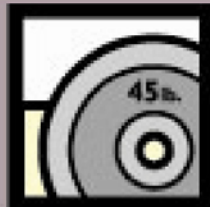
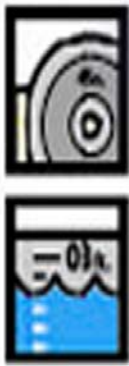


**ACCESSIBILITY INSTRUMENTS MEASURING
FITNESS AND RECREATION ENVIRONMENTS**

FITNESS CENTER AND
SWIMMING POOL ACCESSIBILITY

CONSUMER VERSION

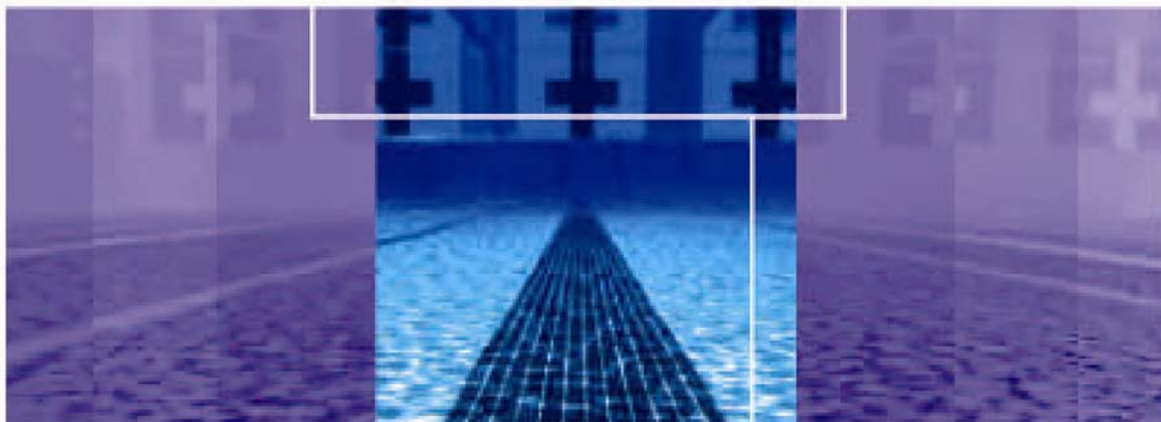




ACCESSIBILITY INSTRUMENTS MEASURING FITNESS AND RECREATION ENVIRONMENTS

FITNESS CENTER AND SWIMMING POOL ACCESSIBILITY

CONSUMER VERSION



National Center on Physical Activity and Disability



Copyright © 2004-2006, all rights reserved

The term "AIMFREE" is a creation of James Rimmer, Ph.D., and Barth Riley, Ph.D., University of Illinois at Chicago, Chicago, IL.

No portion of this manual may be copied, duplicated, or otherwise reproduced without prior written consent from the copyright owner. No portion of this manual, including the AIMFREE instrument, may be modified in any way. This includes, but is not limited to, adding, deleting, editing or rearranging of instrument items, changing instrument directions or scoring procedures.

Funding to develop the AIMFREE Instruments provided by the Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities, Division of Human Development and Disability, Grant # R04/CCR518810. Funding for continued research utilizing the AIMFREE manuals provided by the U. S. Department of Education, The National Institute on Disability and Rehabilitation Research (NIDRR), Grant #H133E020715.

The AIMFREE manuals were published as part of the dissemination efforts of the RERC RecTech.

ADVISORS

James H. Rimmer, Ph.D. Principal Investigator

Barth B. Riley, Ph.D. Co-Principal Investigator

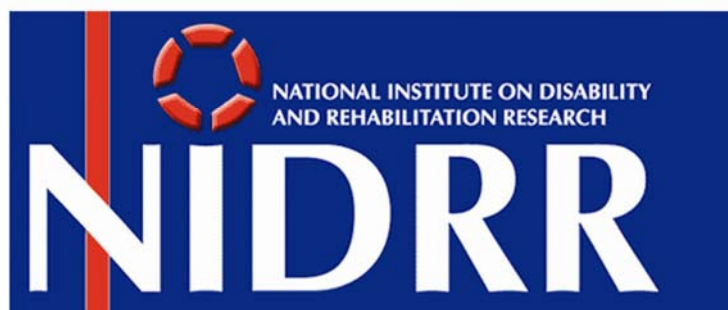
Edward Wang, Ph.D. Consultant

Robin Jones, M.A. Co-Investigator

Craig Velozo, Ph.D. Co-Investigator

Amy Rauworth, M.S., RCEP Project Coordinator

Everett Smith, Ph.D. Co-Investigator



AIMFREE was funded through a grant from the Centers for Disease Control and Prevention between 2000 and 2003. The AIMFREE instrument is currently being implemented in a study of fitness center accessibility funded by the National Institute of Disability and Rehabilitation Research (NIDRR), 2002–2007.

TABLE OF CONTENTS

Table of Contents	3
Acknowledgments	4
Introduction	6
What is AIMFREE?	6
How Does AIMFREE Fit with the U.S. Access Board Guidelines?.....	7
Who Participated?.....	8
Survey Notes.....	10
Glossary of Terms.....	11
Demographics Sheet.....	15
Directions.....	16
The AIMFREE Fitness Center and Swimming Pool Accessibility Survey (Consumer Version)	
Section A: Access Routes* and Entrance Areas.....	17
Section B: Locker Rooms and Showers.....	20
Section C: Hot Tubs, Whirlpools, Saunas, Steam Rooms.....	23
Section D: Equipment.....	25
Section E: Information and Signage*.....	28
Section F: Elevators.....	31
Section G: Bathrooms.....	33
Section H: Programs.....	35
Section I: Professional Behavior.....	36
Section J: Swimming Pool.....	38
Section K: Parking.....	41
Section L: Telephones.....	42
Section M: Water Fountains.....	43
Notes	44
Scoring Instructions	45
Calculating Raw Score.....	45
Scoring Examples.....	46
Converting the Raw Scores into Scale Scores.....	48
Ancillary Scales.....	48
List of Tables	49
Project Staff	60
Information Resources	62
Equipment Resources	64
Select References on Accessibility, Disability, and Physical Activity	65

ACKNOWLEDGMENTS

The development of the AIMFREE instruments is the result of a three-year research project funded by the Centers for Disease Control and Prevention. This research endeavor was made possible by the contributions of a number of individuals from the disability, fitness, and recreation communities.

First, several professionals served as gold-trained raters during the validation of the AIMFREE instruments. They were responsible for identifying facilities to serve as test sites, conducting facility assessments, and meeting participants with disabilities at facilities to assist them in making their own accessibility assessments. Validation of the AIMFREE instruments would not have been possible without their expertise and tireless efforts. The gold-trained raters are listed below:

Maya Chakar

Boston YMCA, Boston, MA

Connie Bruner-Todt

Sunnyview Hospital and Rehabilitation Center
Schenectady, NY

Tiffany Drach

Disabled Sports USA, Rockville, MD

Suzanne Sheppard

Shepherd Center, Atlanta, GA

Eric M. Nelson

Advocate Fitness, Chicago, IL

Caprice Lynn Dodson

Houston Community College, Houston, TX

Terry Long

Northwest Missouri State University, Kansas City, MO

Linda Galambos

Everyone Included, Broomfield, CO

Rebecca Blackwell-Evans

Rocky Mountain Fitness, Boise, ID

Second, members of the AIMFREE Expert Panel were responsible for reviewing and providing important feedback concerning the content of the instrument and the clarity of the instruments' items. Members of the Expert Panel include:

Steve Figoni, Ph.D.

VA Palo Alto Health Care System
Spinal Cord Injury Research Center
Palo Alto, CA

Lauren Howard

Disability Consultant
Augusta, GA

June Isaacson-Kailes

Disability Policy Consultant
Playa del Rey, CA

Luke E. Kelly, Ph.D.

University of Virginia
Charlottesville, VA

John N. McGovern, J.D.

Northern Suburban Special Recreation Association
Northbrook, IL

Gary Robb

National Center on Accessibility
Bloomington, IN

INTRODUCTION

What is AIMFREE?

Project AIMFREE (**A**ccessibility **I**nstruments **M**easuring **F**itness and **R**ecreation **E**nvironments) was a 3-year research project funded by the Centers for Disease Control and Prevention. The purpose of the project was to develop and validate a series of questionnaire measures that could be used by persons with mobility limitations and professionals (i.e., fitness and recreation center staff, owners of fitness centers, park district managers) to assess the accessibility of recreation and fitness facilities, including fitness centers, parks, swimming pools, and trails.

How Does AIMFREE Fit with the U.S. Access Board Guidelines?

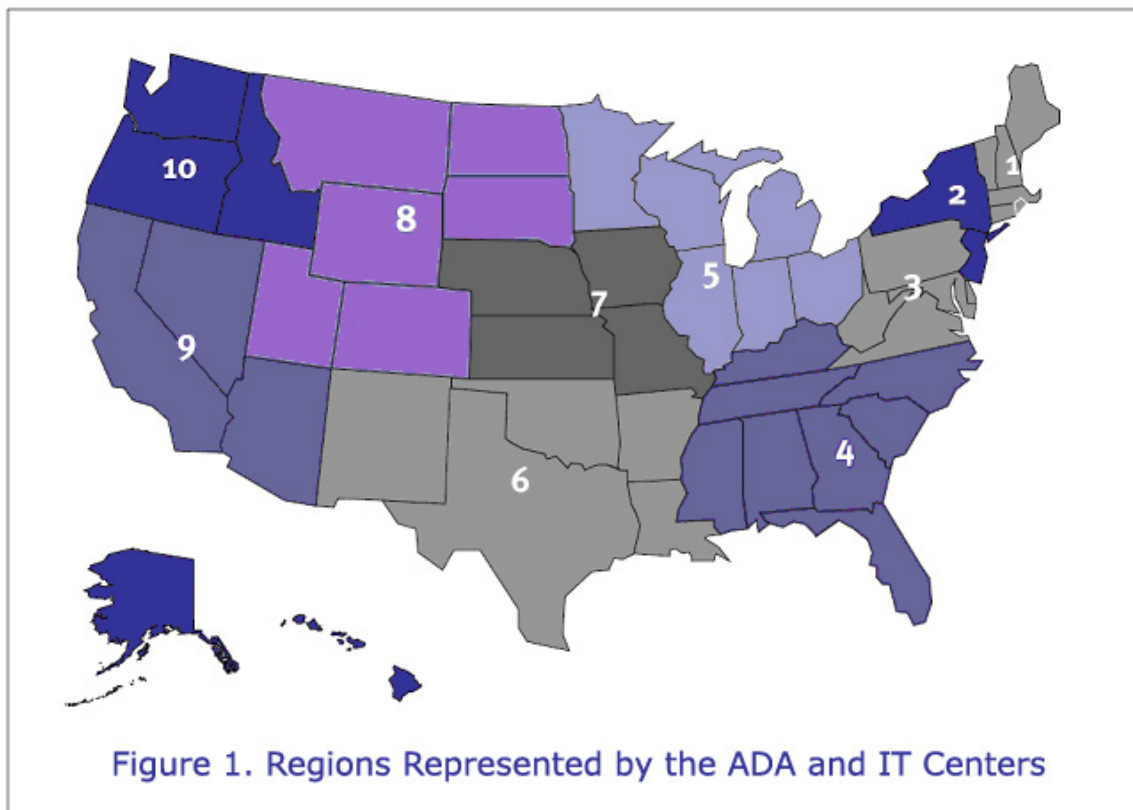
As a result of the strong need to increase accessibility of fitness and recreation facilities for people with disabilities, the U.S. Architectural and Transportation Barriers Compliance Board (known as the U.S. Access Board), an independent federal agency whose primary mission is to promote accessibility for individuals with disabilities, has approved guidelines in 2002 for fitness and recreation facilities. The chapter includes guidelines for amusement rides, boating facilities, fishing piers and platforms, golf courses and miniature golf, sports facilities (i.e., fitness centers), and swimming pools. While guidelines are a good starting point for addressing environmental barriers to participation, they only focus on one dimension of a facility's accessibility — the built environment. There are a host of other factors that affect successful participation that must be evaluated collectively to determine a facility's accessibility. The AIMFREE instruments have integrated the Access Board guidelines for assessing the built environment with six other factors that should be used to collectively assess accessibility at the intersection of the person and the environment. They are:

1. Equipment
2. Information
3. Programs
4. Policies
5. Professional Behavior
6. Professional Support and Training



Who Participated?

Project AIMFREE involved extensive participation and input by persons with disabilities as well as professionals in the areas of architecture, fitness and recreation, city planning, and park district management. Persons with disabilities participated in focus groups that conducted and coordinated through a network of 10 regional ADA and Technical Assistance Centers for the Americans with Disabilities distributed geographically across the United States (see Figure 1).





In addition to persons with disabilities, focus groups comprising architects, facility designers, fitness professionals, and park district planners were held to ensure national and regional representation as well as representation of disability, business, and local government interests, all of which are crucial to the development of valid and reliable measures.

A final validation component was the use of the AIMFREE instrument by professionals and people with disabilities through site visits to various fitness and recreation centers across the country. During these site visits, persons with disabilities were given the opportunity to access various recreation and fitness facilities, including the use of exercise equipment, participation in fitness and recreation programs, and interaction with fitness/recreation staff members. The site visits led to the development of normative information (see Tables A-J, Scoring Section).

It is our hope that the development and application of these measures will eventually guide efforts to increase the accessibility of fitness and recreation facilities for all individuals, and will allow greater participation of persons with disabilities in the areas of health promotion and recreation.

SURVEY NOTES

The Fitness Center Survey was designed to assess the accessibility of fitness centers and areas leading to and around the facility. The instrument was developed and validated primarily to assess Fitness Centers located in public facilities. Whereas many if not all of the items in this instrument can be applicable to all Fitness Centers, some caution should be taken in interpreting scores from this instrument when assessing the facility.

GLOSSARY

This glossary is designed to assist you in answering some of the questions in this survey. Several of the terms come from the ADA U.S. Access Board guidelines. Note that terms listed in this glossary are indicated with an asterisk (*) in the instrument to allow you to refer back to this glossary for an explanation of the term.

Access Route

A path or sidewalk leading directly to a facility entrance. Access routes can connect the entrance to facility parking, street parking adjacent to the facility, or a street sidewalk adjacent to the facility.

Clear Space

Unobstructed area of the floor or ground.

Clear Width

The unobstructed width of an area, entrance, or other physical feature of the facility. For **doors**, the clear width is the width of the door when open, including doorjamb, frame, hinges, and the part of the door (usually its thickness) that protrudes into the doorway. Essentially, it is the width of the passable area of the door. For **double doors**, the definition of clear width for doors applies, with the exception that only one of the double doors is measured. For **parking spaces**, the clear width is the width of the space within (not including) the lines or stripes that demarcate the space (see Figure 2). For **routes**, including access routes, aisles and corridors, it is the width of the passable, unobstructed portion of the route.

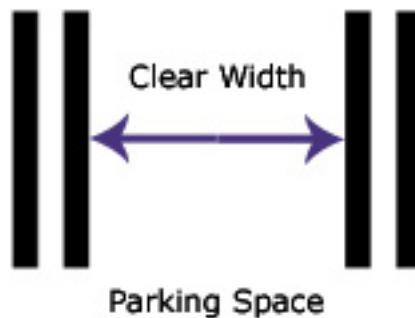


Figure 2. Clear Width

Detectable Warning Texture

An area consisting of raised, truncated domes, presented in a color that contrasts with the surrounding area, which are used to mark the location of curbs and pool edges.

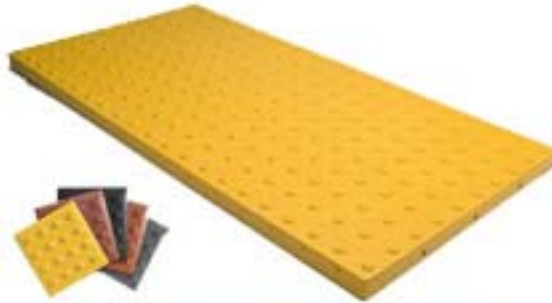


Figure 3. Detectable Warning Texture

Holding Gloves/Wrist Cuffs

A modality used to stabilize the hand and handgrip when using exercise equipment, particularly weights or weight machines.

Ledge

A projection or ridge that immediately surrounds a swimming pool that swimmers can hold onto for balance or use to transfer out of the pool.

Low MPH Treadmill

A treadmill that allows the user to walk at a rate of less than 1 mile per hour (MPH).

Pool Lift Hoist

Equipment operating above the pool deck that uses an independent power source to lower and raise people into the water. Individuals transfer onto the lift seat from their wheelchairs located on the pool deck.

Power Assist

A semi-automatic means of opening a door. When an individual pulls or pushes slightly on a power-assist door, a mechanism attached to the door will swing the door fully open, eliminating the need for additional manual force by the individual.

Ramp Landing

A level area or platform located at either end of a wheelchair ramp. Ramp landings should be at least as wide as the ramp itself and have sufficient length to accommodate a wheelchair.

Signage

Signs that provide identification, direction, warning, or announcements related to the facility and its programs. Unlike advertisements and posters, the purpose of signage is strictly to provide information.

Slip-Resistant

The determination of slip resistance is admittedly subjective and complex. The ADA guidelines generally recommend that surfaces should be hard, stable, and regular. Surfaces that are wet or highly polished should be avoided.

Standing Frame

A metal frame that is designed to hold a person who is paralyzed or unable to stand on his or her own.

Tactile Maps

Maps in which areas and routes are indicated by raised lines and surfaces, helping individuals with visual impairments orient themselves to the facility.

Therapeutic Pool

A pool designed for rehabilitative or warm-water exercise, with water temperatures higher than standard pools.

Three-Dimensional Maps

See Tactile Maps.

Transfer Steps

Steps that a person using a wheelchair or similar mobility device can transfer onto and use to enter a swimming pool. The top step is at a height similar to that of a wheelchair seat, allowing for easy transfer from wheelchair to steps. The steps usually have a handrail on one or both sides, allowing the individual to use his or her arms to descent into the pool.

Transfer Wall

A transfer wall serves the same purpose as transfer steps. The height of the wall is similar to that of a wheelchair seat, allowing an individual who uses a wheelchair to easily transfer to the wall from which the individual can descent into the pool.

Tread Width

The tread is the horizontal portion of a step on which the foot rests. The tread width of a step is the distance from the step riser (the vertical part of the step/stairway) to the leading edge of the tread. In Figure 4, the arrowed line represents the tread width.

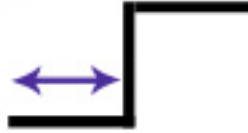


Figure 4. Tread Width

DEMOGRAPHICS

Name of Evaluator

Date of Evaluation

Name of Facility

City

State

Area (check one)

Urban

Suburban

Rural

**Type of Facility
(check of all that apply)**

For-Profit

Non-Profit

Fitness Center/Health Club

Park District/Community Center

Rehabilitation Facility

Hospital Facility

University/College

Other_____

DIRECTIONS

Please read each of the following questions carefully. Circle the number to the right of the question that best reflects your answer. Please note that words marked with an asterisk (*) are listed in the Glossary of Terms. Feel free to write comments in the margins, or use the notes page provided at the end of the survey.

This survey is divided into several sections, with each section covering a specific area of the facility. You may use this survey in one of two ways: (1) by completing all sections of the survey, or (2) by completing one or a group of sections separately. In the first case, you will want to familiarize yourself with the sections of the survey by reviewing the Table of Contents, as the order in which you visit various areas of the facility may not correspond with the order of the sections in this survey.

When conducting a comprehensive assessment of a facility, it is probably best to start with the facility's access routes and entrance area. Whenever possible, it is recommended that you request a tour of the facility by a staff member, who can help orient you to the facility. This will also allow you to ask facility staff questions about the facility's programs and policies, and/or to observe interactions between you and facility staff (see Professional Behavior section).

Completing this survey, in whole or in part, will require you to "try out" various features of the facility. When assessing a locker room, for instance, enter the locker room, open and close locker doors, maneuver around benches and into shower stalls, access a private changing area, etc. In the bathroom, enter a bathroom stall, turn water faucets on and off, and access the paper towel dispenser. Try different equipment, such as weight machines in an exercise room or a pool lift by the swimming pool, to help you answer the questions in the survey.

Section A: Access Routes* and Entrance Areas

	Yes	No	N/A
Access Routes and Walkways			
1. Does a clear path of travel lead from the parking lot to the facility?	1	2	3
2. Does a clear path of travel lead from the street sidewalk to the facility?	1	2	3
3. Does a clear path of travel lead from the street to the facility?	1	2	3
4. Are access routes*, particularly those marked as accessible, free from obstacles?	1	2	3
5. Is a ramp required for access to the facility?	1	2	3
6. Do access routes* include steps? If no or not applicable, score 5 points and go to question 8.	1	2	3
7. Do access routes* include pedestrian ramps? If no or not applicable, go to question 8.	1	2	3
a) Are pedestrian ramps made of a non-slip material?	1	2	3
b) Are pedestrian ramps made of a stable surface?	1	2	3
c) Are handrails on ramps sturdy?	1	2	3
d) Are pedestrian ramps constructed at the lowest possible slope?	1	2	3
e) Are the tops of ramps flush with the surface level?	1	2	3

Section A: Access Routes* and Entrance Areas

	Yes	No	N/A
8. Is there at least one accessible entrance to the facility?	1	2	3
9. Do you feel that the main entrance is accessible to you?	1	2	3
10. Do the main entrance doors open automatically?	1	2	3
11. If the main entrance to the facility consists of a series of doors, can you easily maneuver through them?	1	2	3
12. Are there accessible facility entrances that are connected to an accessible route*?	1	2	3
13. Do you feel that the doors throughout the facility are easy to get through?	1	2	3
14. Do you think that someone who has difficulty grasping, pinching, or twisting door handles can open the doors within the facility?	1	2	3
15. Are edges of carpets or mats, commonly used at facility entrances, fastened to the floor?	1	2	3
16. Is the lighting level in the facility adequate for you?	1	2	3
17. If there are changes in elevation that require steps, is there a marked alternate route with a ramp?	1	2	3

Section A: Access Routes* and Entrance Areas

	Yes	No	N/A
18. Are public areas of the facility accessible to individuals using wheelchairs?	1	2	3
19. Using your best judgment, are corridors wide enough for two individuals using wheelchairs to pass?	1	2	3
20. Are emergency exits accessible to individuals using a wheelchair?	1	2	3

21. Using the scale below, how do you feel about the general accessibility of the facility's access routes and entrance?
Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

Section B: Locker Rooms and Showers

Locker Rooms

	Yes	No	N/A
1. Does the facility have a locker room? If no or not applicable, go to question 3.	1	2	3
2. Were you able to get to and enter the locker room? If no or not applicable, go to question 3.	1	2	3
a) Is the locker room floor slip-resistant*?	1	2	3
b) Is there an accessible route of travel between the locker room entrance and accessible lockers?	1	2	3
c) Are lockers easy to access?	1	2	3
d) Can locker doors be opened easily with one hand?	1	2	3
e) Are there lockers that can be reached and opened from a seated position?	1	2	3
f) Is there enough space around locker room benches for wheelchair access to them?	1	2	3
g) Is there an accessible scale for weighing a person seated in a wheelchair?	1	2	3
h) Does the locker room have private changing rooms?	1	2	3
i) Is there a family or accessible changing room available to you?	1	2	3

Section B: Locker Rooms and Showers

Showers

	Yes	No	N/A
3. Does the facility have showers? If no or not applicable, go to question 5.	1	2	3
4. Were you able to get to the shower area? If no or not applicable, go to question 5.	1	2	3
a) Does the facility have private shower stalls?	1	2	3
b) Are shower stall entrances wide enough for wheelchair access?	1	2	3
c) Is there at least one shower stall where an individual using a wheelchair can roll into the shower?	1	2	3
d) Is the shower spray unit easy to reach?	1	2	3
e) Can the shower spray unit be reached from a seated position?	1	2	3
f) Can the shower spray unit be used as a handheld unit?	1	2	3
g) Can the shower spray unit be used as a fixed showerhead?	1	2	3
h) Can shower water temperature be adjusted prior to getting into the shower?	1	2	3
i) Does the shower have grab bars?	1	2	3
j) Are there grab bars on the wall opposite the showerhead?	1	2	3
k) Is a fold seat or free shower bench available?	1	2	3
l) Are the shower controls operable with one closed fist?	1	2	3

Section B: Locker Rooms and Showers

5. Using the scale below, how do you feel about the general accessibility of the facility's locker rooms and showers? Check the appropriate number:

Not at all accessible ←————→ Completely accessible						
1	2	3	4	5	6	7

Section C: Hot Tubs, Whirlpools, Saunas, Steam Rooms

Hot Tubs and Whirlpools

	Yes	No	N/A
1. Does the facility have a hot tub or whirlpool? If no or not applicable, go to question 4.	1	2	3
2. Were you able to get to the hot tub or whirlpool? If no or not applicable, go to question 3.	1	2	3
a) Is there a wheelchair-accessible means of getting into the hot tub or whirlpool?	1	2	3
b) Can the water temperature of the hot tub or whirlpool be adjusted from within the unit?	1	2	3
c) Are temperature and water controls operable with a closed fist?	1	2	3
d) Is a thermometer measuring water temperature visible from within the unit?	1	2	3

3. Using the scale below, how do you feel about the general accessibility of the facility's hot tub/whirlpool? Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

Section C: Hot Tubs, Whirlpools, Saunas, Steam Rooms

Saunas and steam rooms

	Yes	No	N/A
4. Does the facility have a sauna or steam room? If no or not applicable, go to section D.	1	2	3
5. Were you able to get to the sauna or steam room? If no or not applicable, go to question 6.	1	2	3
a) Is there a wheelchair-accessible means of getting into the sauna or steam room?	1	2	3
b) Does the sauna or steam room have adequate maneuvering space for a wheelchair?	1	2	3
c) Does the sauna or steam room have at least one accessible means of entry/exit?	1	2	3
d) Is a transfer board available in the sauna or steam room?	1	2	3
e) Is there a place to park a wheelchair so it doesn't become hot?	1	2	3
f) Is there an emergency button in the sauna/steam room that you can reach?	1	2	3

6. Using the scale below, how do you feel about the general accessibility of the facility's sauna/steam room? Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

Section D: Equipment

	Yes	No	N/A
1. Were you able to get to the exercise equipment area? If no or not applicable, go to Section E.	1	2	3
a) If exercise equipment is arranged in rows, is there a wheelchair-accessible route between and around all rows of exercise equipment?	1	2	3
b) Are the routes to exercise equipment free of permanent obstacles?	1	2	3
c) Are the routes to exercise equipment free of temporary obstacles?	1	2	3
d) Is there exercise equipment that can be used while in a wheelchair?	1	2	3
e) Does any of the equipment have a swivel chair, facilitating transfers on and off of the machine?	1	2	3
f) Do handles or handgrips get in the way of transferring onto exercise equipment?	1	2	3
g) Do you feel that it would be easy for you to transfer on and off exercise equipment in the facility?	1	2	3
h) Can you change machine settings, such as weight settings, without having to transfer off of the machine?	1	2	3
i) Do seated exercise machines provide back support?	1	2	3
j) Are seats on exercise equipment well padded?	1	2	3


Section D: Equipment

	Yes	No	N/A
k) If the facility has stationary bicycles, stair-steppers, or other pedaled devices, is there a way to keep feet attached to the pedals?	1	2	3
l) If the facility has stationary bikes, can the seat height of this equipment be adjusted easily?	1	2	3
m) Are alternative formats used for descriptions of buttons and controls on exercise equipment? (Indicate specific alternative formats below). If no or not applicable, please go to question 1N.	1	2	3
i) Braille	1	2	3
ii) Large print	1	2	3
iii) Raised lettering	1	2	3
iv) Pictograms	1	2	3
v) Audio	1	2	3
vi) Other Please specify: _____	1	2	3
n) Are buttons and displays on exercise equipment, such as treadmills, stairsteppers, or exercise bicycles easy to read?	1	2	3
o) Are buttons on exercise equipment raised from the panel surface?	1	2	3
p) Does any exercise equipment provide audible cues, such as beeps?	1	2	3
EXAMPLE: CUES TO INDICATE CHANGES IN SPEED OR ELEVATION ON A TREADMILL			

Section D: Equipment


	Yes	No	N/A
2. Do you feel that the following components of a piece of exercise equipment can be reached without much difficulty?			
a) Grab bars	1	2	3
b) Grips	1	2	3
c) Controls	1	2	3

3. Using the scale below, how do you feel about the general accessibility of the facility's equipment? Check the appropriate number:

Not at all accessible								Completely accessible						
1		2	3	4	5	6	7							

Section E: Information And Signage*

Signage

	Yes	No	N/A
1. Is the information posted on marquees or bulletin boards available in alternative formats? (Indicate specific alternative formats below.) If no or not applicable, please go to question 2.	1	2	3
a) Braille	1	2	3
b) Large print	1	2	3
c) Raised lettering	1	2	3
d) Pictograms	1	2	3
e) Audio	1	2	3
f) Other Please specify: _____	1	2	3
2. Do signs directing individuals to various areas of the facility use pictograms or images that visually represent these areas?	1	2	3
EXAMPLE:			
			
3. Is signage* provided in order to distinguish accessible areas of facilities from non-accessible areas?	1	2	3
4. Is the text used for signs in all capital letters EXAMPLE: MEN instead of Men or men	1	2	3
5. Is the text used for signs in a sans-serif font?	1	2	3
EXAMPLE: Serif: TCP Sans Serif: TCP			

Section E: Information And Signage*

	Yes	No	N/A
6. When directional graphics are used to provide emergency information, do these signs have raised characters or symbols?	1	2	3
7. Do signs directing individuals to various areas in the facility employ standard pictograms that visually illustrate these areas? EXAMPLE: MALE SILHOUETTE FOR MEN'S ROOM, BASKETBALL NET FOR BASKETBALL COURT.	1	2	3
8. Are signs printed with light-color characters on a dark background?	1	2	3
9. Do televisions and other multimedia have open/closed captioning?	1	2	3

Information

10. Are brochures and other literature pertaining to the facility available? EXAMPLE: LOCATE AT THE FRONT DESK OR INFORMATION CENTER OF THE FACILITY. If no or not applicable, go to question 11.	1	2	3
a) Do published materials that feature images of persons using the facility include images of persons with disabilities?	1	2	3
b) Does the language used in brochures and other literature indicate that individuals with disabilities are welcome to use the facility and participate in facility programs?	1	2	3

Section E: Information And Signage*

	Yes	No	N/A
c) Does language in program brochures indicate that the facility complies with the Americans with Disabilities Act standards as they pertain to the fitness facility and its programs?	1	2	3
d) Do brochures describe the accessible features of the facility?	1	2	3
e) Are brochures and other facility literature available in alternative formats upon request? (Indicate specific alternative formats below) If no or not applicable, please go to question 11.	1	2	3
i) Braille	1	2	3
ii) Large print	1	2	3
iii) Raised lettering	1	2	3
iv) Pictograms	1	2	3
v) Audio	1	2	3
vi) Other Please specify: _____	1	2	3
f) If alternative formats are available, do you feel that they made it easier for you to understand information better than the standard format?	1	2	3

11. Using the scale below, how do you feel about the general accessibility of the facility's information? Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

Section F: Elevators

	Yes	No	N/A
1. Does the facility have elevators? If no or not applicable, go to section G.	1	2	3
2. Were you able to get to the elevators? If no or not applicable, go to question 3.	1	2	3
a) Are passenger elevators located on an accessible path of travel?	1	2	3
b) Do you feel that elevator doors are wide enough for wheelchair access?	1	2	3
c) Can elevator buttons be reached from a seated position?	1	2	3
d) Are control buttons in elevators designated by raised characters?	1	2	3
e) Are control buttons in elevators designated by Braille?	1	2	3
f) Are floor buttons provided with visual indicators to show when each call is registered?	1	2	3
g) Are raised designations for control buttons placed immediately to the left of the button to which they apply?	1	2	3
h) Do elevators have audible signals on each floor to indicate which elevator car is approaching?	1	2	3
i) Do elevators have visual signals on each floor to indicate the direction of travel of each elevator car?	1	2	3
j) When the elevator door is open, is the elevator floor flush with the building floor?	1	2	3

Section F: Elevators

	Yes	No	N/A
k) When elevator doors are closing, do the doors reopen when someone crosses the elevator threshold?	1	2	3

3. Using the scale below, how do you feel about the general accessibility of the facility's elevator? Check the appropriate number:

Not at all accessible ←————→ Completely accessible						
1	2	3	4	5	6	7

Section G: Bathrooms

	Yes	No	N/A
1. Were you able to get to and enter the bathroom? If no or not applicable, go to Section H.	1	2	3
a) Are doors to the bathroom wide enough for wheelchair access?	1	2	3
b) Is there an unobstructed wheelchair turning space in the restroom (with no door swinging in this space)?	1	2	3
c) Is the bathroom floor slippery?	1	2	3
d) Do toilet stall doors swing towards the area outside of the stall?	1	2	3
e) Are grab bars installed within each stall?	1	2	3
f) Is a grab bar mounted on the wall behind the toilet?	1	2	3
g) Are grab bars mounted on each wall to the left and right of the toilet?	1	2	3
h) Are grab bars easy to grasp for support?	1	2	3
i) Are grab bars on the sidewalls reachable?	1	2	3
j) Is there at least one toilet stall that allows a person with a wheelchair to roll into the toilet stall?	1	2	3
k) Does a wheelchair user have adequate maneuvering space within the toilet stall?	1	2	3
l) Is the space around the toilet adequate for wheelchair access?	1	2	3
m) Is the stall door easy to close from within the toilet stall?	1	2	3
n) Are flush controls easy to reach?	1	2	3
o) Are flush controls easy to use?	1	2	3

Section G: Bathrooms

	Yes	No	N/A
p) Are toilet paper dispensers easy to reach?	1	2	3
q) Is there adequate maneuvering space in front of sinks, paper dispensers, and mirrors?	1	2	3
r) Can an individual who uses a wheelchair get close enough to bathroom sinks in order to operate faucets and place hands under the waterspouts?	1	2	3
s) Are soap dispensers easily operable with one hand and/or a closed fist?	1	2	3
t) Are hot water pipes and/or abrasive surfaces below the sink insulated to protect contact?	1	2	3
u) Are towel dispensers and/or hand dryers within reach of an individual who uses a wheelchair?	1	2	3

2. Using the scale below, how do you feel about the general accessibility of the facility's bathrooms? Check the appropriate number:

Not at all accessible							←————→	Completely accessible								
1		2	3	4	5	6	7									

Section H: Programs

Note: This section requires you to ask facility staff the following questions or to observe a facility program.

	Yes	No	N/A
1. If I have a personal assistant, can he or she attend the facility and its programs with me without incurring additional charges?	1	2	3
2. Are service animals allowed in the facility?	1	2	3
3. Can I become a member of the facility?	1	2	3
4. Does the facility offer any adapted programs that might be suitable for me?	1	2	3
5. Are there any adapted sports programs (e.g., softball, wheelchair tennis) available for me?	1	2	3
6. Are there any restrictions for me to participate in an exercise class or program in the facility?	1	2	3
7. Are assistive listening devices available during the classes and programs?	1	2	3
8. Are sign language interpreters available during programs and presentations?	1	2	3
9. Can staff provide me a short introductory tour of the facility, including its accessibility features and where staff can be reached?	1	2	3

Section I: Professional Behavior

N=Never R=Rarely S=Sometimes M=Most of the time

Directions: Using the answer key above, please answer the following items after you have met with staff members working within the facility.

1. Did you feel that staff members were available to assist you?

_____ N _____ R _____ S _____ M

2. Did you feel that staff members were willing to assist you?

_____ N _____ R _____ S _____ M

3. Did you feel that staff member(s) who helped you have good ideas on how to improve your fitness?

_____ N _____ R _____ S _____ M

4. During your evaluation of the facility, did the staff member(s) present instructions and other information in a clear manner?

_____ N _____ R _____ S _____ M

5. Did staff member(s) make eye contact with you when speaking?

_____ N _____ R _____ S _____ M

6. Did staff member(s) ask you if you needed assistance before attempting to help you?

_____ N _____ R _____ S _____ M

7. Did you feel that you received helpful feedback from the facility staff?

_____ N _____ R _____ S _____ M

Section I: Professional Behavior

8. Did you feel that staff member(s) were supportive?

_____ N _____ R _____ S _____ M

9. Did you feel that staff member(s) were encouraging?

_____ N _____ R _____ S _____ M

10. Using the scale below, how do you feel about the professional behavior of staff members? Check the appropriate number:

Not at all professional							Completely professional	
1	2	3	4	5	6	7		

Section J: Swimming Pool

	Yes	No	N/A
1. Were you able to get to the pool area? If no or not applicable, go to section K.	1	2	3
2. Does the facility have sliding doors leading to the swimming pool area? If no or not applicable, go to question 3.	1	2	3
a) Do the doors open automatically?	1	2	3
3. Does the area around the pool provide enough clear (uncluttered, unobstructed) space* for a person using a wheelchair to maneuver around the pool?	1	2	3
4. Does the surface immediately around the pool have a detectible warning texture* so that a person with low vision can detect his or her relationship to the pool edge?	1	2	3
5. Does the pool have a ledge* on which to hold when entering the water?	1	2	3
6. If the pool is divided into multiple use areas (e.g., area to swim laps, diving, shallow area) is there an accessible means of entry into each of these use areas?	1	2	3
7. How many accessible means of entering/exiting the pool are there?			
a. One	1	2	3
b. More than one	1	2	3

Section J: Swimming Pool

	Yes	No	N/A
8. What are these accessible means? (circle yes to all that apply)			
a) pool lift	1	2	3
b) zero depth entry*	1	2	3
c) wet/dry ramp*	1	2	3
Score one point if the answer was yes on a, b and/or c.			
d) moveable floor	1	2	3
e) transfer steps*	1	2	3
f) transfer wall*	1	2	3
g) stairs with handrails	1	2	3
Score one point if the answer was yes on d, e, f and/or g.			
(Two points maximum can be scored for this question)			
9. Is each accessible means of entering/exiting the pool connected to an accessible route*?	1	2	3
10. Are signs indicating changes in pool depth clearly visible from both inside and outside the pool?	1	2	3
11. If the swimming pool has a zero depth entry*, ramps* or other wheelchair accessible means of entering a pool, does the facility provide adaptive equipment, such as aquatic chairs, to facilitate entering and exiting the pool?	1	2	3
12. Are flotation devices available for persons with disabilities in order to maintain their buoyancy in the water (vertically or horizontally)?	1	2	3

Section J: Swimming Pool

	Yes	No	N/A
13. Does the pool have a lift* for entering and exiting the pool? If no or not applicable, go to question 14.	1	2	3
a) Can the pool lift* controls be operated with one hand and without the need for grasping, pinching or twisting of the wrist?	1	2	3
b) Does the pool lift* seat have armrests on both sides?	1	2	3
c) Is there a footrest attached to the pool lift*?	1	2	3
d) Can a person with a disability operate the pool lift* without assistance?	1	2	3
e) Are pool lift* controls accessible from both deck level and water level?	1	2	3

14. Using the scale below, how do you feel about the general accessibility of the facility's pool? Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

Section K: Parking (Ancillary Section)

	Yes	No	N/A
1. Does the facility have its own parking lot or parking area? If no or not applicable, go to Section L.	1	2	3
a) Does the parking lot or structure closest to the facility have spaces that are clearly designated as accessible?	1	2	3
b) Are accessible parking spaces as close as possible to facility entrances?	1	2	3
c) Are accessible parking spaces kept free from obstacles?	1	2	3
d) Are drains and catch basins located outside the path leading from accessible parking spaces to the building entrance?	1	2	3

2. Using the scale below, how do you feel about the general accessibility of the facility's parking area? Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

Section L: Telephones (Ancillary Section)

	Yes	No	N/A
1. Does the facility have public telephones? If no or not applicable, go to section M.	1	2	3
2. Were you able to get to an area where public telephones are located? If no or not applicable, go to question 3.	1	2	3
a) Is there at least one public telephone per floor, or one per bank of telephones, equipped with an amplifying device for individuals with hearing impairments?	1	2	3
b) Are telephones equipped with amplifying devices clearly marked using appropriate signage*?	1	2	3
c) If there is an area with multiple public telephones, is there at least one accessible telephone?	1	2	3
d) Are telephones placed so that individuals using wheelchairs can reach the dial and handset?	1	2	3
e) Does the facility have at least one public Telecommunication Device for the Deaf (TDD) or Touchtone Teletype device (TTY) at the front desk?	1	2	3

3. Using the scale below, how do you feel about the general accessibility of the facility's telephones? Check the appropriate number:

Not at all accessible		←—————→					Completely accessible	
1	2	3	4	5	6	7		

Section M: Water Fountains (Ancillary Section)

	Yes	No	N/A
1. Does the facility have water fountains? If no or not applicable, stop here.	1	2	3
2. Were you able to get to an area where water fountains are located? If no or not applicable, go to question 8.	1	2	3
3. Are the spouts of drinking fountains usable by individuals using wheelchairs?	1	2	3
4. Are water fountain controls on the front of each unit?	1	2	3
5. Are water fountain controls operable with one hand and without the need for tight grasping, pinching, or twisting of the wrist?	1	2	3
6. Are water fountains recessed into the wall or mounted in such a way as to not interfere with access?	1	2	3
7. If more than one water fountain is provided in a particular area, are the fountains of varying heights, serving seated and standing users?	1	2	3

8. Using the scale below, how do you feel about the general accessibility of the facility's water fountains? Check the appropriate number:

Not at all accessible		←————→					Completely accessible	
1	2	3	4	5	6	7		

SCORING INSTRUCTIONS

Calculating the Raw Score

Scored items are items in which one of the three possible response choices (1="Yes", 2="No", 3="Not Applicable") is highlighted (bold text). The bolded response indicates greater accessibility.

To calculate the raw score for each scale, simply count the number of items in which the chosen response corresponds to the bolded response. You may use the scoring sheet provided on the next page to record the raw score for each section of the instrument.

Consider the following two example questions to better understand how to calculate the raw score:

	Yes	No	N/A
1. Do curb cuts have a detectable warning texture*?	1	2	3
2. Is the slope of the flared sides of curb cuts 10% or less (1-inch rise in 10 inches run)?	1	2	3

In the case above, a response of "Yes" to question 1 would add one point to the raw score of the section, while an answer of "No" to question 2 would add one more point. In most cases, the bolded item will be a "Yes" response, but this is not always the case.

Note that not all items in the survey have a bolded response, and therefore are not included in the scoring. Other items may have a unique scoring that gives more than one point for an accessible response. You will find the scoring instructions for these items below the question text in bold.

Also note that in some cases, two or more items may be scored as a single item. These items are shaded with a gray background. Scoring instructions below the shaded items are also provided.

Professional Behavior Scale

Each item in Section I: Professional Behavior is scored on a 1-4 Likert scale ranging from “Never” (1) to “Most of the Time” (4). Questions with an answer of “Never” should be scored as 1 point, “Rarely” as 2 points, “Sometimes” as 3 points and “Most of the time” as 4 points. Add each questions points to the total score for the section.

Combine the Likert score from each of the nine items to produce a raw score. Refer to Table I to convert the raw score to a scale score and standardization sample percentile.

Scoring Examples

Circle the answer that best describes the situation of the facility. For each answer that is circled and highlighted in **bold**, score one point. If the answer circled is not highlighted in bold, score no points. Add up the points scored for a section to find the total score.

Example 1

	Yes	No	N/A
1. Were you able to get to and enter the bathroom? If no or not applicable, go to section E.	1	2	3
a) Are doors to the bathroom wide enough for wheelchair access?	1	2	3
b) Is there an unobstructed turning space in the restroom (with no door swinging in this space)?	1	2	3
c) Is the bathroom floor slippery?	1	2	3
d) Do toilet stall doors swing toward the area outside of the stall?	1	2	3

Score For This Section: 4 Points

Scoring Examples

Example 2

	Yes	No	N/A
29. Are there changes in elevation in the facility that require steps?	1	(2)	3
30. If there are changes in elevation inside the facility that require steps, is there a wheelchair-accessible ramp adjacent to the steps?	(1)	2	3
Score 1 point for a highlighted answer to either 29 or 30.			

Score For This Section: 1 Point

Example 3 (Taken from Section I: Professional Behavior)

3. Was staff available to assist consumers?	___ N ___ R ___ S ___ M
	+ 4 points
4. Was staff willing to assist consumers?	___ N ___ R ___ S ___ M
	+ 3 points

Score For This Section: 7 Points

Once you have calculated the raw score for all of the sections of the instrument, add the individual raw score totals to arrive at a grand total. The grand total will then be used to convert the raw score into a total scale score and associated percentile rank. The percentile rank indicates how accessible the facility is relative to the standardization sample.

Converting the Grand Total Score into a Total Scale Score

Converting the grand total raw score into a scale score and percentile rank is simple. Refer to the tables on the following pages (Tables A-J) to find the scale score and percentile that corresponds to the grand total raw score. The percentile will indicate how the assessed facility compares to facilities in the standardization sample.

Ancillary Scales

The Parking, Telephone and Water Fountain subscales that follow provide ancillary accessibility information. These subscales are not scored; we found that many of the facilities in our study were completely accessible or nearly so according to these measures. Hence, a meaningful scoring system for these subscales could not be created.

List Of Tables

Table A Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Access Routes and Entrance Areas Scale	50
Table B Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Locker Rooms and Showers Scale	51
Table C Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Hot Tubs and Whirlpools Scale	52
Table D Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Equipment Scale	53
Table E Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Information and Signage* Scale	54
Table F Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Elevators Scale	55
Table G Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Bathrooms Scale	56
Table H Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Programs Scale	57
Table I Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Professional Behavior Scale	58
Table J Raw Score to Scale Score Conversion and Standardization Sample Percentiles for the Swimming Pool Scale	59

Table A Raw Score to Scale Score Conversion and Standardization
 Sample Percentiles for the Access Routes and Entrance Areas Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	0	12	51.9	5
1	12.9	0	13	54.2	5
2	21.1	0	14	56.6	8
3	26.3	1	15	59.0	12
4	30.4	1	16	61.6	17
5	33.9	1	17	64.3	23
6	36.9	1	18	67.2	31
7	39.7	1	19	70.5	40
8	42.3	1	20	74.4	54
9	44.8	1	21	79.4	68
10	47.2	2	22	87.3	81
11	49.6	4	23	100.0	94

Table B Raw Score to Scale Score Conversion and Standardization
 Sample Percentiles for the Locker Rooms and Showers Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	0	12	56.1	15
1	16.1	2	13	57.8	17
2	28.9	4	14	59.5	20
3	35.0	4	15	61.4	25
4	39.1	4	16	63.4	34
5	42.3	5	17	65.7	44
6	44.9	6	18	68.4	56
7	47.1	7	19	71.9	71
8	49.2	8	20	76.8	84
9	51.0	8	21	85.1	94
10	52.7	10	22	100.0	99
11	54.4	12			

Table C Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Hot Tubs and Whirlpools Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	13	7	66.2	79
1	15.8	32	8	72.0	88
2	28.9	41	9	77.1	92
3	37.0	46	10	82.5	95
4	44.0	49	11	89.6	97
5	50.9	56	12	100.0	99
6	58.8	68			

Table D Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Equipment Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	0	13	47.8	53
1	10.8	0	14	50.2	63
2	17.9	1	15	52.8	72
3	22.6	1	16	55.5	80
4	26.3	3	17	58.5	86
5	29.3	6	18	61.6	90
6	32.0	10	19	65.0	94
7	34.5	15	20	68.6	98
8	36.7	22	21	72.5	99
9	38.9	27	22	76.8	99
10	41.1	30	23	82.0	100
11	43.3	35	24	89.3	100
12	45.5	43	25	100.0	100

Table E Raw Score to Scale Score Conversion and Standardization
 Sample Percentiles for the Information and Signage* Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	1	13	54.4	80
1	10.8	4	14	56.8	83
2	18.1	8	15	59.2	87
3	23.3	13	16	61.6	91
4	27.7	20	17	64.2	95
5	31.6	28	18	67.0	96
6	35.3	35	19	69.9	98
7	38.5	45	20	73.3	99
8	41.6	54	21	77.3	99
9	44.4	60	22	82.2	99
10	47.1	65	23	89.3	100
11	49.6	72	24	100.0	100
12	52.0	77			

Table F Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Elevators Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	0	6	53.8	8
1	15.2	0	7	61.1	13
2	25.9	0	8	70.1	25
3	33.6	0	9	82.9	48
4	40.4	1	10	100.0	81
5	47.0	4			

Table G Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Bathrooms Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	1	11	50.0	6
1	12.8	1	12	52.6	7
2	20.9	2	13	55.5	8
3	26.2	2	14	58.6	10
4	30.3	3	15	61.9	14
5	33.7	3	16	65.9	24
6	36.8	3	17	70.7	42
7	39.7	4	18	77.0	64
8	42.3	4	19	86.3	85
9	44.9	4	20	100.0	97
10	47.4	5			

Table H Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Programs Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	0	5	59.2	40
1	13.7	1	6	68.6	57
2	24.5	2	7	77.0	74
3	34.7	8	8	86.7	88
4	47.0	22	9	100.0	97

Table I Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Professional Behavior Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
9	0.0	0	23	47.9	12
10	12.0	0	24	50.0	12
11	19.0	1	25	52.1	14
12	23.1	2	26	54.4	17
13	26.2	2	27	56.8	21
14	28.8	3	28	59.4	23
15	31.3	3	29	62.1	24
16	33.5	3	30	65.0	26
17	35.6	3	31	68.1	29
18	37.7	4	32	71.3	36
19	39.8	5	33	75.0	46
20	41.8	6	34	79.8	59
21	43.8	8	35	87.5	75
22	45.8	10	36	100.0	92

Table J Raw Score to Scale Score Conversion and Standardization
Sample Percentiles for the Swimming Pool Scale

Raw Score	Scale Score	Percentile	Raw Score	Scale Score	Percentile
0	0.0	1	9	56.2	61
1	12.9	2	10	60.5	69
2	21.9	8	11	64.8	77
3	28.5	14	12	69.2	85
4	34.3	19	13	74.0	91
5	39	25	14	79.9	96
6	43.5	33	15	87.8	98
7	47.9	42	16	100.0	99
8	52.1	51			

PROJECT STAFF

James H. Rimmer, Ph.D., Principal Investigator, is nationally recognized for his 20 years of research in physical activity, health promotion, and disability. His recent work has focused on reduction of secondary conditions in people with disabilities through increased physical activity. In conjunction with this research, Dr. Rimmer has developed instruments to assess the physical activity patterns of persons with disabilities.

Barth B. Riley, Ph.D., Co-Principal Investigator, is a Research Assistant Professor at the University of Illinois at Chicago and specializes in the area of health promotion for people with disabilities, with an emphasis on the development and validation of health-related outcome measures. Dr. Riley was responsible for the writing of the AIMFREE instrument items and the analysis of the psychometric properties of the instruments.

Craig Velozo, Ph.D., Co-Principal Investigator, is internationally known for his research on measurement in rehabilitation. His current work involves the development of a measurement system for the Activity dimension of the International Classification of Function, Disability and Health. Dr. Velozo has experience in developing items with focus groups and psychometric analysis and interpretation.

Everett V. Smith, Ph.D., Co-Investigator, specializes in Rasch measurement and rating scale design and analysis, and teaches a doctoral-level course covering Rasch measurement. He has extensive experience in the measurement of psychological, educational, and health care outcomes and participates in ongoing grant activities using Rasch measurement to investigate the psychometric properties of dichotomous and rating scale data.

C. Edward Wang, Ph.D., Consultant, is a Research Assistant Professor at the College of Nursing, University of Illinois at Chicago. Dr. Wang is an experienced researcher and methodologist in both cross-sectional and longitudinal research designs.

Amy Rauworth, M.S., RCEP, is the Project Coordinator of AIMFREE and the Associate Director of the Center on Health Promotion Research for Persons with Disabilities (CHP). She is a Registered Clinical Exercise Physiologist with the American College of Sports Medicine. Ms. Rauworth has experience in applied exercise physiology in the areas of orthopedic and cardiac rehabilitation, health promotion for people with disabilities, and corporate wellness.

Robin Jones, M.A., is the Director of the Great Lakes ADA and IT Technical Assistance Center and an Instructor in the Department of Disability and Human Development at the University of Illinois at Chicago. The Great Lakes Center is one of 10 Centers established nationally by the federal government to provide technical assistance regarding the ADA.

INFORMATION RESOURCES

Rehabilitation Engineering Center on Recreation Technology

The Rehabilitation Engineering Research Center on Recreational Technologies (RERC RecTech, www.rerrectech.org) at the University of Illinois-Chicago is a five-year grant funded by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education. The primary mission of the RERC RecTech is to expand new knowledge and research on recreation technology for people with disabilities, and to disseminate technology development through education, training and collaboration with private sectors.

National Center on Physical Activity and Disability (NCPAD)

Founded in 1999, the National Center on Physical Activity and Disability (www.ncpad.org) works to promote health benefits among people with disabilities through increased participation in all types of physical activity. These may include recreational programs, specific sports, exercise techniques, fitness activities, adaptive equipment, and more. NCPAD is a comprehensive electronic information center that offers telephone and online access to a wide range of resources on physical activity and recreation for people with disabilities. NCPAD's online resources on physical activity and disability include downloadable fact sheets, video clips, discussion groups, a calendar of upcoming conferences, events, and meetings, summaries of important research findings, a monthly newsletter, and a searchable database of programs and services available throughout the U.S.

Phone: (800) 900-8086 (voice and TTY)

National Center on Accessibility

The National Center on Accessibility (www.indiana.edu/~nca/)* is a cooperative project between the National Park Service and Indiana University to provide information and technical assistance, primarily on recreation access.

Phone: (812) 856-4422 (voice)
(812) 856-4421 (TTY)

U.S. Access Board

The Access Board (www.access-board.gov/)* is an independent federal agency devoted to accessibility for persons with disabilities. The board provides technical assistance and training on guidelines and standards and develops and maintains accessibility requirements in many areas.

Phone: (800) 872-2253 (voice)
(800) 993-2822 (TTY)

National Recreation and Park Association

NRPA (www.nrpa.org/)* is a national, non-profit service organization dedicated to advancing parks, recreation and environmental efforts that enhance the quality of life for all people.

Phone: (703) 858-0784 (voice)

ADA and IT Technical Assistance Centers

The National Institute on Disability and Rehabilitation Research (NIDRR) has established ten regional centers to provide information, training, and technical assistance to employers, persons with disabilities, and other entities with responsibilities under the ADA. Their website is located at: (www.adata.org)*

Phone: (800) 949-4232 (voice and TTY)

ADA Home Page

The U.S. Department of Justice web site (www.usdoj.gov/crt/ada/adahom1.htm)* provides information resources and technical assistance on ADA regulations and news on updates to the ADA code.

Phone: (800) 514-0301 (voice)
(800) 514-0383 (TTY)

EQUIPMENT RESOURCES

SmartTool™

The SmartTool is an electronic level that can be used to measure both running slopes and cross slopes, which is useful for several items in the professional AIMFREE Instruments.

Manufacturer: M-D Building Products

Phone: (800) 654-8454.

Web: www.mdteam.com

ADA Accessibility Stick

The ADA Accessibility Stick is a tool designed to measure key environmental features mandated by the Americans with Disabilities Act Accessibility Guidelines.

Manufacturer: Access, Inc.

Phone: (785) 841-0321 (voice)

(785) 841-1979 (fax)

REFERENCES

Select References on Accessibility, Disability, and Physical Activity

1. Bullock, C. & Mahon, M. (1995). *Disability awareness: considerations for the exercise leader*. Champaign, IL: Human Kinetics.
2. Devine, M.A. & Kotowski, L. (1999). Inclusive leisure services: Results of a national survey of park and recreation departments. *Journal of Park and Recreation Administration*, 17(4), 56-72.
3. Heath, G. & Fentem, P. (1997). Physical activity among persons with disabilities: A public health perspective. *Exercise and Sports Sciences Reviews*, 25, 195-234.
4. Hoge, G. & Dattilo, J. (December 01, 1995). Recreation participation patterns of adults with and without mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities*, 30(4), 283.
5. National Center on Accessibility, Access Today, Biannual newsletter published since 2001.
6. National Center on Accessibility, Swimming Pool Project, Final Report. Bloomington, IN: National Center on Accessibility.
7. Rimmer, J. & Braddock, D. (1997). *Physical activity, disability and cardiovascular health*. Champaign, IL: Human Kinetics.

- 8.** Rimmer J.H., Riley B., Wang E., Rauworth A., & Jurkowski J. (2004). Physical activity participation among persons with disabilities: barriers and facilitators. *American Journal of Preventive Medicine*, 26, 419-425.
- 9.** Rimmer J.H., Rubin S.S., Braddock D., & Hedman G. (1999). Physical activity patterns of African-American women with physical disabilities. *Medicine & Science in Sports & Exercise*, 31, 613-618.
- 10.** Rimmer J.H., Rubin S.S., & Braddock D. (2000). Barriers to exercise in African American women with physical disabilities. *Archives of Physical Medicine & Rehabilitation*, 81, 182-188.
- 11.** Rimmer J.H. (1999). Health promotion for people with disabilities: the emerging paradigm shift from disability prevention to prevention of secondary conditions. *Physical Therapy*, 79, 495-502.
- 12.** Sands, D.J., & Kozleski, E.B. (1994). Quality of Life Differences Between Adults With and Without Disabilities. *Education and Training in Mental Retardation*, 29, 90-101.
- 13.** U.S. Access Board. Proposed accessibility guidelines for recreation facilities: An overview. Available at: www.access-board.gov/recreation/summary.htm .*
- 14.** U.S. Department of Health and Human Services. Healthy people 2010: Understanding and improving health. Available at: www.healthypeople.gov/Document/HTML/Volume1/titlepg.htm .*

*Websites referenced within this document are current as of March 2006.



ACCESSIBILITY INSTRUMENTS MEASURING
FITNESS AND RECREATION ENVIRONMENTS

FITNESS CENTER AND
SWIMMING POOL ACCESSIBILITY

INSTRUMENT: CONSUMER VERSION

