

Appendix B: Indicators for monitoring impacts of the COVID-19 pandemic and related public health measures (2020-08-31)

1. Substance Use

	Indicator	Source	Data time interval	Time period	Update period
1	Opioid-related emergency department visits by type (accident, intentional, therapeutic, other)	Ministry of Health	Weekly	April 1, 2017 to present (minus a 2–3-week lag)	Weekly
2	Opioid-related emergency department visits	Ministry of Health	Monthly	April 1, 2017 to present (minus a 2–3-week lag)	Monthly
3	Opioid-related deaths for confirmed cases for which the Coroner's Opioid Investigative Aid (OIA) has been completed	PHO > Coroner's Opioid Investigative Aid	Monthly	January 2019 to present (minus a ~3 month lag)	Quarterly
		PHO > Quarterly Public Health Unit Opioid-related Death Reports	Quarterly (total, by age group, manner of death, by gender, by opioid present at death, by opioid directly contributing to death, by whether or not naloxone use by reported)	2017-Q2 to present (minus a ~4 month lag)	Quarterly
4	Probable and confirmed opioid-related deaths	PHO > Coroner's Opioid Investigative Aid	Monthly	Most recent four months in which data are available (usually a ~3 month lag)	Quarterly
5	Opioid-related deaths for confirmed cases for which the Coroner's Opioid Investigative Aid (OIA) has been completed	PHO > Quarterly Public Health Unit Opioid-related Death Reports	Total summary (total, by manner by death, by gender, by age group, male deaths by age group, female deaths by age group, by type of opioid present at death, by type of opioid directly contributing to death)	May 2017 to most recent complete quarter (minus a ~4 month lag)	Quarterly
6	Accidental opioid-related deaths for confirmed cases for which the Coroner's Opioid Investigative Aid (OIA) has been completed	PHO > Quarterly Public Health Unit Opioid-related Death Reports	Total summary (by ethnicity, by living arrangements, by release from a correctional facility in past 4 weeks, by whether or not individual was at home at time of death, by whether or not another	May 2017 to most recent complete quarter (minus a ~4 month lag)	Quarterly

			individual was present at time of incident who could intervene, by location of death, by location of incident, by whether or not there was evidence of injection drug use, by whether or not there was a resuscitation attempt, by who attempted resuscitation attempt, by whether or not naloxone use was reported, by who attempted to use naloxone)		
7	Emergency department visits for substance use (syndromes: EOH, OPI, TOX)	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
8	Emergency department visits for substance use	NACRS – Intellihealth	Monthly	January 2015 to Q1 2020	Monthly
9	Emergency department visits related to crystal methamphetamines	NACRS – Intellihealth	Monthly	January 2015 to Q1 2020	Monthly

2. Injuries

	Indicator	Source	Data time interval	Time period	Update period
1	Emergency department visits for all syndromes	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
2	ED visits by syndrome	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
	Categories	Syndromes		Notes	
	Healthy pregnancy and births	<ul style="list-style-type: none"> • OBS = related to obstetrics • GYN = gynecological, bleed, hysterectomy, PID • NEWB = newborn 			
	Substance use	<ul style="list-style-type: none"> • EOH = alcohol related: intoxication, addiction, withdrawal, end organ damage • OPI = opioid intoxication, addiction, overdose, and withdrawal 		Based on ACES' Toxicity bucket	

	<ul style="list-style-type: none"> • TOX = toxicology: withdrawal, substance abuse, chemical exposure (not alcohol or opioids) 	
Trauma or injury	<ul style="list-style-type: none"> • ORTHF = non-hip fracture • ORTHH = fracture of the femur or hip • TRMVC = trauma from MVC/ATV • TRO = trauma from another means (e.g., fall) • TRW = gunshot or stab, violence, assault 	Based on ACES' <i>Major Accident or Injury</i> bucket
Other injuries	<ul style="list-style-type: none"> • BURN = burns: chemical and thermal, electrical shock • CONC = concussion, head injury • FALL = undifferentiated falls • INJ = sprain, strain, laceration, dislocation, bruise, swelling • LAC = lacerations • TRS = sexual assault 	
Mental health	<ul style="list-style-type: none"> • MH = mental health • MHS = suicidal ideation (attempt or overdose) • SOC = social admission 	Based on ACES' <i>Mental Health</i> bucket
Cardiovascular disease	<ul style="list-style-type: none"> • CAD = coronary artery disease, chest pain • CHF = congestive heart failure • CV = cardiovascular (excludes MI and strokes; includes peripheral vascular disease) 	Based on ACES' <i>Cardiovascular</i> bucket
Other chronic diseases	<ul style="list-style-type: none"> • CARD = pericarditis, effusion, myocarditis, endocarditis • COPD = chronic obstructive pulmonary disease • DM = diabetes, related complications • NEURO = dementia, Alzheimer's, stroke, seizure, vertigo, syncope, fainting • REN = renal failure, dialysis, renal disease and complications 	
Bites and ticks	<ul style="list-style-type: none"> • BITE = human, animal, bug (not tick-related) • TICKS = ticks 	
Environmental health effects	<ul style="list-style-type: none"> • AST = asthma, wheeze, difficulty breathing, SOB • CO = carbon monoxide exposure or other gases (e.g., sulphur) • COPD = chronic obstructive pulmonary disease • DEHY = dehydration • ENVIRO = heat stroke, heat syncope, heat exhaustion, cold-frost bite, hypothermia • SI = smoke inhalation (or chemical, gases) 	Based on ACES' <i>Environmental Health Effects</i> bucket, with the addition of the CO syndrome
Respiratory infections	<ul style="list-style-type: none"> • BRONCH = bronchiolitis, RSV • CROUP = Croup (parainfluenza viruses) • ILI = fever, myalgia, undifferentiated flu • PN = pneumonia • RESP = respiratory infection non-croup, non-bronchiolitis 	Based on ACES' <i>Respiratory Infections</i> bucket
Gastrointestinal infections	<ul style="list-style-type: none"> • GASTRO = gastroenteritis • VOM = vomiting-alone-NORO like illness, not secondary to chemo or with other symptoms 	
Other infection and disease	<ul style="list-style-type: none"> • B = Guillain Barre syndrome, flaccid paralysis 	

			<ul style="list-style-type: none"> • INF = non-specific infections: potential interest to public health, epiglottitis, tonsil abscess • MEN = meningitis and encephalitis • REPORT = reportable diseases • SEP = bacteremia, sepsis 		
	Dermatological infections		<ul style="list-style-type: none"> • CELL = cellulitis, non-wound infection, non-abscess • DERM = rash, undifferentiated, lesion, wart • NEC = necrotizing fasciitis, severe cellulitis, gangrene 	Based on ACES' <i>Dermatological Infections</i> bucket	
	Health system continuous quality improvement (CQI)		<ul style="list-style-type: none"> • CDIFF = C. difficile • PO = post-operative infection or complication 	Based on ACES' <i>Health System CQI</i> bucket	
3	ED visits for motor vehicle collisions (MVC) to hospitals in Middlesex-London	NACRS – Intellihealth	Monthly	January 2015 to Q1 2020	Monthly

3. Social Determinants of Health

	Indicator	Source	Data time interval	Time period	Update period
1	Seasonally adjusted unemployment rate for the London CMA	Statistics Canada	Monthly	January 2016 to most complete month	Monthly (lag of ~10 days)
2	Unadjusted unemployment rate for the London CMA	Statistics Canada	Monthly	January 2016 to most complete month	Monthly (lag of ~10 days)
3	Seasonally adjusted participation rate for the London CMA	Statistics Canada	Monthly	January 2016 to most complete month	Monthly (lag of ~10 days)
4	Unadjusted participation rate for the London CMA	Statistics Canada	Monthly	January 2016 to most complete month	Monthly (lag of ~10 days)

4. Healthy Pregnancy

	Indicator	Source	Data time interval	Time period	Update period
1	Women who gave birth who had depression in this pregnancy	BORN	Monthly	2013 to most complete month	Monthly
2	Women who gave birth who had anxiety in this pregnancy	BORN	Monthly	2013 to most complete month	Monthly
3	Self-reported smoking at time of labour/admission	BORN	Monthly	2013 to most complete month	Monthly
4	Self-reported alcohol use during pregnancy	BORN	Monthly	2013 to most complete month	Monthly
5	Self-reported drug use (other than alcohol) during pregnancy	BORN	Monthly	2013 to most complete month	Monthly

5. Birth and Early Development

	Indicator	Source	Data time interval	Time period	Update period
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1	Births by location type	BORN	Monthly	2013 to most complete month	Monthly
2	Emergency department visits for OBS syndrome (related to obstetrics)	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
3	Emergency department visits for GYN syndrome (includes gynecological, bleed, hysterectomy, PID)	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
4	Emergency department visits for NEWB syndrome (newborn)*	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
5	Emergency department visits for children age 0 to 4 (all syndromes)	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly
6	Breastfeeding (any and exclusive) at time of discharge from hospital or midwifery care	BORN	Monthly	2013 to most complete month	Monthly

6. Immunization

	Indicator	Source	Data time interval	Time period	Update period
1	Immunization – coverage for all ISPA antigens for <ul style="list-style-type: none"> All students 7–17 years old 7-year old students 17-year old students 	Panorama – PEAR	School year (SY) to date	2017–18 SY, to 2020–21 SY to date	Bi-monthly
2	Immunization – coverage for school-based program vaccines for students 12 years old: <ul style="list-style-type: none"> Hepatitis B HPV Meningococcal (quadrivalent) 	Panorama – PEAR	School year (SY) to date	2017–18 SY, to 2020–21 SY to date	Bi-monthly

7. Infectious Disease

	Indicator	Source	Data time interval	Time period	Update period
1	STIs – Number of confirmed cases of: <ul style="list-style-type: none"> Chlamydia Gonorrhea HIV Syphilis – Infectious 	PHO Infectious Disease Query	Monthly	2017 to most complete month	Monthly

	<ul style="list-style-type: none"> • Syphilis – All types 				
2	STIs – Rate of confirmed cases of: <ul style="list-style-type: none"> • Chlamydia • Gonorrhoea • HIV • Syphilis – Infectious • Syphilis – All types 	PHO Infectious Disease Query	Monthly	2017 to most complete month	Monthly
3	STIs – Percent positivity of testing for: <ul style="list-style-type: none"> • Chlamydia • Gonorrhoea • HIV 	PHO STI Lab Decision Support Tool (chlamydia, gonorrhoea) PHO ad hoc request (HIV)	Monthly	TBD	Monthly

8. Mental Health

	Indicator	Source	Data time interval	Time period	Update period
1	Distress line calls received by staff at Middlesex-London CMHA Branch	CMHA	Monthly	January 2019 to most complete month	Monthly
2	Emergency department visits for mental health to hospitals in Middlesex-London	NACRS – Intellihealth	Monthly	January 2015 to Q1 2020	Monthly
3	Ontario 211 clients identifying needs related to mental-health /addictions in Middlesex-London	Ontario 211	Monthly	January 2015 to most complete month	Monthly
4	Emergency department visits for mental health (syndromes: MH, MHS, SOC)	ACES	Grouped by week	December 28, 2018 to most complete week (Sunday to Saturday)	Weekly

9. Oral Health

	Indicator	Source	Data time interval	Time period	Update period
1	Emergency department visits for emergency dental care	NACRS – Intellihealth	Monthly	TBD	TBD
2	% of eligible seniors who required urgent dental care through OSDCP	OHISS / ABELDent	Monthly	December 2019 to most complete month	Monthly
3	% of eligible children who required urgent dental care through HSO	OHISS / ABELDent	Monthly	TBD	Monthly
4	% of eligible students screened in the school-based dental screening program identified as requiring urgent dental care	OHISS / ABELDent	Monthly	TBD	Monthly

10. Preventable Mortality

*Note: these data will not be available in the short term

	Indicator	Source	Data time interval	Time period	Update period
1	Preventable mortality rate (all causes)	Ontario Mortality Data – Intellihealth	Annually	2013 to most recent year	Annually or semi-annually
2	Preventable causes of mortality rates: <ul style="list-style-type: none"> • Cancer • Injury • Cardiovascular • Respiratory • Alcohol & drugs • Infection • Nutrition • Digestive 	Ontario Mortality Data – Intellihealth	Annually	2013 to most recent year	Annually or semi-annually