OMB No. 0925-0001 and 0925-0002 (Rev. 10/15 Approved Through 10/31/2018)

# BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.

Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Vaughn, Thomas E.

eRA COMMONS USER NAME (credential, e.g., agency login): VAUGHNT POSITION TITLE: Associate Professor of Health Management and Policy

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

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| INSTITUTION AND LOCATION | DEGREE  *(if applicable)* | Completion Date MM/YYYY | FIELD OF STUDY |
| Duns Scotus College, Southfield, MI |  | 1967-1970 | Philosophy |
| University of Michigan |  | 1971 | Philosophy |
| Eastern Michigan University, Ypsilanti, MI | B.S. | 1974 | Philosophy |
| University of Michigan, Ann Arbor, MI | M.H.S.A. | 1978 | Health Services Administration |
| University of Michigan, Ann Arbor, MI | Ph.D. | 1993 | Health Services Organization and Policy |

# Personal Statement

I have extensive experience both as a practicing healthcare executive and as a researcher. My recent research has focused on the role of governance, leadership, and structures and processes in improving hospital quality, teamwork in healthcare organizations, the impact of the Affordable Care Act on rural health care delivery, and community-level activities to improve the “culture of health” in rural communities. Much of my research involves developing and conducting research in health care delivery organizations.

More specifically, I was one of the lead researchers of the team that developed the Hospital Leadership and Quality Assessment Tool (HLQAT) which is a survey instrument designed to assist hospitals to identify leadership strengths as well as structures and processes that support desired quality improvement activities. I was an investigator on an evaluation of the AHRQ-funded TeamSTEPPS implementation in 13 critical access hospitals in Iowa, and am currently an investigator on an AHRQ-funded project to determine whether pre-planning for TeamSTEPPS can improve implementation effectiveness. I am currently an investigator on two research projects with the Rural Policy Research Institute (RUPRI), one a technical assistance grant looking the impact of the Affordable Care Act on rural health care delivery and the second an examination of accountable care organizations serving rural communities. I am also an investigator on an RWJF-funded project examining how hospitals collaborate with other agencies to address the health of the population in their community.

I have a Masters of Health Services Administration and eight years of administrative experience, including three years as a Director of Strategic Planning, prior to earning my Ph.D. in Health Services Organization and Policy from the University of Michigan. In my current role at the University of Iowa, I teach our Strategic Planning and Marketing course as well as our Human Resource Management course.

Positions and Honors

Positions

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| 1996-99 | Assistant Professor, Graduate Program in Hospital and Health Administration, College of Medicine, The University of Iowa, Iowa City, IA |
| 1999-03 | Assistant Professor, Department of Health Management and Policy, College of Public Health, The University of Iowa, Iowa City, IA |
| 2003- | Associate Professor, Department of Health Management and Policy, College of Public Health, The University of Iowa, Iowa City, IA |
| 2004-09 | Senior Research Scientist, VA Center of Excellence, Iowa City VAMC, Iowa City, IA |
| 2005-16 | Director of Masters Programs, Department of Health Management and Policy, College of Public Health, The University of Iowa, Iowa City, IA |

Other Experiences and Professional Memberships

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| 1989- | Academy of Management |
| 1978- | American College of Healthcare Executives |
| 1994- | American Public Health Association |
| 2007- | Iowa Public Health Association |
| 2011- | Medical Group Management Association |

# Contribution to Science

My contributions are focused in three areas, all related to organizational factors to improve health care delivery and quality. A major strength of my contributions are that they are based on strong theoretical concepts from organizational theory so the findings can be broadly applied to improve care in multiple settings. A second strength is that they involve multiple organizations, thus increasing the likelihood that the findings can be generalized to other organizations beyond those participating in the studies.

Organizational Structures and Processes and Organizational Change

I use the lens of organizational theory to examine how organizational structures, policies, and practices improve the ability of organizations to implement change and improve operations. My primary contributions on most projects is to develop a conceptual model that illustrates the flow of impacts from organizational or unit structures to the processes and practices of individuals, or teams depending on the level of analysis, to outcomes. In one set of studies we tested these models in a large sample of hospitals to identify the most important organizational factors supporting or restraining effective implementation of organizational change. Our results have demonstrated that implementation effectiveness was positively associated with physicians’ belief that the guideline was applicable to their practice, effective communication between physicians and nurses, consistent participation of patient care providers in quality improvement activities, changing responsibilities of clinicians to support the guideline, and systematic feedback. Examples of these studies include:

1. **Vaughn, T. E**., Ward, M. M., Doebbeling, B. N., Uden-Holman, T. M., Clarke, W. R., Woolson, R. F. (2002). Organizational and provider characteristics fostering smoking cessation clinical guideline adherence: An empirical look. *Journal of Ambulatory Care Management, 25*(2), 17-31.
2. **Vaughn, T. E.,** McCoy, K. D., BootsMiller, B. J., Woolson, R. F., Sorofman, B., Tripp-Reimer, T., Perlin, J., Doebbeling, B. N. (2002). Organizational predictors of adherence to ambulatory care screening guidelines. *Medical Care, 40*(12), 1172-1185.
3. **Vaughn, T. E**., McCoy, K. D., Beekmann, S. E., Woolson, R. F., Torner, J. C., Doebbeling, B. N. (2004). Factors promoting consistent adherence with safe needle precautions among hospital workers. *Infection Control and Hospital Epidemiology, 25*(7), 548-555.
4. Ward, M. M., Yankey, J. W., **Vaughn, T. E**., BootsMiller, B. J., Flach, S. D., Welke, K. F., Pendergast,

J. F., Perlin, J., Doebbeling, B. N. (2004). Physician process and patient outcome measures for diabetes care: Relationships to organizational characteristics. *Medical Care, 42*(9), 840-850.

Organizational Culture and Work Environment and Patient and Staff Safety

A related area of contributions has examined the role of organizational culture and work environment in assuring that nursing units are safe for both patients and staff. Here, also, we examined the impact of these factors in multiple hospitals. Included in our findings was evidence that a group culture (i.e. one focusing on norms and values associated with affiliation and trust) was associated with better scores on a continuous quality improvement scale that operationalizes the Malcolm Baldridge National Quality Award, and that medication error reporting was positively related to unit quality management, staffing resources, peer relations, and job satisfaction.

* 1. Wakefield, D., Wakefield, B., Borders, T., Uden-Holman, T. M., Blegen, M., **Vaughn, T. E**. (1999). Understanding and comparing differences in reported medication administration error rates. American Journal of Medical Quality, 14(2), 73-80.
  2. Wakefield, D., Wakefield, B., Borders, T., Uden-Holman, T. M., Blegen, M., **Vaughn, T. E**. (1999). Understanding why medication administration errors may not be reported. American Journal of Medical Quality, 14(2), 80-88.
  3. Blegen, M. A., **Vaughn, T. E**., Pepper, G., Vojir, C., Stratton, K., Boyd, M., Armstrong, G. (2004). Patient and staff safety: Voluntary reporting. American Journal of Medical Quality, 19(2), 67-74.

Leadership and Quality Structures and Processes

The third area of contributions has examined the relationship between leadership’s (board, senior executives [C-suite], and clinical managers) perceptions of hospital quality structures and policies and actual quality of care. We found that board members and C-Suite leaders tend to have more positive perceptions of quality structures and policies than clinical managers, and that more positive perceptions for any of the three groups were associated with better scores on CMS Core Measures.

1. **Vaughn, T. E**., Koepke, M., Kroch, E., Lehrman, W., Sinha, S., Levey, S. (2006). Engagement of leadership in quality improvement initiatives: Executive quality improvement survey results. *J Patient Saf, 2*(1), 2-9.
2. Kroch, E., **Vaughn, T. E**., Koepke, M., Roman, S., Foster, D., Sinha, S., Levey, S. (2006). Hospital boards and quality dashboards. J Patient Saf, 2(1), 10-19
3. Levey, S., **Vaughn, T. E**., Koepke, M., Moore, D., Lehrman, W., Sinha, S. (2007). Hospital leadership and quality improvement: Rhetoric versus reality. J Patient Saf, 3(1), 9-15.
4. **Vaughn T**, Koepke M, Levey S, Kroch E, Hatcher C, Tompkins C, Baloh J. (2014) Governing Board, C- Suite, and Clinical Manager Perceptions of Quality and Safety Structures, Processes, and Priorities in

U.S. Hospitals. Journal of Healthcare Management. 59(2 March/April):110-128.

# C. Research Support

## Ongoing Research Support

U1C RH 20419-08Mueller (PI) $5,118,832 09/01/2004 - 08/31/2020

US Department of Health & Human Services, Health Resources & Services Administration

# Rural Health Research Grant Program Cooperative Agreement

The mission of the Center is to provide timely analysis, based on the best available research (including original research from the Center), to federal and state health policy makers.

*Role: Co- Investigator*

# 2 UB7 RH25011-05 Mueller (PI) $2,512,654 09/01/2012 – 07/31/2018

US Department of Health & Human Services, Health Resources & Services Administration

**Rural Health System Analysis and Technical Assistance Program**

This project analyzes rural implications of changes in the organization, finance, and delivery of healthcare services in the US, and assists rural communities and providers transition to a high performance rural health system.

*Role: Co-Investigator*

RWJF 73062 Zhu (PI) $210,554 11/01/2015 – 10/31/2017

Robert Wood Johnson Foundation

**Building a Local Culture of Health: The Roles of Rural Communities and Hospitals**

*Role: Co-Investigator*

VA-IPA Vaughn (PI)

US Department of Veterans Affairs VAMC $179,067

**Rural Veterans' Access to VA and non-VA Health Care Providers: Current Conditions and Future Scenarios**

This proposal builds on our prior work by mapping out a comprehensive summary of rural Veterans health care options to identify areas where rural Veterans may have few non-VA health care options. In addition, we will integrate information about Veterans health care access options as identified by their insurance coverage into the overall summary to help inform policy decisions.

*Role: Principle Investigator*

1 R03 HS024112-01 Zhu (PI) $98,369 07/01/2015 – 06/30/2017

Agency for Healthcare Research and Quality

**Pre-Training Intervention for Expedited TeamSTEPPS Implementation in Critical Access Hospitals**

The objective of this study is to develop a pre-training intervention specifically designed to assist CAHs to prepare for TeamSTEPPS. We will pilot test the intervention in four CAHs and prospectively examine how the intervention influences the process of implementing TeamSTEPPS in CAHs.

*Role: Co-Investigator*

Completed Research Support

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| 5 U1 CRH20419-07 Mueller (PI) | 06/01/2010 – 08/31/2016 |
| US Department of Health & Human Services, Health Resources & Services Administration | $3,243,019 |
| Rural Health Research Center Cooperative Agreement Program | |
| The RUPRI Center for Rural Health Policy Analysis at the University of Iowa will complete projects within this topic of concentration: The effects of payment and other policies on health care organizations and health plans in rural places. The Center will continue to use the framework of the continuum of care when assessing how essential services are sustained locally and linked to services across the entire continuum, whether those services are local, regional, or national. Additionally, the framework developed by the RUPRI Rural Health Panel ("Pursuing High Performance in Rural Health Care"), will guide analysis of the impact of public policies on achieving a more desirable future for rural health services. | |
| Role: Co-Investigator |  |

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| 5 R18 HSo21422-02 Steelman (PI) | 09/30/2013 – 09/29/2016 |
| US Department of Health & Human Services, Agency for Healthcare Research & Quality | $344,235 |
| Implementing Safe Practices for Prevention of Perioperative Hypothermia | |
| The objective in this application is to evaluate the effect of the Prevention of Perioperative Hypothermia (PPH) Safety Toolkit on adherence to safe practices for prevention of perioperative hypothermia (preoperative forced air warming, intraoperative forced air warming, and warming of intravenous fluids) and selected outcomes, including rates of hypothermia and a complete cost evaluation. The toolkit will be adaptable for use in other hospitals and ambulatory surgery centers. Through dissemination, it has the potential to improve patient care nationwide. The knowledge gained through this study can be generalized to implementation of other safe practices, improving quality, safety, efficiency, and effectiveness of healthcare. | |
| Role: Co-Investigator |  |

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| Role: Co-Investigator |  |
| IPA Vaughn (PI) | 03/23/2015-09/30/2016 |
| US Department of veteran Affairs,  Iowa City Veterans Affairs Medical Center | $64,899 |
| VA – IPA Vaughn |  |
| This is a special two year project, an evaluation of the Access Received Closer to Home (ARCH) demonstration, including recommendations regarding continuing the pilot program, extending it to other or all Veterans Integrated Service Networks, and/or making the pilot program permanent. | |
| Role: PI |  |