Prevention in Print: Advancing Academic Infection Control Education

Connie Valenzuela, a-IPC, CTCM; Lauren Wheat, a-IPC; Priscilla Villarreal, CTCM
Texas Department of State Health Services, Office of the Chief State Epidemiologist, Disease Surveillance and Epidemiology Section, Healthcare Safety Unit
HSUTraining@dshs.texas.gov

Background

- According to the Centers for Disease Control and Prevention (CDC), 72,000 U.S. patients with a healthcare-associated infection (HAI) die annually during their hospital stay.[1]
- Implementation of proper infection prevention and control (IPC) practices is imperative to reduce the spread of HAIs in healthcare settings.
  - Many IPC trainings exist for the frontline workforce; however, it was unclear whether academic institutions provide comprehensive IPC training in program curriculum.
- To develop a better understanding of the prevalence and extent of IPC training, the Texas Department of State Health Services (DSHS)* collected survey data on IPC curriculum in healthcare training programs.
  - Survey responses revealed that formal IPC education is rarely taught in academic programs, prior to entry into the healthcare workforce.
- To address IPC education gaps, DSHS launched the "HAI-Lights" newsletter, a comprehensive resource designed to improve infection control knowledge among health profession students.

* Healthcare Safety Unit HAI Epidemiologists in the DSHS Office of the Chief State Epidemiologist.

Methods

- Newsletter content included:
  - Overview of a new infection control topic in each edition, followed by specific IPC recommendations.
  - Resources section with links to: (1) CDC Project Firstline; (2) Antimicrobial stewardship information; (3) Reputable infection control organizations.
  - Trivia question related to content in the previous newsletter edition.
- DSHS implemented the following distribution, collection, and review process:
  - Distributed via email monthly, January to July 2023, then quarterly through February 2026 to faculty and staff at Texas schools of medicine, nursing, public health, and pharmacy. Each edition included a voluntary feedback questionnaire to assess newsletter impact, reach, and content needs.
    - Questionnaire prompted recipients to: (1) Report their academic affiliation and academic or professional role; (2) Provide their email address for distribution list growth; (3) Rate newsletter content quality (excellent, good, average, or poor); (4) Indicate if newsletter increased IPC knowledge (yes, maybe, or no); and (5) Suggest future HAI-Lights content.
  - Responses were analyzed after each distribution.
  - Feedback was integrated into subsequent newsletter development.

HAI-Lights newsletter clipping.

Figure 1. Recipients' (N = 119) academic affiliation.

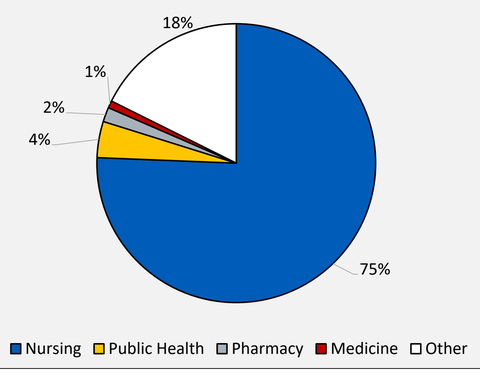


Figure 2. Recipients' (N = 119) role.

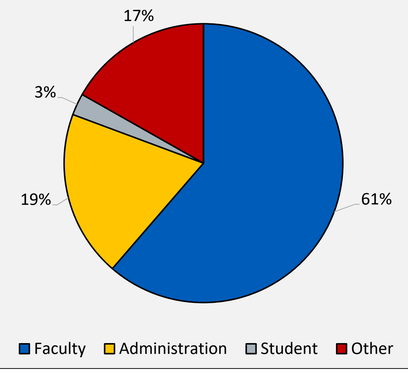


Figure 3. Recipient (N = 111) ratings to "How would you rate the HAI-Lights newsletter sent by [DSHS HSU]?"

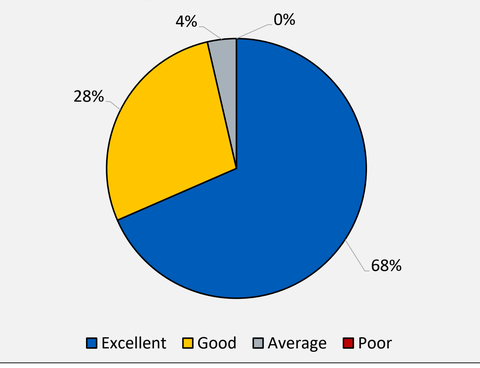


Figure 4. Recipient responses (N = 109) to "Did the information in the HAI-Lights newsletter increase your knowledge of [IPC]?"

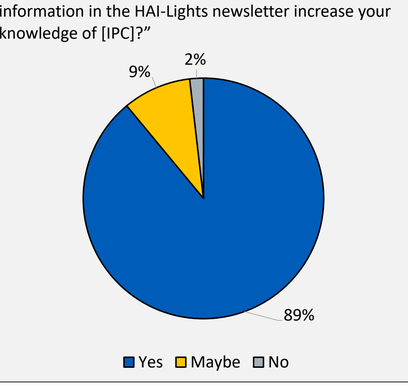
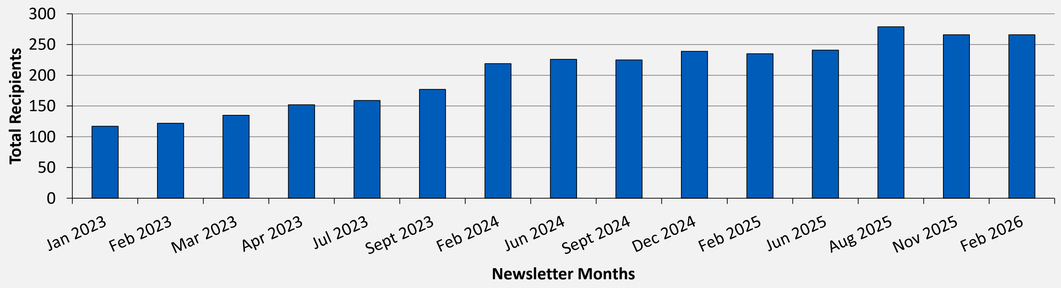


Figure 5. Number of contacts who requested and received HAI-Lights newsletters (15 editions) from January 2023 to February 2026.



Results

- The HAI-Lights questionnaire received 119 responses from direct newsletter recipients (266 total direct recipients as of February 2026).
- Recipients' academic affiliation varied, with most from nursing schools (n = 90, 75%), followed by public health, pharmacy, and medicine (Figure 1). Most recipients were in faculty roles (n = 73, 61%) (Figure 2).
- Most recipients rated the HAI-Lights newsletter positively; 76 (68%) responded "excellent," and 31 (28%) responded "good" (Figure 3).
- Majority of recipients reported increased IPC knowledge due to the newsletter; 89% (n =97) responded "yes" (Figure 4).
- Number of HAI-Lights recipients increased 127% (117 to 266) over 3 years (15 editions) (Figure 5).
- Questionnaire included suggestions for future content, which were incorporated into subsequent HAI-Lights newsletters. Topics included standard precautions, transmission-based precautions, bloodborne pathogens, and respiratory illnesses.

Scan to receive the HAI-Lights newsletter and view past newsletters.

Conclusions

- Most respondents reported that the HAI-Lights newsletter was "excellent" and increased their IPC knowledge.
- To further address IPC education gaps and ensure future healthcare workers are prepared to implement IPC strategies and prevent HAIs, DSHS will build partnerships with Texas pharmacy schools and continue existing partnerships with health profession schools.
- DSHS will survey newsletter recipients to determine changes in infection control behaviors and confidence in implementing infection control precautions. Survey results will guide the development of future editions.
- DSHS will continue targeting workforce development opportunities to communities with diminished IPC workforces, including sponsored IPC trainings and certifications (Certification in Infection Control [CIC]; Associate in Infection Prevention and Control [a-IPC]).

References

1. Centers for Disease Control and Prevention. (2024, November 6). *HAIs: Reports and data*. Healthcare-Associated Infections (HAIs). https://www.cdc.gov/healthcare-associated-infections/php/data/index.html