

October 2016

Bellevue College and the U.S. Department of Veterans Affairs Develop Health Care Data Analytics Curriculum

- Addressing the need for healthcare workers to understand data analytics
- Working collaboratively with federal agency staff and industry subject matter experts to develop curricula
- Utilizing data analytics to respond to veterans' health care needs

Introduction

Data analytics, a system of tools and techniques used to generate insight from data by discerning and communicating patterns and relationships, plays an increasingly substantial role in health care organizations. Yet healthcare professionals across the spectrum typically lack training in this vital area. Bellevue College, a U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) grantee, received a grant from the U.S. Department of Health and Human Services, Office of the National Coordinator for Health Information Technology (HHS/ONC) to develop health information technology curricula. Recognizing the skills gap among health care workers related to data analytics, Bellevue College used its grant funds to work in collaboration with the U.S. Department of Veterans Affairs, Health Administration (VHA), National Informatics Group to develop an 8-week, 40-hour online course, Introduction to Health Care Data Analytics.

The need for an understanding of data analytics encompasses a breadth of occupations in the health care field, such as health information technicians, nurses, physicians, and administrators. The unprecedented growth of data generation and collection has far-reaching impacts on individuals, industries, and government. Harnessing the vast amount of available data and discovering meaningful patterns enables health care organizations to make evidence-based business and clinical decisions to better understand individual patients and groups and to improve the health and safety of particular patient populations.¹

Approach

As a TAACCCT grantee, Bellevue College is the lead member of a nine-college consortium focused on preparing veterans, trade-impacted workers, and others for promising careers in health care and health information technology. “The HHS/ONC grant was awarded within our TAACCCT grant period and this new initiative enabled us to amplify that effort,” says Patricia Dombrowski, Executive Director, Life Sciences Information Center, Bellevue College. “The VHA disseminated an organization-wide survey to all employees requesting information on their professional development needs. Training in health care data analytics emerged as the number one training need in the organization, across all job descriptions. Ever-growing amounts of critical data are affecting everyone at the VHA, not just researchers. The results of the survey confirmed our hypothesis that people throughout the organization need this training.”

The VHA National Informatics Group and Bellevue College worked collaboratively with other partners within the VHA—the Employee Education System and the Field-Based Analytics Program, Office of Organizational Excellence—as well as industry subject matter experts from organizations such as Kaiser Permanente, to define the competencies that employees need to achieve related to health care data analytics. “We involved outside organizations in developing our curriculum to ensure that the course could be disseminated to a broader

¹ U.S. Department of Veterans Affairs, Veterans Health Administration http://vatraining.remote-learner.net/pluginfile.php/7806/mod_page/content/45/Da%20Syllabus%20PDF.pdf

population,” says Ms. Dombrowski. “Our goal was to keep the materials generic enough to serve anyone who needed data analytics training. The team developed a six-module curriculum with defined student learning outcomes. The curriculum is activity-rich with more than a dozen hands-on activities with robust student feedback to promote learning. We will utilize VHA staff as volunteer faculty and mentors to enliven and facilitate discussion. We really want to shine the light on veterans. It’s important that we serve the veterans who served us.”



U.S. Department
of Veterans Affairs



Healthcare **DATA ANALYTICS** Introduction

Quality Improvement and Data Analytics
Health Care Data as an Organizational Asset
Working with Data
Data Analytics Tools and Techniques
Using Data to Solve Problems
Using Data to Tell the Story

8 weeks
40 hours
Online



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Next Steps

“We piloted the course this beginning in August,” says Margaret Murphy, Lead Instructional Designer, Life Sciences Information Center, Bellevue College. “Forty students, all VHA employees from an array of health care occupations, including nurses, physicians, and pharmacists, participated in the pilot and provided positive feedback. A full launch of the course is planned for October and we have exceeded the enrollment goal of 1,000 by over 700 VHA employees. Although the course is internal to the VHA at present, our goal is to recast the course for public uptake and disseminate it nationally in 2017.”

Related Links

U.S. Department of Veterans Affairs, Health Administration, Introduction to Health Care Data Analytics Course Syllabus

http://vatraining.remote-learner.net/pluginfile.php/7806/mod_page/content/49/Da%20Syllabus%20PDF.pdf

Office of the National Coordinator for Health IT, Department of Health and Human Services

<https://www.healthit.gov/topic/health-it-resources>

National Health IT Curriculum

<https://knowledge.amia.org/onc-ntdc>