

# An Analysis of the Benefits and Barriers to the Full Implementation of a HIPAA Compliant Secure Messaging System Within Lehigh Valley Health Network

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# An Analysis of the Benefits and Barriers to the Full Implementation of a HIPAA Compliant Secure Messaging System Within Lehigh Valley Health Network

Matthew Johnson Research Scholar, Annamarie DeRoberts MSHA RN, George Mathew PMP



## Background: TigerConnect

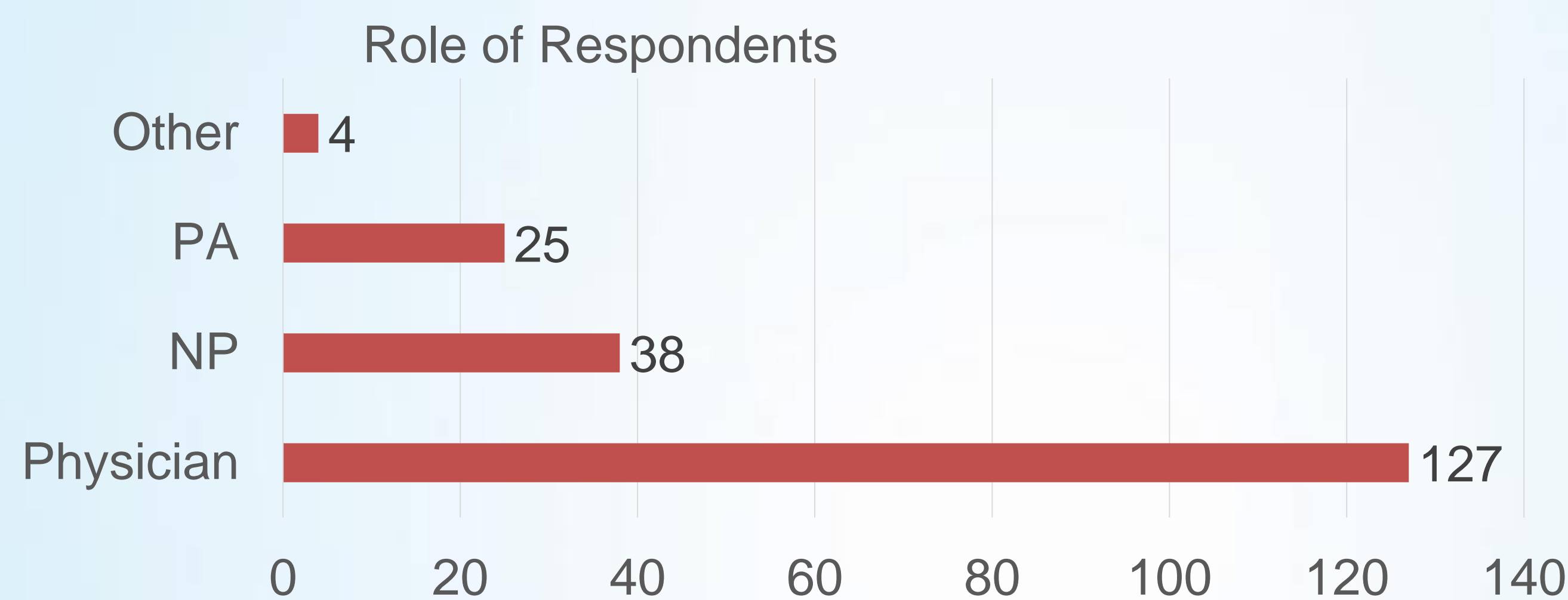
- TigerConnect is a smartphone-based secure messaging system used by some providers within LVHN.
- Used to send PHI (Protected Health Information) in compliance with HIPAA.
- First implemented on December 27, 2016
- Ensures confidentiality through closed-loop traceability, encryption of data at the network level, and messages that self-delete after five days.
- SMS texting and pagers are not encrypted, and messages containing PHI could be read by unintended recipients.
- Inefficiencies of communication in healthcare are estimated to result in 45 minutes of lost time daily per provider.

## Research Methodology

**Purpose:** Take an in-depth look at TigerConnect benefits and barriers to use within the network. Gather physician feedback and input on usage, and develop possible ways to overcome barriers.

**Methods:** A survey was sent out to 1,231 physicians, NPs, and PAs. 194 responses were received (15.76%). Additionally, interviews were conducted with physicians throughout the network.

- The survey asked providers about usage rates, general opinions on TigerConnect, demographic, and reasons why some are against using it.



## Lehigh Valley Health Network, Allentown, Pennsylvania

### Barriers

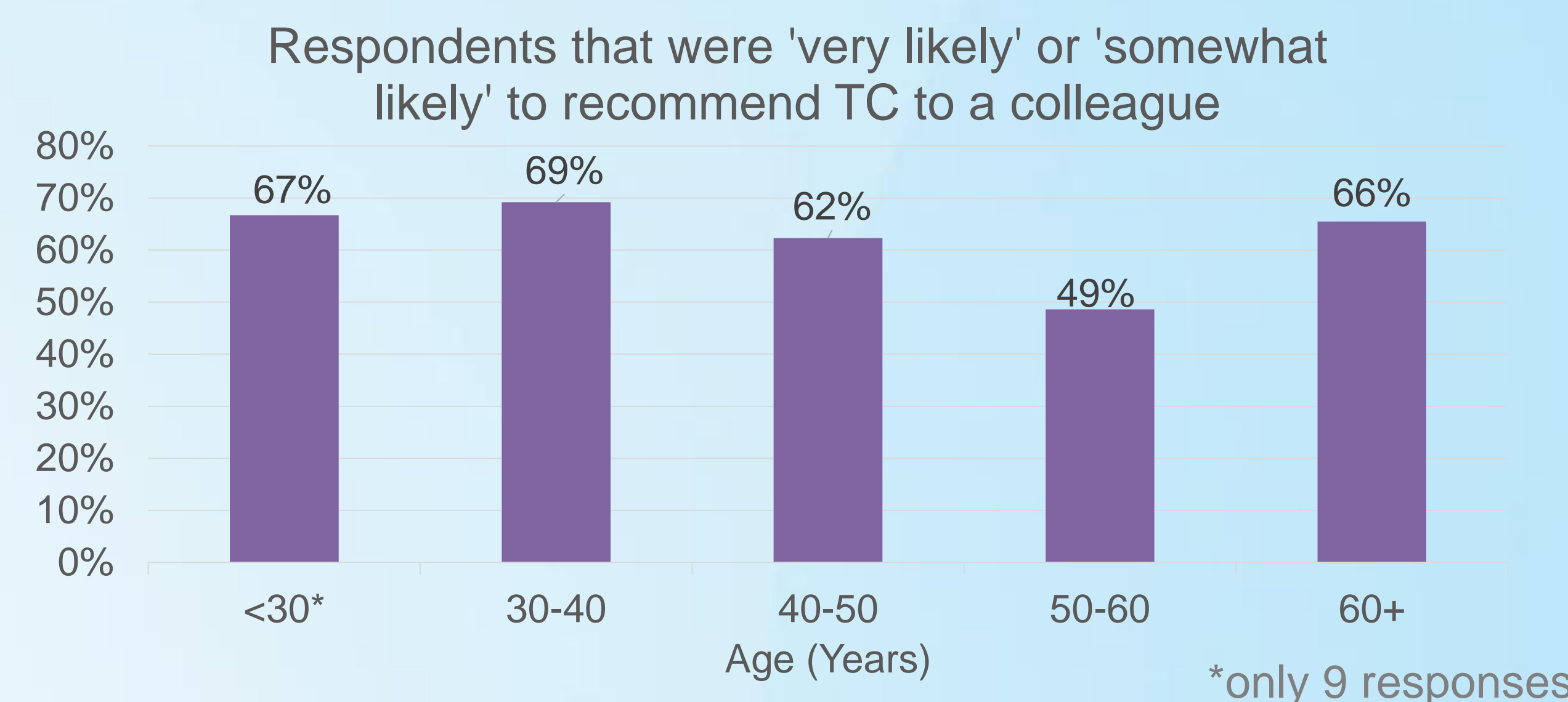
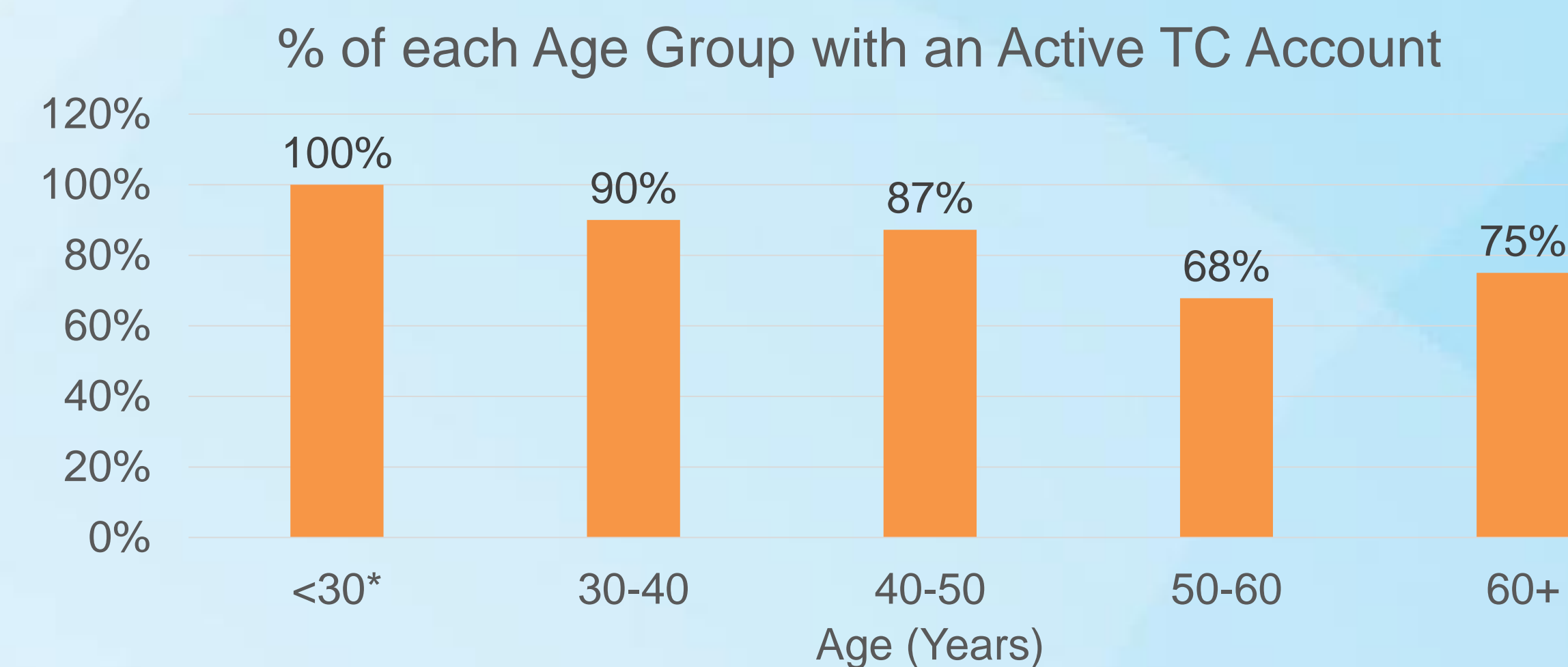
**Technology:** 1 in every 20 providers surveyed did not have a cellphone that accommodates TigerConnect

**Lack of Use:** 86% of respondents had an active TC account, with only 27% saying that they use it every day – complicates communication because not all doctors are on same page

**Poor Reception:** Many areas of Cedar Crest and Muhlenberg have poor Wi-Fi and data coverage

**Reluctance to change:** Most doctors have been using pagers their entire careers, don't see the benefit

**Generational barrier:** Older providers are unfamiliar with texting. The 50-60 year old range was the most adverse, with less than half (49%) likely to recommend TigerConnect to a colleague.



Qualitative results based on provider comments:

- Not everyone uses it (36)
- Poor Wi-Fi/cell signal (35)
- Unfamiliar with app (18)
- Don't want to use personal device (18)
- Too easy to miss messages (15)

### Benefits (LVPG)

#### Before Implementation: Pagers only

Inefficient communication | Annual spending: ~\$100,000

#### Current State of Use: Pagers & TigerConnect

Frequent miscommunication between providers | Annual spending: ~\$125,000

#### Future: 100% Implementation of TigerConnect

Seamless communication, all providers on same page | Annual spending: ~\$25,000  
Annual savings: ~\$75,000

### Recommendations and Conclusion

- Robust rollout of TC similar to EPIC
- Provide physicians with work cellphones
- Educational seminars explaining how to use TC at basic and then more complex levels
- Show providers new interface
- Place charging stations around hospital

- The survey found that 76% of all physicians 'agreed' or 'strongly agreed' TigerConnect would be more useful if all doctors used it.
- Full implementation of TigerConnect could help increase coordination of care within the network resulting in better care, better cost, and better health for the Lehigh Valley.

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