



Positive Impact of Fatal Five Training on Emergency Department and Urgent Care Utilization

A One-Year Outcome Analysis from
Discovery Living Inc.





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Executive Summary

This white paper examines the impact of IntellectAbility's Fatal Five eLearning training on emergency department (ED) and urgent care (UC) utilization in an Iowa provider organization supporting adults with intellectual and developmental disabilities.

These results demonstrate that targeted health surveillance training can significantly improve health outcomes while lowering system-wide costs.

Positive Impact of Fatal Five Training on Emergency Department and Urgent Care Utilization

Adults with intellectual and developmental disabilities (IDD) experience disproportionately high rates of preventable medical emergencies¹, often resulting in frequent emergency department and urgent care utilization that carries significant human, operational, and financial costs. Many of these visits are associated with conditions that can be identified earlier and managed more effectively when support staff are properly trained to recognize subtle warning signs and intervene appropriately.

IntellectAbility's Fatal Five training is designed to address this gap by equipping staff with the knowledge and skills needed to detect and respond to the most common causes of preventable morbidity and mortality in people with IDD. This study examines the impact of implementing Fatal Five eLearning training across an Iowa IDD provider organization supporting approximately 150 adults, with a specific focus on changes in ED and UC utilization, associated cost savings, staffing implications, and staff-reported practice outcomes in the year following training implementation.

Key findings include:

- **37% reduction in ED/UC visits after training**
- **\$274,410 in estimated annual medical cost savings**
- **\$15,237 in staffing overtime savings**
- **Improved staff confidence and early intervention**
- **Reduced operational strain**



Study Designs and Methods

Staffing Mix of Training Participants

In 2024, a total of 230 staff members completed the Fatal Five eLearning training. As seen in Figure 1, most participants were direct support staff (n = 220), including Direct Support Professionals (DSPs), Associate Coordinators, and Community Living Coordinators, reflecting the central role of frontline staff in day-to-day health observation and decision-making. Administrative staff accounted for eight participants (n = 8), supporting organizational awareness and consistency in health-related policies and procedures.

Nursing staff represented two participants (n = 2), providing clinical oversight and reinforcing the integration of training concepts into medical decision-making and follow-up care. This diverse staffing mix supports the relevance of Fatal Five training across multiple roles involved in supporting adults with IDD and underscores its potential system-wide impact on health outcomes and emergency service utilization.



Setting

Iowa IDD provider organization, Discovery Living, Inc.



Training

IntellectAbility's Fatal Five eLearning courses



Population

~150 adults supported



Comparison Period

2024 vs. 2025



Staff Trained

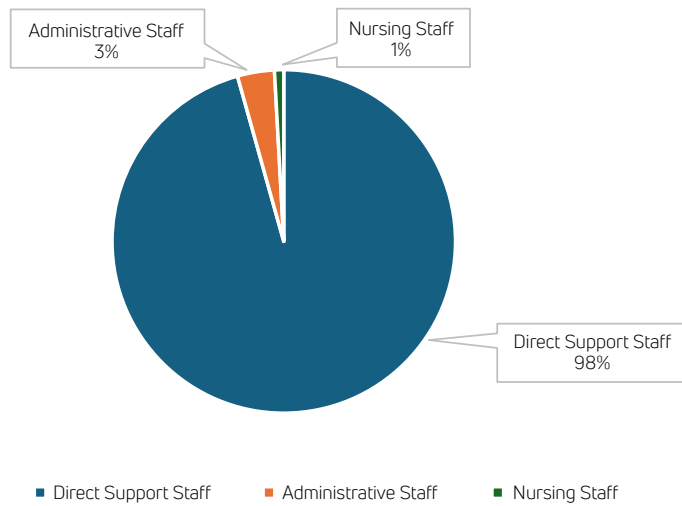
230 employees



Outcomes Measured

ED visits, UC visits, staffing impact, cost estimates, staff feedback

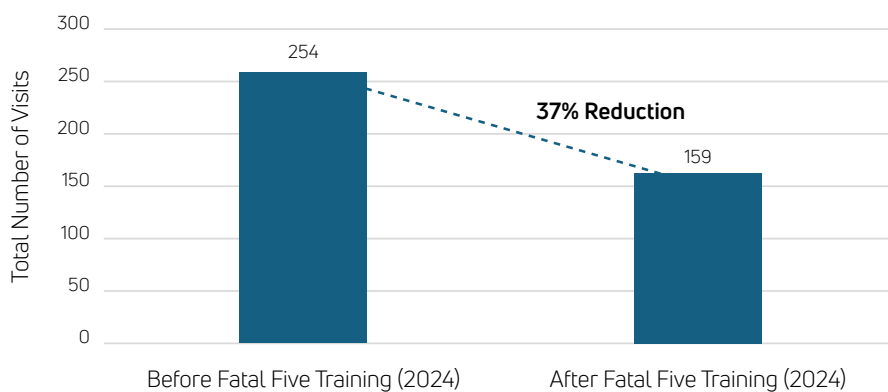
Figure 1. Staff Who Completed Fatal Five eLearning Training in 2024



Post-Training Reduction in Emergency Department (ED) and Urgent Care (UC) Visits

In 2025, the year following implementation of Fatal Five training, the organization experienced a **37%** reduction in combined emergency department and urgent care visits (Figure 2). Analyses were repeated after excluding seven people with the highest ED/UC utilization who passed away during the study period. Even after accounting for those who passed away, ED and UC visits decreased by **33%**, indicating that the observed decrease was not solely attributable to changes in census or case mix.

Figure 2. Total ED/UC Visits: Before and After Fatal Five Training



In raw numbers (Table 1), total ED and UC visits declined from 254 to 159 in the year following training completion. When the seven highest utilizers were excluded, visits decreased from 227 to 152 (Table 2). Collectively, these findings suggest that Fatal Five training was a meaningful contributor to reduced acute care utilization among this provider organization.

Year	ED Visits	UC Visits	Total Visits
2024	114	140	254
2025	67	92	159

Year	ED Visits	UC Visits	Total Visits
2024	92	135	227
2025	62	90	152

Estimated Medical Cost Savings

In 2025, the average cost of an emergency department (ED) visit in the United States was approximately \$2,715². While specific data for adults with intellectual and developmental disabilities are limited, a 2020 study found that children with IDD use ED services 1.8 times more frequently than their peers, with associated medical costs roughly double those of the general population³. This suggests that each ED visit for a person with IDD costs about \$5,430.

The average cost of an urgent care (UC) visit ranges from \$150 to \$280⁴. Applying the same adjustment, UC visits for people with IDD are estimated between \$300 and \$560. Using a conservative midrange estimate of \$400 per UC visit, the annual savings after Fatal Five training were calculated as follows:

- 47 fewer ED visits × \$5,430 = \$255,210
- 48 fewer UC visits × \$400 = \$19,200



Total estimated medical cost savings (Figure 3): \$274,410, representing a meaningful reduction in healthcare expenditures for both the healthcare system and third-party payers.

Figure 3. Estimated Medical Cost Savings from Reduced ED and UC Visits

Visit Type	Number of Visits Avoided	Estimated Cost per Visit	Estimated Savings
 Emergency Department (ED)	47 ↓	\$5,430	\$255,210
 Urgent Care (UC)	48 ↓	\$400	\$19,200
Total	95 ↓↓		\$274,410

Annual Estimated Savings: \$274,410

Estimated Staffing Cost Savings

The reduction in ED and UC visits also resulted in measurable staffing savings. Assuming:

- 95 fewer total ED/UC visits
- Average visit duration: 6.5 hours⁵
- Total staff hours avoided: 617.5
- Average direct support professional (DSP) wage in Iowa: \$16.45/hour⁶
- Overtime rate: 1.5x

Estimated DSP overtime savings total approximately **\$15,237** annually. This is a direct cost savings to the provider organization.



Additional Hidden Costs Avoided

Beyond overtime wages, ED and UC visits generate substantial indirect labor costs that are rarely captured in traditional financial analyses. These include time spent on:

- Communicating with supervisors and on-call clinicians
- Securing backfill or shift coverage
- Arranging transportation to the ED or UC
- Completing required documentation
- Coordinating care and discharge instructions with nursing staff
- Managing follow-up care after discharge

Each ED or UC visit also temporarily shifts staff focus away from those being supported, increasing operational strain and system-wide costs while reducing opportunities for engagement, relationship-building, and proactive care. As a result, overtime pay represents only a fraction of the true staffing impact associated with acute care utilization.

These estimates also do not account for transportation expenses, the emotional stress experienced by staff and those supported, or the broader financial and quality-of-life impacts associated with medical emergencies.

Staff Insights on IntellectAbility's Fatal Five Training

Staff perspectives highlight the practical value and real-world impact of the training:

"Learners felt empowered to observe, make informed decisions, and act when necessary. These trainings helped build DSP confidence and skills, and educated them on how to effectively answer triage questions by health professionals."

"After current employees completed this training, we observed a significant increase in employees discussing thoughts and concerns related to the individuals they support and the Fatal Five. Good discussions occurred with supervisors, and in several cases, follow-up occurred with the individual's guardian and medical personnel for evaluation and treatment."

Additional participant comments included:

- “Very thorough and detailed.”
- “Covered a lot of good information.”
- “Good points and reminders of what to look for and watch out for.”
- “I am glad it was closed captioned for me.”
- “I got more out of it by reading and listening.”
- “I love the videos, defining the key terms, knowledge checks, and scenarios.”
- “I was wondering why the individual was always coughing after they ate.”

Staff also reported meaningful changes in daily practice:

- “I know what to look for now when an individual has an infection.”
- “We make sure that everyone has water to drink in our day hab centers to help keep people from becoming dehydrated.”

Limitations and Indications for Further Research

A few limitations should be considered when interpreting the findings of this study. First, this evaluation was conducted within a single IDD provider organization in Iowa, limiting generalizability to other geographic regions, service models, or populations.

Cost-savings estimates were derived from national average cost data and pediatric IDD research, given limited adult-specific cost data. As a result, the financial impact calculations should be interpreted as estimates rather than precise accounting figures.

Despite these limitations, the magnitude and consistency of the reductions observed suggest that further multi-site research is warranted to evaluate long-term sustainability and scalability of Fatal Five training across diverse IDD service settings.





Conclusions

Implementation of IntellectAbility's Fatal Five training was associated with substantial reductions in emergency department and urgent care utilization, significant medical and staffing cost savings, and improved staff confidence and practice.

Total estimated medical cost savings is \$274,410, representing a meaningful reduction in healthcare expenditures for both the healthcare system and third-party payers.

These findings suggest that targeted health surveillance training for all staff can play an important role in preventing avoidable medical crises and improving outcomes for adults with intellectual and developmental disabilities.



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