a road safety manual for decision-makers and practitioners, 2nd edition (WHO) *(51)*

RS4 Existence and enforcement of legislation for seat-belt use	
Purpose	To assess policies on seat-belt use
Definition	Existence of seat-belt legislation at national, subnational or city level that applies to all occupants in the vehicle. Additionally, legislation should be enforced and evidenced by either official figures from published reports or a research/ academic study.
Scoring	This indicator is considered advanced if the city is covered by seat-belt legislation for both front and back seat occupants and legislation is enforced by the city and evidenced by a source document. This indicator is considered developing if the city is covered by seat-belt legislation but only for driver or front seat occupants, and legislation is not enforced by the city. This indicator is considered nascent if the city is not covered by seat-belt legislation.
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Save lives: a road safety technical package (WHO) *(47)* Global Health Observatory: Seat-belt (Data by country) (WHO) *(52)* Global Health Observatory: Seat-belt wearing rate (Data by country) (WHO) *(53)* Seat-belts and child restraints: a road safety manual for decision-makers and practitioners (WHO) *(54)*

RS5 Prevalence of helmet use among all motorized vehicle users	
Purpose	To measure the proportion of people using helmets among motorized vehicle users
Definition	The proportion of people using helmets among all motorized vehicle users
Numerator	Number of people reporting helmet use among motorized vehicle users
Denominator	Number of all motorized vehicle users
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Save lives: a road safety technical package (WHO) *(47)* Helmets: a road safety manual for decision-makers and practitioners, 2nd edition (WHO) *(51)*

RS6 Prevalence of seat-belt use in all seating positions	
Purpose	To measure the proportion of people using seat-belts among passengers in all seating positions
Definition	The proportion of people using seat-belts among passengers in all seating positions
Numerator	Number of people reporting seat-belt use among passengers in all seating positions
Denominator	Number of all passengers in all seating positions
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Save lives: a road safety technical package (WHO) *(47)* Global Health Observatory: Seat-belt (Data by country) (WHO) *(52)* Global Health Observatory: Seat-belt wearing rate (Data by country) (WHO) *(53)* Seat-belts and child restraints: a road safety manual for decision-makers and practitioners (WHO) *(54)*

RS7 Road traffic deaths per 100 000 by road user type	
Purpose	To measure rate of road traffic deaths per 100 000
Definition	Rate of road traffic deaths per 100 000 by road user type
Numerator	Administrative data on deaths due to traffic crashes in the city by road user type
Denominator	Estimated city population
Sources of data	Civil registration and vital statistics systems with complete coverage and with medical certification of cause of death
Recommended frequency of reporting	Annually
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Save lives: a road safety technical package (WHO) *(47)* Global Health Observatory: Reported distribution of road traffic deaths by type of road user (Data by country) (WHO) *(55)*

4.6. Safe walking and cycling

Intervention: Enact transport and mobility policy that recognize the value of and prioritizes walking and cycling as travel modes and have action plans with time-bound targets and performance metrics for walking and cycling	
Indicator WC1. Existence of city policy promoting walking **Indicator WC2.** Existence of city policy promoting cycling	**Suggested data sources** • City policy, strategy, legislation
Intervention: Implement urban and transport planning and urban design, at all levels of government, to provide compact neighbourhoods providing mixed-land use and connected networks for walking and cycling and equitable access to safe, quality public open spaces that enable and promote physical activity and active mobility	
Indicator WC3. Existence of city policy on access to public open space **Indicator WC4.** Existence of city urban planning policy to encourage compact urban design and mixed land use	**Suggested data sources** • City policy, strategy, legislation
Interventions: Implement sustained, population wide, best practice communication campaigns to promote physical activity, with links to community-based programmes and environmental improvements to enable and support behaviour change; provide and promote physical activity through provision of community-based (grass roots) sport and recreation programmes and conduct free mass participation events to encourage engagement by people of all ages and abilities	
Indicator WC5. Implementation of walking and cycling campaigns and mass participation events	**Suggested data sources** • City reports
Intervention: Regularly monitor and report on city travel behaviours disaggregated by walking and cycling, and perceptions of walking, cycling and public transport services and environment	
Indicator WC6. Implementation of city surveys on knowledge and awareness on walking and cycling	**Suggested data sources** • Surveys

WC1 Existence of city policy promoting walking	
Purpose	To assess policy promoting walking in the city
Definition	Existence of a city policy/strategy/action plan promoting walking. Additionally, the policy/strategy/action plan should include the following components: • Actions to improve, extend and/or enhance provision of walking infrastructure. • Designated institution with responsibilities for coordinating and following up policies, strategies, and plans. • Dedicated budget line to support implementation. • Monitoring framework to assess progress and implementation.
Method of scoring	This indicator is considered advanced if a policy/strategy or action plan exists promoting walking, and all of the following components are included: (a) actions to improve, extend and/or enhance provision of walking infrastructure; (b) designated institution with responsibilities for coordinating and following up policies, strategies, and plans; (c) dedicated budget line to support implementation; (d) monitoring framework to assess progress and implementation. This indicator is considered developing if a policy/strategy or action plan exists promoting walking and one to three of the above components are included. This indicator is considered nascent if no policy/strategy or action plan exists promoting walking, or if a policy/strategy or action plan exists but does not include any of the above components.
Sources of data	City policy, strategy, legislation
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global action plan on physical activity 2018–2030 (WHO) *(56)* ACTIVE: a technical package for increasing physical activity (WHO) *(57)*

WC2 Existence of city policy promoting cycling	
Purpose	To measure city level policies promoting cycling
Definition	Existence of a city policy/strategy/action plan promoting cycling. Additionally, the policy/strategy/action plan should include the following components: • Actions aimed at improving and or extending provision of cycling infrastructure (e.g. cycle lanes, measures to improve cycle safety, provision of facilities such as bike storage). • Designated institution with responsibilities for coordinating and following up policies, strategies, and plans. • Dedicated budget line to support implementation. • Monitoring framework to assess progress and implementation.
Method of scoring	This indicator is considered advanced if a policy/strategy or action plan exists promoting cycling, and all of the following components are included: (a) actions aimed at improving and or extending provision of cycling infrastructure (e.g. cycle lanes, measures to improve cycle safety, provision of facilities such as bike storage); (b) designated institution with responsibilities for coordinating and following up policies, strategies, and plans; (c) dedicated budget line to support implementation; (d) monitoring framework to assess progress and implementation. This indicator is considered developing if a policy/strategy or action plan exists promoting cycling and one to three of the above components are included. This indicator is considered nascent if no policy/strategy or action plan exists promoting cycling, or if a policy/strategy or action plan exists but does not include any of the above components.
Sources of data	City policy, strategy, legislation
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global action plan on physical activity 2018–2030 (WHO) *(56)* ACTIVE: a technical package for increasing physical activity (WHO) *(57)*

WC3 Existence of city policy on access to public open space	
Purpose	To assess policy on access to public open space
Definition	Existence of a city policy/strategy/plan on the provision of public open space in the city boundary. Additionally, the policy/strategy/plan should include the following components: • Actions to enhance provision of public open space ([e.g., maintenance, improve park amenities and facilities, increase park safety. • Designated institution with responsibilities for coordinating and following up policies, strategies, and plans. • Dedicated budget line to support policy implementation. • Set targets for increasing areas of and access to public open space. • City measuring the amount of, and access to, public open space.
Method of scoring	This indicator is considered advanced if a policy/strategy or action plan exists on the provision of public open space in the city boundary and all of the following components are included: (a) actions to enhance provision of public open space (e.g. maintenance, improve park amenities and facilities, increase park safety); (b) designated institution with responsibilities for coordinating and following up policies, strategies, and plans; (c) dedicated budget line to support policy implementation; (d) set targets for increasing areas of and access to public open space; (e) city measuring the amount of, and access to, public open space. This indicator is considered developing if a policy/strategy or action plan exists on the provision of public open space in the city boundary and one to four of the above components are included. This indicator is considered nascent if no policy/strategy or action plan exists on the provision of public open space in the city boundary, or if a policy/strategy or action plan exists on the provision of public open space in the city boundary but none of the above components are included.
Sources of data	City policy, strategy, legislation
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global action plan on physical activity 2018–2030 (WHO) *(56)* ACTIVE: a technical package for increasing physical activity (WHO) *(57)* City Prosperity Initiative (UN-Habitat) *(58)* Urban Indicators Database (UN-Habitat) *(59)*

WC4	Existence of city urban planning policy to encourage compact urban design and mixed land use
Purpose	To assess policy on city urban planning
Definition	Existence of a city policy/strategy/plan for urban development and/or land use in the city. Additionally, the policy/strategy/plan should prioritize urban planning that aims to deliver compact mixed land use neighbourhoods.
Method of scoring	This indicator is considered advanced if a policy/strategy/plan for urban development and/or land use in the city exists, and the policy/strategy/plan prioritizes urban planning that aims to deliver compact mixed land use neighbourhoods. This indicator is considered developing if a policy/strategy/plan for urban development and/or land use in the city exists, but the policy/strategy/plan does not prioritize urban planning that aims to deliver compact mixed land use neighbourhoods. This indicator is considered nascent if no policy/strategy/plan for urban development and/or land-use in the city exists.
Sources of data	City policy, strategy, legislation
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global action plan on physical activity 2018–2030 (WHO) *(56)* ACTIVE: a technical package for increasing physical activity (WHO) *(57)* Urban Indicators Database (UN-Habitat) *(59)*

WC5 Implementation of walking and cycling campaigns and mass participation events	
Purpose	To assess the implementation of walking and cycling campaigns and mass participation events
Definition	Implementation of any city-wide mass media publication campaign and mass participation events on walking or cycling within the past two years.
Method of scoring	This indicator is considered advanced if city-wide education/mass media marketing campaigns, and mass participation events on walking and cycling were done within the past two years. This indicator is considered developing if city-wide education/mass media marketing campaigns were done within the past two years, but no mass participation events on walking and cycling were included. This indicator is considered nascent if no city-wide education or mass participation events on walking and cycling were done within the past two years.
Sources of data	City report
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global action plan on physical activity 2018–2030 (WHO) *(56)* ACTIVE: a technical package for increasing physical activity (WHO) *(57)*

WC6	Implementation of city surveys on knowledge and awareness on walking and cycling
Purpose	To assess implementation of city surveys on knowledge and awareness on walking and cycling
Definition	Implementation of city surveys on knowledge and awareness on walking and cycling, and a community perception survey on cycling and walking such as safety and amenities.
Method of scoring	This indicator is considered advanced if the city has conducted both a knowledge and awareness survey that assesses levels of walking and cycling, and a community perception survey on walking and cycling. This indicator is considered developing if city has conducted at least one survey on the knowledge and awareness of cycling and walking. This indicator is considered nascent if the city has not conducted a survey on the knowledge and awareness of cycling and walking.
Sources of data	City surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Global action plan on physical activity 2018–2030 (WHO) *(56)* ACTIVE: a technical package for increasing physical activity (WHO) *(57)*

4.7. Tobacco control

Intervention: Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport	
Indicator TC1. Existence and compliance measurement of smoke free legislation	**Suggested data sources** • National, state or city legislations, policies • City reports • Surveys
Intervention: Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship	
Indicator TC2. Existence and compliance measurement of bans on advertising, advertising, promotion and sponsorship	**Suggested data sources** • National, state or city legislations, policies • City reports • Surveys
Intervention: Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke, and encourage behaviour change	
Indicator TC3. Implementation of anti-tobacco mass media campaigns	**Suggested data sources** • City reports
Intervention: Provision of cost-covered, effective population-wide support (including brief advice, national toll-free quit line services and mCessation) for tobacco cessation to all tobacco users	
Indicator TC4. Availability of tobacco cessation services	**Suggested data sources** • Routine facility reporting system, facility surveys • National/subnational/city health programme, plan, strategy, reports
Intervention: Increase excise taxes and prices on tobacco products	
Indicator TC5. Access to and use of tobacco price data	**Suggested data sources** • City plans, programmes, reports • Surveys
Intervention: Regularly monitor and report tobacco use within the city	
Indicator TC6. Prevalence of tobacco use	**Suggested data sources** • Population-based or school-based surveys

TC1 Existence and compliance measurement of smoke-free legislation	
Purpose	To assess smoke-free legislation
Definition	Access to smoke-free legislation at national, regional (subnational) or city level. Additionally, compliance to legislation should be routinely measured.
Method of scoring	This indicator is considered advanced if the city is covered by smoke-free legislation and compliance is routinely being measured. This indicator is considered developing if the city is covered by smoke-legislation, but compliance is not being measured. This indicator is considered nascent if the city is not covered by smoke-free legislation.
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Global Health Observatory: Protect from tobacco smoke (Data by country) (WHO) *(60)* WHO Framework Convention on Tobacco Control (WHO) *(61)* WHO FCTC: Framework Convention Guidelines (WHO) *(62)* – see Smoke-free spaces (Article 8) MPOWER resources (WHO) *(63)* Making cities smoke-free (WHO) *(64)*

TC2	Existence and compliance measurement of bans on advertising, promotion and sponsorship
Purpose	To assess tobacco advertising, promotion and sponsorship bans
Definition	Existence of tobacco advertising, promotion and sponsorship (TAPS) legislations at national, regional (subnational) or city level. Additionally, compliance to legislation should be routinely measured
Method of scoring	This indicator is considered advanced if the city is covered by TAPS legislation and compliance is routinely being measured. This indicator is considered developing if the city is covered by TAPS legislation, but compliance is not being measured. This indicator is considered nascent if the city is not covered by TAPS legislation..
Sources of data	National/subnational/city policy or legislation, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	WHO Framework Convention on Tobacco Control (WHO) *(61)* WHO FCTC: Framework Convention Guidelines (WHO) *(62)* – see Smoke-free spaces (Article 8) MPOWER resources (WHO) *(63)* Global Health Observatory: Enforce bans on tobacco advertising (Data by country) (WHO) *(66)*

TC3 Implementation of anti-tobacco mass media campaigns	
Purpose	To measure implementation of anti-tobacco mass media campaigns
Definition	Implementation of anti-tobacco mass media campaigns in the city within the past three years. Additionally, the following must be included in the campaign: • Being part of a comprehensive tobacco control programme. • Before the campaign, research was undertaken or reviewed to gain a thorough understanding of the target audience. • Communication materials were pre-tested with the target audience and refined in line with campaign objectives. • The implementing agency worked with journalists to gain publicity or news coverage for the campaign. • Process evaluation was undertaken to assess how effectively the campaign was implemented. • Process evaluation was undertaken to assess how effectively the campaign had been implemented.
Method of scoring	This indicator is considered advanced if mass media campaigns are implemented within the city and the campaign contains characteristics including: (a) being part of a comprehensive tobacco control programme; (b) before the campaign, research was undertaken or reviewed to gain a thorough understanding of the target audience; (c) communication materials were pre-tested with the target audience and refined in line with campaign objectives; (d) the implementing agency worked with journalists to gain publicity or news coverage for the campaign; (e) process evaluation was undertaken to assess how effectively the campaign was implemented; (f) process evaluation was undertaken to assess how effectively the campaign had been implemented. This indicator is considered developing if mass media campaigns are implemented within the city and some but not all campaign characteristics are included. This indicator is considered nascent if no mass media campaign is implemented in the city.
Sources of data	City reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	WHO Framework Convention on Tobacco Control (WHO) *(61)* MPOWER resources (WHO) *(63)* Global Health Observatory: Anti-tobacco mass media campaigns (Data by country) (WHO) *(66)*

TC4 Availability of tobacco cessation services	
Purpose	To assess tobacco cessation services available in the city
Definition	Availability of tobacco cessation services. Additionally, the city must monitor availability of these services. Cessation programmes must have specified services including: • Tobacco cessation advice incorporated into primary and routine health-care services. • Easily accessible and free telephone help lines (known as 'quit lines'). • Free and low-cost cessation medicines including nicotine. Cessation support should be offered at public settings including: health clinics or other primary care facilities; hospitals; offices of a health professionals; community settings.
Method of scoring	This indicator is considered advanced if tobacco cessation services are provided in the city and availability and accessibility to these services are monitored. Cessation programmes must have specified services including: (a) tobacco cessation advice incorporated into primary and routine health-care services; (b) easily accessible and free telephone help lines (known as 'quit lines'); (c) free and low-cost cessation medicines including nicotine. Programmes should be provided in public places including: health clinics or other primary care facilities; hospitals; offices of a health professionals; community settings. This indicator is considered developing if some but not all the tobacco cessation services mentioned above are available in the city, and there are no activities monitoring the availability and accessibility of these services. This indicator is considered nascent if no tobacco cessation services are provided in the city.
Sources of data	Routine facility reporting system, facility surveys, National/subnational/city health programme, plan, strategy, reports
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	WHO Framework Convention on Tobacco Control (WHO) *(61)* MPOWER resources (WHO) *(63)* Global Health Observatory: Offer help to quit tobacco use (Data by country) (WHO) *(67)*

TC5 Access to and use of tobacco price data	
Purpose	To assess the city-level access to and use of tobacco price data
Definition	Access to tobacco price data. Additionally, historical price data should be used by the city to assess/monitor affordability of most-sold cigarette brand in the city.
Method of scoring	This indicator is considered advanced if the city has access to and uses historical tobacco price data with latest estimates available within the past two years, to assess/monitor affordability of the most-sold cigarette brand. This indicator is considered developing if the city has access to and uses tobacco price data to assess/monitor affordability of the most-sold cigarette brand, but historical data with latest estimates within the past two years are not available. This indicator is considered nascent if the city does not have access to nor use tobacco price data.
Sources of data	City plans, programmes, reports, surveys
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	WHO Framework Convention on Tobacco Control (WHO) *(61)* WHO FCTC: Framework Convention Guidelines (WHO) *(62)* – see Smoke-free spaces (Article 8) MPOWER resources (WHO) *(63)* Global Health Observatory: Raise taxes on tobacco (WHO) *(68)* Global Health Observatory: Tobacco affordability – percent of GDP per capita required to purchase 100 packs of cigarettes (WHO) *(69)*

TC6 Prevalence of tobacco use in adults	
Purpose	To measure the prevalence of tobacco use within the city
Definition	Proportion of adults aged 18 years and over reporting tobacco use
Numerator	Number of adults aged 18 years and over reporting tobacco use
Denominator	Total number of survey respondents
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	Cities can assess their progress based on national/subnational targets if city-specific targets are unavailable for this indicator
Related links	Global Health Observatory: Monitor [tobacco use] (WHO) *(70)* STEPwise approach to NCD risk factor surveillance (STEPS) (WHO) *(71)*

4.8. NCD and injury surveillance

Intervention: Establish a surveillance system with periodic data collection on risk factors and outcomes of interventions	
Indicator S1. Adult NCD risk factor surveillance capacity **Indicator S2.** Adult injury risk factor surveillance capacity **Indicator S3.** Adolescent NCD risk factor surveillance capacity **Indicator S4.** Child NCD risk factor surveillance capacity	**Suggested data sources** ● Population-based or school-based surveys
Intervention: Monitor routine facility and patient monitoring for alcohol use/substance disorders and tobacco dependencies	
Indicator S5. Access to and use of routine health facility data on alcohol and substance use disorders and tobacco dependencies	**Suggested data sources** ● Routine health facility reporting system ● City plans, programmes, reports
Intervention: Ensure access to cause-of death certification and reporting	
Indicator S6. Access to and use of cause-of-death data on NCDs and injuries	**Suggested data sources** ● Civil registration and vital statistics system with complete coverage and with medical certification of cause of death ● City plans, programmes, reports

S1	Adult NCD risk factor surveillance capacity
Purpose	To assess the capacity for collection of NCD risk factor data through surveys conducted among adults, with results reported at the city level
Definition	Comprehensive city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adults within the past five years. Additionally, the survey should cover all risk factors including: • Alcohol use. • Fruit and vegetable intake. • Overweight and obesity estimates. • Physical inactivity (walking and cycling). • Salt intake. • Tobacco use.
Method of scoring	This indicator is considered advanced if a city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adults within the past five years and the survey covered all risk factors including: (a) alcohol use; (b) fruit and vegetable intake; (c) overweight and obesity estimates; (d) physical inactivity (walking and cycling); (e) salt intake; (f) tobacco use. This indicator is considered developing if a city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adults 5 to 10 years ago and the survey did not cover all the above risk factors. This indicator is considered nascent if no city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adults within the past 10 years.
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* STEPwise approach to NCD risk factor surveillance (STEPS) (WHO) *(71)* Global school-based student health survey (WHO) *(72)* Global physical activity questionnaire (WHO) *(73)* NCD country capacity survey (WHO) *(74)* Global Health Observatory: NCD surveillance response (by country) (WHO) *(75)*

S2	Adult injury risk factor surveillance capacity
Purpose	To assess the capacity for collection of injury risk factor data through surveys conducted among adults, with results reported at the city level
Definition	Comprehensive city-level survey (or wider survey with usable city-level results) on injury risk factors has been conducted among adults within the past five years. Additionally, the survey should cover all risk factors including: • Drink–driving. • Driving beyond the speed limit. • Helmet and seat-belt use.
Method of scoring	This indicator is considered advanced if a city-level survey (or wider survey with usable city-level results) on injury risk factors has been conducted among adults within the past five years and the survey covered all risk factors including: (a) drink–driving; (b) driving beyond the speed limit; (c) helmet use; (d) seat-belt use. This indicator is considered developing if a city-level survey (or wider survey with usable city-level results) on injury risk factors has been conducted among adults 5 to 10 years ago and the survey did not cover all the above risk factors. This indicator is considered nascent if no city-level survey (or wider survey with usable city-level results) on injury risk factors has been conducted among adults within the past 10 years.
Sources of data	Population-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* STEPwise approach to NCD risk factor surveillance (STEPS) (WHO) *(71)* Global Health Observatory: NCD surveillance response (by country) (WHO) *(75)*

S3	Adolescent NCD risk factor surveillance capacity
Purpose	To assess the capacity for collection of NCD risk factor data through surveys conducted among adolescents, with results reported at the city level
Definition	Comprehensive city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adolescents within the past five years. Additionally, the survey should cover all risk factors including: • Alcohol use. • Fruit and vegetable intake. • Overweight and obesity estimates. • Physical inactivity (walking and cycling). • Tobacco use.
Method of scoring	This indicator is considered advanced if a city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adolescents within the past five years and the survey covered all risk factors including: (a) alcohol use; (b) fruit and vegetable intake; (c) overweight and obesity estimates; (d) physical inactivity (walking and cycling); (e) tobacco use. This indicator is considered developing if a city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adolescents 5 to 10 years ago, but the survey did not cover all the above risk factors. This indicator is considered nascent if no city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among adolescents within the past 10 years.
Sources of data	Population-based or school-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Global school-based student health survey (WHO) *(72)* Global Health Observatory: NCD surveillance response (by country) (WHO) *(75)*

S4	Child NCD risk factor surveillance capacity
Purpose	To assess the capacity for collection of NCD risk factor data through surveys conducted among children, with results reported at the city level
Definition	Comprehensive city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among children within the past five years. Additionally, the survey should cover all risk factors including: • Overweight and obesity estimates. • Physical inactivity (walking and cycling).
Method of scoring	This indicator is considered advanced if a city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among children within the past five years and the survey covered all risk factors including: (a) overweight and obesity estimates; (b) physical inactivity (walking and cycling). This indicator is considered developing if a city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among children 5 to 10 years ago and the survey did not cover all of the above risk factors. This indicator is considered nascent if no city-level survey (or wider survey with usable city-level results) on NCD risk factors has been conducted among children within the last 10 years.
Sources of data	Population-based or school-based surveys
Recommended frequency of reporting	Every five years
Limitations/Comments	None
Related links	Noncommunicable Disease (NCD) Document Repository (WHO) *(37)* Global school-based student health survey (WHO) *(72)* Global Health Observatory: NCD surveillance response (by country) (WHO) *(75)*

S5	Access to and use of routine health facility data on alcohol and substance use disorders and tobacco dependencies
Purpose	To assess access to and use data from routine facility reporting systems to inform treatment levels for management of alcohol use disorder, substance use disorder and tobacco use dependencies
Definition	Access to data from routine health facility reporting systems on treatment levels for management of alcohol use disorder, substance use disorder and tobacco use dependencies. Additionally, the data should be recent (within the past two years) and the city should use the routine health facility data to inform their progress on NCD prevention and control.
Method of scoring	This indicator is considered advanced if the city has reported city-level health facility-based data on management of: (a) alcohol use disorders; (b) substance use disorders; and (c) tobacco use dependencies, within the past two years. This indicator is considered developing if the city has reported city-level health facility-based data on management of: (a) alcohol use disorders; (b) substance use disorders; and (c) tobacco use dependencies, two to five years ago. This indicator is considered nascent if the city has not reported health facility-based data on management of: (a) alcohol use disorders; (b) substance use disorders; and (c) tobacco use dependencies, within the past five years or the city has no access to data from routine health facility reporting systems.
Sources of data	City plans, programmes, reports, routine health facility reporting systems
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Score for health data technical package (WHO) *(76)*

S6	Access to and use of cause-of-death data on NCDs and injuries
Purpose	To assess access to and use of NCD and injury cause-of-death data from the vital registration system with medical certification of cause of death, police reports or coroner inquest reports
Definition	Access to mortality data from the civil registration and vital statistics systems with medical certification of cause of death that is compliant with International Classification of Diseases (ICD) coding, police reports or coroner inquest reports. Additionally, the data should be recent (within the last 2 years), and the city should use the mortality data on NCDs and injuries to inform their progress on NCD and injury prevention work.
Method of scoring	This indicator is considered advanced if the city has access to and uses mortality data on NCDs and injuries from the vital registration system with medical certification of cause of death that is compliant with ICD coding, police reports or coroner inquest reports and data are recent (within the past two years) and complete. This indicator is considered developing if the city has access to and uses mortality data on NCDs and injuries from the vital registration system with medical certification of cause of death that is compliant with ICD coding, police reports or coroner inquest reports but data are not recent and/or complete. This indicator is considered nascent if the city does not have access to nor use mortality data from the vital registration system with medical certification of cause of death that is compliant with ICD coding, police reports or coroner inquest reports.
Sources of data	City plans, programmes, reports, websites, vital statistics reports, police reports, coroner inquest reports, databases/websites
Recommended frequency of reporting	Annually
Limitations/Comments	None
Related links	Score for health data technical package (WHO) *(76)* WHO mortality database (WHO) *(77)*

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