

End-of-life healthcare utilization and costs according to cause of death: a retrospective study
Supplemental file

Supplemental 1: Classification of causes of death according to clinical trajectories

Cause of death (ICD-10 label)	ICD-10 code	Cause of death*
Neoplasms	C00-D48	Terminal illness
Certain infectious and parasitic diseases	A00-B99	
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89	
Endocrine, nutritional and metabolic diseases	E00-E90	
Diseases of the circulatory system	I00-I99	
Diseases of the respiratory system	J00-J99	Organic failure
Diseases of the digestive system	K00-K933	
Diseases of the skin and subcutaneous tissue	L00-L99	
Diseases of the musculoskeletal system and connective tissue	M00-M99	
Diseases of the genitourinary system	N00-N99	
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99	
Mental and behavioural disorders	F00-F99	
Diseases of the nervous system	G00-G99	Physical or cognitive frailty
Diseases of the eye and adnexa	H00-H59	
Diseases of the ear and mastoid process	H60-H95	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99	
Injury, poisoning and certain other consequences of external causes	S00-T98	Other
Codes for special purposes	U00-U99	
External causes of morbidity and mortality	V01-Y98	
Factors influencing health status and contact with health services	Z00-Z99	

* From (INSPQ, 2020), inspired by (Lunney, 2003; Murray et al., 2005; Murtagh et al., 2004)

Supplemental 2 : Annual MSSS conversion factors for each fiscal year of the relative intensity level of resources (NIRRU, *niveau d'intensité relative des ressources utilisées*).

Fiscal year	\$CAD hospital stay	\$CAD day surgery
2017-2018	4,039.57	1,030.72
2016-2017	3,894.05	972.05
2015-2016	3,825.51	960.36
2014-2015	3,775.57	932.84
2013-2014	3,799.74	900.98

Supplemental 3 : Daily rates LTC accommodation

Fiscal year	\$CAD daily rates
2017-2018	250
2016-2017	238
2015-2016	230
2014-2015	252
2013-2014	246

Supplemental 4 : Illustration of cost attribution for CLSC services

Illustration of I-CLSC services for an individual X1 who received services during the 2016-2017 fiscal year and who lives in the Montreal region

Individual	Region	Fiscal year	Activity center	Quarter
X1	06 - Montreal	2016-2017	6174 (Continuous nursing homecare)	Q3
X1	06 - Montreal	2016-2017	6174 (Continuous nursing homecare)	Q4
X1	06 - Montreal	2016-2017	6174 (Continuous nursing homecare)	Q4
X1	06 - Montreal	2016-2017	6380 (Outpatient psychogeriatric services)	Q2
X1	06 - Montreal	2016-2017	6380 (Outpatient psychogeriatric services)	Q4
X1	06 - Montreal	2016-2017	6380 (Outpatient psychogeriatric services)	Q4
X1	06 - Montreal	2016-2017	7400 (User transportation)	Q3
X1	06 - Montreal	2016-2017	7400 (User transportation)	Q3

Extraction of the correspondence table for activity centers 6174, 6380 and 7400 for the Montreal region during the 2016-2017 fiscal year – Source: AS-471 reports from establishments

Activity center	Region	Fiscal year	Average rate	Annual individual average cost
6174 (Continuous nursing homecare)	06 - Montreal	2016-2017	8.78	1,698.55
6380 (Outpatient psychogeriatric services)	06 - Montreal	2016-2017	-	2,133.47
7400 (User transportation)	06 - Montreal	2016-2017	88.90	-

Illustration of the calculation of the cost of services offered by CLSCs for individual X1 who received services from activity centers 6174, 6380 and 7400 during the 2016-2017 fiscal year in the Montreal region

Individual	Region	Fiscal year	Activity center	Quarter	# Inter.	Costs
X1	06 - Montreal	2016-2017	6174 (Continuous nursing homecare)	Q3	1	= 1 * 8,78
X1	06 - Montreal	2016-2017	6174 (Continuous nursing homecare)	Q4	2	= 2 * 8,78
X1	06 - Montreal	2016-2017	6380 (Outpatient psychogeriatric services)	Q2	1	= 2,133.47 * 1/3
X1	06 - Montreal	2016-2017	6380 (Outpatient psychogeriatric services)	Q4	2	= 2,133.47 * 2/3
X1	06 - Montreal	2016-2017	7400 (User transportation)	Q3	2	= 2 * 88,90

Supplemental 5 : Consumer Price Index

Year	Canadian index	Annual variation Can.	Quebec index	Quebec index variation	2018-index Quebec
2019	136	1.9	131.7	2.1	1.0209302
2018	133.4	2.3	129	1.7	1
2017	130.4	1.6	126.9	1	0.9837209
2016	128.4	1.4	125.6	0.7	0.9736434
2015	126.6	1.1	124.7	1.1	0.9666667
2014	125.2	2	123.4	1.4	0.9565891
2013	122.8	0.9	121.7	0.7	0.9434109