



HDA+ Conference Abstract Examples

Last Updated: 2/8/2024

Unsure how to word your HDA+ conference abstract?

Our review process is conducted by a committee composed of HDA+ member volunteers. Typically, the committee has around a dozen members, most of whom have served in this role for several years.

Once the abstract window closes, every member of the committee evaluates each submission against the following criteria, assigning equal weight to each:

- How broad of an appeal does this submission have for the HDA+ audience?
- How novel is the content of the proposed submission?
- Are the description and learning objectives clear?

Submissions are ranked by presentation type, highest to lowest grade. The committee may make minor adjustments to ensure an equitable balance across topics or to ensure that no one organization is over-represented on the agenda.

This document contains these examples of highly ranked submissions from HDA+ 2023.

- Three presentation abstracts, one for each of our target audiences: Executive / Clinical Leadership, Technical, and Program / Project Management
- One poster abstract
- One roundtable abstract



HDAA Conference Abstract Examples

Last Updated: 2/8/2024

Title: Understanding bias and fairness in the quest for responsible AI

Type: Presentation

Intended Audience: Executive / Clinical Leadership

Description:

Understanding the difference between data bias and algorithmic harm is crucial for clinical and public health leaders, as it enables them to identify and address the root causes of health disparities. Data bias refers to inaccuracies or misrepresentations in the data, often caused by underrepresentation of certain population groups. Algorithmic harm, on the other hand, results from biased algorithms that perpetuate or exacerbate existing disparities, leading to negative consequences for vulnerable populations.

By recognizing the distinction between data bias and algorithmic harm, organizations can adopt a data ethics approach combined with systems thinking to effectively utilize qualitative studies in improving equitable access to care. This strategy enables healthcare organizations to work towards fairer healthcare systems that consider the needs of all population groups, including those who are underrepresented.

This presentation will provide valuable insights and stimulate essential discussions on the importance of mitigating intersectional bias in healthcare algorithms to ensure equitable outcomes. By incorporating data ethics and systems thinking, clinical and public health leaders can better understand the complexities of health disparities and work towards creating a more just and inclusive healthcare environment for all.

Tags:

Predictive / Prescriptive Analytics, Artificial Intelligence, Machine Learning, Self-Service Analytics, Data Literacy, Equity, Population Health

Learning Objectives:

1. Understand the difference between data bias and algorithmic harm, and their impacts on health disparities and vulnerable populations.
2. Recognize the importance of incorporating data ethics and systems thinking in addressing intersectional bias within healthcare algorithms.
3. Learn how to effectively utilize qualitative studies to improve equitable access to care and contribute to a more just and inclusive healthcare environment.

Measurables:

N/A



HDAA Conference Abstract Examples

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Title: Unlocking the Power of EHR System Logs to Improve Clinical Workflows with Process Mining

Type: Presentation

Intended Audience: Technical

Description:

Process mining, a family of data science techniques, is used to discover and improve workflows using data from system logs. These techniques can be applied to data from the audit trails and logging capabilities natively found in the EMR to produce valuable insights on clinical processes. These techniques can be used to map out a complex process, depict it graphically and examine it, revealing bottlenecks, wasteful variation, and unnecessary wait time.

In this presentation, we'll introduce process mining techniques. We'll take a complex real-world example (the chemotherapy infusion process) and use the open-source PMTK process mining tools to show the power of this technique to use EHR data to map out a real-world clinical process and reveal opportunities to improve the process, and subsequently improve patient care.

Tags:

Analytics, Machine Learning, Clinical

Learning Objectives:

Gain an understanding of process mining techniques

Measurables:

This effort is still underway but will be complete in the next month. We've already seen valuable insights from the preliminary analysis, but measurable results from subsequent improvement efforts will take a few months to bear out.



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Title: Health System Integration Impact on Research Data Services

Type: Presentation

Intended Audience: Program / Project Management

Description:

The partnership of two health systems uniting under one academic and research core provided many opportunities for synergistic change. This process has been ongoing for almost two years and can offer insight to others tasked with similar endeavors. For this presentation we will focus on the integration of highly disparate research data sets from two separate organizations and EHR systems, the harmonization of processes for obtaining research data, and lessons learned. Specifically, we will:

- Provide an overview of pre-existing organizational structures – including relative sizes in both clinical and research settings
- Discuss timelines and process change management – including how we internally prioritized work to meet ambitious externally-set benchmarks, and communicated with stakeholders in real time
- Discuss key elements of the integration, particularly from a research data and process perspective – including legal, regulatory, infrastructure, workflow, and dataflow elements
- Review major decisions and roadblocks encountered by relevant stakeholders and groups
- Map beginning state to current state to future goal state

Tags:

Operational | Workflow, Project Management, Enterprise Data Warehouse, Research

Learning Objectives:

1. Understand the process and timeline of this data and service combination use case
2. Learn the expected and unexpected challenges of large enterprise data integrations
3. Understand how prioritization and resource leveraging was used to accomplish integration with minimal disruption of services

Measurables:

N/A



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Title:

Michigan Medicine ICU Liberation Initiative: Development and Implementation of a Health System-wide dashboard to track the ICU Liberation A-F bundle compliance

Type:

Intended Audience:

Description:

The ICU Liberation campaign, developed by the Society of Critical Care Medicine, seeks to provide an evidence-based guide for clinicians to address the organizational changes needed for optimizing adult and pediatric ICU patient recovery and outcomes. Implementation of the ABCDEF bundle provides well-rounded patient care and optimal resource utilization which results in protecting patients from harm caused by pain, agitation/sedation, delirium, immobility, and sleep disruptions experienced in an ICU. Through the (A-F) Liberation Bundle, the ICU teams can assess and manage pain, delirium, and sedation levels. Additionally, the bundle provides guidance on ventilator weaning protocols, early mobilization, and family involvement contributing to more interactive ICU patients who can safely participate in higher-order physical and cognitive activities at the earliest point in their critical illness. Michigan Medicine's adult ICU teams have implemented the A-F bundle clinical processes, yet they needed a method for tracking unit compliance rates. The Quality Analytics team, working in conjunction with the Michigan Medicine clinical staff, created and implemented a dashboard which tracks monthly aggregate compliance rates for ICU units across the Health System. In addition to reviewing adherence to the A-F protocols, this automated process helped the ICU nurses, respiratory therapists, and ICU leadership identify areas of continuous improvement.

Tags:

Self-Service Analytics, Clinical, Data Visualization

Learning Objectives:

1. Learn how Quality Analytics developed the individual A-F Bundle compliance metrics in collaboration with the Michigan Medicine ICU multidisciplinary teams.
2. Learn how Quality Analytics automated the extraction of multiple data elements from electronic health records, saving time while improving the A-F Bundle processes.
3. Learn how the ICU teams use the dashboard for understanding compliance trends and identifying the gaps in care.

Measurables:

Yes, through monthly dashboard updates we track all A-F Bundle elements for each of the eight adult ICU units. The dashboard allows us to visualize process metric trends while providing feedback to the ICU clinical teams. This A-F Bundle data is reported internally on a monthly basis thereby helping staff to update documentation workflows and compliance.



HDAA Conference Abstract Examples

Last Updated: 2/8/2024

Title: Building Resilience and Reinventing Cultural Norms in a Remote Work Environment

Type: Roundtable Facilitator

Intended Audience: Executive / Clinical Leadership

Description:

This roundtable explores the experiences of a data solutions team as they navigate the challenges of transitioning to full-time remote work following the abrupt shift to remote work due to the COVID-19 pandemic. The team's journey highlights strategies for building resilience, fostering collaboration, and reinventing cultural norms to maintain productivity and cohesion in a remote work environment.

The team also faced the task of establishing new cultural norms as a fully remote team and following an unprecedented period of high turnover, known as the Great Resignation. The impact of turnover on team dynamics, knowledge transfer, and project continuity will be examined. Strategies implemented to redefine roles, foster a positive work culture, and rebuild trust and motivation will be discussed.

Attendees will gain valuable insights into successfully transitioning a data solutions team in academic research to full-time remote work. Practical strategies for building resilience, maintaining productivity, and promoting a cohesive work culture in a remote work environment will be shared, providing guidance for similar endeavors.

Tags:

Staffing, Career Development, Work-Life Balance

Learning Objectives:

Understand the unique challenges faced by a data solutions team in academic research when transitioning to full-time remote work, including maintaining team cohesion, effective communication, and addressing logistical and technological hurdles.

Gain insights into strategies for building resilience and fostering collaboration within a remote work environment, including the utilization of remote collaboration tools, establishing clear communication protocols, and promoting virtual team-building activities.

Learn practical approaches for rebranding and establishing new cultural norms within a data solutions team following high turnover, including redefining roles, fostering a positive work culture, and rebuilding trust and motivation among team members.

Measurables:

Enterprise engagement survey results, internal survey results, retention/turnover, productivity