International Curriculum Guidelines for Preparing Physical Activity Instructors of Older Adults, in Collaboration With the Aging and Life Course, World Health Organization

Nancy A. Ecclestone, Canada, and C. Jessie Jones, United States

The recognized value of physical activity in preserving functional capacity and reducing physical frailty in later years combined with the support of the medical community has resulted in numerous senior fitness and physical activity classes springing up in various facilities (e.g., senior centers, hospitals, recreation departments, health and fitness clubs, churches, YMCAs, community centers, retirement communities, long-term care facilities, etc.) throughout the world. Because of the lack of licensure or wide endorsement of training guidelines for preparing physical activity instructors of older adults, facility directors can hire whom they want, regardless of the person’s educational background, and people receiving little or no specialized training can advertise themselves as senior fitness instructors. Most older adults lack the knowledge or experience to determine if the program they are attending is a safe and effective physical activity program. Experts in the field have argued however, that because of the large range of medical conditions and functional abilities of the 65+ population, preparing to be a physical activity instructor for older adults requires more knowledge, skills, and experiences than being an instructor of younger adults. Unfortunately, because of the lack of widely endorsed curriculum training guidelines to prepare physical activity instructors of older adults, some training programs have not included the essential knowledge and skills needed to instruct safe and effective programs for older adults.

Historically, the development of the International Curriculum Guidelines for Preparing Physical Activity Instructors for Older Adults began at the 1996 World International Congress on Physical Activity, Aging and Sport held in Heidelberg, Germany where delegates from several countries met and developed a draft document; however the guidelines were never published. Subsequently, Canada developed national guidelines (Appendix A) under the leadership of the Canadian Centre for Activity and Aging and with the support of Health Canada. In the United States, representatives from six national organizations (Appendix B) developed and published national standards.

In 2003, the two separate documents from the United States (national standards) and Canada (national guidelines) were condensed into one document and

These guidelines (pages 467–479) are published free of copyright and may be reproduced in any form, without restriction, and without further permission from Human Kinetics.
titled the *International Curriculum Guidelines for Preparing Physical Activity Instructors of Older Adults*. Then, a coalition of members from 13 countries and a committee from the United States (Appendix CD) agreed to review and make recommendations for this document. These international guidelines were then presented at the 6th World Congress on Aging and Physical Activity held in London, Ontario, Canada (August 3–7, 2004) by the co-chairs of this initiative, Nancy Ecclestone (Canada) and C. Jessie Jones (USA).

The *International Guidelines for Preparing Physical Activity Instructors of Older Adults* is a consensus document that outlines each of the major content areas that experts recommend should be included in any entry-level training program with the goal of preparing physical activity instructors to work with older adults. The principles and perspectives of the World Health Organization (WHO) Active Ageing Policy Framework are reflected in the document.

These guidelines can be applied to older adults across the continuum from healthy, independent older adults in community settings to functionally dependent older adults in long-term care. Additional training at an advanced level would be needed by instructors interested in working with older adults with severe disabilities or cognitive impairment in rehabilitation settings or managing and directing facilities, especially ones providing insurance reimbursement and those that serve a more frail older adult population.

Because of the complexity of the fitness industry and the differences in state and national requirements throughout the world, we believe that it is the responsibility of individual associations and organizations to develop the details of each major content area within each curriculum guideline, to develop appropriate areas of emphasis, and to develop performance standards that indicate the level of achievement expected of their students. Due to the varied functional ability levels of older adults, it is important to be aware of the target population (community dwelling, well older adults vs. homebound or institutionalized, frail older adults) and to develop the content to meet the specific needs of that population.

The purpose of the *International Curriculum Guidelines for Preparing Physical Activity Instructors* is to 1) ensure safe, effective, and accessible physical activity/fitness programs for older adults; 2) develop competent physical activity instructors of older adults; 3) provide more consistency among instructor training programs preparing physical activity instructors of older adults; 4) inform administrators, physical activity instructors and others about the minimum guidelines recommended by the profession when recruiting physical activity instructors of older adults, 5) clarify the definition and role of a physical activity instructor for older adults; and 6) establish the level of expertise needed to help protect instructors and other facility staff from litigation (a lawsuit). *These training guidelines are not being developed to promote one certification or licensing body of physical activity instructors of older adults, but rather to provide curriculum guidelines to encourage more consistency among instructor training programs throughout the world.*

The guidelines do not include recommendations for 1) qualifications and experience of trainers/course tutors, 2) methods of curriculum delivery, 3) assessment requirements for students, or 4) requirements of the training providers.
Definitions of terms:
**Instructor:** A physical activity instructor is broadly defined as a professional who teaches, educates, and/or trains people how to do physical activities, i.e., exercises

**Physical Activity:** an encompassing term to mean any body movement produced by a skeletal muscle that result in energy expenditure.

**Exercise:** A subset of physical activity. It is planned and repetitive body movement, which improves or maintains one or more components of physical fitness (e.g., cardiovascular endurance, muscular strength, balance, flexibility)

---

**International Curriculum Guidelines for Preparing Physical Activity Instructors of Older Adults**

**TRAINING MODULE 1: OVERVIEW OF AGING AND PHYSICAL ACTIVITY**

Recommended areas of study include general background information about the aging process and the benefits of an active lifestyle.

*Suggested topics:*

1. Demographic considerations (e.g., ethnicity, culture, gender) as they relate to individual participation in physical activity programs;
2. Various definitions of aging (including pathological, usual, and successful aging);
3. The difference between the terms chronological, biological, and functional aging;
4. The benefits of physical activity as it relates to the multiple dimensions of wellness (e.g., intellectual, emotional, physical, vocational, social, spiritual) and the prevention of chronic medical conditions, health promotion, and quality of life throughout the lifespan; and
5. Current research and epidemiology related to health/physical activity issues.

**TRAINING MODULE 2: PSYCHOLOGICAL, SOCIOCUTURAL, AND PHYSIOLOGICAL ASPECTS OF PHYSICAL ACTIVITY AND OLDER ADULTS**

Recommended areas of study include psychological, sociocultural, and physiological aspects of physical activity in order to develop safe and effective physical activity/exercise programs for older adults.

*Suggested topics:*

1. Exercise Science: Basic anatomy, physiology, neurology, motor learning and control, and exercise psychology;
2. Myths, stereotypes and barriers associated with aging and physical activity participation in later life;
3. Predictors of successful aging, (e.g., biological, psychological, and sociological theories of aging, environmental factors and lifestyle choices);
4. The relationship between physical activity and psycho-social well-being; and
5. Age-associated physiological and biomechanical changes in multiple body systems (e.g., cardiovascular and respiratory systems, musculoskeletal system, and central nervous system) and how these changes affect functional mobility and independence.

TRAINING MODULE 3: SCREENING, ASSESSMENT, AND GOAL SETTING

Recommended areas of study include information on selection, administration, and interpretation of pre-exercise health and activity screening, and fitness and mobility assessments appropriate for older adults. This information will provide the basis for exercise program design, and appropriate referrals to other health professionals.

Suggested topics:

1. Guidelines and procedures for the selection, administration, and interpretation of screening tools to determine the health, physical activity, and disability status of older adult participants.
2. Health, activity, and other lifestyle appraisals, including cardiovascular and falls risk factor identification;
3. How and when to make appropriate referrals to, or seek advice from, physicians and/or other qualified allied health and fitness professionals.
4. Physiological and functional fitness assessments (e.g., heart rate, blood pressure, Body Mass Index, and field tests for strength, flexibility, submaximal endurance, and functional mobility such as balance, agility, gait, coordination, and power); and
5. Psychological (e.g., self-efficacy, depression) and sociological (e.g., social support) assessments; and
6. For homebound or institutionalized older adults: Assessments of functional abilities (e.g., mobility, grooming, dressing, toileting) with input from caregivers.

It is further recommended that training programs include information on establishing, with client input, realistic and measurable short, medium and long-term goals.

Suggested topics:

1. Factors influencing physical activity participation among older adults, including barriers, motivators, regular involvement in physical activity, and behavior modification;
2. Developing, monitoring, and modifying short- and long-term activity goals based on results from screening and assessments and input from the participant and caregivers if appropriate; and
3. Importance of encouraging lifetime leisure physical activities (e.g., dancing, gardening, hiking, tennis, swimming) in addition to structured exercise programs.

TRAINING MODULE 4: PROGRAM DESIGN AND MANAGEMENT

Recommended areas of study include information about how to use results from screening, assessment, and client goals to make appropriate decisions regarding individual and group physical activity/exercise program design and management.  

Suggested topics:

1. Interpretation of pre-screening and assessment data, and consideration of client goals, for effective program development;
2. Exercise variables (i.e., mode, frequency, duration, intensity) and principles (over-load, functional relevance, challenge, accommodation) for program design in both individual and group settings.
3. Exercise training components/methods, including warm-up and cool-down, flexibility, resistance, aerobic endurance, balance and mobility, mind/body exercise, aquatics for program design in both individual and group settings;
4. Applied movement analysis for proper selection and implementation of specific exercises;
5. Training formats and session designs for different functional abilities, and individual and group exercise sequencing for exercise programming;
6. Economic considerations and consequent equipment options (e.g., quality for cost, safety and age-friendliness);
7. Importance of making healthy lifestyle choices (e.g., proper nutrition, stress management and smoking cessation);
8. An organizational system for participant recruitment, tracking exercise compliance and maintaining other client information; and

TRAINING MODULE 5: PROGRAM DESIGN FOR OLDER ADULTS WITH STABLE MEDICAL CONDITIONS

Recommended areas of study include information on common medical conditions of older adults, signs and symptoms associated with medication-related negative interactions during activity, and how to adapt exercise for clients with different fitness levels, and stable medical conditions to help prevent injury and other emergency situations.
Suggested topics:

1. Age-related medical conditions (e.g., cardiovascular disease, stroke hypertension, respiratory disorders, obesity, arthritis, osteoporosis, back pain, diabetes, balance and motor control deficits, visual and hearing disorders, dementia and urinary incontinence);
2. How to adapt group and individual exercise programs to accommodate for age-related medical conditions, and for people who have experienced falls, operations, and illness;
3. How to adapt group and individual exercise programs to accommodate for prosthetics (e.g., artificial hips, knees, legs);
4. How to design programs for preventative health (e.g., exercises to reduce risk of falling, control diabetes, heart disease); and
5. Recognize signs and symptoms associated with medication-related negative interactions during physical activity (e.g., postural hypotension, arrhythmias, fatigue, weakness, dizziness, balance and coordination problems, altered depth perception, depression, confusion, dehydration, and urinary incontinence) and refer back to health professional.

TRAINING MODULE 6: TEACHING SKILLS

Recommended areas of study include information about motor learning principles that guide the selection and delivery of effective individualized and group exercises and physical activities, and the construction of safe and effective practice environments.

Suggested topics:

1. Application of motor learning principles for proper client instruction, verbal cues, feedback, and reinforcement.
2. Structure of the learning environment to facilitate optimal learning of motor skills;
3. Development of safe, friendly, and fun exercise/physical activity environments (e.g., appropriate use of humor, special equipment, creative movements, music, novelty, and props);
4. Issues facing older adults that may affect motivation (e.g., depression, social isolation, learned helplessness, low self-efficacy);
5. Development of lesson plans and elements of instruction
6. Methods for self-evaluation of teaching effectiveness; and
7. Monitoring and adjustment of exercise variables (e.g., intensity, duration, etc).

TRAINING MODULE 7: LEADERSHIP, COMMUNICATION, AND MARKETING SKILLS

Recommended areas of study include information on how to incorporate effective motivational, communication, and leadership skills related to teaching individual
and group exercise classes as well as professional leadership skills, and how to create effective marketing tools for program and self.

Suggested topics:

1. Principles of individual and group dynamics in structured exercise settings;
2. Translation of technical terminology into client-friendly language;
3. Incorporating leadership skills into personal training and group physical activity classes to enhance teaching effectiveness and client satisfaction;
4. Application of positive interpersonal interaction behaviors to work with a heterogeneous older adult population (e.g., gender, ethnicity, education level) in both group and individual exercise settings;
5. Listening skills and reception to participant feedback;
6. Develop social support strategies (e.g., buddy system, telephone support).
7. Develop effective, age-friendly marketing strategies and tools of program and self, and methods of delivering the “right” message.

TRAINING MODULE 8: CLIENT SAFETY AND FIRST AID

Recommended areas of study information on how to develop a risk management plan to promote a safe exercise environment and respond to emergency situations.

Suggested topics:

1. Signs that indicate need for immediate exercise cessation and/or immediate medical consultation;
2. Appropriate response to emergency situations such as would be covered in standard first-aid and CPR classes (e.g., cardiac arrest, airway obstruction, emergencies requiring rescue breathing, heat- and cold-related injuries, musculoskeletal injuries including strains, sprains and fractures, diabetic emergencies, bleeding, falls, seizures, and shock);
3. Establishment of an emergency action plan; and
4. Identification of a safe and age-friendly (e.g., working condition of equipment, accessibility, ventilation, lighting, floor surfaces, proper footwear, access to water and washroom facilities) and precautions for environmental extremes (e.g., high or low temperatures or excessive humidity).

TRAINING MODULE 9:
ETHICS AND PROFESSIONAL CONDUCT

Recommended areas of study include information on legal, ethical, and professional conduct.

Suggested topics:

1. Legal issues related to delivering physical activity programs to older adults, including legal concepts and terminology;
2. Issues related to lawsuits, including scope of practice, industry standards, and negligence; types of applicable insurance coverage;
3. Ethical standards and personal conduct and scope of practice for physical activity instructors of older adults; and
4. Accessing resources for the enhancement of professional skills (e.g., position stands, ethical practices, professional practice guidelines consistent with the standards of care; and
5. Methods of continuing education to enhance one’s professional skills.

Appendix A

Canadian Guidelines

*Canadian Guidelines for Leaders of Physical Activity Programs for Older Adults in Long-Term Care, Home Care and the Community (2003) can be found on the website of the Canadian Centre for Activity and Aging www.uwo.ca/actage.

These guidelines were produced as a result of the release, in the International Year of Older Persons (1999), of the following:

- *Canada’s Physical Activity Guide to Healthy Active Living* (endorsed by more than 56 organizations),
- *The Blueprint for Action for Active Living and Older Adults: Moving Through the Years* (contributors: e.g., La Fondation en adaptation motrice (FAM), Active Living Coalition for Older Adults (ALCOA), Canadian Centre for Activity and Aging (CCAA) and Health Canada) and,
- Recommendations from the *Roundtable of Leaders in Physical Activity and Aging* (1998) and the *ALCOA National Forum – Older Adults and Active Living* (1999). Both events hosted by the Canadian Centre for Activity and Aging.

*Financially supported by Health Canada

A number of delegates representing a cross-section of health related perspectives were instrumental in contributing to development of the Canadian Guidelines. These individuals’ contributions were solicited on the basis of their expertise, and not necessarily their affiliations. Delegates (66) to the forums (1Long-Term Care Forum, 2Home Care and Community Forum) that contributed to the Canadian guidelines include:

NEWFOUNDLAND

Elsie McMillan, St. John’s Nursing Home Board, St. John’s
Janet O’Dea, Memorial University of Newfoundland, Health Sciences Centre, St. John’s 1
Fran Cook, Memorial University Rec. Complex, St. John’s 2
Moira Hennessey, Dept. of Health and Community Services, St. John’s 2
Patricia Nugent, Health and Community Services, St. John’s Region, St. John’s 2
PRINCE EDWARD ISLAND

Marilyn Kennedy, Acute and Continuing Care, Department of Health and Social Services, Charlottetown¹
Pat Malone, Senior Services Liaison - Acute and Continuing Care, Department of Health and Social Services, Charlottetown¹
Lona Penny, Dr. John Gillis Memorial Lodge, Belfast¹
Sharon Claybourne, Island Fitness Council, Charlottetown²

NOVA SCOTIA

Denise Dreimanis, Nova Scotia Fitness & Lifestyle Leaders Assoc., ALCOA Speakers Bureau Dartmouth¹
Debra Leigh, Continuing Care Association of Nova Scotia, Halifax¹
Lygia Figueirado, Continuing Care Gov. of Nova Scotia, Halifax²
Andrea Leonard, Home Support Association Of Nova Scotia, Halifax²

NEW BRUNSWICK

Flora Dell, Active Living Coalition for Older Adults (ALCOA), Fredericton¹
Vicky Knight, Fredericton¹
Ron Davis, Camden Park Terrace, Moncton²

QUÉBEC

Phillipe Markon, Ste-Famille, Ile d’Orleans¹
Jaques Renaud, Association des Etablissements Privés Conventionnés, Montreal¹
Clermont Simard, DEP-PEPS, Université Laval, Sainte-Foy²

ONTARIO

Jane Boudreau-Bailey, Chelsey Park Nursing Home, London¹
Liz Cyarto, Canadian Centre for Activity and Aging, London¹,²
Nancy Ecclestone, Canadian Centre for Activity and Aging, London¹,²
Clara Fitzgerald, Canadian Centre for Activity and Aging, London¹,²
Janice Hutton, Canadian Association of Fitness Professionals, Markham¹
Marita Kloseck, Division of Geriatric Medicine, Parkwood Hospital, London¹
Jody Kyle, YMCA St. Catherines, St. Catherines¹
Darien Lazowski, Canadian Centre for Activity and Aging, London¹
Stephanie Luxton, Canadian Centre for Activity and Aging, London¹,²
Karen Macdonald, Canadian Red Cross Link to Health Program, Mississauga
Sandra Mallett, Allendale Long Term Care, Milton¹
Colleen Sonnenberg, Ministry of Health and Long-Term Care, Toronto¹
Sue Veitch, Kingston¹
Gabriel Blouin, Institute for Positive Health for Seniors, ALCOA, Ottawa²
Lynne Briggs, Advocacy Committee, Older Adult Centres Association of Ontario, Evergreen Seniors Centre, Guelph²
Carol Butler, PSW Program, Fanshawe College, London²
Trish Fitzpatrick, Client Services and Program Development, CCAC Oxford County, Woodstock²
Hania Goforth, Recreation Services, Lifestyle Retirement Communities, Mississauga²
John Griffin, George Brown College, Toronto²
Joan Hunter, Link to Health, Canadian Red Cross, Toronto²
Janice Hutton, Canadian Association of Fitness Professionals, Markham³
Jane Miller, Ontario Fitness Council, Toronto²
Don Paterson, University of Western Ontario, Canadian Centre for Activity and Aging, London¹,²
Sheila Schuehlein, VON Canada, Kitchener²
Nancy Stelpstra, Ontario Fitness Council, Guelph²
Bert Taylor, University of Western Ontario, London¹
Bruce Taylor, Health Canada, Ottawa²
Sue Thorning, Ontario Community Support Association, Toronto²

MANITOBA

Cindy Greenlay-Brown, West St. Paul¹
Jim Hamilton, Manitoba Seniors Directorate, Winnipeg¹,²
Hope Mattus, Health Accountability Policy and Planning, Seniors and Persons with Disabilities, Manitoba Health, Winnipeg¹,²
Russell Thorne, Manitoba Fitness Council, University of Manitoba, Winnipeg²

SASKATCHEWAN

Angela Nunweiler, Community Care Branch, Saskatchewan Health, Regina¹
Bob Lidington, Saskatoon Home Support Services, Ltd, Saskatoon²
ALBERTA
Jennifer Dechaine, Alberta Centre for Active Living, Edmonton
Timothy Fairbank, Capital Health Authority ADL/CRP, Edmonton
Debbie Lee, Calgary Regional Health Authority, Calgary
Debbie Ponich, Alberta Fitness Leadership Certification Association, Provincial Fitness Unit Faculty of Physical Education & Recreation, University of Alberta, Edmonton

BRITISH COLUMBIA
Carol Hansen, Kwantlan University College, Surrey
Linda Mae Ross, Continuing Care Renewal Regional Programs, Victoria
Catherine Rutter, McIntosh Lodge, Chilliwack
Barbara Harwood, NLTI Project Advisory Committee, Speakers Bureau ALCOA, North Saanich
Cheryl Hedgecock, British Columbia Parks and Recreation, Richmond

YUKON
Willy Shippey, Yukon Health and Social Services, Thompson Centre, Whitehorse

NORTHWEST TERRITORY
Marjorie Sandercock, Yellowknife

NUNAVUT
Jason Collins, Recreation and Leadership Division, Government of Nunavut, Igloolik

FEDERAL
Health Canada

Appendix B
USA Standards
National Standards for Preparing Senior Fitness Instructors

Coalition Members
Chair: Jessie Jones, American Council on Aging and Adult Development
Members:
Janie Clark, The American Senior Fitness Association
Richard Cotton, American Council on Exercise
Laura Gladwin, Aerobics and Fitness Association of America
Gwen Hyatt, Desert Southwest Fitness, Inc.
Association for Active Lifestyles and Fitness
Lee Morgan, Institute of Aerobic Research
Kay Van Norman, Council on Aging and Adult Development, American
Association for Active Lifestyles and Fitness

Appendix C
Critique and Recommendations for the International Curriculum
Guidelines for Preparing Physical Activity Instructors of Older Adults

INTERNATIONAL COALITION

Co-Chairs: Nancy Ecclestone and Jessie Jones
Members:
Susie Dinan, England
Dorothy Dobson, Scotland
Nancy Ecclestone, Canada
Ellen Freiberger, Germany
Carol Hansen, Canada
Eino Heikkinen, Finland
Linda Halliday, South Africa
Keith Hill, Australia
Marijke Hopman-Rock, The Netherlands
Gareth Jones, Canada
Jessie Jones, United States
Alexandre Kalache, WHO
Stephanie Luxton, Canada
Michele Porter, Canada
Suely Santos, Brazil
Federico Schena, Italy
Cody Sipe, United States
Kiyoji Tanaka, Japan
Janice Tay, Singapore
Bruce Taylor, Canada
Catrine Tudor-Locke, United States
UNITED STATES COALITION

Chair: Jessie Jones, American College of Sports Medicine (ACSM)
Members:
Kazuko Aoyagi, World Instructor Training Schools (WITS)
Ken Baldwin, A.H. Ismail Center for Health, Exercise & Nutrition, Purdue University
Grant Clark, American Senior Fitness Association
Janie Clark, American Senior Fitness Association
Wojtek Chodzko-Zajko, National Blueprint on Active Aging
Laura Gladwin, American Fitness and Aerobic Association,
Carol Kennedy, Indiana University
Steve Keteyian, ACSM
Rainer Martens, Human Kinetics
Julie McNeney, International Council on Active Aging
Colin Milner, International Council on Active Aging
Tammy Peterson, American Academy of Health and Fitness
Jerry Purvis, American Kinesiotherapy Association
Debra Rose, Center for Successful Aging, Cal State Univ., Fullerton
Christine Schnitzer, Healthy Strides, Kisco Senior Living Facilities
Copy Sipe, A.H. Ismail Center for Health, Exercise & Nutrition, Purdue University
Christian Thompson, Council on Adult Development and Aging (CAAD),
American Association for Active Lifestyles and Fitness (AAALF)
Mary Visser, CAAD, AAALF
Judy Wright, Human Kinetics