

Active living in Saskatchewan: A review of official community plans

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ABSTRACT

OBJECTIVE: Municipal policies may have a significant impact on the development of environments that provide sustainable opportunities for individuals to engage in healthy, active lifestyles. Little is known about how explicitly community planning in Canada integrates strategies to promote physical activity. In the context of Active Saskatchewan 2020 (AS2020), the strategic plan of Saskatchewan *in motion*, such an analysis would create a basis for identifying policy gaps and ongoing monitoring. The objective of this study was to review the official community plan (OCP) of each city in the province of Saskatchewan, Canada and identify policies supportive of physical activity.

METHODS: A conventional content analysis was completed of the OCPs of the 17 cities in Saskatchewan. Each OCP was reviewed and text extracted that related to supporting physical activity. Extracted text was thematically organized within and across cities, creating a set of indicators for ongoing monitoring.

RESULTS: Overall, 17 indicators were identified. The frequency of inclusion of these indicators within the 17 OCPs varied from 17.6% to 82.4%. The mean frequency of indicators identified per OCP was 7.4. The most commonly included indicators included *residential neighbourhood plans associated with active living, downtown cycling and pedestrian plans, and joint-use agreements between communities and schools.*

CONCLUSIONS: Most Saskatchewan OCPs make little direct reference to policies supportive of physical activity. Impacting community-level policy is an expected outcome of AS2020/Saskatchewan *in motion*. This study identifies a range of indicators for monitoring this process and highlights potential areas for policy development within OCPs.

KEY WORDS: Physical activity; community planning; policy; built environment; population health

La traduction du résumé se trouve à la fin de l'article.

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Physical activity is an integral contributor to health and well-being. Evidence points to a decline in physical activity levels globally and in Canada.^{1–3} This trend has a strong relationship with the increasing prevalence of obesity and non-communicable diseases such as cardiovascular diseases, type 2 diabetes mellitus, and certain cancers.⁴ According to the 2016 ParticipACTION report card on the physical activity of children and youth, fewer than 10% of Canadian children and youth are meeting the physical activity guidelines recommending 60 minutes/day moderate-to-vigorous physical activity (MVPA).³ Specifically in the province of Saskatchewan, fewer than 15% of 5–11 year olds are meeting these guidelines.⁵ Furthermore, only 15% of adults nationwide are getting the recommended 150 minutes/week MVPA necessary for health benefits.⁶ The proportion of Saskatchewan residents ≥ 12 years of age engaging in moderate physical activity during their leisure time falls below the national average,⁷ and the prevalence of obesity among Saskatchewan residents ≥ 18 years of age (25.1%) is also higher than the national average (20.2%).⁸

The obesogenic environment model suggests that the direct relationship between physical inactivity and the obesity epidemic may be partly ascribed to environmental factors.⁹ Environmental changes may be as effective as policy changes, but research has shown these factors to be interdependent.¹⁰ Therefore, policy change is necessary around many built environment settings in order to significantly impact the lifestyles of the population.¹⁰ Factors that enhance active transportation such as walking and

cycling, and increased access to public transit may be positive contributors to population physical activity levels, as these forms of active transportation can replace passive automobile transit.^{11–13} Land-use mix, housing density, and compact building designs have also been associated with improved walkability.¹⁴ Active and safe routes to school have been highlighted as a means to empower Canadian children in meeting the recommended daily physical activity levels.¹⁵ In a systematic review, 70% of the included studies reported a positive relationship between physical activity levels and active compared to passive commuting.¹⁶ Parks and recreation settings, open spaces, and neighbourhood designs, especially in terms of walkability, have also been directly positively associated with higher physical activity.¹⁷ It is clearly important for national, provincial and municipal governments and organizations to create and implement strategies to improve the quality of life of residents by influencing the school, work, residential, commercial and recreational environments.¹⁸

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Strategic plan of Saskatchewan *in motion* (Active Saskatchewan 2020: AS2020)

Saskatchewan *in motion* (Box 1) is an independent (arm's length), not-for-profit organization that works in close strategic partnership with the Government of Saskatchewan. It was created in 2003 in response to a federal, provincial and territorial goal to increase population physical activity in each jurisdiction. The *in motion* strategic plan (AS2020) identifies a multi-sector, multi-level approach geared towards "getting more kids, more active, more often."¹⁹ An identified outcome within AS2020 is that "Saskatchewan *in motion* contributes to evidence informed public policy that supports and encourages physical activity."¹⁹ This includes, but is not limited to, municipal policies that identify physical activity opportunities, and it could be measured by an increase in physical activity-related content within official community plans (OCPs).

Policies with the potential to impact public health may exist in many different forms and originate from a variety of sources.²⁰ As one such source, an OCP is a comprehensive policy document developed by a municipality "to guide the physical, environmental, economic, social, and cultural development of the municipality."²¹ According to *The Planning and Development Act, 2007*, every municipality in Saskatchewan is expected to adopt an OCP prepared with a community planning expert and reviewed by a solicitor.²¹ The OCP benefits residents, investors and visitors by providing certainty about future plans and developments.²¹ The OCP is suitable for physical activity-related content analysis as it sets the vision for sustainable development, drives decision making, and encompasses housing, transportation and recreation policies. Such a review may be informative as OCP inclusion of physical activity-related content may be indicative of both the value placed on physical activity, and the commitment of resources and political will to supporting physical activity.

Over the past few decades, researchers have continued to emphasize interventions combating physical inactivity by raising awareness, setting benchmarks for physical activity indicators, and making policy recommendations.¹⁸ Although important, these processes may not be enough to effect change in physical activity

Box 1. Saskatchewan *in motion*

Objectives:

- Creating understanding and awareness of physical activity at an individual level
- Addressing built and social environments at a community level
- Inspiring change at an institutional level
- Influencing policy at a societal level

Activities guided by AS2020 strategic plan:

- Community mobilization and awareness building processes
- Educating decision makers
- Collaborative activities: Development of baseline community profiles, engaging stakeholders through symposiums, development and implementation of action plans
- Evaluation processes

Goal:

- To increase policy maker and collaborator awareness of community policy initiatives that can be implemented towards encouraging healthy active lifestyles.

behaviours, considering current physical inactivity trends. Emerging research seeks to ensure that recommendations to policy makers are indeed being converted to policies.¹⁸ However, policy initiatives may be influenced by delicate factors such as political changes and preferences; hence, it is necessary to monitor prospectively and retrospectively the physical activity considerations contained within OCPs.

Past studies have concentrated on how population health can be improved at the local and provincial levels through the embedding of health considerations into policy- and decision-making across all sectors.²² A Canadian study analyzed the contents of OCPs for built environment policies promoting health equalities across all sectors.²³ However, we are not aware of any analysis of policies aimed at improving physical activity specifically contained within OCPs in the Canadian context.

The purpose of this study was to review the OCPs of the 17 cities in the province of Saskatchewan, Canada, and specifically to identify policies within those plans that are supportive of physical activity. In doing so, our analysis provides a basis for monitoring policy changes in the OCPs over time and highlights potential areas for policy development within OCPs. It also provides one template for other Canadian provinces and territories to assess and monitor municipal physical activity strategies.

METHODS

Study area

Saskatchewan is the middle province of Canada's three Prairie provinces, with a total surface area of 651 036 km². As of the 2011 Census, Saskatchewan has a population of 1 033 381, with city populations ranging from 4517 to 260 660. Melville is the least densely populated city, while Saskatoon is the most densely populated. Saskatchewan is a unique province due to its population distribution across cities. Regina and Saskatoon are the only mid-sized cities, with populations over 200 000. The next two most populated cities (Prince Albert and Moose Jaw) each have close to 40 000 people. Following this is another drop in population to 15 000 and below for the remaining cities.

Data sources

The OCPs of 17 communities were included in this project (Table 1). All communities were represented as cities provided they met the following criteria for inclusion: a) communities meeting the SK population criteria for a city which is a minimum population of 5000, or communities (towns) not meeting this criteria but with a population ≥ 4500 ; and b) an approved OCP that was publicly accessible, with an exception given to cities having a final draft OCP to be approved before end of 2015. The cut-off date for inclusion of official documents was set at July 31, 2015, as an OCP may be amended at the discretion of the municipal council and the date of approval of amendment may or may not be stated on the OCP or city website. Official documents referred to in OCPs such as Transportation Master Plans were further searched and reviewed. Documents excluded in this project included school division policies and OCPs of towns with population <4500.

Table 1. List of OCPs reviewed

City OCPs	Source/website
1. Estevan OCP	http://estevan.ca/Portals/0/Planning/Planning%20and%20Development%20Documents/Office%20Edition-Official%20Community%20Plan-Schedule%20A.pdf
2. Humboldt OCP	http://www.humboldt.ca/sites/all/sites/default/files/files/OFFICIAL_COMMUNITYPLAN.pdf
3. Kindersley OCP	https://evogov.s3.amazonaws.com/media/8/media/1049.pdf
4. Lloydminster OCP	http://crosbyhanna.ca/assets/LPD-OCP-FINAL.pdf
5. Martensville OCP	http://www.martensville.ca/ckfinder/userfiles/files/47%20Martensville%20OCP%20Consolidated%20(Sept%202016)_201610251608316436.pdf
6. Meadow Lake OCP	http://meadowlake.ca/2008-06/pdf/OCP%20Bylaw.pdf
7. Melfort Basic Planning District	http://cityofmelfort.ca/siteimages/Basic%20Planning%20Statement.pdf
8. Melville OCP	https://melville.civicweb.net/document/7556
9. Moose Jaw OCP	http://www.moosejaw.ca/wp-content/uploads/MJ-OCP-June-8-2011.pdf?ts=1495153698159
10. North-Battleford OCP	http://cityofnb.ca/mrws/filedriver/OCP_-_OCP_Report.pdf
11. Prince Albert OCP	http://citypa.ca/Portals/0/Planning/Official%20Community%20Plan/OCP%20Complete%20Doc.pdf
12. Design Regina OCP	ftp://ftp.regina.ca/web_files/planning/Design%20Regina-OCP%20FEB%202017.pdf
13. Saskatoon OCP	https://www.saskatoon.ca/sites/default/files/8769.pdf
14. Swift Current Development Plan	http://www.swiftcurrent.ca/home/showdocument?id=726
15. Warman OCP Draft	http://www.warman.ca/DocumentCenter/View/721
16. Weyburn OCP	http://www.weyburn.ca/pdfs/Dev_Plan.pdf
17. Yorkton OCP	https://www.yorkton.ca/dept/pweng/engineering/zoning/pdf/YorktonOCP-June2014.pdf

Note: OCP = official community plan.

Data extraction and analysis

All OCP documents were located and downloaded via the city websites and carefully read. A conventional content analysis was carried out in which categories were derived directly from the textual data.²⁴ Textual data were extracted through statements from fundamental goals, objectives and policies directly related to the support of physical activity. Some of the keywords used to identify physical activity-related content included: active, active transportation, walking, walkable, pedestrian, sidewalk, crosswalk, cycling, cyclist, trail, linkage, connectivity, network, green space, parks, recreation, and active recreation. The data were coded and categorized inductively. This involved thematically categorizing texts both independently within cities and across cities. From the emerging patterns within the developing categories, a series of indicators supportive of physical activity were derived. For example, in developing the indicator *residential neighbourhood plans associated with active living*, texts directly related to the promotion of pedestrian or cycling activities as well as open spaces in the residential area were categorized. We also developed indicators related to master plans by identifying the presence of the master plan (i.e., a comprehensive official action plan) in at least one of the OCPs.

The OCPs were then categorized as “yes” for having one or more plans for an indicator, “NR” (not reported) for not having any plans for an indicator, and “considering” for plans being considered for an indicator. Due to the variable nature of OCP design, two indicators (*other pedestrian plans* and *other connectivity plans*) for which all OCPs contained policies were labelled differently as “str-many” (structured and many plans), “str-few” (structured but few plans), “unstr-many” (unstructured and many plans), and “unstr-few” (unstructured and few plans). This allowed a general categorization of how pedestrian and networking plans were addressed textually throughout the OCPs. Presence of ≤ 3 policy statements supporting these indicators was considered few, while presence of ≥ 4 statements was considered many. From the established baseline information, descriptive statistics were derived. These included the proportions of cities with, without, or in consideration of each indicator. The frequencies of inclusion of

indicators per OCP were also determined, without and with those being considered, and the mean and standard deviation were calculated.

Inter-rater reliability

Inter-rater reliability was evaluated to assess the consistency of interpretation and categorization, and determined by the percentage of agreement between the primary researcher and an assistant. Following review of all OCPs and derivation of indicators by the primary researcher, one OCP was selected, collectively reviewed and recoded by two reviewers. Approximately 50% of the OCPs ($n=8$) were then randomly selected and independently reviewed by the secondary reviewer using the established coding system.

RESULTS

Indicator development and inter-rater reliability

A total of 17 indicators supportive of physical activity were derived from the review of 17 OCPs (Table 2). In terms of inter-rater reliability, agreements averaged 77% across the OCPs (53%–100%), and 75% across the indicators (37%–100%). The indicators *cycling master plan*, *downtown cycling and pedestrian plan* and *pedestrian master plan* had 100% agreements, while *encouraging public transit*, *recreation master plan* and *joint-use agreement between communities and schools* had 87% agreement. However, the indicators *other connectivity plans*, *connectivity master plans* and *school travel plan* had agreements of only 50%, 62% and 75% respectively. These indicators were then jointly reviewed and consensus was met through discussion between the senior author and the two reviewers. The remaining OCPs were then re-reviewed and modified to ensure consistency.

Inclusion of indicators in OCPs

The proportions of OCPs with supporting plans for each indicator (including those being considered) ranged from 5.8% to 88.2% (Table 3). The most common indicator across the OCPs was *residential neighbourhood plan associated with active living* while the

Table 2. Description of the indicators derived**Presence of explicit policy statement “increasing or promoting physical activity or active living”****Active transportation master plan:** Acknowledgement of an active transportation master plan in the OCP.**Plans to improve public transport system:** Presence of policy promoting the public transit system and its usage.**Pedestrian master plan:** Acknowledgement of a pedestrian master plan in the OCP.**Other pedestrian plans:** The manner in which policies on pedestrian plans are generally addressed in the OCP. The categories for this indicator and the frequency of OCPs categorized were:

- Structured plans and many; structured plans but few; unstructured plans and many; unstructured plans and few.

Cycling master plan: Acknowledgement of a cycling master plan in the OCP.**Cycling plans separated from pedestrian plans:** Presence of policy to promote cycling opportunities separately without being in conjunction with pedestrian plans.**Downtown cycling and pedestrian plans:** Presence of policy addressing the improvement of pedestrian and cycling features in the Downtown area.**Recreation master plan:** Acknowledgement of a recreation/park/open space master plan in the OCP.**Presence of policy statement to “improve or promote active recreation”:** Presence of policy explicitly stating to promote active recreation or active engagement in recreation.**Residential neighbourhood plans associated with active living:** Presence of policy addressing the support of pedestrian or cycling features, as well as provision of public open space for parks and recreation in the residential neighbourhood.**Housing density plans associated with active living:** Presence of policy addressing the density of houses with a link to physical activity features such as parks, open green space, or active travel means.**Connectivity master plan:** Acknowledgement of a network/trail/connectivity master plan in the OCP.**Other networking plans:** The manner in which networking/connectivity plans are generally addressed in the OCP. The categories for this indicator and the frequency of OCPs that were categorized are:

- Structured plans and many; structured plans but few; unstructured plans and many; unstructured plans and few.

Asset deficits addressed: Presence of policy that acknowledges the deficiency of assets or infrastructures such as parks or recreational facilities.**Joint-use agreement between communities and schools:** Presence of policy addressing joint-use agreement between schools and communities for usage of facilities such as parks and recreational facilities.**School travel plan:** Presence of policy to promote access or facilities for active and safe routes to and from school.

indicator *pedestrian master plan* had no OCP with a current plan for its development. *Pedestrian master plan* was being considered for development by only one OCP with a population of just over 5000. Some other indicators (with % OCPs having supportive plans) were: *downtown cycling and pedestrian plans* (58.8%), *presence of plan to improve active recreation* (52.9%), *joint-use agreement between community and schools* (52.9%), *school travel plan* (41.2%), and *active transportation master plan* (17.6%). The indicator referring to the *presence of explicit statement “increasing or promoting physical activity or active living”* was present in 35.3% of the OCPs.

Table 4 identifies the year of adoption of each OCP, the population of the city, and the frequency of indicators included per OCP, both without and with those indicators being considered for development. The frequency of the identified indicators included per OCP varied from 17.6% to 82.4%, with the lowest and highest proportions of indicators included in the Lloydminster and Yorkton OCPs respectively (Table 4). The mean (standard deviation) frequency of indicators included per OCP was 7.4 (3.1). A total of 11 OCPs were identified as including <50% of the indicators identified in this study. Four OCPs included only 35.7% of the indicators, while the highest indicator inclusion levels were 82.4%, 70.6%, 64.7% and 58.8%. Taking population size differences into account, the mean (standard deviation) frequency of inclusion was 5.3 (1.9) for cities with a population of <10 000, and 9.1 (2.9) for those with a population of ≥10 000.

Five OCPs reported plans to consider the development of one or more indicators (Table 1). These included Humboldt (1), Meadow Lake (1), North Battleford (3), Saskatoon (1), Swift Current (1) and Yorkton (1). With the addition of indicators being considered within the OCPs, the mean (standard deviation) frequency of indicators included rose to 7.8 (3.3). The maximum number of indicators included was found in the Yorkton OCP ($n = 14$; $n = 15$ with inclusion of indicators being considered).

DISCUSSION

The purpose of this study was to review the OCPs of 17 Saskatchewan cities, and to identify policies supportive of physical activity. Overall, the findings of this study demonstrate that Saskatchewan OCPs make little direct reference to policies supportive of physical activity, leaving clear room for future improvement. In particular, the current findings highlight some policy gaps which will now be discussed in turn.

Very few cities mentioned the existence of master plans for active transportation, cycling or pedestrians within their OCPs. Advocating for the inclusion of an active transportation master plan in city plans may serve as a way for individual cities to satisfy their development agenda regarding the different modes of active transportation. This would encompass plans on cycling, walking, carpooling, public transit, and other active wheel-related modes such as skateboarding, longboarding and rollerblading. Most OCPs also did not have plans to promote public transit and ridership. Commuting by transit is associated with increased moderate daily physical activity, and transit systems as well as transportation planning may play a significant part in influencing the assessment of the impact of policies on the health of a population.^{11,12} Ensuring built environment features such as walkable transit stops, bus shelters, benches, and enhanced lightings may encourage the use of public transit, thereby reducing automobile usage.¹² However, this result should be interpreted with caution because many cities that had plans to improve the public transit system had a population of >10 000, which may have created the need for this plan. The low consideration for active modes of transportation within many OCPs is supported by a study which reported that carpooling is not optimally used within Canadian cities, whereas a reduction of vehicles particularly around school areas may improve safety, and may in turn encourage active transportation to and from schools.²⁵

Table 3. Cities, indicators and inclusion frequencies

Indicator city	PA stmt	AT master	Pub trans	Ped master	Other ped	Cycle master	Cycle only	Down town	Rec master	Active rec	Res plan	House dens	Connect master	Other connect	Asset deficit	Joint use	School travel	% Ind
Estevan					SM						Y	Y		UF	Y			29.4
Humboldt					SM		Y	Y			Y			UF	Y		Y	52.9
Kindersley	Y	C			SM						Y			SM				23.5
Lloydminster					UF	Y					Y			SL			Y	17.6
Martensville					UF					Y	Y			UF				29.4
Meadow Lake				C	UM			Y	Y		Y			UM	Y			35.3
Melfort					UM					Y	Y			UF				29.4
Melville					UF					Y	Y			UF			Y	23.5
Moose Jaw			Y		SM		Y	Y		Y	Y			UF	Y		Y	52.9
North Battleford			Y		SF		Y	Y	C		Y			SM	Y			58.8
Prince Albert	Y		Y		UM		Y	Y	Y	Y	Y		C	SM	Y		Y	70.5
Regina	Y	Y	Y		UM		Y	Y	Y	Y	Y			SM	Y		Y	64.7
Saskatoon			Y		SM		Y	Y		Y	Y			SM	Y		Y	58.8
Swift Current			Y		UM			Y	C	Y	Y			SF	Y		Y	47.1
Warman	Y		Y		UM			Y		Y	Y			UM	Y		Y	47.1
Weyburn	Y		Y		SM			Y	Y	Y	Y			UM	Y		Y	41.2
Yorkton	Y	Y	Y	5.8	SM	Y	Y	Y	C	Y	Y	Y	Y	UM	Y	Y	Y	41.2
% OCPs	35.3	17.6	47.1	5.8	M77 F23	23.5	41.2	58.8	35.3	47.1	88.2	41.2	11.8	M53 F47	23.5	52.9	41.2	88.2

Note: Y = yes; C = considering; SM = structured many; UM = unstructured many; SF = structured few; UF = unstructured few; % OCPs = percent of official community plans; % Ind = percent of indicators; PA stmt = physical activity statement; AT master = active transportation master plan; Pub trans = public transit; Ped master = pedestrian master plan; Other ped = other pedestrian plans; Cycle master = cycling master plan; Cycle only = cycling separate from pedestrian; Downtown = downtown cycling and pedestrian plans; Rec master = recreation master plan; Active rec = active recreation statement; Res plan = residential plans with active living; House dens = housing density and active living; Connect master = connectivity master plan; Other connect = other connectivity plans; Asset deficit = Asset deficits addressed; Joint use = joint-use agreement; School travel = school travel plan.

Cycling-friendly initiatives such as barrier setting, use of lane reductions, bike share systems with docking stations across the city, and inclusion of bike networks on transit websites, may be expensive to implement and maintain, and therefore difficult for some cities to implement. Nevertheless, some OCPs (23.5%) have few policies directly ensuring the promotion of walkability, which highlights another avenue to be addressed in active transportation. This is similar to a study in the Canadian provinces of Ontario and British Columbia, showing that while the potential for walkability was apparent, the demand remained unmet, leading to the recommendation of active transportation strategies as means to promote healthy, active lifestyles.²⁶

Only one city OCP (Meadow Lake) was considering the development of a pedestrian master plan. This city's population of >5000 may show the need for the master plan; however, all other cities with smaller or bigger populations did not have this indicator. Thus, this plan represents a strategy that may be incorporated by many Saskatchewan communities to improve pedestrian opportunities. Additionally, less than half of the reviewed OCPs mentioned policies specifically to improve cycling features independently without being attached to a pedestrian plan.

Less than 20% of the OCPs have a recreation master plan ($n=3$) and a connectivity master plan ($n=2$). Plans for improving parks and recreation were commonly addressed by most of the cities in SK; however, networking plans did not show the same trend. The use of trails to potentially improve active living has been documented.²⁷ However, the development of trails and creating awareness of the linkages between natural systems, open spaces, mixed-use area and residential areas, remains undocumented in many OCPs. This might be a significant way for some cities to improve people's capacity for actively getting to desired destinations to work, study, play, and have fun. It has been shown that access and proximity to parks and recreation facilities is associated with walkability, especially among children.²⁸ Noticeably, a few city OCPs in SK included policies stating that "open spaces will be distributed such that no residential property is located more than 400 meters from nearest public open space" (Moose Jaw OCP and Humboldt OCP), and "locating neighbourhood parks at 5 minutes walking distance" (Warman OCP). Generally from the findings of this study, the indicator *residential neighbourhood plans associated with active living* was well reported by almost 90% ($n=15$) of the OCPs.

"Smart growth" is a development approach which has been considered by researchers and urban planners, encompassing factors including walkability, mixed land use, transportation diversity, housing diversity, compact development design, neighbourhood infill, etc.¹⁴ From the current findings, only one OCP (Yorkton) used smart growth principles in fundamental settings for land use planning. As other cities used some of the smart growth principles such as mixed land use in their OCPs, it was unclear whether smart growth was specifically considered as a basis for development. Cities not considering the smart growth principles may be ignoring these principles due to their population, growth rate, or developmental priorities. Nevertheless, it is necessary to monitor the progress of the city of Yorkton over the projected years of its OCP, which included most of the indicators derived in this study ($n=14$). Interestingly, this city with the highest inclusion of indicators was not one of the most highly populated cities. With a population of <20 000, this city might be using its size to its advantage in creating effective

Table 4. Cities, population, and mean frequency of indicators included per OCP

City	Year of OCP adoption	2011 population	Indicators included in OCP (% of 17)	Indicators included in OCP + those being considered (% of 17)
Estevan	2011	11 483	5 (29.4)	5 (29.4)
Humboldt	2008	5678	8 (47.1)	9 (52.9)
Kindersley	2014	4678	4 (23.5)	4 (23.5)
Lloydminster	2014	9772	3 (17.6)	3 (17.6)
Martensville	2008	7716	5 (29.4)	5 (29.4)
Meadow Lake	2012	5045	5 (29.4)	6 (35.3)
Melfort	1996	5576	5 (29.4)	5 (29.4)
Melville	2013	4517	4 (23.5)	4 (23.5)
Moose Jaw	2011	33 274	9 (52.9)	9 (52.9)
North-Battleford	2013	13 888	7 (41.2)	10 (58.8)
Prince Albert	2015	35 129	12 (70.6)	12 (70.6)
Regina	2013	210 556	11 (64.7)	11 (64.7)
Saskatoon	2013	260 600	10 (58.8)	11 (64.7)
Swift Current	2003	15 503	7 (41.2)	8 (47.1)
Warman	2015	7084	9 (52.9)	9 (52.9)
Weyburn	2003	10 484	7 (41.2)	7 (41.2)
Yorkton	2014	15 689	14 (82.4)	15 (88.2)
Mean (SD)			7.4 (3.1)	7.8 (3.3)
Mean (SD) for city population <10 000			5.3 (1.9)	5.6 (2.1)
Mean (SD) for city population ≥10 000			9.1 (2.9)	9.8 (2.9)
Mean (SD) for city population >30 000			10.5 (1.3)	10.8 (1.3)

Note: OCP = official community plan; SD = standard deviation.

responsive action groups, and plans that can be efficiently implemented.

Nearly half of the OCPs mentioned school travel plans ($n=6$), and joint-use agreements between schools and communities ($n=7$). School travel plans may be an effective strategy to promote greater active school travel.²⁹ Although active school travel may be decreasing due to confounders of independent mobility such as age, distance, and safety issues,³⁰ school travel behaviour is still sensitively influenced by the neighbourhood construct.³¹ Despite the growing evidence, many SK cities do not have any plans for active and safe routes to and from school documented within their OCPs. This indicator also represents an important area that is recommended for the attention of policy makers in Saskatchewan communities when considering strategies for developing the built environment.

Strengths and limitations

The strength of this project lies in the unique and innovative approach to achieving a better understanding of active living development plans in Canadian communities. The project may ensure that SK communities consider how policies supportive of physical activity can be integrated within OCPs. Furthermore, the indicators derived from this study may serve as one possible template for other provinces in Canada to conduct baseline assessments and also for ongoing monitoring. Another strength of this project is the population of the cities reviewed, which cumulatively covered over half of the provincial population. In contrast, we did not conduct a policy evaluation of the individual master plans for quality (in design or implementation), nor was there a ranking of the indicators (informed empirically from the different literature discussed). The exclusion of many smaller towns in the province may be a limitation as some of these less populated communities could have some of the indicators derived in this study in their OCPs. This study may also be limited by the primary researcher's subjective bias in interpreting the language within the

OCPs for the initial identification of indicators, subsequently rated by the secondary reviewer. Further, the indicators coded were retrieved from OCPs which for some cities may be their only development plan, whereas other cities may have more specifics and/or more structured consideration of *other pedestrian* and/or *other connectivity plans* in additional documents separate from their OCP. Many cities are working on modifying their OCPs, and therefore the results of this study are limited to the policies available during the time of review.

CONCLUSION

This study reviewed the OCPs of 17 Saskatchewan cities for policies supportive of physical activity, identifying 17 baseline indicators of which OCPs on average included fewer than 50%. Most Saskatchewan OCPs make little direct reference to policies supportive of physical activity. Impacting community-level policy is an expected outcome of AS2020/Saskatchewan *in motion*. This study has now identified a range of indicators for monitoring this process, while highlighting potential areas for policy development within OCPs. This study has also highlighted some indicators that can be considered by Saskatchewan cities and towns, and provides one assessment template for other Canadian provinces and territories. Consequently, this study may aid various community action groups and stakeholders in setting priorities for future strategic planning that are directed toward the development of more active communities in Saskatchewan and in Canada.

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RÉSUMÉ

OBJECTIF : Les politiques municipales peuvent avoir des incidences considérables sur le développement de milieux offrant aux particuliers des possibilités durables de pratiquer des modes de vie sains et actifs. On ignore en général si la planification urbaine au Canada intègre explicitement des stratégies pour favoriser l'activité physique. Dans le contexte d'Active Saskatchewan 2020 (AS2020), le plan stratégique de Saskatchewan *in motion*, une telle analyse permettrait de déceler les lacunes dans les politiques et d'exercer une surveillance continue. Notre étude visait à examiner le plan d'urbanisme officiel (PUO) de chacune des villes de la province de la Saskatchewan, au Canada, pour y repérer les politiques propices à l'activité physique.

MÉTHODE : Nous avons effectué une analyse de contenu classique des PUO des 17 villes de la Saskatchewan. Nous avons examiné chaque PUO pour en extraire les passages ayant un lien avec le soutien de l'activité physique. Nous avons classé ces extraits par thème pour chaque ville et pour différentes villes, créant ainsi un jeu d'indicateurs pour l'exercice d'une surveillance continue.

RÉSULTATS : Globalement, 17 indicateurs ont été établis. La fréquence d'inclusion de ces indicateurs dans les 17 PUO variait entre 17,6 % et 82,4 %. La fréquence moyenne des indicateurs recensés était de 7,4 par PUO. Les indicateurs les plus communément utilisés étaient les *plans de quartiers résidentiels associés à la vie active*, les *plans du réseau cyclable et piétonnier du centre-ville* et les *ententes d'utilisation commune entre les communautés et les écoles*.

CONCLUSIONS : Dans la plupart des PUO de la Saskatchewan, il est rare que des politiques propices à l'activité physique soient directement mentionnées. AS2020 et Saskatchewan *in motion* auront probablement un effet sur les politiques d'urbanisme. Notre étude établit un jeu d'indicateurs pour surveiller ce processus et souligne les aspects qu'il serait possible d'améliorer en élaborant des politiques à intégrer dans les PUO.

MOTS CLÉS : activité physique; planification urbaine; politique (principe); milieu bâti; santé des populations