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“Shaping Research on Aging in Canada: Strategic Initiatives of the CIHR Institute of Aging”

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St. John's, Nfld.
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IRSC **CIHR**

Instituts de recherche
en santé du Canada

Canadian Institutes of
Health Research



IV
Institut du
vieillessement

IA
Institute
of Aging



Canada

Overview of Presentation

- ❖ Situating CIHR re aging research
- ❖ Research Priorities of the Institute of Aging:
 - Cognitive Impairment
 - Mobility in Aging
 - Canadian Longitudinal Study on Aging
 - Health Systems for Aging Populations
- ❖ Citizen Engagement
- ❖ Capacity Building
- ❖ International Collaborations
- ❖ Alignment with CIHR's Roadmap

What is CIHR?

- ❖ Major health research agency for Canada
- ❖ Launched on June 7, 2000
- ❖ Supports 13,500 researchers in universities, teaching hospitals, research institutes across Canada
- ❖ Replaces the Medical Research Council of Canada and NHDRP of Health Canada
- ❖ Structure for funding research:
 - ❖ virtual institutes
 - ❖ multidisciplinary approach



“To excel, according to internationally accepted standards of scientific excellence in the creation of new knowledge

and

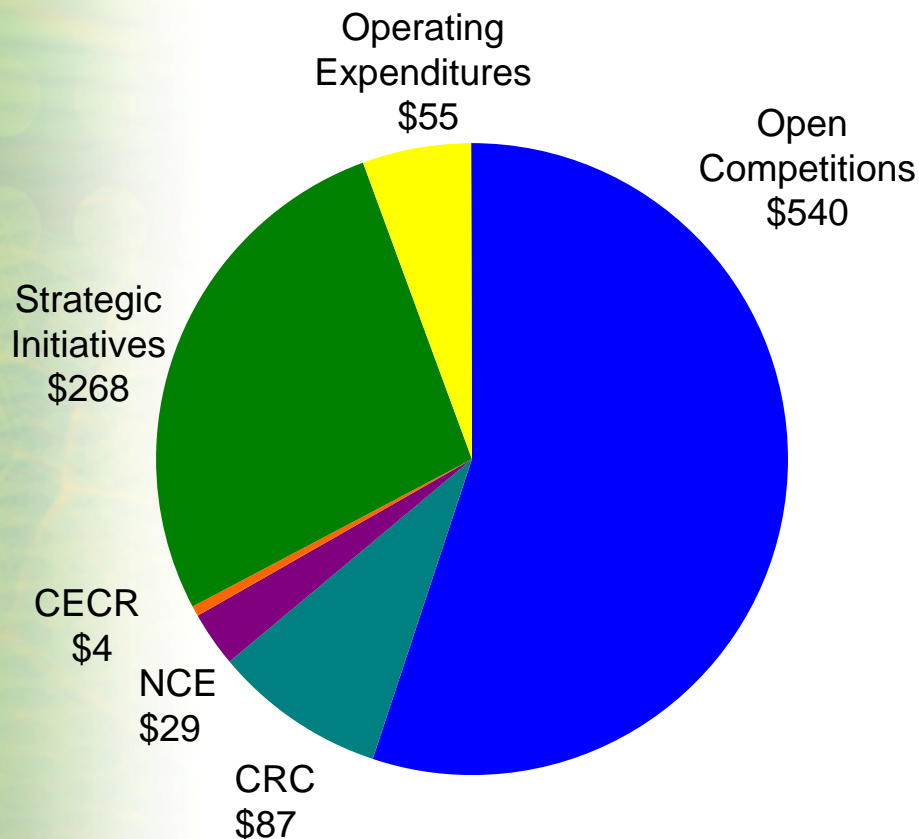
its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system...”

CIHR Expenditures 2009- 2010

(\$ M Including NCE, CERC and CRC)

TOTAL EXPENDITURES: 2009-10

\$984 M

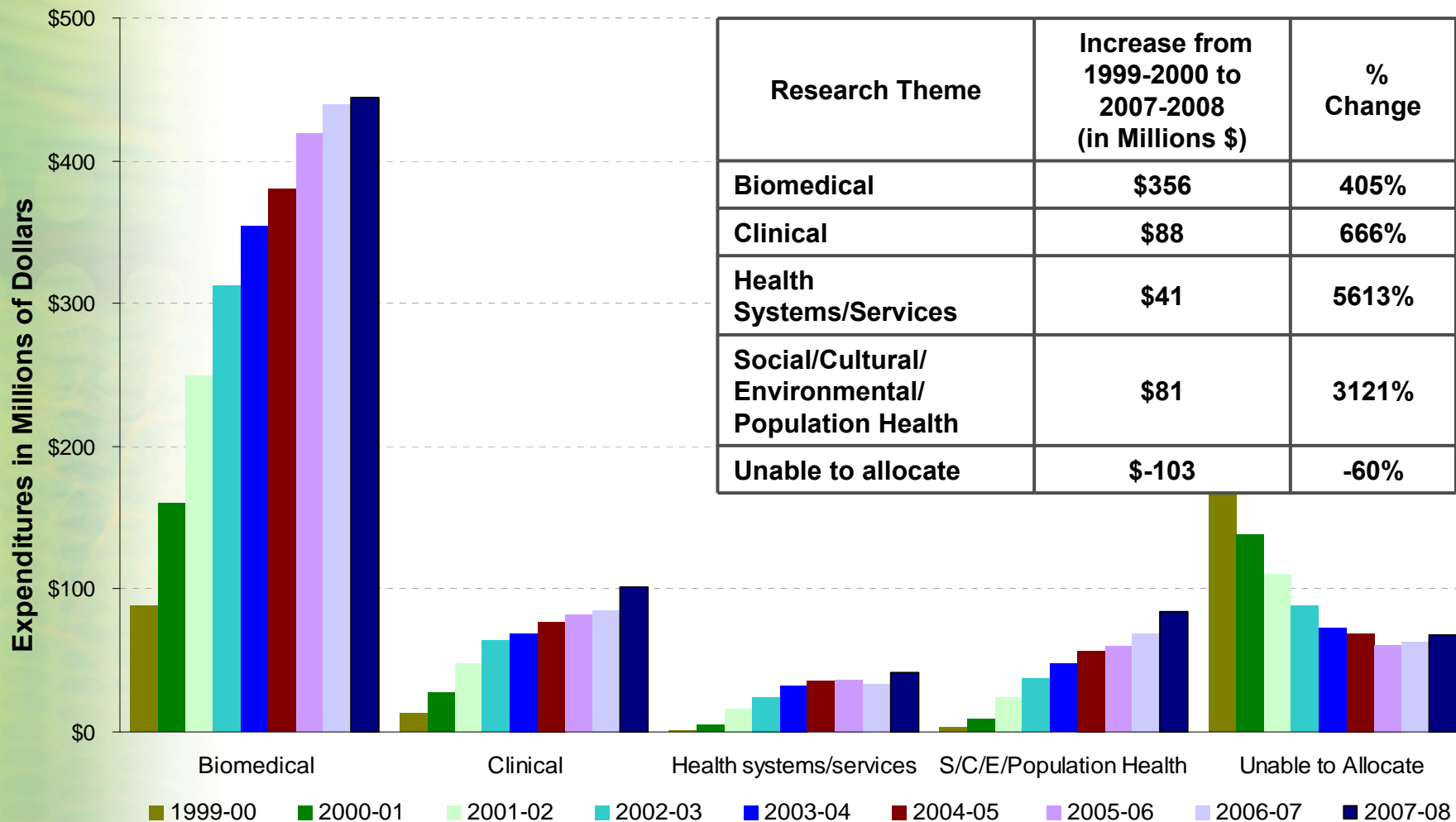


Investments in aging:

In 2009-2010, CIHR invested over **\$122 M** in studies on aging or aging-related disorders.

- ❖ Biomedical
- ❖ Clinical
- ❖ Health services and health systems
- ❖ Health of populations, societal and cultural dimensions of health, and environmental

CIHR Grants and Awards Funding: Research Themes



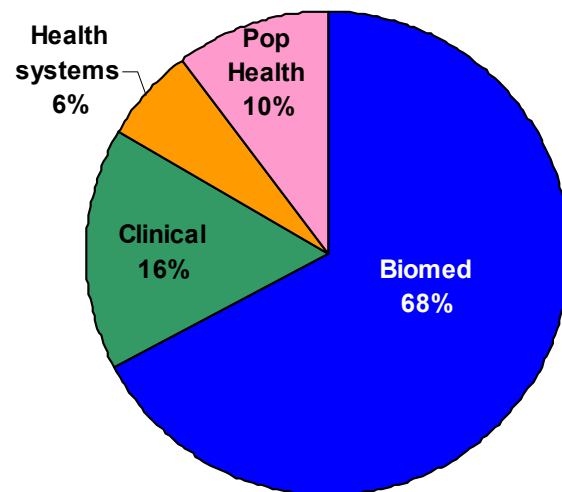
Figures exclude CRC's, CECR's and NCE's.

Percent Change is $((200708 \text{ Expenditures}) - (199900 \text{ Expenditures})) / (199900 \text{ Expenditures})$

Funding Comparisons across Research Pillars - *Open Competition*

- Over 4000 applications per year; fund ~ 20%
- Application pressure ↑ 70% since 2000-01
- **March 2010 competition:**
 - duration ranged from 1 to 5 years
 - funding ranged from \$60K to \$1.7M
 - 2/3 of received applications - biomedical

March 2010 OOGP Applications by Pillar



Total grant value & duration vary by Pillar:

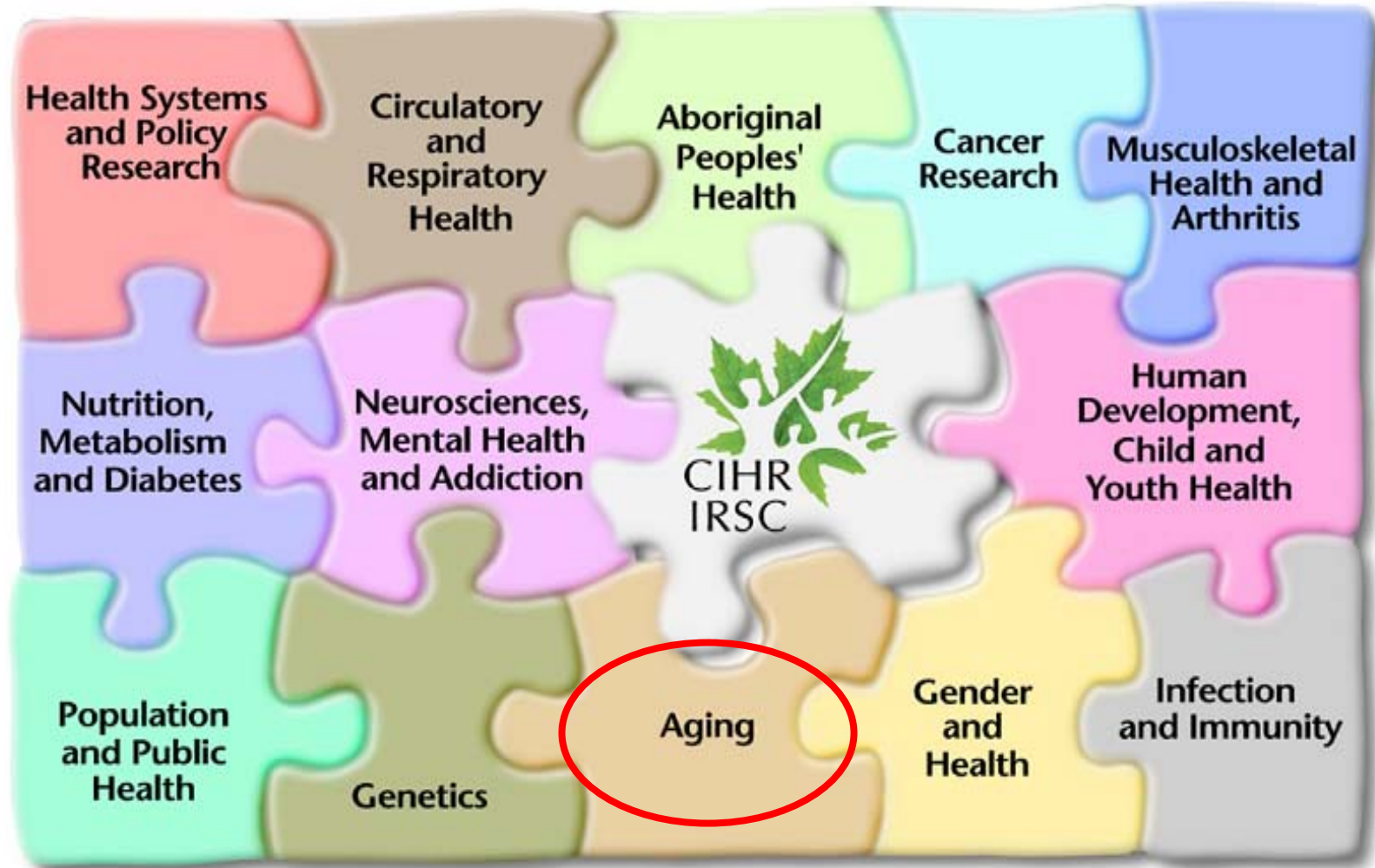
	Biomedical	Clinical	Health Systems	Population Health
Average Value	644K	542K	392K	376K
Annual Average Value	141K	150K	133K	114K
Duration	4.5	3.6	2.8	3.1

Averages based on 2009/10 Competition Results



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CIHR - Institutes



- ❖ **Mission: advance knowledge in aging to improve the **quality of life** and the **health** of older Canadians** (*Note: knowledge creation and application*)
- ❖ **Funding Research: from cell to society, to policy and practice and product**
- ❖ **Not explicit ‘disease-based’ focus (AD exception)**
- ❖ **Consequences of living with disease; transitions and trajectories**

How CIHR Funds

~70% **Open Competition**

- Researchers develop proposals and submit applications
- Operating grants, salary awards, training awards, equipment grants, etc

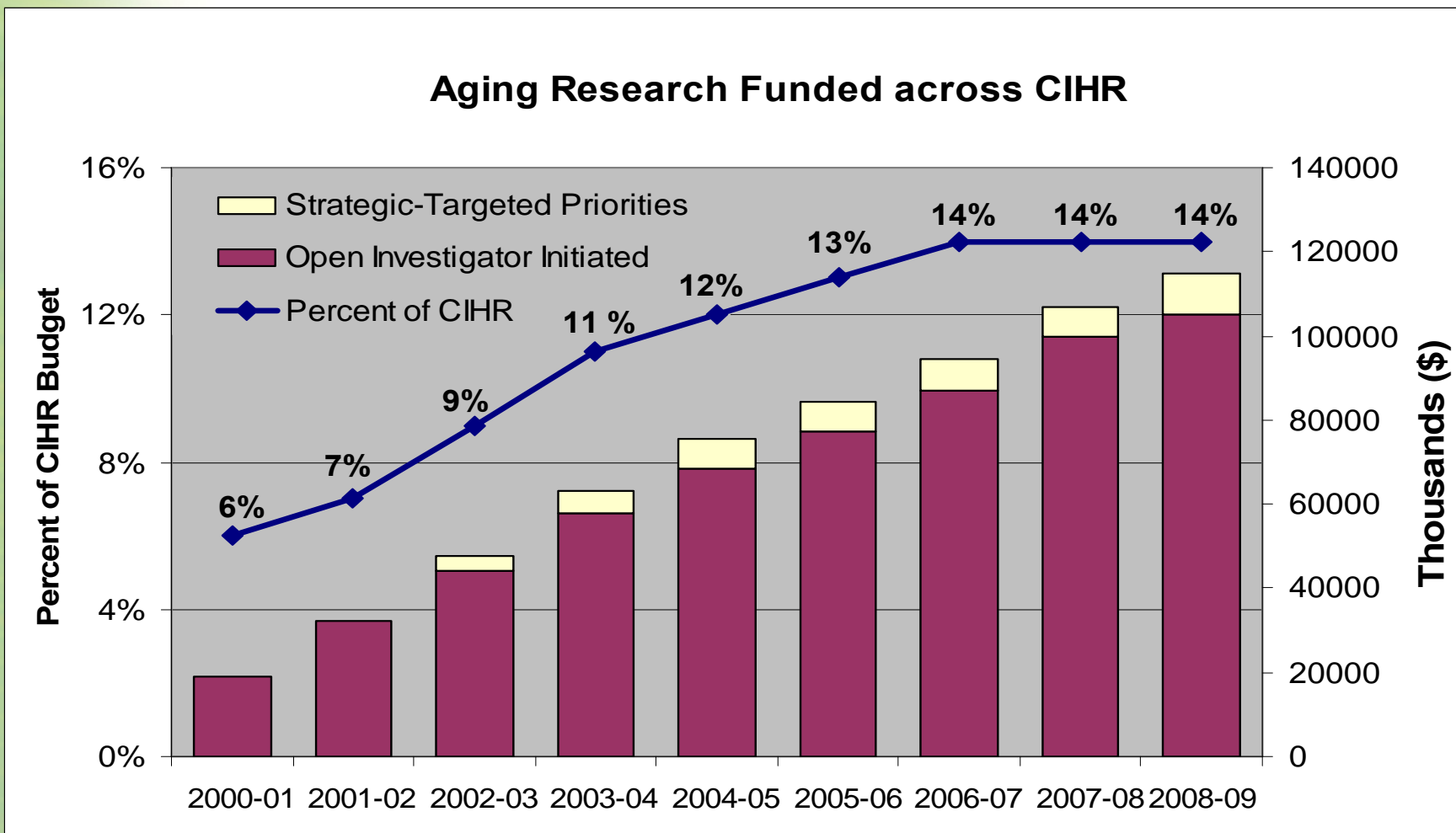
~30% **Strategic Initiatives**

- Targeted to address major health challenges
- Requests for Applications (RFAs)
- Developed by **Institutes*** (and now aligned with **CIHR Roadmap**)

(Appraisal based solely on peer-review for both)

Aging Research Commitments Across CIHR

Aging Research Funded across CIHR



- ❖ **Healthy and successful aging**
- ❖ **Biological mechanisms of aging**
- ❖ **Cognitive impairment in aging**
- ❖ **Aging and maintenance of functional autonomy**
- ❖ **Health services and policies relating to older people**

- ❖ **Cognitive Impairment in Aging Partnership**
- ❖ **Mobility in Aging**
- ❖ **Canadian Longitudinal Study on Aging**
- ❖ **Health Services and Systems for an Aging Population**
- ❖ **Public Engagement: Regional Seniors' Research Workshops**

❖ **Caregiving in Dementia: Research Initiatives**

- Biological causes / prevention
- Clinical: treatment (vascular dementia)
- Health services and caregiving/management

❖ **Canadian Dementia Knowledge Translation Network**

- Partnerships/collaborations: enhance relevance of research and optimize research impact
- Information, educational and clinical tools:

<http://www.lifeandminds.ca/>



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International Collaborative Research Strategy for Alzheimer's Disease - ICRSAD

Goals:

- delay onset and progression - early intervention & diagnosis;
- improve quality of life and access to quality care;
- enable healthcare system to deal more efficiently with rising number of individuals with dementia

Objectives:

- Common priorities for research
- Scientific international collaborations, to accelerate research efforts
- Funding partnerships worldwide
- Shared methodologies, technologies and platforms, to provide added value to research

Status:

- France-Canada-Québec funding initiative
- EC Joint Programming Initiatives (24 countries);
- Int'l NCE Neurodegeneration Research (Germany, UK, Canada);
- US (ADNI)
- Additional focus on a national Canadian network and collaborative structure

Strategic Research Focus: Mobility in Aging (since 2005)

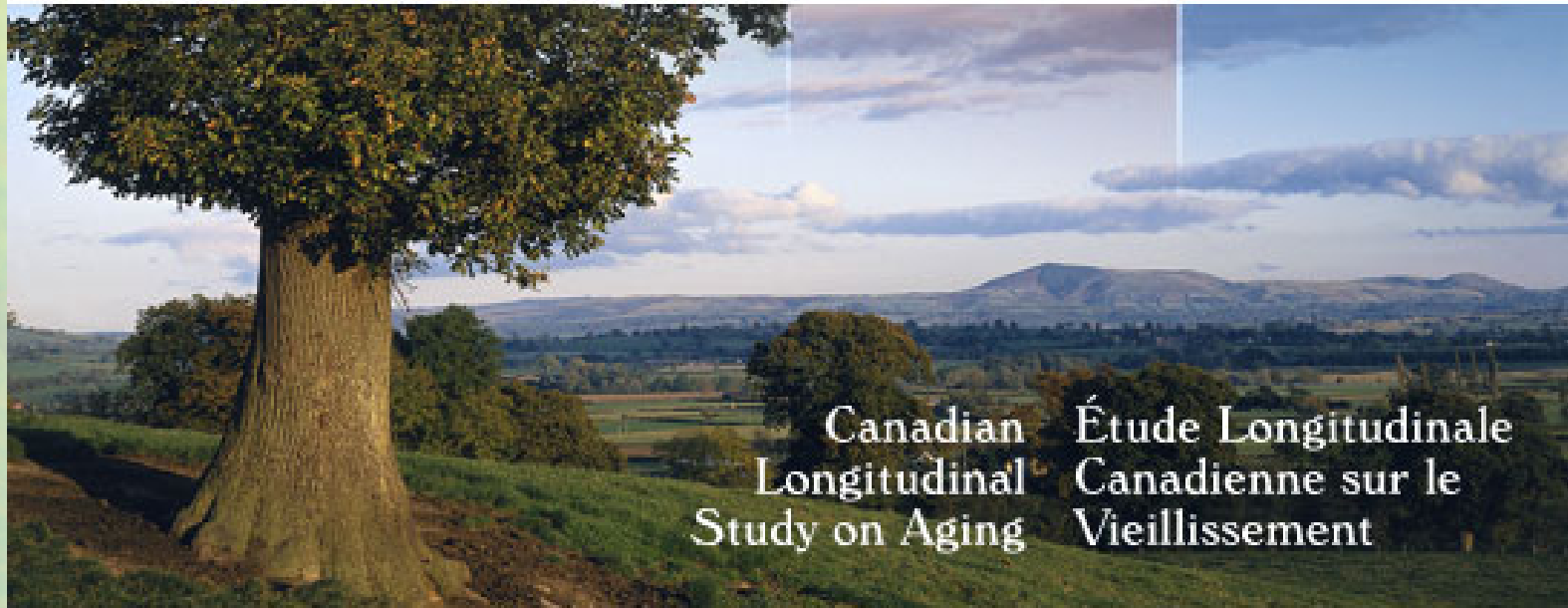
- ❖ Understanding and defining mobility
- ❖ Maintaining and restoring mobility
- ❖ Measures, tools, and technologies in research, assessment and mobility aids
- ❖ Supportive designs for mobility in aging: housing, communities, and transportation



Nine National Teams funded:

- ❖ Technology:
 - Optimizing gait and balance
 - Understanding whole-body mobility and falls in residential and outdoor environments
 - Optimizing wheeled mobility
- ❖ Determinants of mobility trajectories (CLSA)
- ❖ Built environment & determinants of health
- ❖ Causes of gender differences in MiA
- ❖ Prevention & improving outcomes of hip fractures

Canadian Longitudinal Study on Aging (CLSA)



Principal Investigators:

- **Parminder Raina, McMaster**
- **Christina Wolfson, McGill**
- **Susan Kirkland, Dalhousie**



❖ **80 Co-Investigators:**

- ▣ Biology, genetics, medicine,
- ▣ Psychology, sociology, demography, economics
- ▣ Epidemiology, nursing, nutrition
- ▣ Health services, biostatistics, population health

❖ **140 collaborators (all provinces)**

❖ **Duration of study: 20 years (2009 – 2029)**

❖ **Funding secured:**

- ▣ CIHR \$30M (Implementation: 5 year phase)
- ▣ CFI \$26M Infrastructure
- ▣ Partners: Provincial governments, Veteran's Affairs Canada, Health Charities, etc.

50,000 women and men aged 45 - 85 *at entry*

20,000 (Tracking Cohort)
Randomly selected within
Provinces

30,000 (Comprehensive)
Randomly selected within 25 km
of an academic centre in 11 sites

Questionnaire
• By telephone

Questionnaire
• By telephone and in person

Clinical/physical tests
Neuropsych tests
Blood, Urine

Follow up every 3 years; interim contact

Data Linkage

- Health status, Quality of life, healthy aging
 - Activities of daily living/disability/injuries
 - Frailty/co-morbidities
 - Function/Performance
 - Physical measures
 - Chronic diseases
 - Cognitive function, Mental Health
 - Oral health
 - Vision, hearing
 - Medications
 - Health and Social Services Use
 - Institutional care
 - Genetics/Biology
 - Disease susceptibility/longevity genes
 - Epigenetics
 - Biomarkers
 - Nutrition
 - Lifestyle/behaviours
 - Social networks, participation, social support
 - Mood, psychological distress
 - Care giving/Care receiving
 - Adaptive functioning, coping
 - Work to retirement transitions
 - Social inequalities
 - Mobility
 - Built & physical environment/Housing
 - Economics/Wealth
 - Demographics
- Linkages**
(to “secondary” data bases)
- Health care use
 - Disease registries e.g. Cancer
 - Environmental
 - Drugs

Infrastructure Supporting Population Research on Aging (CFI)

Computer-Assisted Telephone Interview Centres

Collect health and psychosocial data (Halifax - Sherbrooke).

Data Collection Centres

collection of nutrition, physical, clinical data, & biological specimens. (11 across Canada)

National Coordinating Centre

Oversight, project management
(McMaster - Hamilton)

Biological Processing Centre

Bio-banking, biomarker discovery & analysis (McMaster - Hamilton).

Genetics and Epigenetics Centre

Genotyping, epigenetic analysis, and bioinformatics, (UBC - Vancouver)

Statistical Analysis Centre

assimilation, distribution and analysis (McGill - Montreal).

Regional Seniors' Workshops on Research

Regional Seniors' Workshop on Research Prairie Region



June 24 – 25, 2004
Regina, Saskatchewan

- **Prairies – Regina (June 2004)**
- **Atlantic – Halifax (November 2004)**
- **British Columbia & North Regions – Vancouver (March 2005)**
- **Ontario – Toronto (November 2005)**
- **Quebec – Montreal (May 2006)**



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Seniors' Research Workshop Results

The leading health issues identified as priorities for research on aging by seniors and advocates **across the country** were:

- Health care and health services
- The housing-care continuum
- Health promotion



Research on Health Services and Systems:

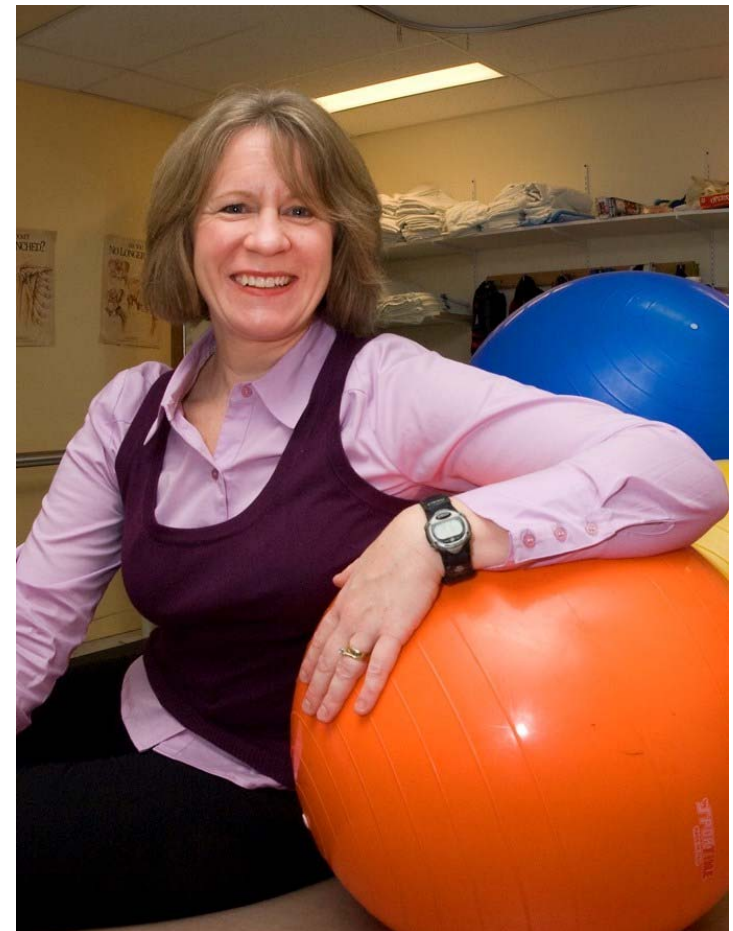
- ❖ *Partnerships for Health System Improvement*
- ❖ Next steps re ‘scoping’ strategic focus:
 - ☐ Canadian Health Services Research Foundation – regional consultations re aging
 - ☐ “Boomerangst” Conference, Vancouver 2011
- ❖ Framing of next strategic focus – Spring 2011

Other Strategic Activities

- ❖ **Support Knowledge Translation activities:**
 - ❖ **Betty Havens Prize in Knowledge Translation**
 - ❖ **Meetings, Planning and Development Grants (local, national, international)**

- ❖ **Support Capacity-Building:**
 - ❖ **Catalyst Grants (new data/ high-risk idea)**
 - ❖ **Trainee and Investigator Awards**
 - ❖ **Summer Program in Aging (SPA)**

- PDF level
- Dr. Michelle Ploughman
- *Health, Lifestyle and Aging with Multiple Sclerosis: Building an Evidence-Based Self-Management Program*
- Awarded CIHR PDF
- Top ranked PDF last year relevant to IA
- Received a CIHR Recognition Prize in Aging



Summer Program in Aging (SPA)



Institute of Aging
6th Summer Program in
Aging (SPA)
May 29 – June 2, 2011
Québec



<http://www.cihr-irsc.gc.ca/e/33047.html>



Age + Awards:

- Publication
- Travel

Prizes:

- CIHR IA Recognition Prizes in Research in Aging
- CIHR IA Réjean Hébert Prize (Cdn Geriatrics Soc.)
- Cdn. Assoc. Gerontology-IA Student Poster Competition



CIHR IA Activities at the Canadian Association on Gerontology (CAG) Annual Meeting:

- CIHR IA Student Lunch
- CIHR Awards Crafting Workshops



<http://www.cihr-irsc.gc.ca/e/30793.html>

Health Research Roadmap: Creating innovative research for better health and health care

CIHR's Strategic Plan
2009-10 - 2013-14



CIHR Research Roadmap: *Health and health system research priorities*

- ✓ Promote **patient-oriented research** & target science and technology innovations to improve health outcomes and health systems
- ✓ Support a high quality, **accessible & sustainable** health care system
- ✓ Decrease **health inequities** in Aboriginal Peoples & other vulnerable populations
- ✓ Promote health & reduce the burden of **chronic disease** & mental illness
- ✓ Prepare & respond to existing & emerging **global threats** to health

- ❖ **International Collaborative Research Strategy for Alzheimer's Disease**
- ❖ **Strategy on Patient-Oriented Research**
 - **National initiative** implicating public (provinces, NGOs) and private (Rx&D) stakeholders
 - Goal of “**Improving health outcomes through research**”
 - **Continuum** from “first in patients” studies to how new and old drugs, devices and procedures are integrated into health systems
- ❖ **CLSA as an ‘enabler’ of research - infrastructure**

- ❖ **Canada – China (CIHR) 7 grants**
 - neurodegeneration, epigenetics, frailty, culture /memory
- ❖ **Canada – Japan (CIHR) 4 grants**
 - neurodegeneration, genetics/senescence, older worker & retirement
- ❖ **IA – New Dynamics of Aging (UK) 10 grants**
 - continence, frailty, stair mobility, IT use, technology prompts , rural connectivity, integrating longitudinal data
- ❖ **IA – EPSRC (UK) –technology for dementia living & care**
- ❖ **Associate Member ERA-AGE 2 (European Research Area) - FutureAge: European Roadmap for Ageing Research**
- ❖ **USA through harmonization of CLSA measures with Health & Retirement Survey (and SHARE)**

- ❖ **Priorities align with CIHR's Research Roadmap**
- ❖ **10 year Review of CIHR and Institutes: Winter 2011**
 - ☐ Report of Review – June 2011
- ❖ **Scientific Director Succession:**
 - ☐ Change in Administration July 31, 2011
 - ☐ National 'call' for applications – January 2011
 - ☐ Selection process – April 2011

Summary - Symposium:

- ❖ CIHR and the Institute of Aging
- ❖ Research Priorities of Institute of Aging:
 - Health services and systems (2011 - ?)
- ❖ Citizen Engagement and Capacity Building
 - Role of stakeholders in defining priorities/ “KT”
 - Building research capacity
- ❖ Strategic Initiatives:
 - Cognitive Impairment in Aging
 - Mobility in Aging
 - CLSA



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Grey Matters



NEWSLETTER OF THE CIHR INSTITUTE OF AGING

The Future is AGING



Institute of Aging
Strategic Plan 2007 – 2012

Canada Institute of Health Research
Canada Institut de recherche en santé et en services sociaux



Canada

Institute of Aging Biennial Report 2007 – 2009



real.healthy.aging.ca

Canada



Canadian Institutes
of Health Research

Instituto de pesquisa
em saúde do Canadá



Canada



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Canadian Longitudinal Study on Aging:

<http://www.clsa-elcv.ca/>

ICRSAD:
<http://www.cihr-irsc.gc.ca/e/42288.html>