How State Technology Efforts can Contribute to Quality Supports

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“Without technology that promotes access, connectivity and community participation, people with ID may not access services in the community like people without disability. This could lead to loneliness, and dependence on care provided in devolved institutions.”

Owuor et.al, 2018
Evaluation of Technology in Systems

Macro
- State DD Agencies
- Public Policy

Meso
- Service Providers
- Organizations and Agencies

Micro
- Individual
2019 Survey of Statewide Technology Initiatives Supporting People with IDD

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<th>Technology First</th>
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<td>Questions regarding initiatives and interest in advancing a Technology First agenda</td>
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2019 Survey Results (N=32)

**Technology Funding**

12 different funding authorities were identified to purchase technology services, applications, devices, or other solutions.

**Remote Technologies**

16 states reported funding for electronic or remote technologies specifically for supported living.

**Funding Authorities**

Majority of states utilized HCBS Waiver funds to purchase technology solutions. Medicaid State Plan Authorities and voc rehab were also used.

**Funding for Ongoing Upkeep and Training**

56% of states reported funding for ongoing technology training to learn, upkeep, and update purchased technology.

**Teleservices**

11 states reported funding for telemedicine while 8 states reported funding for telecare.

**Consideration in ISP**

6 states reported consideration of technology supports and services as a requirement within the ISP.
Investments in Technology
Technology First Movement
Trends, Gaps and Promising Practices

- Trends across states in Waiver and other Medicaid authorities definitions and implementation
- **Systems change** guide for Technology First implementation
- **Promising practices**: top-down and bottom-up
- Gaps in knowledge, **awareness**, training and funding
  - Demystifying tech
Diversity Media Technology Alliance

Goal: To curate consumer stories as change agent to drive transformative technology and inclusive media

- Emerged from the team that established the Global Accessibility Symposium and Career Exploration Summit in Silicon Valley and sponsored by the Mountain View Chamber of Commerce
Triangulation of Data
Relationship of Models

FIGURE 4
Relationship between the clinical functions of diagnosis and assessment of functioning, assessment of support needs, individualized supports process, assessment of personal outcomes and applicable modes. AAI DD = American Association on Intellectual and Development Disabilities; ICF = International Classification of Functioning, Disability, and Health.
Emotional Well-Being
- Contentment, self-concept, and lack of stress

Interpersonal Relations
- Interactions, relationships, and supports

Material Well-Being
- Financial status, employment and housing

Personal Development
- Education, personal competence, and performance

Physical Well-Being
- Health and health care, activities of daily living and leisure

Self-Determination
- Autonomy, personal control, and personal values, and choices

Social Inclusion
- Community integrations and participation, community roles and social support

Rights
- Human (respect, dignity, equality) and legal
Outcome-Driven Supports: Emotional Well-Being

- Contentment, self-concept and lack of stress
- Technology supports
  - Remote supports
  - Telehealth
  - Virtual wellness coaching
- Applied
  - Teletherapy for behavioral health
Outcome-Driven Supports: Interpersonal supports

- Interactions, relationships and supports
- Technology supports
  - Remote supports
  - Connected community
  - Companion Care
- Applied
  - Connected community: loneliness
    - “Tech to Connect Challenge”
Outcome-Driven Supports: Material Well-Being

- Financial status, employment and housing
- Technology supports
  - Executive functioning aids
  - Remote navigation
  - Virtual job coach
- Applied
  - Remote navigation: Aira
Outcome-Driven Supports: Personal Development

- **Education, personal competence and performance**
- **Technology supports**
  - Online learning
  - UDL
  - Augmented reality training
- **Applied**
  - Bookshare library: Benetech
Outcome-Driven Supports: Physical Well-Being

- Health and healthcare, activities of daily living and leisure
- Technology supports
  - Smart homes
  - Telecare - biometric sensor monitoring
  - Medication dispenses
- Applied
  - Telemedicine: Station MD
Outcome-Driven Supports: Self-Determination

- Autonomy, personal control and personal values and choices
- Technology supports
  - Self-determined learning model of instruction
  - Remote supports
  - Smart homes
- Applied
  - Remote supports
Outcome-Driven Supports: Social Inclusion

- Community integrations and participation, community roles and social support
- Technology supports
  - Social media and social capital
  - Smart cities
  - Transportation technologies
  - Multimedia
- Applied
  - Wayfinding: AbleLink Smart Living Technology
Outcome-Driven Supports: Rights

- Human rights (respect, dignity, equality) and legal
- Technology supports
  - Rights of People with Cognitive Disability Technology and Information Access
  - GATE
  - Bologna Declaration -AAATE
- Applied
  - Data ethics
Disruptive Technology Trends of 2019

1. Web 3.0
2. Simulation and digital twins
3. The market of one
4. Edge computing
5. The voice economy
6. Strategic automation
7. Ubiquitous AI
8. Spatial Computing
9. Quantum Computing

NASDDDS National Policy Workgroup
Subcommittee on Technology for People with Intellectual/Developmental Disabilities and Their Families

Summary of Discussions, Promising Practices and Considerations for State I/DD Agencies
Colorado, Connecticut, Minnesota, Missouri, Ohio, Tennessee, Ohio, Dr. Shea Tanis

Linkages with other NASDDDS projects

Summary of Discussions, Promising Practices and Considerations for State I/DD Agencies
Implement creative ways to support people’s independence, autonomy and quality of life

Identify strategies to help address the direct support professional workforce shortage

Explore cost effective solutions

“Whys” - Reasons for Increasing the Use of Technology for People with IDD and their Families
“Why” - Implement creative ways to support people’s independence, autonomy and quality of life

- Make it clear, first and foremost, that technology is about quality of life
- Approach technology as a part of overall systems change, making it “a way of doing business” rather than a separate initiative
- Bring stakeholders in at the beginning and all through the process as with other changes
- Tell stories/examples to share technology is for the person/family and not for staff “convenience” - the myths or former history
The “Why” Identify strategies to help address the direct support professional workforce shortage

- No one strategy or answer to shortage, but through careful and robust person centered planning process, taking into strong consideration choice and preferences for a good life, technology can help
- Considerations/examples-living alone or with a roommate without 24 hour staffing through technology with safety features and support
- People who seek more privacy, with past 1:1 or 2:1 staffing who have had more success with reduced staffing with technology support
The “Why” Explore cost effective solutions

- Not all technology need be high tech—there are everyday technologies that people with or without I/DD and their families that everyone uses or has access to use. These need to be explored as to the right fit for a person not just the most elaborate technologies out there.

- There are many examples of reduced staffing, less loneliness but not are all easy to quantify. Studies will need to be simple to start and determine what can be easily and consistently captured.

- Other studies starting!
The Public Relations Considerations

- Technology can be scary and not seem as safe.
- Need to get out there; videos, stories, smart homes to visit, publications, podcasts, add to town halls and meetings, family forums, local news media, web pages, whatever works in your state and wherever you can go!
- For many, having a family speak with another family, provider to provider and self advocate to self advocate has been beneficial
- Some states have a technology advisory or champion for anyone inside or outside the state DD agency to call with questions or advice
- Home grown, trusted providers have done well, not just out of state providers
The Subcommittee discussed the discussion needed at the state level to determine who needs to provide and approve a technology solution and when.

Do basic technologies like Nest, Ring, an iPad, stove or microwave sensors, scheduling software really need a licensed professional?

At what point does a licensed clinician need to be involved---complex augmentative communication devices and full remote supports smart homes.

State subcommittee members recommended this be closely analyzed and not “over do” it on basic technologies based on the person centered plan with back up.

Professional Evaluations, When Necessary?
The subcommittee stressed the importance of the person centered planning process—is this what the person wants, why and for what purpose

- Rights, privacy
- Changes in licensing and quality assurance
- Changes or additions in training and technical assistance
- Back up systems are crucial and need to be clearly outlined in the plan and for providers
- How often will there be feedback and checks
- Others?
Other Thoughts

- What will be done with cost savings-reinvestment?
- Values based purchasing?
- Flexible funding at federal level
- Can’t internet connectivity be a basic paid support
- Ways to keep up with new technology and pay for training of supporters and those using the technology
- And more!
Thank you for your time.

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