

Improving Access to Assistive Technology for Rural Individuals with Disabilities

Patrick Kitzman, PhD, MSPT

Director Appalachian Center for Assistive Technology
University of Kentucky

Keisha Wells, BS

Manager, Appalachian Center for Assistive Technology
University of Kentucky

Faculty Disclosure

- We receive partial funding through a contracts with the Kentucky Office of Vocational Rehabilitation and the UK St. Claire Healthcare system

Objectives

Upon completion of this educational activity, you will be able to:

- Discuss the impact of disability on access to resources in rural communities.
- Discuss the establishment of an Assistive Technology Resource Center to improve access to essential assistive technology to support individuals with disabilities living in Appalachian communities.
- Discuss the impact of ACAT programs to support Kentuckians with disabilities.
- Discuss opportunities for ATRCs to work collaboratively with healthcare providers to more effectively support individuals with disabilities living in rural Kentucky.

Background—What is a disability

Disability

- “A disability is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions).” [\(CDC\)](#)



Background – what is a disability

3 Dimensions

(World Health Org.)

Impairment

- body structure or function, or mental functioning

Activity Limitation

- difficulty seeing, hearing, walking, or problem solving, etc.

Participation Restriction

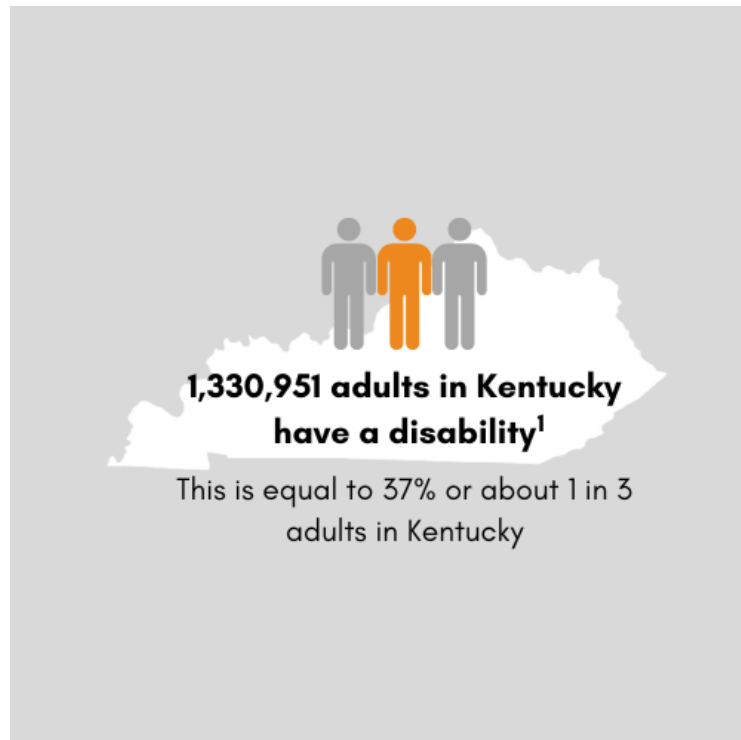
- normal daily activities including working, engaging in social and recreational activities, and obtaining health care and preventive services

Adults with disabilities are more likely to:

	With Disabilities	Without Disabilities
Have Obesity	41.6%	29.6%
Smoke	21.9%	10.9%
Have Heart Disease	9.6%	3.4%
Have Diabetes	15.9%	7.6%

Disability prevalence in Kentucky

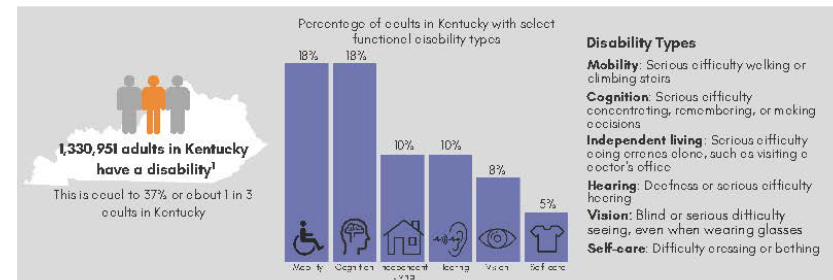
Disability in Kentucky increased from 29.9% in 2019 to the current 37%



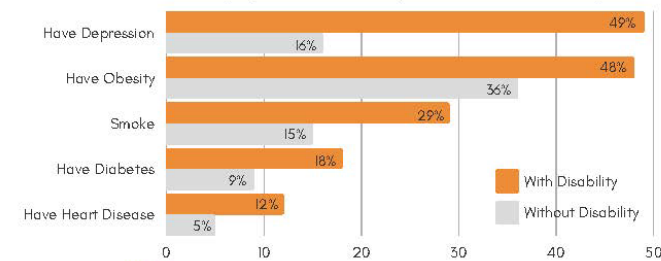
CDC's National Center on Birth Defects and Developmental Disabilities DISABILITY IMPACTS KENTUCKY



Everyone can play a role in supporting more inclusive state programs, communities, and health care to help people with, or at risk for, disabilities be well and active in their communities. Join CDC and its partners as we work together to improve the health of people with disabilities.



Adults with disabilities in **Kentucky** experience health disparities and are more likely to...



Visit data.cdc.gov for more disability and health data across the United States.

DISABILITY HEALTHCARE COSTS IN KENTUCKY²

- About **\$14 BILLION** per year, or up to **41%** of the state's healthcare spending
- About **\$15,177** per person with a disability



Learn how CDC and state programs support people with disabilities at www.cdc.gov/ncbddd/disabilityandhealth/programs.html.



Healthcare access for adults with disabilities

- 1 in 4 do not have a usual healthcare provider
- 1 in 4 have an unmet healthcare need because of cost in the past year
- 1 in 5 did not have a routine check-up in the past year

****Statistics provided from the CDC (2025)**

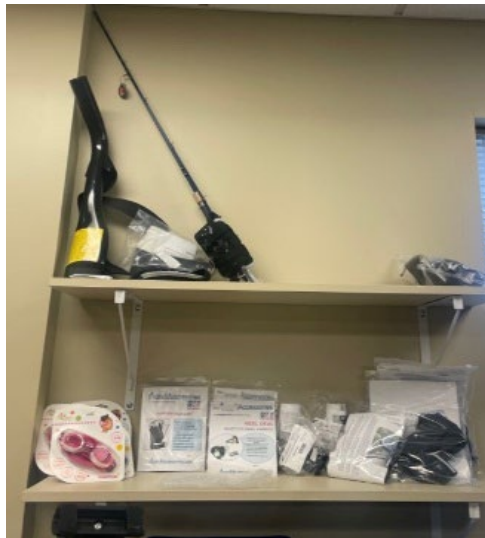
What is an Assistive Technology Resource Center (ATRC)?

- ATRCs operate AT demonstration programs, lending libraries, and assistive technology (AT) reutilization programs.
- ATRCs work cooperatively to provide outreach, information & referral services, and training on various AT topics.
- Technical Assistance and collaboration provided to state agencies and organizations to enhance the understanding of and access to AT and accessible information technology.

****Every State has an ATRC because of the AT Act in 1998.**

What is Assistive Technology (AT)?

- Any item, piece of equipment, software, etc. that is used to increase, maintain, or improve everyday life of persons with disabilities.

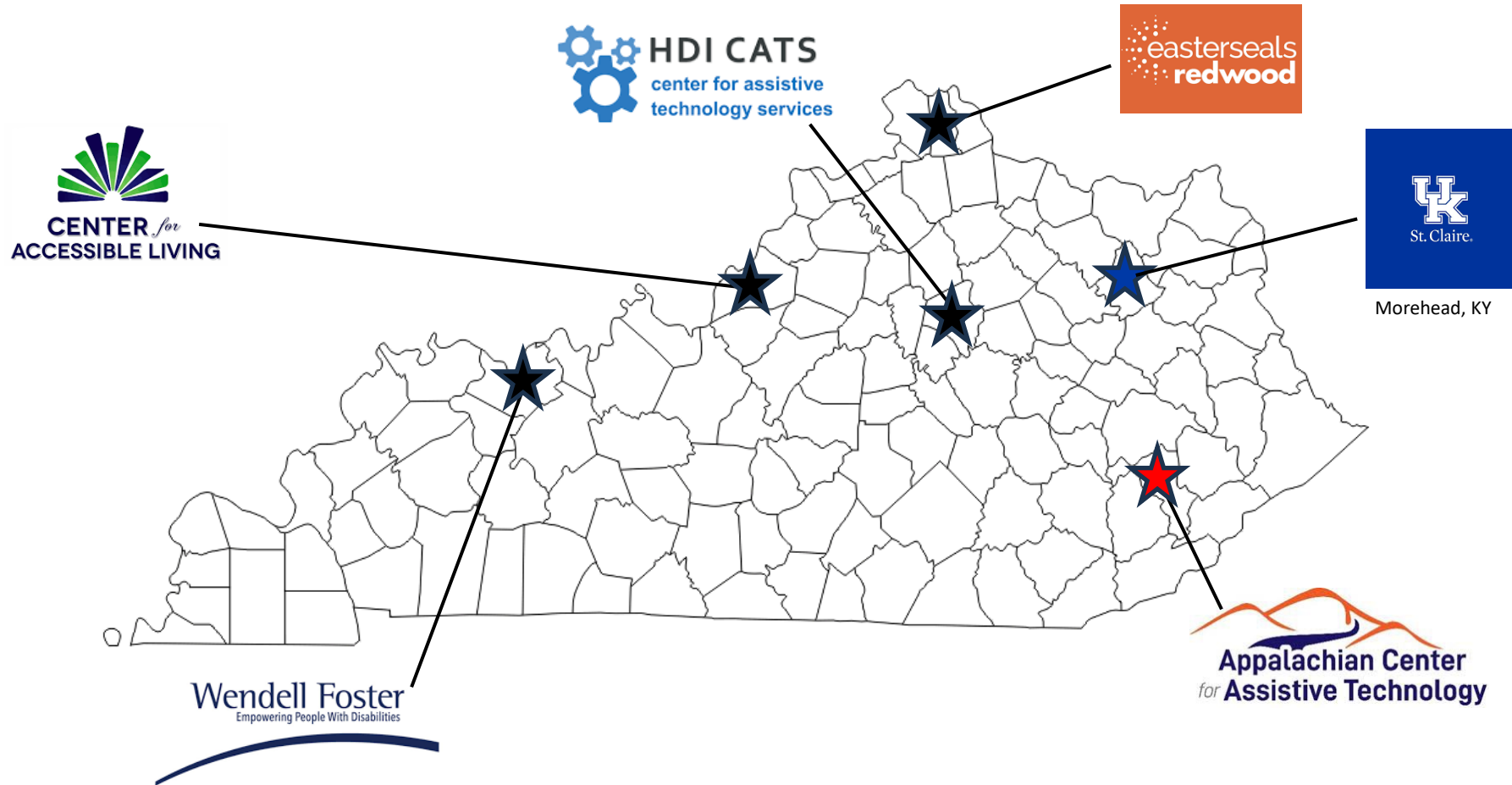




The Appalachian Center for Assistive Technology is the Assistive Technology Resource Center serving eastern Kentucky and is a part of Kentucky Assistive Technology Service (KATS) Network.

Current ATRC State in KY

Five ATRCs located in Owensboro, Louisville, Lexington, Fort Mitchell, and Hazard, KY.



Key Focus Areas

- **Expanding Access:** Providing affordable or free, accessible, and durable medical equipment (DME) and assistive technology devices through demonstrations, loan programs, refurbishment services, and adapted toy initiatives.
- **Empowering Communities:** Engaging students of all abilities in designing and implementing assistive technology solutions that promote inclusion, community participation, and awareness of accessibility.
- **Supporting Transitions:** Offering pre-employment transition services to help young adults with disabilities build essential job skills and self-advocacy for successful employment outcomes.

Direct Client Support

Working with Patients & Clients



1. Working with Patients / Clients

DME Refurbishing & Training



2. Refurbishing & Workforce Training

AT Development & Testing



3. Working with College Students

AT Education for Youth



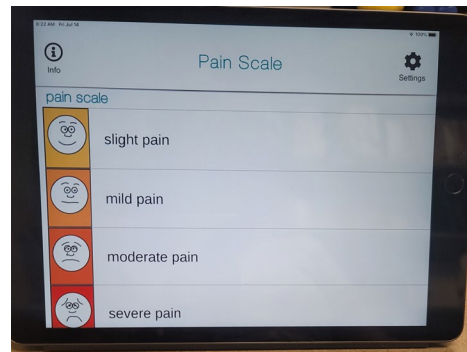
4. Teaching Younger Students



AT Demonstrations and consultation.

Short-Term AT Loan Locker

- AT is loaned for 3 months
- After the loan is up, consumers are then provided with funding resources, if they are interested in obtaining the AT for themselves



Project CARAT

- Project CARAT is a community outreach, service-learning program that aims to make assistive technology and DME more accessible to those who need it in underserved areas of Kentucky.
- The University of Kentucky Center of Excellence in Rural Health (UK CERH) site is unique: It is a service-learning program

Refurbishing & Reutilization

- Physical Therapy students are trained to refurbish durable medical equipment (DME)



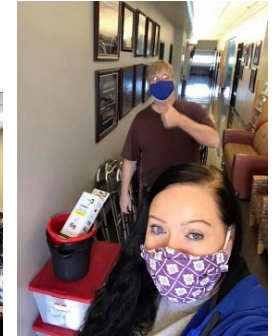
CARAT Over the Years

- ACAT Site Data (2014-2023)

- Individuals: 720

- Pieces of DME: 732

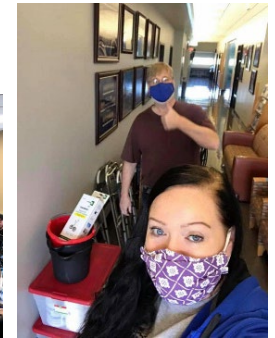
- DME Value: \$105,607



CARAT Over the Years

- Statewide CARAT Numbers (2012-2023):

- Individuals: 17,198
- Pieces of DME: 19,313
- DME Value: \$5,769,798.43



2024 ACAT numbers

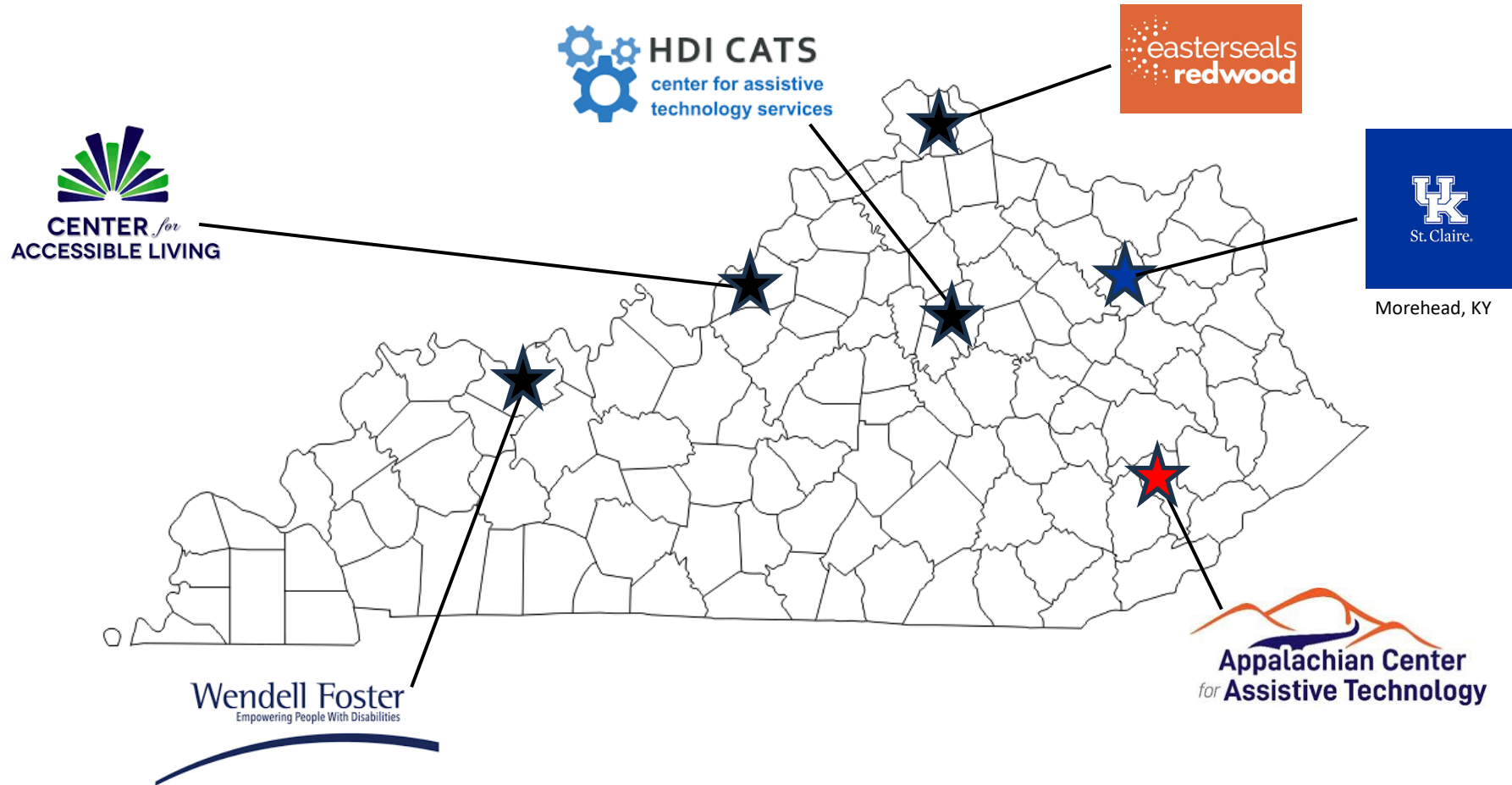
- ACAT reached 2,269 individuals through public awareness events.
- ACAT's Assistive Technology Loan Locker helped 37 individuals with 46 pieces of adaptive technology. These items had an estimated value of \$12,862
- CARAT assisted 146 individuals. This included 149 items: collectively valued at \$42,150.
- In addition, CARAT loaned out 4 ramps: valued at \$1,588.

2025 ACAT numbers

- This year ACAT reached 2580 people over 4 events.
- Loaned 14 items totaling a value of \$4 ,294 as well as given 21 open ended loans valued at \$1,163 .
- CARAT provided 107 assistive technology items to 102 individuals at a value of \$24,000.
- CARAT loaned 6 ramps at a value of \$3,988

Current ATRC State in KY

Five ATRCs located in Owensboro, Louisville, Lexington, Fort Mitchell, and Hazard, KY.



Challenges

- Access to cost-effective assistive technology is essential for enabling disabled individuals to fully participate in their communities.
- Assistive Technology Resource Centers (ATRCs) largest barrier to serving patients is **distance**.

UK St. Claire is over two hours away from ACAT in Hazard, KY.

DME waitlist: shower chairs, rollators, quad canes & standard + bariatric wheelchairs.

These challenges make it difficult for patients to access necessary equipment.

The delay in delivery of equipment results in patients obtaining it elsewhere for a **higher cost or not obtaining it at all!**

ACAT expansion to Morehead KY

- To more effectively meet the needs of the people of eastern KY we need to expand!
- Need to be one center with multiple locations; each with similar as well as complimentary functions.

Direct Client Support

Working with Patients & Clients



1. Working with Patients / Clients

DME Refurbishing & Training



2. Refurbishing & Workforce Training

AT Development & Testing



3. Working with College Students

AT Education for Youth



4. Teaching Younger Students



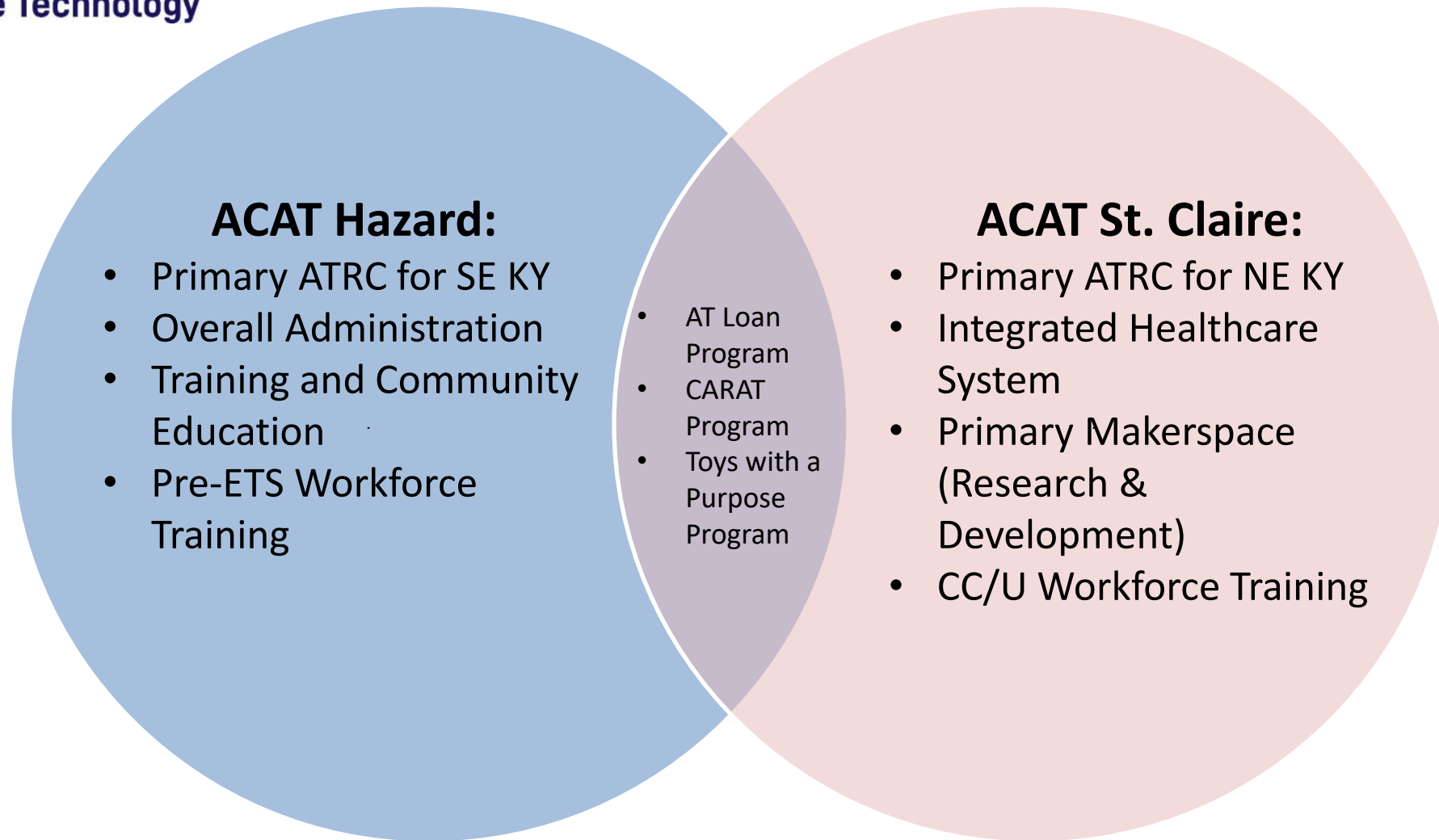
ACAT-Morehead

- Unique because it will be connected to a regional healthcare system (UK St. Claire Healthcare).
 - Will enable faster and more responsive support for patient needs.
- Access to Assistive Technology and Refurbished DME:
 - The site will provide access to essential assistive technology and refurbished DME to support the quality of life for individuals with disabilities.

ACAT-Morehead

- Assistive Technology Creative Laboratory:
 - ACAT-Morehead will establish an innovative Creative Laboratory – collaborative space for faculty, healthcare providers, students of all levels, and community members of all abilities can apply knowledge to real-world challenges.
 - This hands-on environment will deepen understanding of accessibility and disability.

Relationship between ACAT Hazard and ACAT St. Claire



Academic-Healthcare-Community collaborations

Training/education about AT and disability

- Healthcare providers
- Community

Workforce training and development

- Kentucky Career Center and OVR
- Morehead State University
- Maysville Community and Technical College-Rowan County campus
- School systems

Academic-Healthcare-Community collaborations

Assistive technology development and testing

- Healthcare providers
- University of Kentucky
- MSU
- MCTC
- School systems
- Community

Questions

ACAT Facebook



ACAT Website



- Dr. Pat Kitzman, Director
- Patrick.kitzman@uky.edu
- Keisha Wells, Program Manager
- keisha.wells@uky.edu