

**NARRATIVE VIEW**

# What can Sub-Saharan Africa learn from Canada's investment in active healthy ageing? A narrative view

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## Abstract

### Background

The number of older persons in Sub-Saharan Africa is increasing.

### Aims

What can Sub-Saharan Africa learn from other countries that may enhance the health and wellness of older persons? Canada was conveniently selected as the country which has endorsed the need for action on active ageing, given that by 2026, 1 in every 5 Canadians will have reached the age of 65 years and 4% of the overall population will be 85 years and older.

### Methods

English language electronic searches of computerized databases (PubMed, MEDLINE, EMBASE, CINAHL, and PsychINFO) were done to locate relevant published studies on Canada, from January 2000 to August 2014. Keyword combination included: physical activity/activities, exercise/s, older person/s, elderly, ageing adults, seniors, and older people.

### Results

8 out of 400 plus articles were reviewed, and 4 key approaches in ensuring active ageing in Canada were identified. From these, 5 public health-oriented plans are recommended for Sub-Saharan Africa: (1) there should be a shift in the conceptualisation of what physical activity entails, (2) it is necessary to build and strengthen collaboration between various stakeholders involved in planning, (3) raising awareness among older persons and the general population on the benefits in participating in physical activity, (4) encourage older persons to participate in culturally relevant physical activity, and (5) laying a better foundation for future generations of older persons.

### Conclusion

Though more elaborate planning is required, these recommended plans will contribute to achieving average life expectancy beyond 60 years in Sub-Saharan Africa.

**Keywords:** Sub-Saharan Africa, Canada, older persons, active ageing

## Introduction

The number of older persons (60 years and older<sup>1</sup>) in Sub-Saharan Africa (SSA) is projected to triple from 53 million in 2009 to 150 million by 2050<sup>2</sup>. The projected increase raises serious public health challenges in a continent facing socioeconomic problems, coupled with high disease burden<sup>3</sup>. For the World Health Organisation (WHO), "... *population ageing can be seen as a success story for public health policies and for socioeconomic development, but it also challenges society to adapt, in order to maximise health and functional capacity of older people as well as their social participation and security*"<sup>1</sup>. The Global Age Watch Index (GAWI) assesses the impact of ageing policies in 195 countries by taking into account contextual, structural, and cultural factors<sup>4</sup>. However, only 96 countries were ranked, as others are deemed not to have enough data to be included. The top five countries in 2015 were Switzerland, Norway, Sweden, Germany, and Canada. Africa was overrepresented at the bottom of the ranked countries (Table 1)<sup>4</sup>.

An understanding of the characteristics of the ageing population in a multi-ethnic SSA is essential in planning for the care of older persons. The plan should be aligned with the African Union (AU) Policy Framework and Plan of Action on

Ageing, focusing on older persons and development, building enabling and supportive environments, and advancing health and well-being into old age<sup>5</sup>. An understanding of the characteristics of the ageing population in a multi-ethnic SSA is essential in planning for the care of older persons. The plan should be aligned with the African Union (AU) Policy Framework and Plan of Action on Ageing, focusing on older persons and development, building enabling and supportive environments, and advancing health and well-being into old age<sup>5</sup>. It is often perceived that more older persons reside in rural settings, but evidence suggests they are almost evenly dispersed between rural and urban areas<sup>6</sup>. In this population, mortality from chronic non-communicable diseases (CNCD) is projected to increase significantly because of life style changes, with physical inactivity as a significant contributory but modifiable factor<sup>3</sup>. Developing comprehensive national policies targeting older persons has become necessary<sup>7</sup>. As current approaches of care focus more on the sick than the well person, Aboderin<sup>7</sup> advocates that the policies should address the heightened vulnerability of older persons to detrimental health outcomes from age-related CNCD. In 2012, only eleven countries had adopted national policies on ageing, namely: Cameroon, Ethiopia,

Ghana, Kenya, Malawi, Mozambique, Senegal, South Africa, Tanzania, Tunisia, and Uganda<sup>8</sup>. Only South Africa was listed to have a national legislation in the form of the Older Persons Act 2006. This legislation informed the formulation of the National Development Plan (NDP) of South Africa, which committed to raise the current average life expectancy from 62.1 years to 70 years by 2030<sup>9</sup>.

**Table 1: African countries listed in the Global Age Watch Index ranking in 2015<sup>4</sup>**

Ranking of African countries by GAWI among 96 countries <sup>4</sup>	Projected population (in thousands) & [percentage of older persons] <sup>2</sup>		Life expectancy at 60 years <sup>1</sup>
	2015	2050	
Mauritius (42 <sup>nd</sup> )	1 273 [14.7]	1 249 [30.7]	20
South Africa (78 <sup>th</sup> )	54 490 [7.7]	65 540 [15.4]	16
Ghana (81 <sup>st</sup> )	27 410 [5.3]	50 071 [9.7]	17
Morocco (84 <sup>th</sup> )	34 378 [9.6]	43 696 [23.4]	18
Nigeria (86 <sup>th</sup> )	182 202 [4.5]	398 508 [6.3]	16
Uganda (88 <sup>th</sup> )	39 032 [3.8]	101 873 [6.0]	16
Rwanda (89 <sup>th</sup> )	11 610 [4.5]	21 187 [12.0]	18
Zambia (90 <sup>th</sup> )	16 212 [4.3]	42 975 [6.6]	17
Tanzania (91 <sup>st</sup> )	53 470 [4.8]	137 136 [7.2]	18
Mozambique (94 <sup>th</sup> )	27 978 [5.1]	65 544 [6.2]	16
Malawi (95 <sup>th</sup> )	17 215 [4.9]	42 155 [7.6]	16

Against this backdrop, what can other Sub-Saharan African countries learn to enhance the achievement of goals like that of South Africa? During a research visit in 2014, (by one of the authors, SLA) to the University of Calgary in Canada, it became apparent that Canada has several advantages when it comes to supporting and enabling older persons when compared to other first world countries. Canada has a non-discriminatory universal coverage for health care services that covers all citizens<sup>10</sup>, its Public Pensions System is widely applauded for reducing poverty among older persons by maintaining income<sup>11</sup>, and the Government supports initiatives to improved access to information and resources regarding programs and services available to older persons in their communities<sup>12</sup>. For example, the New Horizons for Seniors Program (NHSP) helps older persons to both benefit from and contribute to the quality of life in their community through social participation and active living<sup>12</sup>. NHSP funding supports community-based projects, pan-Canadian projects and pilot projects that focus on issues like social isolation and intergenerational learning. These facts, coupled with its inclusion among the top five countries on the GAWI list<sup>4</sup>, informed the selection of Canada as a country that SSA could learn from.

In 1994, Canada launched a national framework on active ageing, based on a public health approach to population ageing<sup>13</sup>. In 2005, the country adopted the World Health Organisation's (WHO's) focus on social connectedness, physical activity (PA), healthy eating, falls prevention, and tobacco control<sup>13</sup>. In 2015, the Canadian Longitudinal Study on Ageing (CLSA) was launched, which projected that by

2026, 1 in every 5 Canadians will have attained the age of 65 years, and 4% of the overall population will be 85 years and older<sup>14</sup>. The CSLA identified PA as a major contributor to healthy ageing, agreeing with the WHO's recommendation that dealing with the increasing burden of disease in older persons would require health promotion and disease prevention at the community level<sup>14,15</sup>.

Despite the socio-economic differences between Canada and SSA, but acknowledging the cost-effectiveness of PA<sup>15</sup>, the purpose of this narrative was to identify some of the approaches in Canada that SSA could implement to "advance health and wellbeing into old age"<sup>2</sup>. English language electronic searches of computerized databases (PubMed, MEDLINE, EMBASE, CINAHL, and PsychINFO) were done to locate relevant studies from January 2000 to August 2014. The search terms included: physical activity/activities, exercise/s, older person/s, elderly, ageing adults, seniors, and older people. Of the over 400 articles identified, 8 presented a concept of PA that was similar to that of the WHO<sup>15</sup>. These articles were used to formulate the following lessons that SSA could adopt from the four key approaches identified for active ageing in Canada:

### *Promoting PA in Canada*

Canada, a multi-ethnic nation, has about 5 million people aged 65 years and older, in a general population of approximately 35 million with a current overall life expectancy of 81 years<sup>16</sup>. Since regular participation in PA is widely accepted as an effective preventative measure for many health problems across all age, gender, ethnic, and socioeconomic groups, various stakeholders (including researchers, practitioners, government policy and decision makers, the media, community based interest groups and organisations, and older persons) worked together to develop the Canadian Physical Activity Guidelines to promote healthy active living for all<sup>17</sup>.

### *PA for a diverse society*

Three factors were identified in the process of enhancing PA in a multi-ethnic society. First, the conceptualization of PA acknowledged that it is not limited to sport and physical exercise. It is about the relationship between human beings and their environments, when moving the body by walking, running, and other ways where people physically exert themselves regularly, whether at work, home, in transport to and from places, or during leisure time<sup>18,19</sup>. It is believed that strengthening this relationship will improve wellbeing. This conceptualization also acknowledged the complex interactions among the correlates of PA, which include demographic, personal, social, and environmental parameters. The burden of responsibility was therefore on both individual behavioural change and societal responsibilities. Secondly, levels of PA were regularly monitored. While appreciable proportions of older Canadians engaged in PA over three decades, there were concerns that the proportions were decreasing<sup>18</sup>. These varied from 41.1% in 1992, to 40.6% in 1998, to 43.5% in 2005, and to 39.6% in 2010<sup>18</sup>. The proportions of older persons viewing television for more than 15 hours/week increased with age (36% of those aged 55-64 years; 47%

of 65-75 years; 52% of 75 years and older)<sup>18</sup>. A review of the Canadian Newsstand database also revealed that over a period of about 30 years, only 7.8% of newspaper articles (n=4613) on “ageing well”, “natural ageing”, “healthy ageing”, “successful ageing”, or “active ageing” mentioned PA in the reports<sup>18</sup>. These figures justified the attention given to PA and the general level of awareness among older persons. Thirdly, within an increasingly diverse society in Canada, it was essential to understand the PA preferences of a culturally and linguistically diverse population so that appropriate and effective public health interventions and policy could be developed<sup>20</sup>.

### **Updating evidence on PA health benefits**

Though participation is often curtailed by poor adherence rates<sup>18</sup>, the benefits of regular PA in the primary and secondary prevention of chronic diseases in Canada is widely reported<sup>17</sup>. Indoor walking programs are popular with older adults because of the inclement winter weather in Canada. For example, a short term 8-week pilot program that assessed the feasibility of community mall-walking, resulted in a positive impact on the fitness level of 39 participants with an average age of 66.4 years<sup>17</sup>. The program had significant effects on body mass index, waist-to-hip ratio, resting heart rate, walk-test distance, walk-test heart rate, post-walk test rate of perceived exertion, and flexibility. Similarly, a study that focused on neighbourhood dog walking close to the residents' home also showed increased PA levels in participants (n=884) older than 50 years of age<sup>19</sup>. Another study that followed 42 post-menopausal women from the surrounding community, with an average age of 65.1 years (50 – 90 years), demonstrated that the beneficial effects of PA on cognition are mediated partly by an increased blood flow to the brain<sup>21,22</sup>. These studies support Active Ageing from the perspective of community PA participation<sup>15</sup>, and give support to PA as a process that can slow the progression of dementia and cognitive impairment, which have been identified as becoming a major public health challenge in SSA in the 21<sup>st</sup> century<sup>23</sup>. These three approaches provide the basis for a fourth approach that focuses on initiatives that lay the foundation in younger Canadians to ensure healthy ageing in the future.

### **Laying future foundations**

A comprehensive public health ‘life course’ approach has been established in Canada, focusing on wider notions of health and wellbeing during gestation, childhood, adolescence, young adulthood, and later adult life<sup>13</sup>. Part of the mandate evident in the core courses and applied research at the Faculty of Kinesiology, University of Calgary in Canada, is “to contribute to healthy active living in society”<sup>24</sup>. One of the courses – Physical Activity and Health – convened by PKDB, explores the relationships between health, disease, and the benefits associated with PA and the various factors that can promote and maintain lifestyle changes. Students are required to complete a personal health report based on the following laboratory components: (1) blood lipid profile, (2) nutritional record, (3) health risk analysis and risk factor concept, and 4) a family tree. Also, a health promotion research study –

RECESS (Recreation Exercise Caloric Expenditure Sitting and Sleep Study) – was designed to track health and fitness habits of first year students, using wearable technology that monitors their steps, exercise intensity, sedentary time and sleep patterns.

Unfortunately, existing approaches for caring for older persons in SSA do not routinely integrate strategies for health promotion<sup>7</sup>. As issues about ageing are not a priority in budget allocation<sup>8</sup>, the immediate implementation of these four comprehensive approaches in SSA may not be feasible because of limited resources. However, the continent stands to benefit from the efficacy and cost-effectiveness of community and primary healthcare based PA interventions<sup>15,17,19,21,22</sup>. In spite of its limitations, a recent systematic review concluded that unsupervised PA activities, like community walking, had more cost-effectiveness ratios than instructor-led exercise sessions, and that the long-term benefits of PA may further improve the cost-effectiveness<sup>15</sup>. Therefore, acknowledging the limited resources to address the high disease burden in SSA<sup>3,8</sup>, and the lessons learnt from Canada relating to PA, five public health-oriented plans are recommended to assist SSA ensure active and healthy ageing. Firstly, priority should be given to a shift in the concept of care of older persons – a shift from rehabilitation to “prohabilitation”. This concept focuses on planned interventions at the primary care level, to prevent or delay the occurrences of age-related diseases, and routinely integrate strategies for health promotion<sup>7,18-22,24</sup>. The second plan should focus on building and strengthening collaboration among the stakeholders, with older persons themselves as key partners<sup>17</sup>. A third plan should involve raising awareness among older persons and the general population about the benefits in participating in PA<sup>17</sup>. The awareness programs should be sensitive to the diversity in the population, including the language of communication. Fourthly, older persons should be encouraged to participate in culturally-appropriate physical activities through the development of facilities and/or community based programs that enhance active ageing<sup>20</sup>. Finally, implementing initiatives similar to those implemented at the University of Calgary<sup>24</sup> will significantly contribute to laying a good foundation for future older persons in SSA. Universities in SSA have a responsibility to not only focus on the student academic development, but also to guide them to develop healthy lifestyle skills for the future, including engaging in PA over their lifetime<sup>25</sup>.

### **Conclusion**

The lessons Sub-Saharan Africa (SSA) can learn from Canada in enhancing active healthy ageing, and raising life expectancy beyond 60 years, clearly connects to the promotion of physical activity (PA) across the life span for a diverse society. As a recommendation, like in Canada<sup>18</sup>, the AU should encourage the collaboration of stakeholders (including researchers, practitioners, government policy and decision makers, the media, community-based interest groups and organisations, and older persons) to promote, develop or update culturally appropriate PA interventions for SSA.

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## References

1. World Health Organisation. Proposed working definition of an older person in Africa for the project on Minimum Data Set (MDS) for ageing in Africa. 2002. Available from: <http://www.who.int/healthinfo/survey/ageingdefnolder/en/> (accessed 16 July 2014).
2. United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision. New York: United Nations.
3. Hendriks ME, Wit FWNM, Roos MTL, Brewster LM, Akande TM, de Beer IH, et al. Hypertension in Sub-Saharan Africa: Cross-sectional surveys in four rural and urban communities. *PLoS ONE* 2012;7(3): e32638. doi:10.1371/journal.pone.0032638
4. Help Age International. Global Age Watch Index 2015. Available at <http://www.helpage.org/global-agemwatch/population-ageing-data/global-rankings-table/> (accessed 14 July 2016).
5. African Union/Help Age International (AU/HAI). The African Union Policy Framework and Plan of Action on Ageing. Nairobi, Kenya: HelpAge International Africa Regional Development Centre. 2003.
6. Pillay NK, Maharaj P. Population ageing in Africa. In: P. Maharaj (ed), Ageing and health in Africa, International Perspectives on Ageing 4, DOI 10.1007/978-1-4419-8357-2\_2, Springer Science+Business Media New York 2013:11-51
7. Aboderin I. Understanding and advancing the health of older populations in sub-Saharan Africa: Policy perspectives and evidence needs. *Public Health Rev*, 2010; 32(2): 357-376.
8. United Nations Population Fund (UNFPA) and HelpAge International. Ageing in the twenty-first century: A celebration and a challenge. United Nations Population Fund (UNFPA), New York, and HelpAge International, London. 2012.
9. National Development Plan – Vision 2030. A long and health life for all South Africans. Available from <https://www.brandsouthafrica.com/governance/ndp/a-long-and-healthy-life-for-all-south-africans> (accessed 12 July 2017).
10. Baribault MA, Cloyd C. Health care systems: Three international comparisons. Poverty and Prejudice: Social Security at the Crossroads. Available from [https://web.stanford.edu/class/e297c/poverty\\_prejudice/soc\\_sec/health.htm](https://web.stanford.edu/class/e297c/poverty_prejudice/soc_sec/health.htm). (accessed 22 November 2017).
11. Wiseman M, Yčas M. The Canadian safety net for the elderly. *Soc Secur Bull* 2008; 68(2): Available at <https://www.ssa.gov/policy/docs/ssb/v68n2/v68n2p53.html> (accessed 22 November 2017).
12. Government of Canada — Action for Seniors report. 2014. Available at <https://www.canada.ca/en/employment-social-development/programs/seniors-action-report.html#tc2a> (accessed 22 November 2017).
13. Healthy ageing in Canada: a new vision, a vital investment from evidence to action [Internet]. Ottawa: Public Health Agency of Canada;

2006 Sep. Available from: [http://www.phac-aspc.gc.ca/seniors-aines/alt-formats/pdf/publications/pro/healthy-sante/hageing\\_newvision/vision-rpt\\_e.pdf](http://www.phac-aspc.gc.ca/seniors-aines/alt-formats/pdf/publications/pro/healthy-sante/hageing_newvision/vision-rpt_e.pdf) (accessed 17 August 2011).

14. Canadian Institutes of Health Research. Canadian Longitudinal Study of Ageing (CSLA); 2015. Available at <http://www.cihr-irsc.gc.ca/e/18542.html>. (accessed 12 November 2016).

15. Garrett S, Elley CR, Rose SB, O'Dea D, Lawton BA, Dowell AC. Are physical activity interventions in primary care and the community cost-effective? A systematic review of the evidence. *Br J Gen Pract* 2011;61(584): e125-133.

16. Sheets DJ, Gallagher EM. Ageing in Canada: State of the Art and Science. *Gerontologist* 2013;53 (1):1-8.

17. Warburton DER, Charlesworth S, Ivey A, Nettlefold L, Bredin SSD. A systematic review of the evidence for Canada's Physical Activity Guidelines for Adults. *Int J Behav Nutr Phys Act* 2010;9:39. Available from <http://www.ijbnpa.org/content/7/1/39>

18. Abdullah B, Wolbring G. Analysis of newspaper coverage of active ageing through the lens of the 2002 World Health Organization Active Ageing Report: A Policy Framework and the 2010 Toronto Charter for Physical Activity: A global call for action. *Int J Environ Res Public Health* 2013;10: 6799-6819.

19. Toohey AM, McCormack GR, Doyle-Baker PK, Adams CL, Rock MJ. Dog-walking and sense of community in neighbourhoods: Implications for promoting regular physical activity in adults 50 years and older. *Health Place* 2013;22:75-81.

20. Walker GJ, Caperchione CM, Mummery WK, Chau S. Examining the role of acculturation in the leisure-time physical activity of South Asians living in Canada. *Aust J Sci Med Sport* 2015;18 (2):156-160.

21. Brown AD, McMorris CA, Longman RS, Leigh R, Hill MD, Friedenreich CM, et al. Effects of cardiorespiratory fitness and cerebral blood flow on cognitive outcomes in older women. *Neurobiol Ageing* 2010;31: 2047-2057.

22. Eskes GA, Longman S, Brown AD, McMorris CA, Langdon KD, Hogan DB, et al. Contribution of physical fitness, cerebrovascular reserve and cognitive stimulation to cognitive function in post-menopausal women. *Front Ageing Neurosci* 2010;2:1-7.

23. Mavrodaris A, Powell J, Thorogood M. Prevalences of dementia and cognitive impairment among older people in sub-Saharan Africa: a systematic review. *Bull World Health Organ* 2013;91:773-783.

24. Leading the way to healthy living through education, research, activity, and inspiration. Faculty of Kinesiology, University of Calgary, Alberta, Canada. Available from <http://www.adjacentgovernment.co.uk/wp-content/uploads/2015/10/Uni-Of-Calgary-Kinesiology-web1.pdf> (assessed 26 September 2016).

25. Batidzirai JM, Heeren GA, Marange CS, Gwaze AR, Mandeya A, Ngwane Z, et al. Wake-Up: A health promotion project for sub-Saharan university students: Results of focus group sessions. *Mediterr J Soc Sci* 2014;5: 346-354.