



Cardiovascular Health Profile of Older Adults

2008

This community health profile focuses on cardiovascular risk factors, using data from the **Cardiovascular Health Awareness Program (CHAP)** that was conducted in 20 Ontario communities in the Fall of 2006. The report builds on an earlier profile available at www.CHAPprogram.ca. The participation of CHAP community partners is described. Demographic characteristics and cardiovascular disease risk factor information are presented for participants in Orangeville and across all CHAP communities. This information can be used to guide the development of local cardiovascular health promotion activities, including a sustainable CHAP program integrated with Family Health Teams.

The Cardiovascular Health Awareness Program

CHAP focuses on the prevention of stroke and cardiovascular disease in older Ontarians. The program aims to increase cardiovascular health awareness, promote healthy lifestyles and support regular blood pressure monitoring with linkage to care providers.

In the Fall of 2006, CHAP was launched in 20 communities across Ontario. Local partners recruited family doctors, pharmacists and volunteers. All residents aged 65 or older (~60,000) were invited to attend two or more CHAP pharmacy-based sessions. A variety of methods were used to invite participants, including personalized letters from family doctors, distribution of 'tickets' by doctors and pharmacists and community-wide advertising.

At the CHAP sessions, volunteer Peer Health Educators (PHEs) assisted participants to measure blood pressure using an accurate automated device and record additional self-reported risk factor information. Based on the participants' risk profile, the volunteers provided targeted educational materials and local resources for addressing modifiable risk factors. Participants received a copy of their results, which could also be sent to their family physician or regular pharmacist.

In the event of a very high blood pressure reading, an on-call nurse reassessed the participant and arranged follow-up care. A pharmacist was available to consult with participants about medication-related issues.



Why CHAP?

In Canada, stroke and heart disease are among the leading causes of death, affecting about one in four adults. High blood pressure, or hypertension, is a common risk factor for stroke and heart disease. Evidence shows that as people grow older, their blood pressure increases. About one in three Canadians aged 65 to 74 years has hypertension, and those who do not have hypertension by the age of 55 have a 90% chance of developing the condition over time. Although hypertension is prevalent among older adults in Canada, many people are unaware they have the condition.

Hypertension is preventable and treatable by making healthy lifestyle modifications or using anti-hypertensive medications in conjunction with lifestyle modifications. However, hypertension can be difficult to diagnose and manage effectively. Blood pressure measured in health care settings is often inaccurate, resulting in sub-optimal detection, treatment and control of hypertension. Community-based initiatives aim to decrease the public health burden of cardiovascular disease and stroke by reducing risk factors across populations. Community programs emphasize partnerships, collaboration, and community mobilization.

Participation & Assessment Results

CHAP Participation in 20 Communities

The CHAP program was a tremendous success with 20 local lead organizations, 341 family physicians, and 129 pharmacies involved across Ontario. Over 10 weeks, 15,889 community members attended 1,265 pharmacy-based sessions, representing approximately 25% of the total senior population in the CHAP communities. At the three-hour sessions, 577 volunteer PHEs assisted with 27,358 cardiovascular and stroke risk assessments including blood pressure measurement and distributed educational materials and community-specific resources.

CHAP Participation in Orangeville

In Orangeville, CHAP was led by Local Coordinator Sherry Teeter from Community Care Access Centre of Wellington-Dufferin. The Orangeville community showed plenty of support for the program, with 15 actively participating family physicians, 10 pharmacies, and 46 volunteer PHEs involved. During 10 weeks of sessions, 839 community members attended 83 CHAP sessions (representing 37.4% of Orangeville senior population). Participant characteristics and risk factors for Orangeville and the CHAP communities overall are provided in the table below.

Demographics & Risk Factors of CHAP Participants

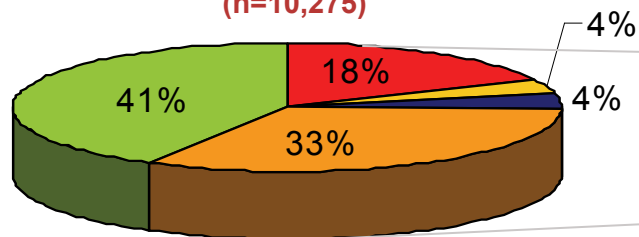
Characteristic (Self Reported)	Overall CHAP Program (n = 15,889)	Orangeville (n=839)	Characteristic (Self Reported)	Overall CHAP Program (n = 15,889)	Orangeville (n=839)
Age (y): mean (SD)	71.9 (9.7)	73.2 (8.9)	High blood pressure (Systolic ≥ 140 mmHg or ≥ 130 if diabetes mellitus; %)	36.9	34.6
Female (%)	59.5	62.6	Smokers (%)	8.7	8.1
Diagnosed with Diabetes (%)	15.1	13.0	Physically inactive (%)	20.1	23.5
Diagnosed with High cholesterol (%)	40.8	35.9	Low fruit & vegetable intake (< 5 servings/day; %)	37.0	42.3
Diagnosed with Hypertension (%)	53.8	52.4	Body Mass Index (>25; %)	62.5	52.9
History of Transient Ischemic Attack (%)	7.9	9.1	High Alcohol Consumption (2 or more drinks/day; %)	10.1	6.9

Blood Pressure Status of CHAP Participants

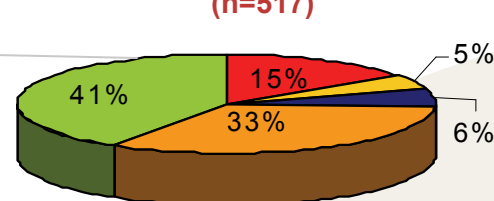
CHAP aims to promote regular blood pressure monitoring and follow up. A substantial number of the older adult participants in the 20 program communities had undiagnosed or uncontrolled elevated blood pressure. Overall, 36.9% (5867/15889) of participants had elevated blood pressure ($\geq 140/90$ or $\geq 130/80$ mmHg if diabetes reported) at their first visit. Of these, 64.5% (3784/5867)

were diagnosed with hypertension and/or reported treatment but were not controlled. The participants (31.0%, 1816/5867) who were not aware of their elevated blood pressure represent potential new cases of hypertension. In Orangeville, 34.6% (290/839) of participants had elevated blood pressure at their first visit. Blood pressure status for all CHAP participants and for Orangeville is shown below.

Diagnosis and Control of Blood Pressure Among CHAP Participants in 20 Communities (n=10,275)



Diagnosis and Control of Blood Pressure Among CHAP Participants in Orangeville (n=517)



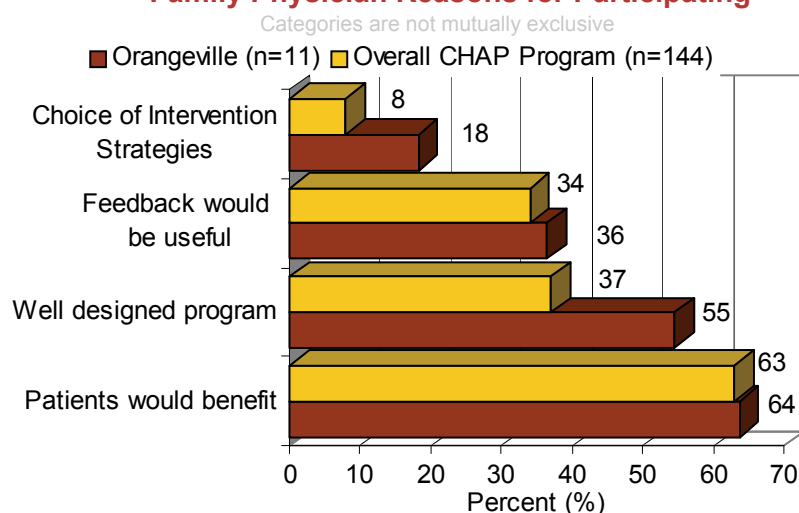
■ Elevated & unaware ■ Diagnosed, not treated or controlled ■ Treated & uncontrolled ■ Diagnosed, not treated, normal ■ Treated & controlled

Family Physicians

Family Physicians in 20 Communities

Participating family physicians promoted CHAP to their older adult patients using mailed letters, prescriptions for monitoring, or community-wide advertising (n=214). With the consent of each participant, session results including accurate blood pressure readings and other risk factor information were provided to local family physicians who agreed to receive feedback (n=338). Three months after the program, family physicians were surveyed about their experience with CHAP and 46% (144/313) returned a questionnaire. Of respondents, 91% (119/131) reported using CHAP feedback and the majority (77%, 95/124) would recommend CHAP to their colleagues.

Family Physician Reasons for Participating



Family Physicians in Orangeville

In Orangeville, 15 family physicians actively participated in the program. Additionally, 20 physicians agreed to receive feedback of CHAP session results for their patients. Post-program questionnaires were received from 11 physicians. Of these, 90.9% (9/11) reported using the CHAP feedback and 90.9% (9/11) reported that some or quite a few of their patients brought a copy of their CHAP results to their appointment. The use of BpTru™ machines (72.7%, 8/11), educational resources (72.7%, 8/11), and peer health educators assisting patients (63.6%, 7/11) were among the appreciated aspects of CHAP.

Family Physician Identified Benefits of CHAP

Categories are not mutually exclusive

Identified Benefits of CHAP	Overall CHAP Program (n=144)	Orangeville (n=11)
Additional Blood Pressure Readings	60%	82%
Case Finding	54%	73%
Identified white coat/masked hypertension	40%	64%
Improved treatment & control	33%	55%

Pharmacists

Pharmacists in 20 Communities

Pharmacists were available during CHAP sessions to provide advice about drug-related problems related to hypertension. Pharmacists could communicate directly with a participant's physician when such problems were identified. Pharmacist assessments were completed for 206 CHAP participants. A post-program questionnaire was mailed to pharmacists to learn about their experiences.

Questionnaires were completed by 61 of 129 pharmacists (47%) across 20 communities. Overall, pharmacists felt they did 'reasonably well' in documenting participant care (59%, 36/61), resolving problems (61%, 37/61), and identifying drug related problems (67%, 41/61).

Community Pharmacies

	Overall CHAP Program	Orangeville
Pharmacies Participating	129/145	10/12
Total Sessions Held	1265	83

Pharmacists in Orangeville

In Orangeville, 10 local pharmacies were involved. Three pharmacists returned a questionnaire. One respondent noted that expectations of the program, the documentation and services provided were similar to their current practice.

Understanding of the CHAP Program & the Pharmacist Role in Orangeville

"The pharmacist would look at results, the meds and make recommendations"

"CHAP Pharmacists: a) Review medications b) Assess or identify medication compliance and advise on steps to improve compliance c) Communicate drug related problems preventing control of BP d) Standardized documentation of intervention and or recommendation to physician"

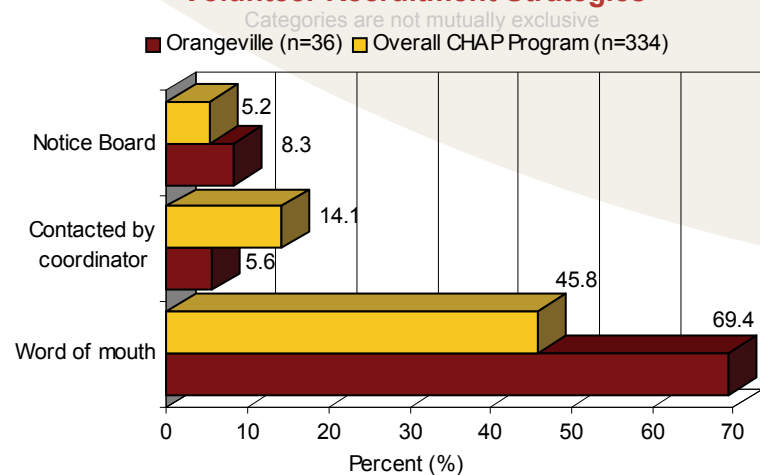
Volunteer Peer Health Educators

The volunteer Peer Health Educator was an essential role in the implementation of CHAP. Volunteers assisted with blood pressure measurement (using the BpTRU™ device), completed cardiovascular disease and stroke risk profiles, and provided participants with educational materials and local resources to help reduce modifiable risk factors.

To understand the volunteer experience, a survey was conducted following the program. Across 20 communities, 60% (346/577) of volunteers responded to the survey. In Orangeville, 36 volunteers returned a questionnaire.

Volunteers' understanding of the program goals and the value of the program in the community are important to their satisfaction with their contributions. Overall, volunteers felt that their involvement in CHAP was rewarding and that the program was appreciated in the community. Additional perspectives from all CHAP volunteers and for Orangeville volunteers are described below.

Volunteer Recruitment Strategies



Motivation for Volunteering

Mean agreement rated on a 5-pt Likert scale, 5=strongly agree
Categories are not mutually exclusive

Motivation for Volunteering	Overall CHAP Program (n=346)	Orangeville (n=36)
Enjoy meeting people	4.6	4.8
Contribute to community	4.6	4.6
To be informed about Heart Health	4.0	4.4
To provide health education to my peers	4.0	3.9 (n=33)
Seniors need more health education	3.9	3.9 (n=32)
Program has personal relevance	3.9	3.9 (n=32)

Volunteer Experience at Sessions

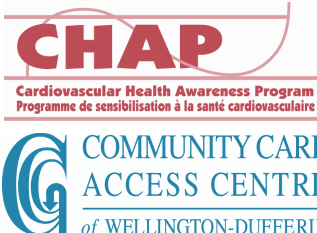
Mean agreement rated on a 5-pt Likert scale, 5=strongly agree
Categories are not mutually exclusive

Volunteer Experience at Sessions	Overall CHAP Program (n=346)	Orangeville (n=36)
I knew who to contact if I had a question	4.8	4.8
My questions were always handled well	4.8	4.8
Session procedures were easy to follow	4.6	4.8
I was confident in my role as a PHE	4.4	4.6
I was able to give participants useful info	4.3	4.3 (n=35)
I sometimes felt overwhelmed by responsibilities	1.9	2.2 (n=34)

Next steps: Awareness to Action

A new CHAP initiative is underway: the Cardiovascular Health Awareness Program + Action Plan (CHAP+AP). The aim is to create a sustainable model of CHAP for long-term implementation, and expand several components of the program to help older adults with modifiable risk factors for cardiovascular disease and stroke take steps to improve their health. Local partners in CHAP communities are already engaged and beginning work to connect with the newly formed Family Health Teams to extend health promotion and chronic disease prevention activities in communities. This profile can be used to involve collaborators in CHAP+AP.

At the community-based sessions, there will be emphasis on moving from 'awareness to action'. The volunteer PHEs will assist high-risk participants with a web-based tool to obtain individualized stroke and cardiovascular disease risk assessment and tailored plan to improve management of modifiable risk factors. Volunteers will provide guidance and support based on the plan to assist participants with lifestyle changes and self-management strategies. Further, pharmacists will be able to more actively provide medication review and antihypertensive medication assessment to CHAP participants.



For more information, please contact a member of the project team, or visit: www.CHAPprogram.ca

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