Shirley Ryan Abilitylab

Promoting Patient-Centered Rehabilitation through Use of Standardized Assessments

The Rehabilitation Measures Database

CARF Standard and a Strength Webinar Series

December 11, 2023

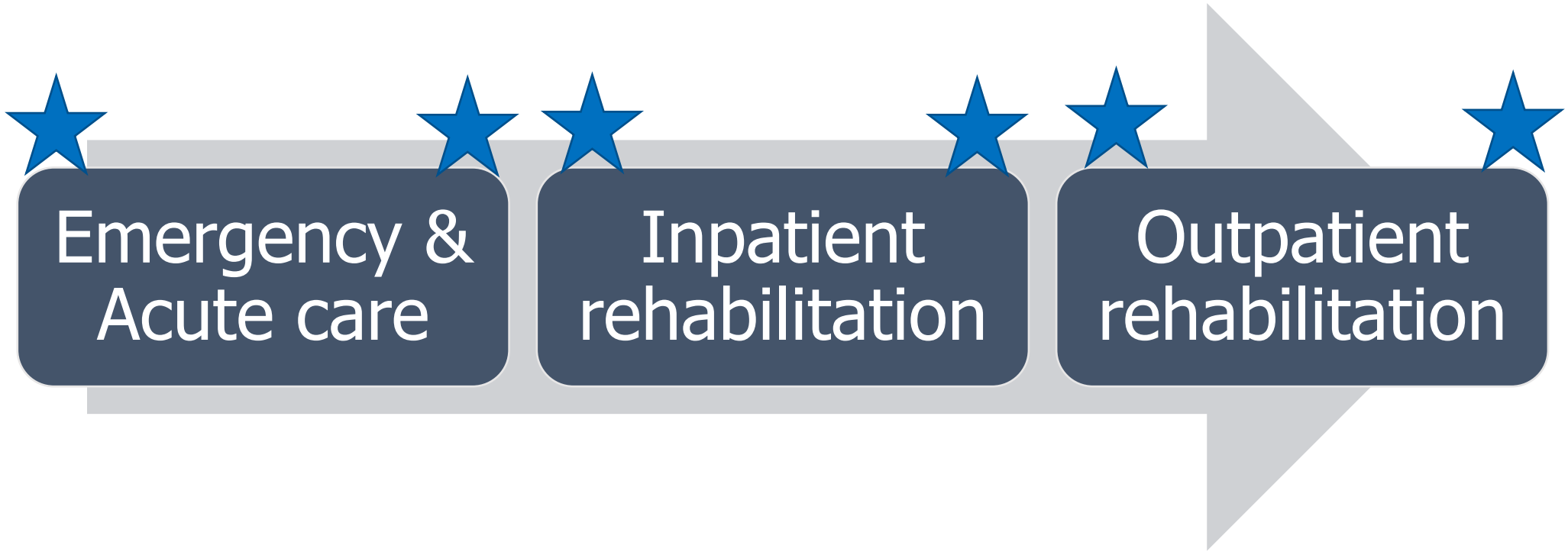
Learning Objectives

1. Identify rehabilitation clinicians' need for information regarding standardized measures
2. Summarize history of Rehabilitation Measures Database development and utilization
3. Describe Rehabilitation Measures Database content and collaboration with external organizations

1. Identify Rehabilitation Clinicians' Need for Information Regarding Standardized Measures

Clinicians use outcome measures at every step of the rehabilitation continuum of care, but most often…

- At **admission:** initial diagnosis, baseline functioning, payor & institutional requirements
- At **discharge:** measure progress, evaluate long-term care plan, qualify for services

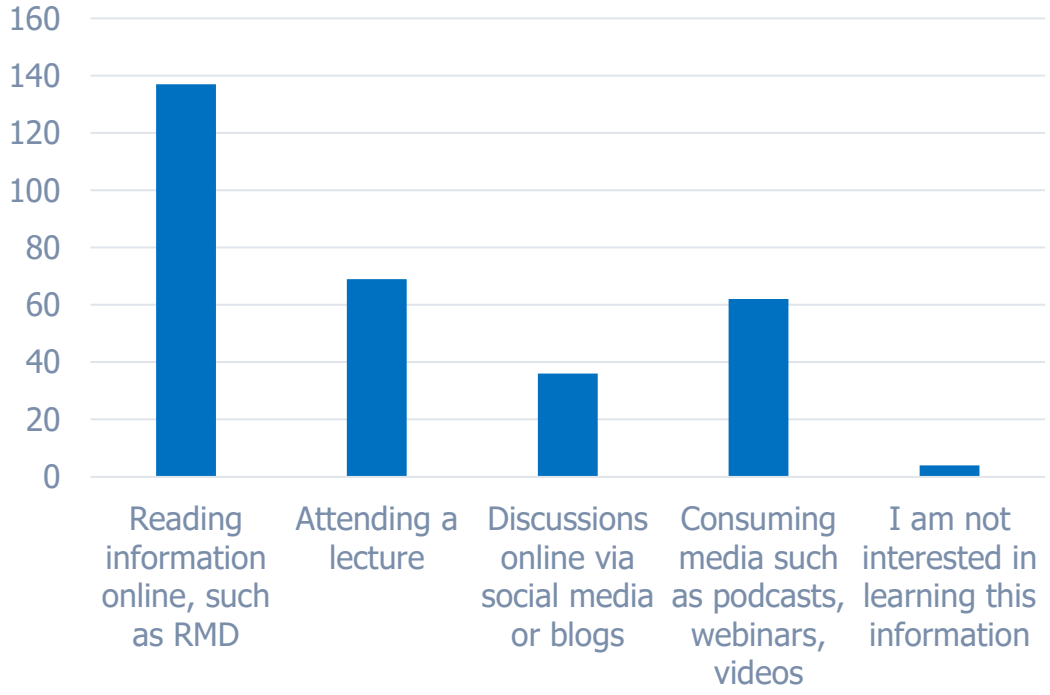


Clinical Decision-Making

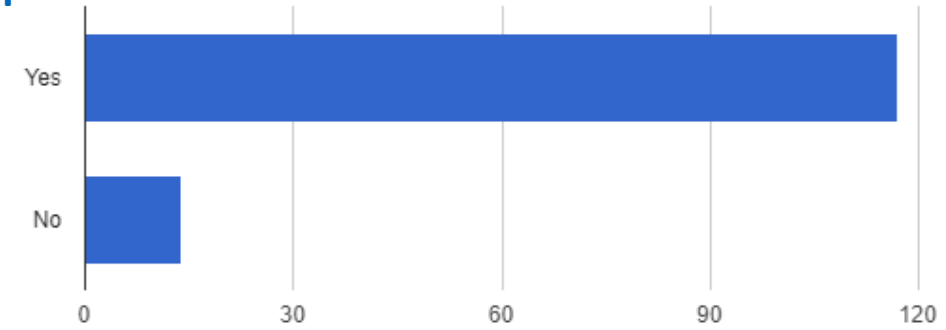
- There are many outcome instruments
- How do clinicians decide which to administer?
  - Funder requirements (CMS, IRF-PAI)
  - Clinical & professional recommendations
  - Psychometric data
  - Organizational requirements
- How do researchers determine which measures are reliable, valid, sensitive, and feasible?

Clinicians' Need for Information on Standardized Assessments – RMD User Survey Results

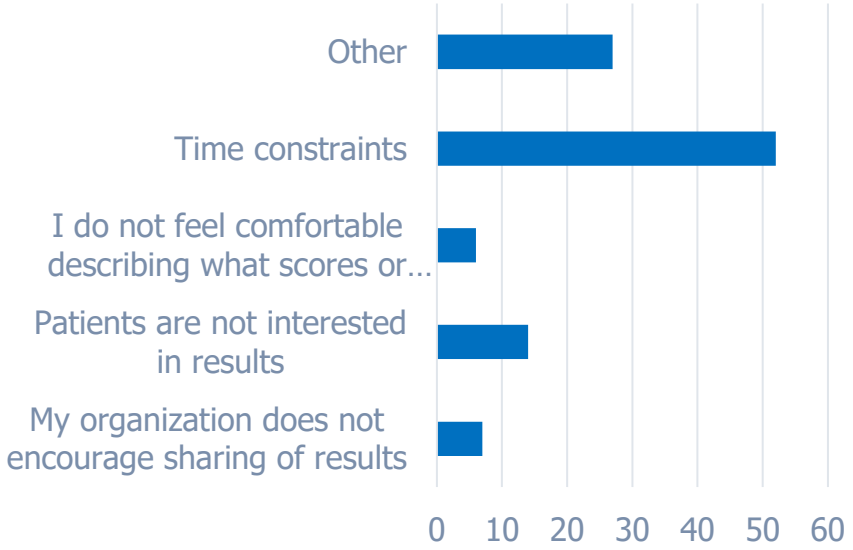
How would you prefer to consume information about standardized assessments?



Clinicians: Do you share results of standard assessments with patients?



What limits your ability to share results with patients?



Types of Standardized Outcome Measures

- Patient-reported measures (self-report)
  - Constructs: Mood, quality of life, experiences
  - Examples: Pain severity ratings, Beck Depression Inventory
- Clinician-observed measures
  - Observable signs, events, behaviors
  - Examples: FIM, IRF-PAI
- Performance measures
  - Constructs: Walking speed, strength, range of motion, dexterity
  - Examples: 10-meter walk test, Berg Balance Test

2. Summarize History of Rehabilitation Measures Database Development and Utilization

2009: National Institute on Disability, Independent Living, and Rehabilitation Research funds a Rehabilitation Research and Training Center on Improving Measurement of Medical Rehabilitation Outcomes

2011: Launch of RMD on a Northwestern University SharePoint server

2011: Retirement Research Foundation funds aging-related content

2014: Paralyzed Veterans of America Education Foundation funds SCI education content

2014: NIDLRR funds an RRTC on Measuring Rehabilitation Outcomes and Effectiveness

2017: SRAlab ELT supports website and staff effort

2018: NIDLRR-funded RRTC on Employment adds vocational rehabilitation content

2020: NIDILRR Disability and Rehabilitation Research Project on Knowledge Translation funds patient-oriented content and infographics

ACRM
AMERICAN CONGRESS OF REHABILITATION MEDICINE

Archives of Physical Medicine and Rehabilitation

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Archives of Physical Medicine and Rehabilitation 2014;95:197-202

SPECIAL COMMUNICATION

Development and Use of a Knowledge Translation Tool: The Rehabilitation Measures Database

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Abstract

Clinical translation of research evidence is a challenge for rehabilitation clinicians. Publicly accessible and free, online educational resources that summarize research evidence can support implementation of research evidence into practice. Several online resources have been developed recently to overcome common knowledge translation barriers. The Rehabilitation Measures Database (RMD) is a free, web-based searchable database of standardized instruments that was designed to support knowledge translation. It helps clinicians select valid and sensitive instruments for screening patients, monitoring progress, and assessing rehabilitation outcomes. The RMD was developed using feedback from focus groups and beta-test participants. Since its launch in 2011, RMD use has grown to an average of 1851 hits per day from 168 countries. As of September 2013, 202 instrument summaries are viewable in the RMD. Most summaries are linked to copies of the instrument or to purchase instructions. A challenge in updating and expanding the RMD is securing the resources to ensure its future. Collaborative relationships with professional associations and graduate programs in the health sciences are critical in sustaining this resource.

Archives of Physical Medicine and Rehabilitation 2014;95:197-202

Although the benefits of using standardized instruments in clinical practice have been described, this practice has not been adopted widely.[1-4] Rehabilitation clinicians want to increase utilization of evidence-based practice[5-8]; therefore, assisting them in overcoming common barriers such as limited time, access to information, and lack of knowledge[7,9,10] can facilitate integration of evidence into clinical practice. Knowledge translation is enhanced when research findings are written in an understandable manner,[11] published in a format that clinicians can access quickly and understand easily,[5] and made freely available online.[5]

As a first step to evidence-based practice, clinicians must learn about and incorporate standardized instruments into practice.[12,13] Standardized instruments can identify areas of impairment, activity limitations, participation restrictions, and environmental factors limiting participation. Measurement throughout an episode of care helps clinicians identify when to refer patients for additional services,[14] whether the treatment plan is working, and when to discharge patients.[15] Sufficient psychometric information is available for many instruments including minimal clinically important differences (MCIDs), SEM, and normative values.[16] Despite the availability of this information, many barriers prevent clinicians from applying it.[7,9,10]

The Rehabilitation Measures Database (RMD; www.rehabmeasures.org) assists clinicians in overcoming common barriers and aims to facilitate widespread utilization of standardized instruments by providing high-quality and concise instrument reviews. The RMD is a free, web-based searchable database of standardized instruments that provides concise descriptions of

An audio podcast accompanies this article. Listen at www.archives-pmr.org.

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No commercial party having a direct financial interest in the results of the research supporting this article has conferred or will confer a benefit on the authors or on any organization with which the authors are associated.

Conclusions

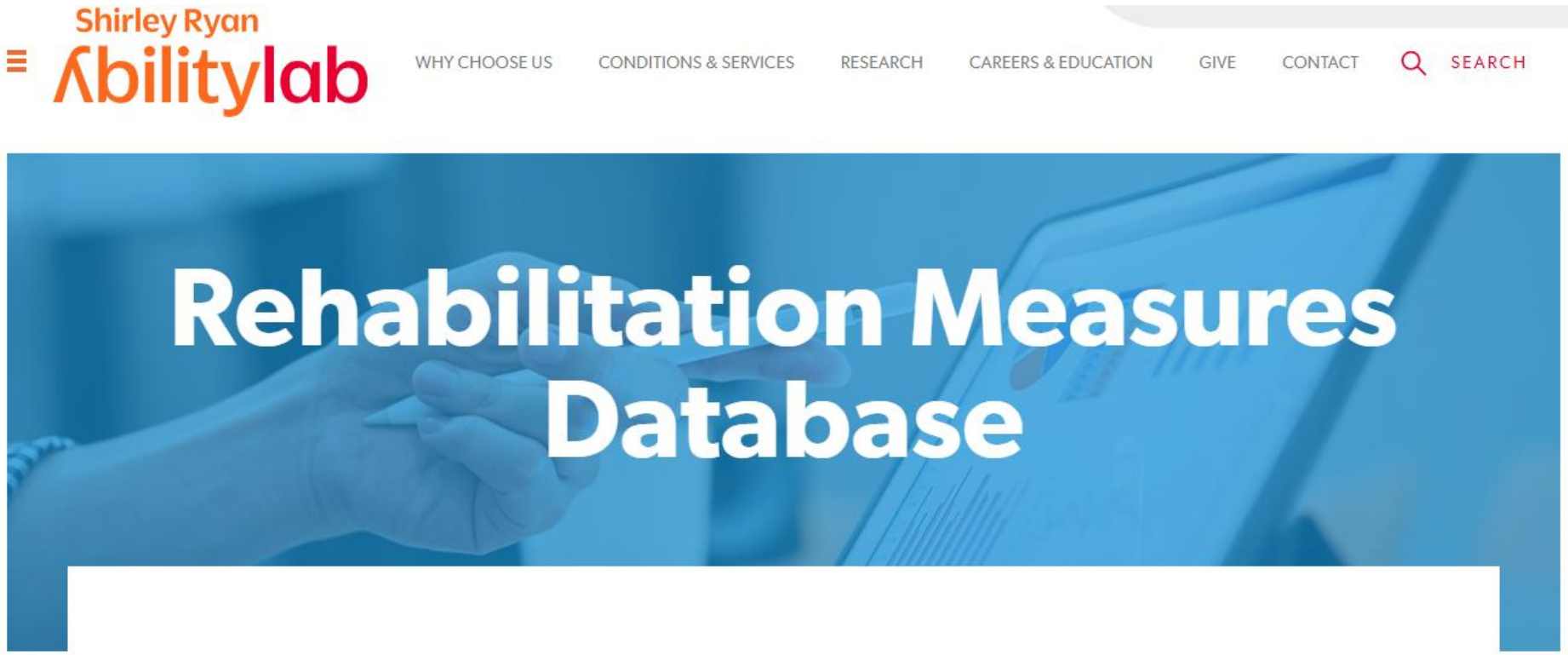
The RMD is a knowledge translation tool for rehabilitation clinicians and students. Its growth reflects our efforts to provide the features requested by it target consumers.[23] The instrument summaries provide information about the psychometric properties and clinical utility that can be printed and modified by users to facilitate evidence-based practice. The increasing number of web hits and user feedback demonstrate that the RMD is used to inform clinicians, researchers, and educators from many countries.

Funders, Supporters, Collaborators

The Rehabilitation Measures Database

- Mission
  - Provide authoritative and clinically-relevant information on rehabilitation-relevant measures
- Content
  - Concise descriptions of measures and summaries of measurement properties
  - 550 measures used by allied therapists, nurses, and physicians who work with disability populations
- Leadership
  - The Center for Rehabilitation Outcomes Research collaborates with universities and volunteers to develop and maintain content

3. Describe Rehabilitation Measures Database Content and Collaboration with External Organizations



Who Uses the Rehabilitation Measures Database?

- **Clinicians**: Select measures for screening patients, monitoring progress, and assessing outcomes
- **Researchers**: Select measures for research studies
- **Students**: Learn about measurement properties and standardized measures by writing, updating summaries, and reviewing summaries
- **Patients**: Learn what their scores mean, how they compare to people with similar conditions, and if score change is clinically meaningful

Graduate Program Collaborators

- Current Collaborators
  - Columbia University (OT)
  - Colorado State University (OT)
  - George Washington University (OT, former RIC scientist)
  - Medical University of South Carolina (PT)
  - New York University (OT, former post doc)
  - Rush University (OT)
  - Philadelphia College of Osteopathic Medicine (PT)
  - Thomas Jefferson University (OT)
  - University of Illinois at Chicago (OT, former post doc)
  - University of Wisconsin Madison (Rehabilitation counseling)
  - University of North Texas (PT)
  - University of Washington (OT, former post doc)
- Past Collaborators
  - Duke University (PT)
  - Illinois Institute of Technology (Rehabilitation counseling)
  - Indiana University (PT)
  - SUNY Buffalo (Rehabilitation counseling)

Volunteer Collaborators Are Critical to the Rehabilitation Measures Database

- SRAlab staff
  - Coordinates reviews, compiles references, and proofreads details
- Volunteers
  - Allied health graduate program faculty and students – write and review summaries
- Updates are contingent on volunteer contributions

Workflow

- SRAlab provides an Author Toolkit with resources and references
- Volunteers write new and update measure summaries
- SRAlab team reviews summaries for accuracy and formatting, then uploads it to the website
- Contributors receive authorship credit on website

Author Toolkit

- For student collaborators
  - Rehabilitation Measures Database overview
  - Measure template and instructions
  - Examples
  - Formatting guidance
  - Strength of statistics guide
  - Statistics calculator
  - NINDS Common Data Elements search instructions
- For faculty collaborators
  - Faculty Rehabilitation Measures Database overview
  - Measure summary grading guide

Infographics

- Goal: Improve patients' and care partners' understanding of standardized assessments
- Available online
  - Timed Up and Go
  - Modified Ashworth Scale
  - Disabilities of the Arm, Shoulder & Hand
  - Berg Balance Scale
  - Dynamic Gait Index
  - Oswestry Disability Index
  - 9-Hole Peg Test
  - Functional Gait Assessment

Berg Balance Scale

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A Test to Measure Balance

What's the purpose?

The Berg Balance Scale measures your ability to balance, which helps your therapist assess your risk of falling. Understanding your risk of falling is important in developing your rehabilitation plan. This test includes 14 balance-related tasks and takes about 20 minutes.

What do I have to do?

- Stand from a sitting position
- Stand without assistance
- Sit without assistance
- Sit down from a standing position
- Transfer from a bed to a chair
- Stand with your eyes closed
- Stand with your feet together
- Reach forward with your arms
- Pick an object up from the floor
- Look behind yourself while standing
- Turn 360 degrees while standing
- Place your foot on a stool while standing
- Stand with one foot in front of the other
- Stand on one foot

Have a conversation with your healthcare provider about what the results mean for you as an individual.

What does my score mean?

The tasks are scored from 0 to 4 based on how much assistance you need. A score of 4 is given if you complete the task without assistance. A lower overall score indicates you are at a higher risk of falling.

0 — *Higher risk of falling*

56 — *Lower risk of falling*

To see a full summary of this instrument and more, visit sralab.org/rehabilitation-measures.
Questions? Email rehabmeasures@sralab.org or call 312.238.2802

The contents of this infographic were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DPKT0007). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this infographic do not necessarily represent the policy of NIDILRR, ACL, or HHS, and you should not assume endorsement by the Federal Government.

Dynamic Gait Index

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Center for Rehabilitation Outcomes Research

A Test to Evaluate Risk of Falling

What's the purpose?

The Dynamic Gait Index evaluates your gait, or how you walk, and your ability to maintain your balance as you walk while performing different tasks. It is most often used to evaluate the risk of falling in older adults. During this test, your therapist will ask you to maintain your balance while you walk and switch from one task to another. The test takes about 15 minutes.

What do I have to do?

- Walk 20 feet at your normal pace
- Walk at your normal pace for five feet, then walk as fast as you can for five feet, then walk slowly for five feet
- Walk at your normal pace while turning your head to the right and to the left
- Walk at your normal pace, then turn around to face the opposite direction and stop
- Walk at your normal pace, step over a shoebox and continue walking
- Walk up a set of stairs. At the top of the stairs, turn and walk down

Have a conversation with your healthcare provider about what the results mean for you as an individual.

What does my score mean?

Each task is scored between 0 and 3, with 0 indicating the lowest level of function and 3 the highest for a total possible score of 24. Lower scores indicate a higher risk of falling.

0 — *Higher risk of falling*

24 — *Lower risk of falling*

To see a full summary of this instrument and more, visit sralab.org/rehabilitation-measures.
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Most Accessed Instrument Summaries

1. 6-Minute Walk Test
2. Timed-Up-and-Go
3. Berg Balance Scale
4. 5X Sit-to-Stand Test
5. 30-Second Sit-to-Stand Test
6. Functional Gait Assessment
7. Dynamic Gait Index
8. 10-Meter Walk Test
9. Mini Balance Evaluation Systems Test
10. Modified Ashworth Scale

Additional Website Content

- Statistical Terms and Use
- Contributors
- Educational Resources
- Additional Resources
- Social Network Community
  - Twitter
  - Facebook
  - LinkedIn

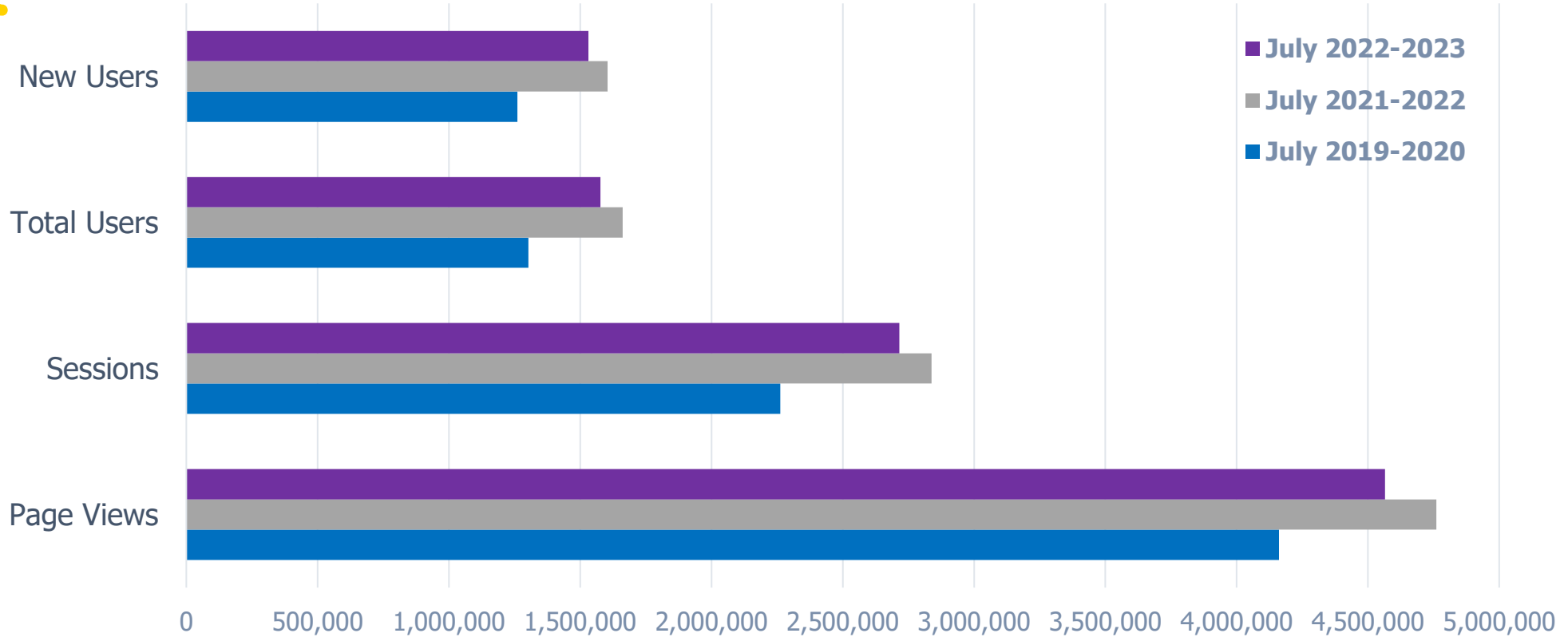
Journal Collaboration

- Archives of Physical Medicine & Rehabilitation
  - Bi-monthly publication of *Measurement Tools*
- Rehabilitation Psychology
- American Journal of Occupational Therapy
- Rehabilitation Nursing Journal

Educational Videos

- Introduction to Measurement in Rehabilitation Practice
- Importance, Selection and Use of Outcome Measures
- Understanding Measurement Properties
- Knowledge Translation Strategies: Implementation of Outcome Measurement Practice for Clinicians and Students
- Outcome Measurement Selection in Individuals with SCI: Application of the SCI EDGE
- SCI-Applying the Principles of Measurement to Care
- MeasureAble: Enhancing Accessible Outcomes
- Measurement for People with Disabilities

Growth in Rehabilitation Measures Database Use



July 2022 through July 2023:

1,576,846 **total** users
1,530,754 **new** users

Source: Google Analytics

Discussion

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