

Innovative solutions to sudden cardiac arrest in our community

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Sobering Statistics of Cardiac Arrest

**Incidence of 356,461-405,000
cardiac arrests in the United
States**

- Only 1/2 of these are treated with ACLS
- 29.5% of patients were examined in the ED within 90 days prior to cardiac arrest

Sobering statistics of Cardiac Arrest

Location of Cardiac arrest

- Residence (69.5%),
- Public settings (18.8%)
- Nursing homes (11.7%)

Sports-related cardiac arrest accounts for 39% of sudden cardiac death <18 years

- Common causes include HCM, coronary artery anomalies, WPW, Long QT syndrome

Sobering statistics of Cardiac Arrest

Survival to Hospital Discharge 10.4%

**Survival with good neurologic
function was 8.4%**

Age-adjusted survival

- **African Americans (6.0%)**
- **Hispanics (8.6%)**
- **Caucasian (11.3%)**

Rural Challenges in cardiac arrest response

- Response times often 15-20 minutes or more due to:
 - Long travel distances
 - Delays in mobilize volunteers
 - Crews tied up at other emergencies
 - Poor road conditions
 - Weather-related delays
- Lower bystander intervention due to:
 - More sparse population
 - Lack of training resources
 - Beliefs to wait for professionals to arrive
- Fewer community-based AEDs

AED Access Issues

- Most are not accessible after business hours
- Bystanders do not know where AEDs are located
- AED owners do not know when arrest occurs nearby
- Few AEDs in homes where most arrests occur
- Few AEDs in rural areas
- Bulky and heavy -- not easily portable
- Expensive
- Some are not properly maintained

Better Access = More Lives Saved!

Local cardiac arrest statistics

- 10+ cardiac arrests in our community per month
- 80% of cardiac arrests occur at homes where there is no AED access

- Recent arrests in local public places include:

Tiki Lanes (3), Lancaster HS (3), Liberty Union MS, Thornville AmVets, Thornville Moose, Chieftain Center, Kroger, Meijer, Matt Taylor Kia, Old Man's Cave, New Dimensions Gym

Community Heart Watch Mission

**Improve cardiac arrest survival
in Fairfield, Hocking and Perry Counties by:**

- Increasing Awareness and early recognition
- Training First responders in CPR
- Increasing access to AEDs
 - Documenting AED locations
 - Mobile AED in rural communities
 - Neighborhood AED program
 - Enhancing

OUR MOBILE TRAINING UNIT!



Training locations

- Schools
- Business
- Fairs
- Parks

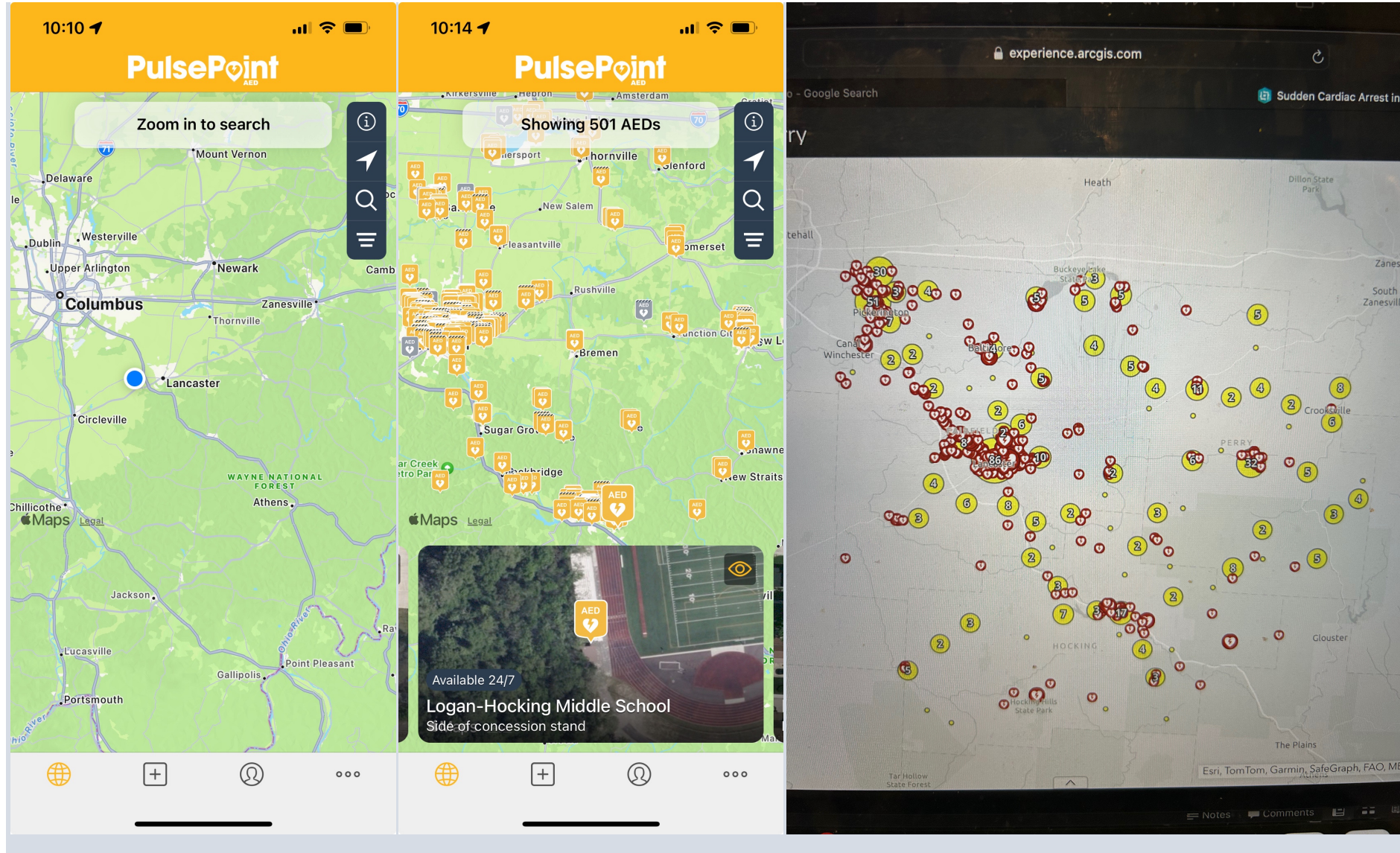


Community Heart Watch Mission

Improve cardiac arrest survival in Fairfield, Hocking and Perry Counties by:

- Increasing Awareness and early recognition
- Training First responders in CPR
- Increasing access to AEDs
 - Documenting and optimize AED location
 - Mobile AED in rural communities
 - Neighborhood AED program
 - Next generation “SMART” AED technology

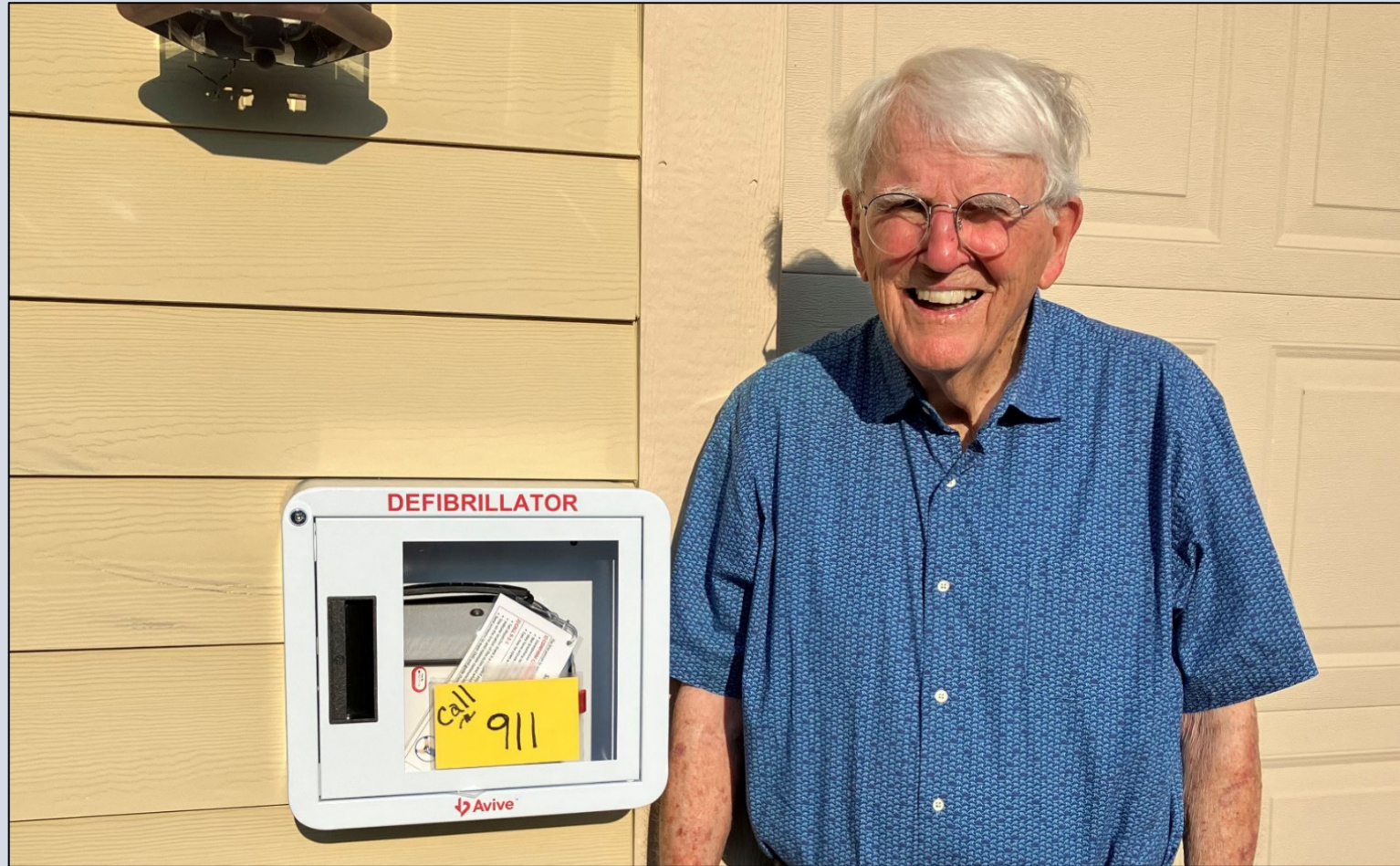
Pulse point AED



Mobile AEDs

- Law enforcement AEDs – AEDs placed in law enforcement vehicles which often arrive first on scene in rural areas:
 - Perry County Sheriff (9 AEDs)
- Neighbors Saving Neighbors: AEDs placed with volunteer medics to bring directly to the scene:
 - Shawnee Volunteer Fire (3)
 - New Lexington Fire (5)

Neighborhood AED Program



First neighborhood: Stone Glen -- Dr Gordon Snider

Avive = SMART AED Technology



Avive = Smart AED

Wi-Fi, Cellular, GPS, Blue Tooth Connectivity

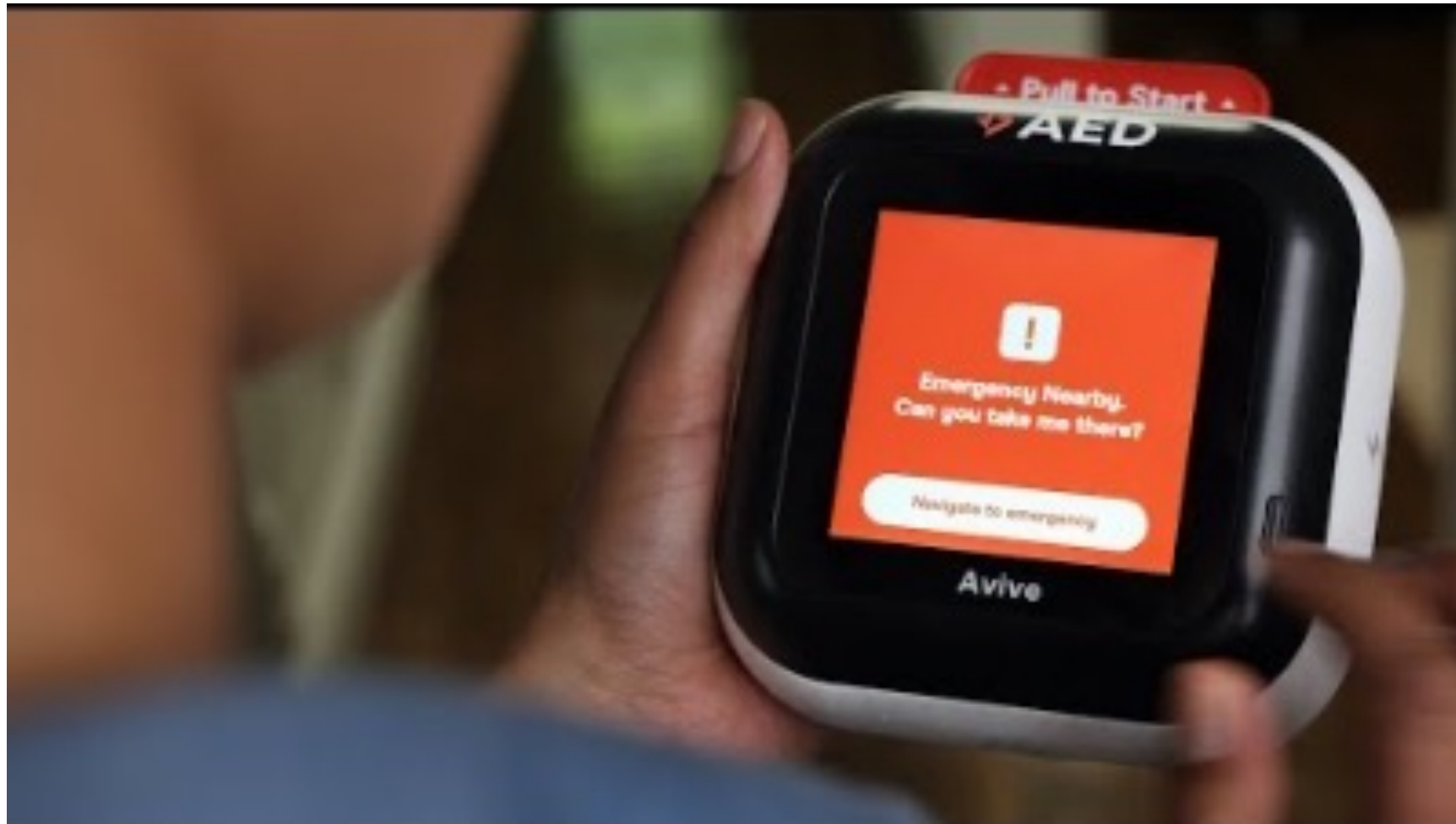
- Interfaced with 911 so Avives near an arrest can be activated by dispatcher to send an alert to bring the AED to the scene
- Immediate access to incident reports
- Notifications to owner when Avive is at risk
- GPS tracking if Avive is lost or stolen

Other Attractive Features

- Rechargeable battery
- Universal adult/pediatric pads
- Audio and visual instructions
- Includes 1 set of pads per year
- Easily converts to trainer
- Smallest, most portable AED (2.2 pounds)

Take it Anywhere!





<https://www.youtube.com/watch?v=2p4zfOWo62E>

Our Goal – Heart Smart Community

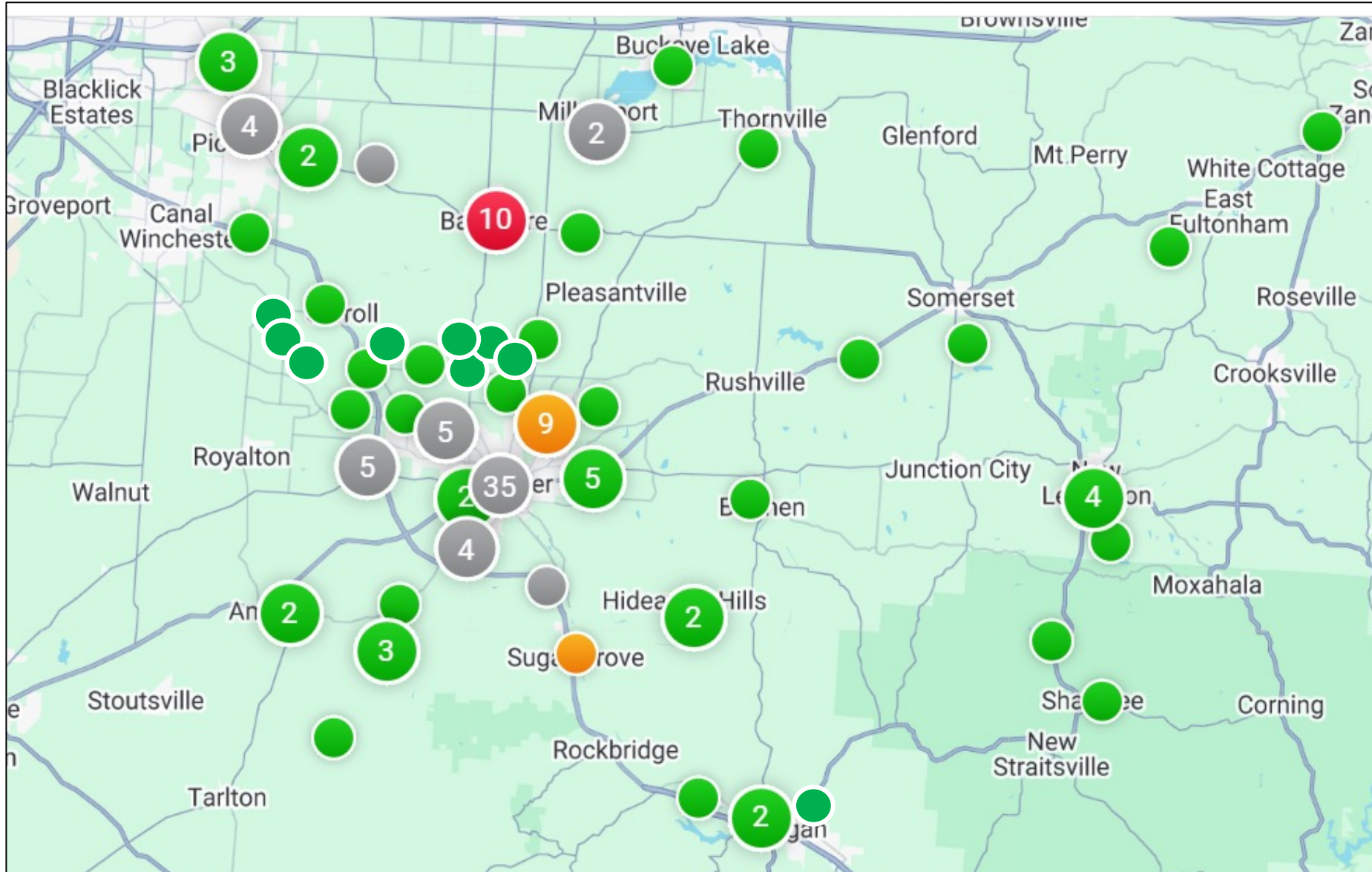
Avives – 200

- Currently at 162
- Grow “Neighborhood AED” program
- Grow “Heart Safe Youth Sports” program

Traditional Stand-Alone AEDs – 800+

- Interface PulsePoint with dispatch system
- Convert to Avive as devices become obsolete

Avive Locations



Many Lives Saved



Kylie Alkire, Age 10
Liberty Union Middle School Dance



David Kemmerling, Age 56
Bowling at Tiki Lanes

Thank You to Community Partners

- Donated 30 Avive to local non-profits
 - Fairfield Federal
 - Park National Bank
 - Friendly Bremen Banking Center
- Grant from PNC/Martens Charitable Trust for 15 Avive
- Fairfield County -- Commissioners and staff

Thank You to Community Heart Watch members

- Teri Watson, Chair
- John Lazarus, Clinical Chair
- Brad Smith, EMS Chair
- Jeremy Young, EMS Co Chair
- Jim Mickey, EMS Co Chair
- Sarah McGraw Thimmes, School Chair
- Matt Wideman, Business Chair
- Deserae Belcher, Hospital Chair



8 Year Cost -- Avive

	Lease	Purchase*
Cost	\$2, 792	\$2,438
Average cost per year	\$350	\$305

Traditional, stand-alone AED = \$3,676 (\$460 per year)

* Purchase = \$1,395 for Avive with 1 free year of connectivity + 7 years connectivity at \$150 per year

Our Members

- **EMS:** Lancaster, Greenfield Twp, Bloom Twp, Violet Twp, Basil Joint, Walnut Twp, Hocking Twp, Pleasant Twp, Thorn Twp, Hocking County, Berne Twp, New Lexington, Amanda Twp
- **Schools:** Lancaster City, Bloom Carroll
- **Public Health:** Fairfield County Health Department, Perry County Health Department, Fairfield County EMA, Fairfield County Dispatch Center
- **Hospitals:** Fairfield Medical Center, Somerset ED
- **Businesses:** Fairfield Federal Savings & Loan, Park National Bank, Vinton County Bank, Lancaster Fairfield County Chamber of Commerce, Pickerington Chamber of Commerce