

# One View of the Future of Rehab

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# Where we will go today

Explore the future of rehab:

- From a worldview perspective
- From a rehab infrastructure perspective
- What the future of rehab could look like in our day to day life

# We Were Promised Jetpacks



# Brave New World



# Starting in the Stratosphere



# Then coming in at sea level for a soft landing



# Rehabilitation as an integral part of healthcare around the world

- WHO's first resolution on rehabilitation
- WHO World Rehabilitation Alliance:
  - Workforce
  - Emergencies
  - Primary Care
  - External Relations
  - Research

# Expansion of Rehabilitation into Low and Middle Income Countries

- Establishment of PM&R as a medical specialty
- Coordination and engagement with Ministers of Health in WHO Forums
- Leveraging existing resources and making them well fitted for the needs of each individual country



# Ukraine and Rehabilitation Infrastructure



- 5,000 to 6,000 new Amputees in Ukraine since the war began
- Untold numbers of individuals with blast injuries and undiagnosed concussions



# Information and Communication Technology



# AI in Rehabilitation



# Predictive power of AI

- Disease
- Risk
- Shift to Prehabilitation as major source of referrals as we become aware of strong prognostic and predictive indicators
- Healthcare lags behind other industries (and Rehab lags behind healthcare)

# Window into the future of accreditation

- Integration of health and human services into combined accreditation
- International nature of rehabilitation drives the need for cultural humility
- Consideration of how AI supports analysis and performance improvement



# Rehab Specific Considerations

# Concussion

- 10-15% of those individuals experience multiple symptoms that persist beyond 4 weeks post-injury.
- Still no definitive radiological test that will assist in diagnosis of concussion
- Potential for biomarkers as diagnostic and prognostic tool: Saliva and blood

# Concussion Prevalence and Persisting Symptoms

- These individuals often require the services of more than one clinical discipline
- Profound disparities in health equity and accessibility of services exist among these populations



# Assessment Domains of Concussion Rehabilitation Programs

- Aerobic capacity.
- Auditory.
- Cervical spine function.
- Cognition.
- Communication.
- Educational.
- Headache.
- Mental health.
- Musculoskeletal.
- Neurological.
- Nutrition.
- Oculomotor/vision.
- Sleep.
- Substance use.
- Vestibular.
- Vocational.
- Current participation in life roles.

# Enhancing the lives of individuals with neurodegenerative diseases

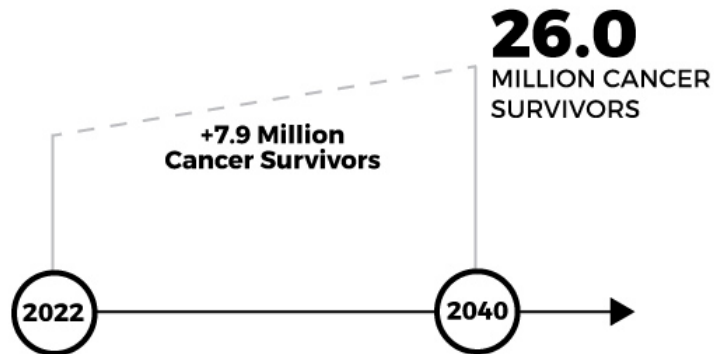
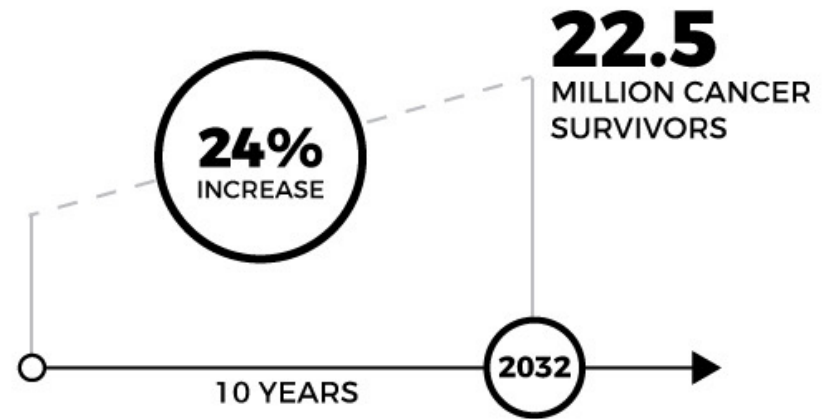
## Parkinson's Disease

- Globally, disability and death due to PD are increasing faster than for any other neurological disorder.
- The prevalence of PD has doubled in the past 25 years.

<https://www.who.int/news-room/fact-sheets/detail/parkinson-disease>

# Cancer Rehab

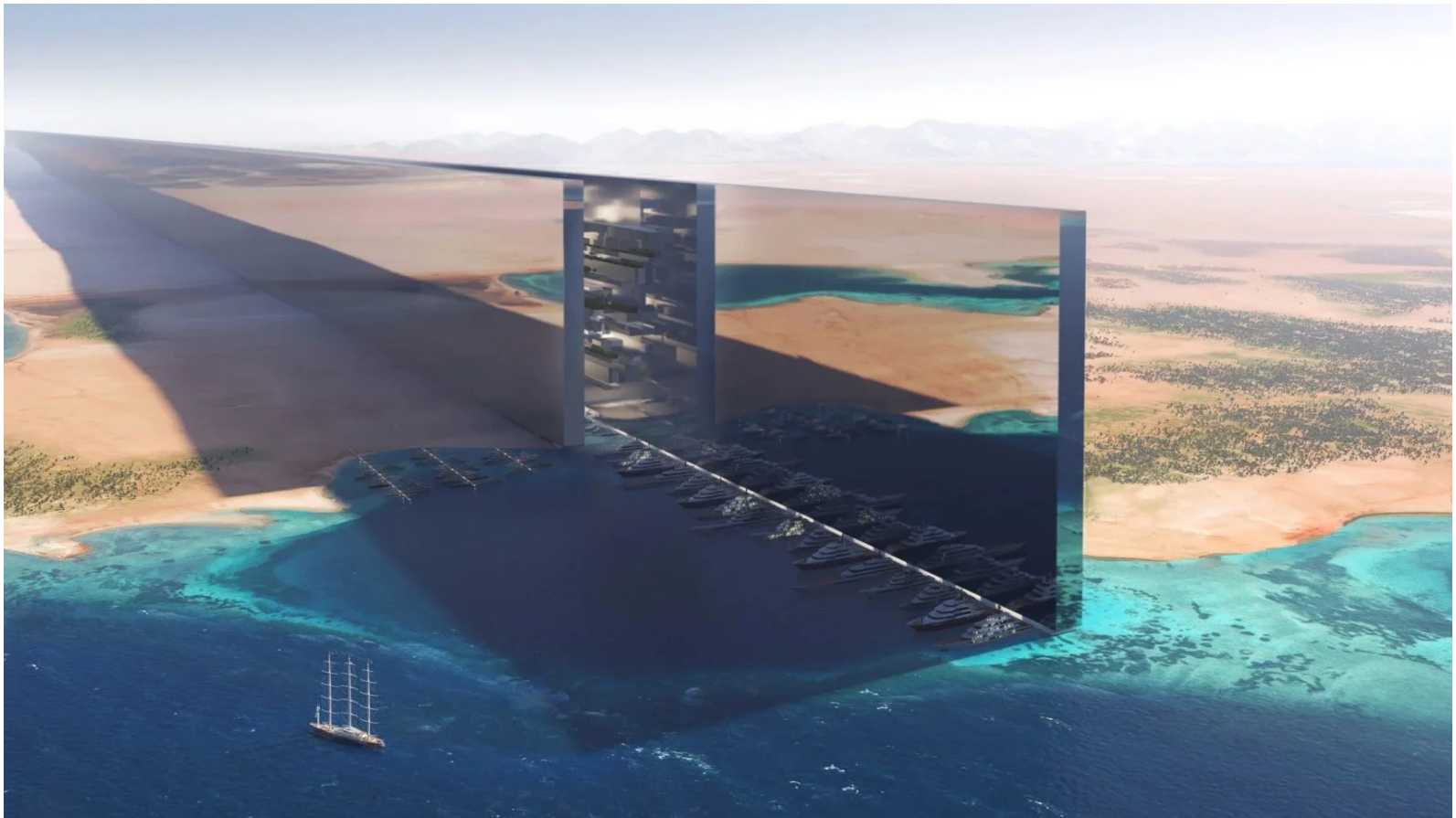
**2022**



# Leveraging technology to enhance person-centered care

- Family Participation in Team Meetings
- Visualizing Person-Centered Goals with Virtual Reality
- Expanding individual person-centeredness to system-wide approach

# Dramatic Expansion of Rehabilitation in Middle East



# Nära Vård

- Resource allocation drives profound change
- Innovation and creativity make this transformation possible
- Borås and redefining the role of a rehab program and its structure

# Behavioral Health

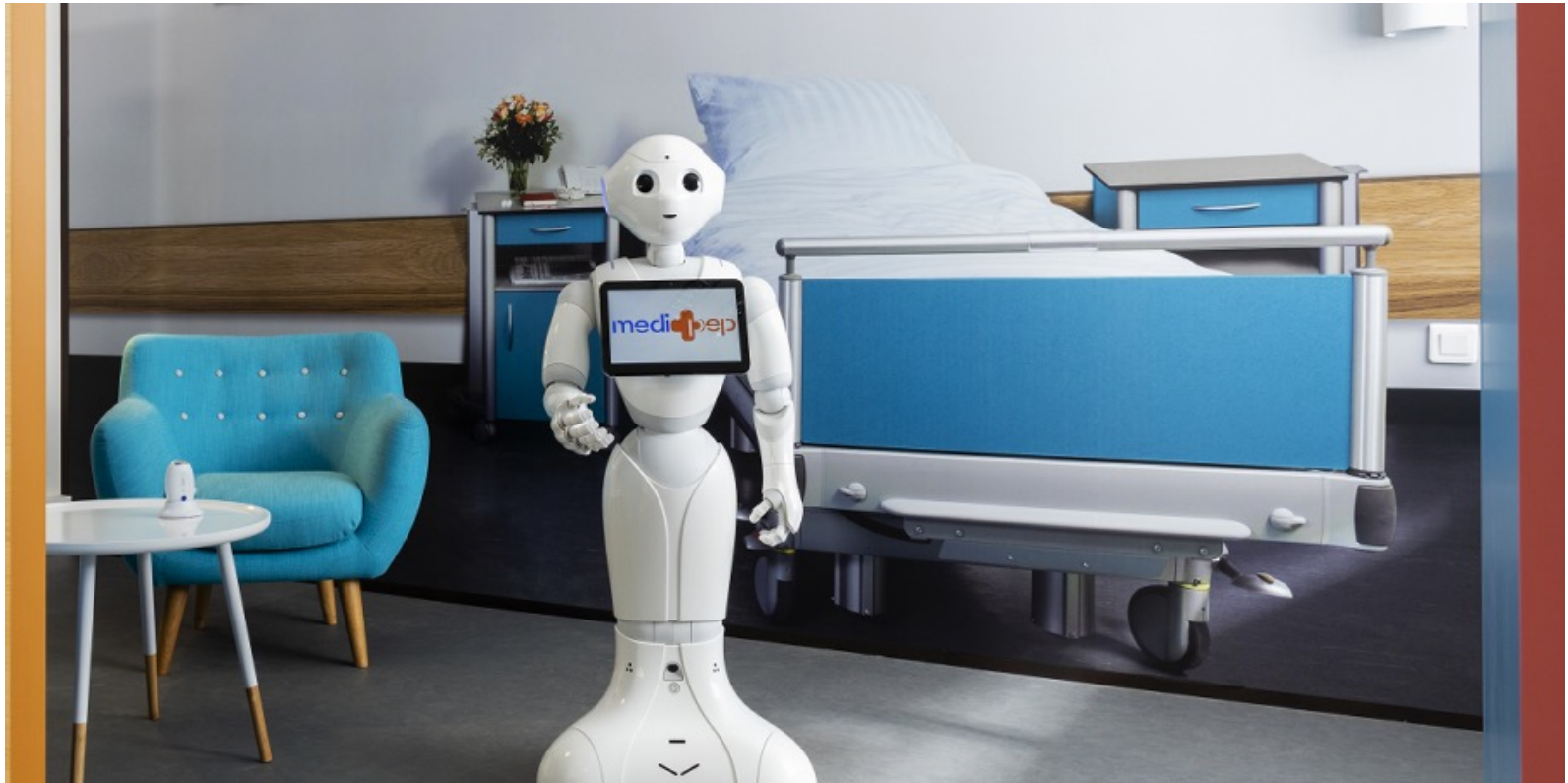


# Risk Management Concerns

- Graying of the world population
- AI Hacking and Security Concerns
- Doing more with less



# Easing the Workforce Crisis



# Enhancing Quality and Performance Improvement

- Leveraging AI and Big Data to complete data collection and analysis
- Provide feedback in real time, not as infrequently as monthly, quarterly or annually

# Predictive algorithms and length of stay/duration of treatment



# Leveraging Big Data

