

Appendix A. Characteristics of the study population in parallel with the profile of other large samples of individuals living with chronic low back pain

		Population-Based studies (random samples)					Inception cohort studies	
Characteristic	QLBPS	Bath et al., 2014. Canada	Shmagel et al., 2016. US	Gouveia et al., 2016. Portugal	Heuch et al, 2019. Norway	Dueñas et al. 2020. Spain	Dutmer et al., 2019. Netherlands	Stevans et al., 2021. US.
	s							
n	2847	113,647	5,103	10,661	18,972	23,089	1,502	1,666
Survey/Study	Canadian minimum dataset at baseline	Canadian Community Health Survey 2009–2010	The National Health and Nutrition Examination Survey 2009–2010	EpiReumaPt Study, 2011-2013	The Nord-Trøndelag Health Study, HUNT2 in 1995– 1997 and HUNT3 in 2006–2008.	National Health Survey of Spain 2017	The Groningen Spine Cohort	NA
Mode of administration	Web	Telephone or face- to-face	Face-to-face	Face-to-face	Telephone or face-to- face	Face-to-face	Face-to-face	Face-to-face
Prevalence of CLBP	All participants had CLBP	20.2%	13.1%	10.4%	17.8%	22.0%	98%	All participants had CLBP
Mean age (years)	44.0±11.2	NA	NA	58.9±17.2	NA	62.08±16.31	46.3±12.8	NA

Age categories*	18-34: 23.2% 35-49: 46.9% 50-64: 25.2% 65+: 4.7%	18-34: 16.7% 35-49: 28.0% 50-64: 33.1% 65+: 22.3%	20-29: 15.1% 30-39: 18.3% 40-49: 19.3% 50-59: 27.4% 60-69: 20.0%	NA	30-39: 19.6% 40-49: 21.4% 50-59: 19.7% 60-69: 21.7%	NA	NA	18-40: 30.4% 41-60: 39.4% >=61; 30.2%
Female sex/Woman self-identification	Female sex 56.6%† Women: 48.1%	Female sex: 52.2%	Female sex: 55.8%	Women gender 71.4%	Women gender 62.3%	Women gender 63.8%	Female Sex: 57.1%	Women: 61.6%
Current Smokers*	20.3%	26.5%	30.4%	NA	NA	31.4%	NA	16.8%
Obese*	37.2%	23.1%	44.2%	29.8%	20.8%	18.9%	NA	51.7%
Post-secondary education*	69.4%	56.9%	79.5%	>12 years: 7.8%	NA	53.9%	Middle/high 55.3%	NA
Pain intensity Mean±SD*	6.1±1.8	NA	NA	0-10 scale: 6.0±2.14	NA	NA	Median=7.0 (IQR=6.0–8.0)	NA

CLBP=Chronic Low Back Pain. NA= Not available. IQR= Interquartile Range. *Characteristics taken from the CLBP subsample. †Female sex at birth was not presented in the results section.

References

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Appendix B. Reference Data. Categorical variables of the Canadian version NIH minimum dataset

Variable	Category	n (%)
Pain Characteristics		
How long has low back pain been an ongoing problem for you?	3-5 months	145 (5.1)
	6-11 months	237 (8.3)
	1-5 years	1 042 (36.6)
	More than 5 years	1 423 (50)
How often has low back pain been an ongoing problem for you over the past 6 months?	Every day or nearly every day in the past 6 months	1 710 (60.1)
	At least half the days in the past 6 months	1 137 (39.9)
Has low back pain spread down your leg(s) during the past 2 weeks? (you can refer to the figure below)	Missing	4 (0.1)
	Yes	1 675 (58.8)
	No	876 (30.8)
	Not sure	292 (10.3)
Comorbid painful conditions		
Stomach pain	Missing	57 (2)
	Not bothered at all	1 474 (51.8)
	Bothered a little	1 045 (36.7)
	Bothered a lot	271 (9.5)
Pain in your arms, legs, or joints (other than your spine or back)	Missing	45 (1.6)
	Not bothered at all	481 (16.9)
	Bothered a little	1 173 (41.2)
	Bothered a lot	1 148 (40.3)
Headaches	Missing	58 (2)
	Not bothered at all	1 182 (41.5)
	Bothered a little	1 146 (40.3)
	Bothered a lot	461 (16.2)
Widespread pain (pain in most of your body)	Missing	72 (2.5)
	Not bothered at all	1 227 (43.1)
	Bothered a little	1 045 (36.7)
	Bothered a lot	503 (17.7)
History of LBP surgical interventions		
Have you ever had a low back surgery?	Missing	6 (0.2)
	Yes, one surgery	123 (4.3)
	Yes, more than one surgery	43 (1.5)
	No	2 675 (94)
	Missing	2 682 (94.2)

If yes, when was your last low back surgery?	Less than 6 months ago	12 (0.4)
	6 months or more, but less than 1 year ago	10 (0.4)
	Between 1 and 2 years ago	23 (0.8)
	More than 2 years ago	120 (4.2)
Did any of your low back surgeries involve a spinal fusion (also called an arthrodesis)?	Missing	2 682 (94.2)
	Yes	44 (1.5)
	No	107 (3.8)
	Not sure	14 (0.5)
LBP currently treatments		
Opioid painkillers	Missing	18 (0.6)
	No	2 164 (76)
	Yes	545 (19.1)
	Not sure	120 (4.2)
Infiltrations / Injections	Missing	23 (0.8)
	No	2 506 (88)
	Yes	287 (10.1)
	Not sure	31 (1.1)
Exercise therapy	Missing	21 (0.7)
	No	1 725 (60.6)
	Yes	1 056 (37.1)
	Not sure	45 (1.6)
Psychological counseling	Missing	26 (0.9)
	No	2 608 (91.6)
	Yes	160 (5.6)
	Not sure	53 (1.9)
Absenteeism and compensation benefits		
I have been off work or unemployed for 1 month or more due to low back pain	Missing	163 (5.7)
	Yes	734 (25.8)
	No	1 334 (46.9)
	Does not apply	616 (21.6)
I receive or have applied for disability or workers compensation benefits because I am unable to work due to low back pain	Missing	167 (5.9)
	Yes	348 (12.2)
	No	1 804 (63.4)
	Does not apply	528 (18.5)
LBP-related lawsuits and legal claims		
Are you involved in a lawsuit or legal claim related to your low back problem?	Missing	8 (0.3)
	Yes	75 (2.6)
	No	2 681 (94.2)
	Not sure	83 (2.9)

Kinesiophobia		
Its not really safe for a person with my low back problem to be physically active	Missing	10 (0.4)
	Agree	755 (26.5)
	Disagree	2 082 (73.1)
Catastrophizing		
I feel that my low back pain is terrible and never going to get any better	Missing	7 (0.2)
	Agree	1 579 (55.5)
	Disagree	1 261 (44.3)
Substance abuse		
Have you consumed alcohol or used drugs more than you meant to?	Missing	7 (0.2)
	Never	1 718 (60.3)
	Rarely	523 (18.4)
	Sometimes	437 (15.3)
	Often	162 (5.7)
Have you felt you wanted or needed to cut down on your drinking or drug abuse?	Missing	43 (1.5)
	Never	1 960 (68.8)
	Rarely	314 (11)
	Sometimes	362 (12.7)
	Often	168 (5.9)
Smoking and body mass index		
How would you describe your cigarette smoking?	Missing	91 (3.2)
	Never smoked	1 167 (41)
	Current smoker	577 (20.3)
	Used to smoke, but have now quit	1 012 (35.5)
Body mass index groups	Missing	139 (4.9)
	Normal weight	772 (27.1)
	Underweight	48 (1.7)
	Overweight	830 (29.2)
	Obesity I	517 (18.2)
	Obesity II	307 (10.8)
	Obesity III	234 (8.2)

Appendix C. Floor and ceiling effects for the NIH minimum dataset (n=2847)

Variable/ Observed Score	Gender identity groups*			Age groups				Language		Whole sample
	Women (n=1368)	Men (n=1027)	Missing (n=448)	18-34 (n=660)	35-49 (n=1334)	50-64 (n=718)	65-86 (n=135)	English (n=157)	French (n=2690)	Total (n=2847)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Pain intensity (possible range = 0-10)										
Lowest= 0	0 (0.0)	1 (0.1)	0 (0.0)	1 (0.2)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.04)	1 (0.04)
Highest= 10	20 (1.5)	23 (2.2)	4 (0.9)	4 (0.6)	25 (1.9)	17 (2.4)	2 (1.5)	3 (1.9)	45 (1.7)	48 (1.7)
Pain interference (possible range = 4-20)										
Lowest= 4	16 (1.2)	19 (1.9)	7 (1.6)	13 (2.0)	20 (1.5)	6 (0.8)	3 (2.2)	0 (0.0)	42 (1.6)	42 (1.5)
Highest= 20	101 (7.4)	63 (6.1)	31 (6.9)	23 (3.5)	103 (7.7)	65 (9.1)	5 (3.7)	14 (8.9)	182 (6.8)	196 (6.9)
Physical Function (possible range = 4-20)										
Lowest= 4	6 (0.4)	2 (0.2)	1 (0.2)	0 (0.0)	5 (0.4)	1 (0.1)	4 (3.0)	0 (0.0)	10 (0.4)	10 (0.4)
Highest= 20	82 (6.0)	114 (11.1)	33 (7.4)	82 (12.4)	110 (8.3)	35 (4.9)	2 (1.5)	12 (7.6)	217 (8.1)	229 (8.0)
Emotional distress/depression (possible range = 4-20)										
Lowest= 4	173 (12.7)	244 (23.8)	76 (17.0)	116 (17.6)	236 (17.7)	114 (15.9)	27 (20.0)	31 (19.8)	462 (17.2)	493 (17.3)
Highest= 20	27 (2.0)	22 (2.1)	8 (1.8)	17 (2.6)	27 (2.0)	11 (1.5)	2 (1.5)	4 (2.6)	53 (2.0)	57 (2.0)
Sleep disturbance (possible range = 4-20)										
Lowest= 4	4 (0.3)	8 (0.8)	2 (0.5)	2 (0.3)	9 (0.7)	1 (0.1)	2 (1.5)	4 (2.6)	10 (0.4)	14 (0.5)

Highest= 20	72 (5.3)	31 (3.0)	25 (5.6)	38 (5.8)	61 (4.6)	26 (3.6)	3 (2.2)	8 (5.1)	120 (4.5)	128 (4.5)
Pain impact score (possible range = 8-50)										
Lowest= 9	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.04)	1 (0.04)
Highest= 44	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.7)	0 (0.0)	1 (0.04)	1 (0.04)

Bold text is used to highlight floor or ceiling effects. SD= Standard deviation. *Non-binary gender was excluded from the stratified analyses (n=4)

Appendix D. Cronbach's alpha coefficients evaluating the effect of an item's removal

Domain/Item	Whole sample (n=2847)
	Cronbach Alpha removing each variable
Pain interference	
How much did pain interfere with your day-to-day activities?	0.89
How much did pain interfere with work around the home? (e.g., garden work, renovations)	0.88
How much did pain interfere with your ability to participate in social activities?	0.90
How much did pain interfere with your household chores? (e.g., house cleaning, vacuuming)	0.87
Physical Function	
Are you able to do chores such as vacuuming or yard work?	0.89
Are you able to go up and down stairs at a normal pace?	0.86
Are you able to go for a walk of at least 15 minutes?	0.84
Are you able to run errands and shop?	0.84
Emotional distress/depression	
I felt worthless	0.91
I felt helpless	0.89
I felt depressed	0.90
I felt hopeless	0.90
Sleep disturbance	

My sleep quality was (reversed)	0.73
My sleep was refreshing (reversed)	0.80
I had a problem with my sleep	0.71
I had difficulty falling asleep	0.77
Pain impact score	
Pain intensity	0.93
How much did pain interfere with your day-to-day activities?	0.90
How much did pain interfere with work around the home? (e.g., garden work, renovations)	0.90
How much did pain interfere with your ability to participate in social activities?	0.90
How much did pain interfere with your household chores? (e.g., house cleaning, vacuuming)	0.90
Are you able to do chores such as vacuuming or yard work?	0.90
Are you able to go up and down stairs at a normal pace?	0.90
Are you able to go for a walk of at least 15 minutes?	0.90
Are you able to run errands and shop?	0.90