Proposal: **Evaluation of the Implementation of the Statewide Health Information Exchange (HIE)**

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Background and Significance

Electronic health information exchange (HIE) promises many potential benefits for multiple stakeholders in the U.S. health care system through improved quality of care, improved coordination of clinical care and reduced costs (eHealth Initiative, 2009; Office of the National Coordinator [ONC], 2008). Thus, the number of organizational initiatives involved in health information exchange is growing, and both national and state-level exchanges are being promoted (Agency for Healthcare Administration [AHCA] HIT Policy Committee, 2009). At the same time, challenges and barriers to sharing information remain high. Included in these challenges is a lack of stakeholder participation or buy-in, costs, lack of technical skills, and concerns regarding privacy, security, and governance (Ash and Guappone 2007). Both hospitals and physicians have been slow to join HIEs. Evaluation efforts can also identify the willingness of stakeholders to participate in data exchange and under what terms (Grossman, Kushner & November, 2008). **To guarantee a high level of HIE participation and the long term sustainability of the HIE, in it imperative to 1) solicit stakeholder involvement and 2) conduct a thorough evaluation that assures the development of an HIE that provides value and supports quality reporting**. In a

recent study which was supported by Central and North Florida Health Information and Management Systems Society (CNFHIMSS), we discovered that a large percentage of physicians in Florida remain unaware of health information exchange efforts (Mohammed, Deckard et al. 2011). Thus comprehensive process evaluation must seek to involve both those stakeholders who participate and those who do not currently participate in the data exchange in order to provide a complete understanding of the issues related to promotion, adoption and exchange of information.

Most HIE initiatives are as yet immature, thus, process evaluation is recommended to allow us to learn through the evaluation and to immediately apply the findings to assist in HIE development efforts (Ash and Guappone 2007; Cusach and Poon 2007; Frisse and Holmes 2007; Hripcsak, Kaushal et al. 2007; Johnson and Gadd 2007; Kaelber and Bates 2007; Kern and Kaushal 2007; Marchibroda 2007; Shapiro 2007). As states move forward—in parallel with federal efforts—to implement health information exchanges, process evaluation can guide implementation and identify gaps, opportunities to improve the specification of metrics, and existing or desired technical requirements that enable automated reporting. Marchibrode (2007) suggests that **the most difficult challenges facing health information exchange initiatives and organizations is related to assessing the value of services that emerge from the health information exchange to various stakeholders groups such as providers, payers, and employers, and converting those value assessments to business plans that promote and assure sustainability.** She further notes that "the most critical evaluation questions focus on the impact of health information technology and health information exchange on quality, safety, efficiency, the value of such efforts for various stakeholders, and assessment of how grant programs can be designed to support positive impact, value, and a sustainable business model, so that efforts continue when the grant funds are fully expended" (Marchibroda 2007).

Purpose of Evaluation and Proposed Approach

Florida's vision is to achieve clinically relevant, secure, and sustainable approaches to technology adoption, utilization and exchange that drives the achievement of better health care outcomes for all Floridians and through lowered total costs, improves access to quality care. The Agency for Health Care Administration (Agency) intends to promote the development of health care clinical information exchange that is sustainable, privacy-protected, and aligned with national standards. In collaborating with stakeholders, the Agency has focused on what the State is in the best position to do, based on stakeholders' stated HIE needs, and how to leverage existing networks to best achieve widespread adoption. From 2005 to 2008, the Agency ran the FHIN Grants Program with the intent to leverage the

development of health information exchange locally. The Legislature invested $5.5 million over the three years to spur each of the RHIOs toward full implementation of health information exchange and financial sustainability. At the end of the FHIN Grants period, each of the RHIOs was poised to begin exchanging electronic health data among provider groups in their communities. The Agency is also supporting HIT adoption efforts by its collaboration with the four Regional Extension Centers (RECs) funded by ONC. The approach is to create a "network of networks" by building on existing health information exchange infrastructure including health system integrated delivery networks (IDNs) and Regional Health Information Organizations (RHIOs). Our design will continue to ensure coordination with the RECs, RHIOs, IDNs and the Medicaid Incentive Program.

The intent of the proposed comprehensive project evaluation is to assist the Agency in guiding the implementation of the statewide health information exchange and to simultaneously meet all national requirements for reporting. **Specifically, the team will develop and recommend methods, techniques and tools that will track and maintain project information for the state to conduct a self-evaluation of the project and to inform national program-level evaluation**. The information provided will also assist the Agency to continuously modify the strategic and operational plan and address improvements in efforts to realize an appropriate and secure HIE. In addition, this information and the lessons learned can be shared as feedback to the ONC.

As in any project, the design for evaluation begins with defining exact requirements. The Agency has identified the following specific deliverables:

1. **Stakeholder Analysis.** Collecting data in regards to stakeholder involvement in the collection of existing and future data related to promotion, adoption and exchange of provider health care information. Key stakeholders include hospitals, county health departments, federally-qualified health centers (FQHC), regional extension centers (REC) regional health information organizations (RHIO), state agencies, including the Florida Department of Health, professional organizations, health plans, HIT vendors, health care providers and consumers. The research team will also interview members of the Health Information Exchange Coordinating Committee (HIECC). **This analysis will include stakeholders that chose not to participate, or have not yet decided to participate in the HIE.**

2. **Identification of Baseline Measures.** This deliverable includes the assembly of a baseline to be used to measure project milestones, outcomes and barriers. The baseline data will employ the parameters established by ONC and build upon the State Self-Assessment and the Medicaid-funded

environmental assessment of electronic health record adoption and health information exchange among hospitals, physicians and other providers. By identifying gaps or problems in the process, these measures will serve as a tool to focus attention on details which need to be addressed in order to support the implementation of the HIE**. This baseline will reflect changes at yearly intervals and will include measurement of the impact of program and incentives from the RECs and CMS**.

3. **Baseline Measures Data Repository.** Identify and select a knowledge management system where key measures will be stored for easy retrieval by the Agency. This information system will include several dashboards with key performance indicators that the Agency can utilize for benchmarking. We anticipate one dashboard for each of the five domains related to health information exchange capacity and oversight as requested by ONC: governance, finance, technical infrastructure, business and technical operations, and legal policy. We will work with the Agency to leverage existing technologies used by the state for this purpose as to not incur unnecessary technology license costs.

4. **Create Implementation-Phase Performance Measures**. These measures are intended to reflect changes to the baseline at yearly intervals from the onset of the data collection date. The objective is to identify 1) the impact of the HIE implementation 2) incentives that facilitate implementation and 3) identify any unintended consequences of the HIE implementation. Measures will include the degree of provider participation in the state HIE enabled technical services and the degree to which pharmacies and clinical laboratories are active trading partners. **Performance measures will be grouped into five domains related to health information exchange capacity and oversight as requested by ONC: governance, finance, technical infrastructure, business and technical operations, and legal policy**. Appendix B provides examples of potential performance and operational measures.

5. **Annual Report**. These reports will meet the requirements of the National Opinion Research Center and will be consistent with the evaluation of ONC's Statewide HIE Program nationwide.

We also understand that the following expectations exist:

- **Attendance of Quarterly Meetings**. Team will attend in person or via phone conferencing the quarterly HIECC meetings.

- **Attendance of Project Team Lead Meetings.** Team will attend in person or via phone conferencing the project team lead meetings in order to monitor the implementation process.

Figure 1 outlines our overall approach for the evaluation. We plan to use a mix of qualitative and quantitative methods (we elaborate in the following sections). **Given that the evaluation plan is longitudinal, we will set priorities about what needs to be tracked, and use an iterative evaluation.**

An iterative approach allows us to determine metrics, grade metrics in order of importance to stakeholders and assess the feasibility of existing and proposed metrics. This includes design of the study, idea generation, data gathering, analysis, and interpretation. It is likely each step will be done more than once (Ash and Guappone 2007), often revisiting each step. In the next section we outline our approach for each step.
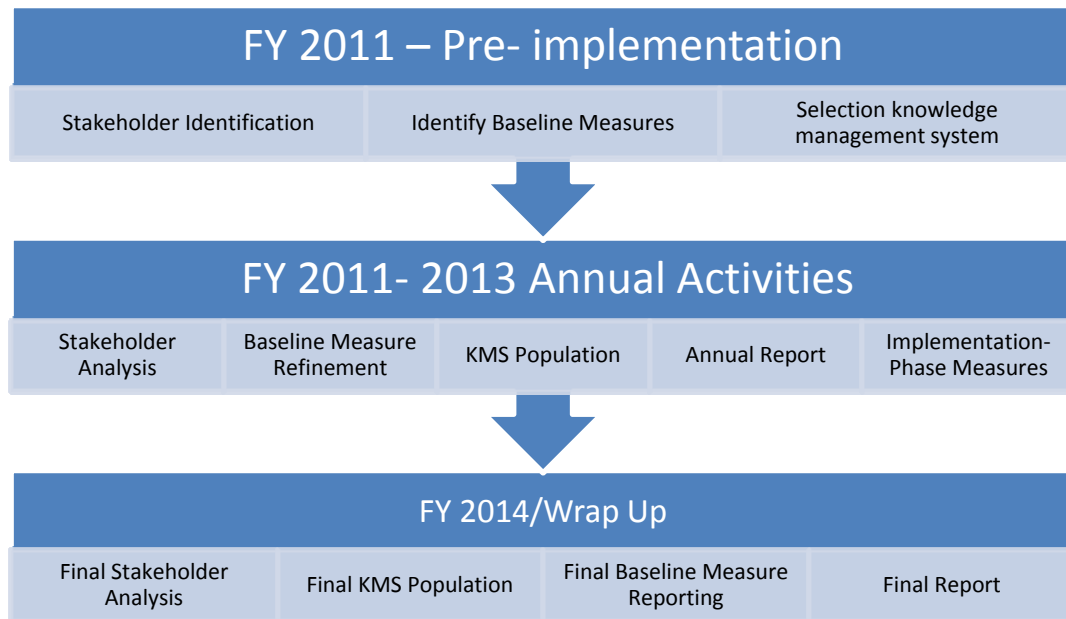
FY 2011 – Pre- implementation

| Stakeholder Identification | Identify Baseline Measures | Selection knowledge management system |

FY 2011- 2013 Annual Activities

| Stakeholder Analysis | Baseline Measure Refinement | KMS Population | Annual Report | Implementation-Phase Measures |

FY 2014/Wrap Up

| Final Stakeholder Analysis | Final KMS Population | Final Baseline Measure Reporting | Final Report |

Figure 1 - Approach/ Work plan Overview

Theoretical Framework and Research Method

The theoretical framework influencing our approach is the DeLone and McLean Model for Information Systems Success, which was originally described in 1992 and revised in 2003 based upon empirical testing (DeLone and McLean 2003). The original model conceptualizes information systems success according to five dimensions: system quality, information quality, use, user satisfaction, and impact. This framework has been greatly cited and utilized in both general information systems research and in health care information systems research (Van Der Meijden, Tange et al. 2003; Palm, Colombet et al. 2006; Lau, Hagens et al. 2007; Daskalakis and Mantas 2008; Golob, Fadlalla et al. 2008; Jen and Chao 2008; Yu 2010). The model encompasses perceived usefulness and ease of use constructs from the Technology Acceptance Model (Davis, Bagozzi et al. 1989) in its information quality and system quality dimensions. According to the model, the impact of a system is directly related to the intention, use and satisfaction of the user, which is influenced by the quality of the system and information content (Figure

2). As a result of the extensive use of this framework in both general information systems and healthcare information systems research, there is a rich repository of available survey and interview instruments.
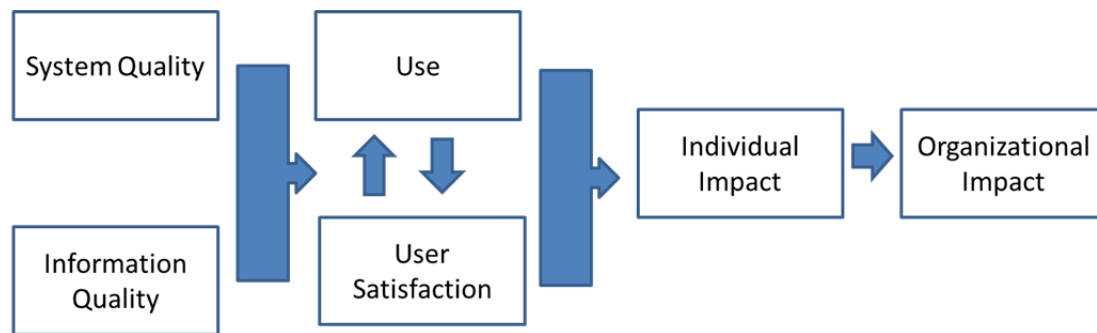

Figure2. DeLone and McLean Model for Information System Success.

FY 2011 – Pre-Implementation

1. **Content analysis of all available documentation**. This activity involves a review of all documentation regarding the development of the HIE, including all plans, reports and cooperative agreements with the Agency, written communications and agreements with the Harris Corporation, and minutes of the HIECC meetings to date. The analysis will also explore program reporting requirements and related Medicaid Meaningful Use requirements. We will seek to obtain an exhaustive knowledge of all components and activities that will impact the evaluation from the state perspective.

2. **Identify key stakeholders**. An important step will be to clearly identify and contact a representative sample of initial key stakeholders. As identified by the statement of work, stakeholders are people and/or organizations with a direct interest or involvement in the implementation of the HIE and include hospitals, county health clinics, federally-qualified health centers (FQHC), Florida Health Department, regional extension centers, RHIOs, state agencies and professional associations. Initial contact will be facilitated by HIECC. The approach is systematic, we will utilize a multi-stakeholder process which brings a number of different groups into constructive engagement, dialogue and decision making. .

3. **Identify Baseline Measures**. Baseline measures will be identified through the following sources.

a. Initial measures identified by the Agency and the ONC as well as AHRQ (see AHRQ Evaluation Toolkit (Cusach and Poon 2007)). We will assure metrics are consistent with the ONC performance measures including measures that indicate the degree of provider participation in different types of HIE required for meaningful use. The proposed key data sources of initial interest include the Department of Health's (DOH) Health Management System data which includes electronic lab results for patients treated by DOH county facilities, DOH immunization registry data, two networks of federally qualified health centers (FQHC), and medication history from Surescripts, which includes the Florida Medicaid prescription history. We will also incorporate the Agency's planned obtaining of electronic lab test results on Medicaid recipients from two national laboratories.

b. Thorough review of all available documentation from the Agency.

c. Thorough review from the literature, guided by our theoretical framework.

d. Surveys/interviews/focus groups of key stakeholders. Clinicians, laboratory services, pharmacies, hospitals and other such groups collect a tremendous amount of data for multiple purposes: to satisfy various federal and state requirements, to conduct ongoing quality assurance evaluations, to measure patient and staff satisfaction, etc. There are therefore likely teams within the participant groups that are already collecting data that might be useful as an evaluation metric. To assure statistical validity, a sample size calculation will be performed using SAS.

4. **Consider project impacts on potential metrics**. We will consider the potential metrics on our list and whether and how the HIE implementation might impact those metrics. We will evaluate whether the HIE implementation will truly impact these metrics. This exercise will help eliminate unnecessary metrics.

5. **Rank metrics in order of importance to stakeholders.** This will help filter out those metrics that are interesting but will not provide information of value to stakeholders, particularly the end-users.

6. **Determine feasibility of chosen metrics**. We will take into account the available resources and focus on what is achievable and on what needs to be measured to determine whether the implementation has met its goals.

7. **Draft plan around each metric**. We will map out how we will measure each metric, the timeframe and possible comparison group for each metric. **We plan to have an expert panel review this plan for face validity.**

8. **Assemble data to develop baseline.** After identifying the metrics and sources of measures, we will assemble the data to develop the baseline.

9. **Database Design**. We will identify and select a knowledge management system where key measures will be stored for easy retrieval by the Agency. At this stage we will work with the Agency and the HIECC to identify the dashboards needed (we anticipate one dashboard for each five domains related to health information exchange capacity and oversight as requested by ONC: governance, finance, technical infrastructure, business and technical operations, and legal policy) and the key performance indicators.

10. **Create Annual Report**. Careful thought will be given to presentation of the initial results. This will include a summary of the work conducted by the team, a list of stakeholders identified and a summary of their perceptions, a clear description of the baseline measures identified and collected.

FY 2012-2014 Ongoing Analysis

Ongoing analysis includes revisiting each of the steps above in order to revise metrics and understand barriers and lessons learned. This phase will have the following steps:

1. **Identify new stakeholders**. We will consult with the Agency, State HIE vendor (Harris Corporation) and HIECC to identify new stakeholders.

2. **Yearly surveys, interviews and focus groups with key stakeholders to evaluate barriers, facilitators and lessons learned**. We will conduct focus groups and interviews with providers that are currently using HIE to identify what has gone well, what has gone poorly, and unexpected consequences. We will utilize a statistician to identify statistically feasible sample size for interviews and focus groups. Once we identify the main themes, we will triangulate focus group findings by sending surveys. The lessons learned may reflect the barriers and facilitators encountered at various phases of the HIE implementation project. **Barriers may include organizational barriers, technology barriers, security/privacy barriers, financial barriers, legal barriers and others as identified by stakeholders**. In addition to tracking barriers, we will also track what steps were taken to overcome those barriers. For example, strong leadership, being impartial across the participants, good training, and support in the early stages of implementation, and obtaining buy in from your target community, may serve as important facilitators. **This type of information is extremely valuable not only to the Agency but also to others undertaking similar projects**. Other lessons learned of great interest to others, would be approaches to determining governance, legal, organizational, consumer and technical issues (Cusach and Poon 2007).

3. **Yearly revisiting to identify additional baseline measures**. We will revisit the sources indicated above, paying particular attention to any new documents, files and literature, as well as tracking ONC initiatives.

4. **Yearly examination of project impacts on potential new metrics**. We will consider the potential metrics on our list and whether and how the HIE implementation might impact those metrics. We will evaluate whether the HIE implementation will truly impact these metrics. This exercise will help eliminate unnecessary metrics.

5. **Yearly review of ranking of metrics in order of importance to stakeholders**. As experience may change perceptions of importance, we will review the rankings of metrics on an annual basis. This will help filter out those metrics that are interesting but will not provide information of interest to stakeholders.

6. **Yearly review to determine feasibility of new metrics and revisit previous metrics**. Actual collection of metrics and measures will provide knowledge on the true feasibility of the data collection. We will take into account the resources and focus on what is achievable and on what needs to be measured to determine whether the implementation has met its goals.

7. **Yearly re-draft plan around each metric.** We will re-map out how we will measure each metric and revise as appropriate, re-visit the timeframe and possible comparison group for each metric. **We will return to our expert panel review to this plan for face validity.**

8. **Yearly Population of knowledge management system**. Baseline metrics will be stored in KMS and indexed to allow easy search and retrieval for Agency's reporting needs. Additionally, dashboards will be continuously updated.

9. **Create annual report**. Careful thought will be given to presentation of initial results. This will include a summary of the work conducted by the team, a list of stakeholders and a summary of their ongoing perceptions, a clear description of the baseline measures identified and collected.

FY 2015 Project Wrap-Up

The steps indicated above will be repeated one final time, and a final report will be generated. Also a data sharing plan will be created in order to disseminate lessons learned to the ONC, the Agency and other states. The knowledge system and dashboards will be completed, and plans will be made for potential extension to populating dashboards by existing Agency IT staff to enable self-evaluation and assist in responding to national reporting requirements.

Key personnel include Dr. Monica Chiarini Tremblay and Dr. Gloria Deckard both of whom will provide 50% effort in Fiscal Year 1 to assure an aggressive start to the evaluation process and 25% effort for each of the following fiscal years. The team will also include three qualified Graduate Student Assistants in Year 2 (July 1, 2011 – June 30, 2012) to assure that initial systems will be aligned in conjunction with the needs and timeframe of the Agency. Two Graduate Student Assistants will be employed in Years and 4 (July 1, 2012 – June 30, 2014).

As noted in the Letters of Support in Appendix C, these personnel will be able to call upon numerous experts for support and guidance throughout the project in addition to those provided through the Agency and the HIECC. This support includes individuals from South Florida, Central and North Florida.

Both Drs. Chiarini Tremblay and Deckard are experienced health care researchers and provide key expertise for the evaluation of an HIE. Full resumes are provided in Appendix D. The summaries provided below emphasize their experience most relevant to this project.

Monica Chiarini Tremblay is an Assistant Professor in the Decision Sciences and Information Systems Department in the College of Business Administration at Florida International University. Her research interests focus on data analytics and business intelligence, data and text mining, data quality, data warehousing, decision support systems and knowledge management, particularly in the context of health-care. Dr. Tremblay is currently working as a co-investigator in two Veterans Administration, Health Services Research and Development funded studies: "Using Knowledge Discovery Strategies to Identify Fall-related Injuries in the VA", and "Using Text Mining to Differentiate Between Post Traumatic Stress Disorder and Mild Traumatic Brain Injury in Operations Iraqi Freedom and Enduring Freedom Veterans". She is a co-investigator in "Consortium for Healthcare Informatics Research", a national initiative for the Veterans Administration, Health Services Research and Development.

Along with two other faculty members at FIU, Dr. Tremblay was awarded funding from the Central and North Florida HIMSS to lead a group of graduate students in a study entitled "Stakeholder Distrust as a Barrier to Health Information Exchange Participation".

Dr. Tremblay has joined the Technical Advisory Panel for the Health Council of South Florida's (HCSF) Miami Matters, a new web-based information system that will serve as a conduit for informed and resourceful community action on community issues. Additionally, Dr. Tremblay serves as an ad-hoc reviewer for the Healthcare technology and Dissemination Sciences Study Section of the Agency of Healthcare Quality (AHRQ), which is part of the National Institute of Health (NIH).

She has been invited to participate in several expert panels, including: "Bridging the Disconnect between Healthcare Providers and Information Technologists" at Claremont Graduate University (2010), SAS Data Mining Conference (2007) and The Association for Community Health Improvement (as an audio panel) and was an invited speaker at "Making an Impact: Evidence-Based Community Benefit" which was sponsored by the Catholic Health Association (2008). Dr. Tremblay's teaching experience includes courses in health informatics, business intelligence, statistics and database design administration.

<u>Gloria J. Deckard</u> is an Associate Professor and has been affiliated with health care management programs in both faculty and administrative roles for nearly 25 years. In January 2010, she joined the Department of Decision Sciences and Information Systems in order to a work with the faculty in developing a Master of Science degree in Health Informatics and Management Systems. This degree proposal is currently under review by the Florida Board of Governors and will begin in the spring semester in 2012. Immediately prior to joining this Department, Dr. Deckard was Chair and Associate Professor of Health Policy and Management in the School of Public Health at Florida International University.

She has participated in several evaluation studies of community health care programs including the Miami-Dade County Evaluation of the Training and Implementation of Point of Care EHR Demonstration Project for the Agency for Health Care Administration (AHCA), Evaluation of HealthConnect in our Community with the Urban Institute and Evaluation of Community Access Programs with the University of Florida and the Jackson Health Foundation. Her efforts in these evaluations included the development, implementation and analysis of evaluation surveys, the identification of evaluation measures and both quantitative and qualitative analysis of data.

Dr. Deckard holds an AMIA 10X10 Certificate in Health Informatics and was the principle faculty supervisor for the student research on physician barriers to adoption of health information exchange sponsored by the Central and North Florida Health Information Management Systems Society (CNFHIMSS). She currently serves on the South Florida Hospital and Healthcare Association's Health Information Technology (HIT) Committee. Other health informatics research currently in progress include hospital readiness for meaningful use and health information exchange, implementation of Computerized Physician Order Entry (CPOE) in an emergency department, consumer health informatics-related consumer expectations of health outcomes, and consumer evaluation of healthcare website design.

Budget

While Florida International University (FIU) will accept the $495,980 allocated for this evaluation as a fixed cost contract, we provide our anticipated expenditures in detailed budgets for each fiscal year in Appendix A.

Budget Justification

The following provides a justification for specific budget items. These estimations of expenditures, with the exception of personnel commitment, represent our current planned approach. However, the Agency has indicated that the budget is flexible and monies may be re-allocated to accommodate changes developed in concert with Agency staff as the project evolves.

Senior Personnel:

Dr. Monica Chiarini Tremblay will serve as the Principal Investigator and will provide 50% effort in Fiscal Year 1 to assure.an aggressive start for the evaluation. Her efforts during the remaining fiscal years will be 25%. Total funding for Dr. Tremblay, including benefits, will be $146,401.18.

Dr. Gloria Deckard will serve as a Co-Investigator and will act as Project Manager. Her effort will be 50% in Fiscal Year 1 to assure an aggressive start for the evaluation. Her efforts during the remaining fiscal years will be 25%. Total funding for Dr. Deckard, including benefits will be $125,272.09.

Other Personnel:

Three Graduate Student Assistants will be utilized in Year 2 (July 1, 2011 – June 30, 2012) to assist in reviewing documents, qualitative content analysis of documents, qualitative content analysis of interviews and focus groups, acquiring all data, data analysis, report writing and other miscellaneous support duties. During Years 3 and 4 (July 1, 2012 – June 30, 2014), two Graduate Student Assistants will continue to support and update the qualitative and quantitative analysis of data, report writing and other miscellaneous support duties. FIU will provide two graduate students with full state tuition reimbursement each year. The total funding Graduate Student Assistants, including benefits will be $91,543.72. In addition, the tuition reimbursement provided by FIU in-kind will total $53, 519.04.

Fringe Benefits:

FIU is currently using a fringe benefit rate of 29.39% for full time employees, 2.09% for Other OPS and Temporary Faculty (except students), and 0.12% for Student OPS. This rate is proposed at proposal

submission and is an estimate for budgeting purposes only. The project will be charged the actual cost of the fringe benefits. The total for fringe benefits is $62,708.75.

Equipment:

We anticipate the need to purchase two computers that will be capable of processing the large data sets that will support the knowledge management system (KMS) and other data analysis required for this project. In addition, the Graduate Student Assistants can utilize these computers for all proposal related assignments. A budget request for a $6000 is included to cover the computer equipment.

Travel:

The travel budget assures the evaluation team can periodically attend in person the quarterly meetings of the HIECC as well as project team lead meetings. In addition, focus groups and interviews will be conducted with stakeholders in various regions of the state to assure broad representation of stakeholders. The senior personnel may also attend meetings of the ONC on reporting requirements for the HIE evaluation and Meaningful Use criteria as necessary and appropriate to assure compliance with national requirements. The travel budget is estimated at $35,000.00

Other Direct Costs:

Materials/Supplies, Printing & Reproduction, and Postage estimates are based on approximations for surveys to key stakeholders and report writing are estimated to be $4,452.42.

Professional Fees/Consultants:

This budget item includes professional fees for transcription of taped interviews and focus groups. Written transcripts will allow the evaluation team to perform content analysis to determine key shared concepts. Fees for statistical consulting to determine sample size and to assist with data analysis will also be expended. These fees may also be utilized, if necessary, to pay participants for focus groups or survey participation. The monies allocated for this item are estimated to be $29,000.00.

Total Direct Costs:

The total direct cost will be $437,755.03

Facilities and Administration Costs:

Florida International University uses an indirect cost rate of 15% of the total direct costs for all projects with State of Florida agencies. This rate is applied to all projects with agencies of the State of Florida (unless a request for proposal specifies a different rate) and subawards from other SUS universities that subaward State of Florida funds. The total facilities and administration costs will be $58,224.97

Conclusion

In this document we have proposed a comprehensive project evaluation is to assist the Agency in guiding the implementation of the statewide health information exchange and to simultaneously meet all national requirements for reporting. Specifically, we outlined how we will develop and recommend methods, techniques and tools that will track and maintain project information for the state to conduct a self-evaluation of the project and to inform national program-level evaluation. The information provided should also assist the Agency to continuously modify the strategic and operational plan and address improvements in efforts to realize an appropriate and secure HIE. The knowledge management system will provide the methods, tools and techniques that facilitate self-evaluation and response to national reporting requirements.

References

Ash, J. S. and K. P. Guappone (2007). "Qualitative evaluation of health information exchange efforts." Journal of Biomedical Informatics **40**(6, Supplement 1): S33-S39.

Cusach, C. M. and E. G. Poon (2007). Health Information Exchange Evaluation Toolkit. Rockville, MD 20850, Agency for Healthcare Research and Quality U.S. Department of Health and Human Services.

Daskalakis, S. and J. Mantas (2008). "Evaluating the impact of a service-oriented framework for healthcare interoperability." Studies in health technology and informatics **136**: 285-290.

Davis, F. D., R. P. Bagozzi, et al. (1989). "User Acceptance Of Computer Technology: A Comparison Of Two." Management Science **35**(8): 982.

DeLone, W. H. and E. R. McLean (2003). "The DeLone and McLean model of information systems success: A ten-year update: JMIS." Journal of Management Information Systems **19**(4): 9.

Frisse, M. E. and R. L. Holmes (2007). "Estimated financial savings associated with health information exchange and ambulatory care referral." Journal of Biomedical Informatics **40**(6, Supplement 1): S27-S32.

Golob, J. F., Jr., A. M. Fadlalla, et al. (2008). "Validation of Surgical Intensive Care-Infection Registry: a medical informatics system for intensive care unit research, quality of care improvement, and daily patient care." Journal of the American College of Surgeons **207**(2): 164-173.

Hripcsak, G., R. Kaushal, et al. (2007). "The United Hospital Fund meeting on evaluating health information exchange." Journal of Biomedical Informatics **40**(6, Supplement 1): S3-S10.

Jen, W. Y. and C. C. Chao (2008). "Measuring mobile patient safety information system success: an empirical study." International journal of medical informatics **77**(10): 689-697.

Johnson, K. B. and C. Gadd (2007). "Playing smallball: Approaches to evaluating pilot health information exchange systems." Journal of Biomedical Informatics **40**(6, Supplement 1): S21-S26.

Kaelber, D. C. and D. W. Bates (2007). "Health information exchange and patient safety." Journal of Biomedical Informatics **40**(6, Supplement 1): S40-S45.

Kern, L. M. and R. Kaushal (2007). "Health information technology and health information exchange in New York State: New initiatives in implementation and evaluation." Journal of Biomedical Informatics **40**(6, Supplement 1): S17-S20.

Lau, F., S. Hagens, et al. (2007). "A proposed benefits evaluation framework for health information systems in Canada." Healthcare quarterly **10**(1): 112-116, 118.

Marchibroda, J. M. (2007). "Health information exchange policy and evaluation." Journal of Biomedical Informatics **40**(6, Supplement 1): S11-S16.

Mohammed, S., G. Deckard, et al. (2011). Stakeholder distrust as a barrier to HIE Participation, Central and North Florida Health Information Management Systems Society.

Palm, J. M., I. Colombet, et al. (2006). "Determinants of user satisfaction with a Clinical Information System." AMIA ... Annual Symposium proceedings / AMIA Symposium. AMIA Symposium: 614-618.

Shapiro, J. S. (2007). "Evaluating public health uses of health information exchange." Journal of Biomedical Informatics **40**(6, Supplement 1): S46-S49.

Van Der Meijden, M. J., H. J. Tange, et al. (2003). "Determinants of success of inpatient clinical information systems: a literature review." Journal of the American Medical Informatics Association : JAMIA **10**(3): 235-243.

Yu, P. (2010). "A multi-method approach to evaluate health information systems." Studies in health technology and informatics **160**(Pt 2): 1231-1235.

Appendices

Appendix A   Detailed Budget Table per Fiscal Year

Appendix B   Sample Metrics and Measures

Appendix C   Letters of Support

- Central and North Florida Health Information Systems Society (CNFHIMSS)

- South Florida Health Information Systems Society (SFHIMSS)

- South Florida Hospital and Healthcare Association

- Health Council of South Florida

- University of Central Florida – Director, Health Informatics Master's Program

Appendix D   Resumes of Key Personnel

Appendix A   Detailed Budget Table per Fiscal Year

FIU Proposal: Evaluation of Implementation of Statewide Health Information Exchange					
Object Class Category	Year 1*	Year 2	Year 3	Year 4	Total
Senior Personnel	34,474.20	69,637.88	70,334.26	35,518.80	209,965.13
Fringe Benefits	10,131.97	20,466.57	20,671.24	10,438.98	61,708.79
Graduate Assistants	1650.00	37,584.00	26,100.00	26,100.00	91,434.00
Fringe Benefits	1.98	45.10	31.32	31.32	109.72
Subtotal	$ 46, 258.15	$ 127,733.55	$ 117,136.82	$ 72,089.10	$ 363,217.61
Travel	3,000.00	12,000.00	10,000.00	10,000.00	35,000.00
Equipment	6,000.00				6,000.00
Materials & Supplies		452.00	452.00	485.00	1,389.00
Printing and Reproduction	40.00	200.00	200.00	200.00	650.00
Postage		1,388.27	800.00	800.00	2,488.42
Subtotal	$ 3,060.00	$ 14,040.27	$ 11,452.00	10,985.15	$ 65,477.42
Professional Fees/Consultants		12,000.00	12,000.00	5,000.00	29,000.00
Subtotal		$ 12,000.00	$ 12,000.00	$ 5,000.00	$ 29,000.00
Direct Charges	55,298.15	153,772.83	140,588.82	88,074.15	437,755.03
Indirect Costs	1232.70	22,857.83	20,968.32	13,166.11	58,224.97
Yearly and Project Totals	$ 56,530.85	$ 176,631.65	$ 161,577.14	$ 101,240.36	**$ 495,980.00**
FIU In-Kind Tuition for Graduate Assistants		17,839.68	17,839.68	17,839.68	53,519.04
Funded and In-Kind Total	$ 56,530.85	$ 202,671.17	$ 187,616.66	$ 119,080.04	**$549,499.04**

∗   Anticipated Start Date: May 1, 2011

Budget justification provided within proposal

Appendix B   Sample Metrics and Measures from AHRQ National Resource Center Data Exchange
Evaluation Toolkit

Measure	Data Source(s)	Relative Costs	Notes	Potential Pitfalls
Are providers using?	Usage Statistics	Low – IT team should be able to readily collect this data	There are several different ways you might want to measure this. First would be the number of discrete providers using the system as the numerator and the number of total providers as the denominator. A second approach might be how frequently individual providers are accessing the system with hit rates as the numerator and an individual provider as the denominator. A third approach might be to look at hit rates divided by total number of providers to get an overall average rate.	Finding baseline provider rates might be difficult. I.E.- what is your pool of physicians who could be using the system? You could consider getting this information from local medical societies, FOLIOS, and Boards of Medicine.
What percentage of laboratory orders is sent electronically?	Usage statistics	Medium if it requires counting paper orders	Denominator = all orders Numerator = electronic orders	
Impact on the satisfaction of clinicians	Survey: their perception of usability, how easy it was for them to learn to use the system, do they feel more/less efficient as a result of the data exchange	Medium	You might consider sampling both your users as well as those who could be involved in the project but who have chosen not to participate. Going to statewide/region wide MD databases from local medical societies, FOLIOS, board of registrations, and so forth might be one way to determine your target survey group. Consider questions such as asking them how often they were able to find the result	

How much data was able to be exchanged?	Implementation team	Low as data should be readily available Look at the number of discrete elements that were exchanged		
Was electronic exchange of information about medication orders and prescriptions between outpatient providers and pharmacies achieved?	Implementation team	Low as data should be readily available		
Are providers using e-prescriptions?	Usage statistics.	Low-IT team should be able to readily collect this data	Could collect this information electronically. Alternatively could look at the number of electronic prescriptions received as the numerator and the total number of prescriptions received as the denominator. A second approach would be to look at the number of physicians submitting prescriptions electronically as the numerator divided by the total number of users of the system. The third would be using the number of physicians submitting prescriptions electronically as the numerator and the total number of physicians in the catchment area.	
Clinician Satisfaction	Survey	Medium	You might consider sampling both your users as well as those who could be involved in the project but who have chosen not to participate. Going to statewide/region wide MD databases from local medical societies, FOLIOS, board of registrations, and so forth might be one way to determine your target survey group.	
Was electronic exchange of information between providers achieved?	Implementation team	Low as data should be readily available		

Appendix C: Letters of Support

- Central and North Florida Health Information Systems Society (CNFHIMSS)

- South Florida Health Information Systems Society (SFHIMSS)

- South Florida Hospital and Healthcare Association

- Health Council of South Florida

- University of Central Florida – Director, Health Informatics Master's Program

HiMSS

CENTRAL & NORTH FLORIDA *Chapter*

March 17, 2011

Elizabeth Dudek
Interim Secretary
Agency for Health Care Administration
2727 Mahan Drive, MS#16
Talahassee, FL 32308

On behalf of the Central and North Florida HIMSS (Health Information and Management Systems Society) Chapter Board of Directors, we would like to submit this letter to support Florida International University's proposal to the Agency for Health Care Administration to conduct the independent evaluation of the State Health Information Exchange (HIE) Cooperative Agreement Program. We are confident that FIU has the depth of understanding, experience and skills necessary to perform the evaluation based on the recent study FIU performed for our organization.

We are qualified to endorse FIU based on the deliverable FIU recently provided to us. Our HIMSS chapter awarded FIU a grant in 2010, to study stakeholder distrust as a barrier to health information exchange participation. Through successful completion of this study, FIU demonstrated its ability to collaborate with stakeholders in the community and apply its rational measurements, qualitative and quantitative techniques to assess the HIE state's HIE landscape according to the parameters specified.

In keeping with HIMSS mission "to lead healthcare transformation through the effective use of health information technology," we endorse FIU as it seeks to carry out this important and necessary evaluation.

Sincerely,

Carol R Selvey

Carol R Selvey, MHSA, CPHIMS, FHIMSS
Central and North Florida HIMSS Chapter Board
10020 Cherry Hills Avenue Circle
Bradenton, FL 34202
941-355-7766

March 17, 2011

Heidi Fox, Administrator
Office of Health Policy and Research
Agency for Health Care Administration
2727 Mahan Drive, MS #16
Tallahassee, Florida 32308

Dear Ms. Fox:

On behalf of the local South Florida chapter of the Health Information and Management Systems Society, we would like to provide our full support for the Florida International University evaluation of the statewide implementation of its health information exchange.   Our organization has a close relationship with Drs. Deckard and Tremblay and the University.   We have observed their classes, met with their students in our chapter meetings and participated in classroom presentations. We continue to be impressed with their ability to consistently develop and produce our community's current and future health care leaders.

Drs. Deckard and Tremblay are well known and respected for their research in health care management and information technology. Their deep understanding of health policy, organizational efficiencies and the environment lend them to be ideal candidates for AHCA's evaluation of the Statewide HIE. We are confident that the State of Florida will be well served by their review and thank you for full consideration of their application.

Sincerely,

Jim McKeen
President, South Florida HIMSS Chapter
AAJ Technologies
Jim.Mckeen@aajtech.com

March 17, 2011

Heidi Fox, Administrator
Office of Health Policy and Research
Agency for Health Care Administration
2727 Mahan Drive, MS #16
Tallahassee, Florida 32308

Dear Ms. Fox:

In conjunction with South Florida HIMSS, I would like to take a moment to express my personal support for the Florida International University evaluation of the statewide HIE implementation. As a former FIU alumnus of the Health Services Administration program, I have personally known Dr. Gloria Deckard over the last 18 years as both a student and health care professional. Her dedication to the University, her students and community is outstanding and noteworthy.

I have had to pleasure to work with Dr. Deckard recently on the AHCA Point of Care EHR Demonstration grant in two our Miami-Dade free clinics. As the Department of Health project manager for this grant, I relied on Dr. Deckard and her team for an analysis of the program. Drs. Deckard and Page and their student evaluators put many hours of work and effort into interviews, surveys and data collection. This was performed under a tight timeline and the frayed nerves of clinicians undergoing a significant organization change – converting from paper to a full EHR. They handled the assignment with grace and a high-level of sensitivity.

Their final product was a streamlined analysis that was timely, accurate, appropriate and insightful. Their final evaluation was a critical part of this grant effort and they did a fantastic job. It is important to note that Dr. Deckard and the FIU contribution was provided as a community service and pro-bono.

Based upon these factors and their well established research track record, I am confident that AHCA will be well served by the FIU application by Drs. Deckard and Tremblay. Their thorough understanding of the business of health care, the health care community, health informatics and information technology make them ideal candidates for the statewide HIE evaluation. I strongly support their application and thank you for your kind consideration.

Sincerely,

Ari Entin
Membership Chair, South Florida HIMSS Chapter

6030 HOLLYWOOD BOULEVARD, SUITE 140 · HOLLYWOOD, FLORIDA 33024
BROWARD: 954.964.1660 · TOLL FREE: 800.624.3365 · FAX: 954.962.1260
www.sfhha.com

March 18, 2011

Heidi Fox
Office of Health Policy & Research
Agency for Health Care Administration

Re: Independent Evaluation of the State Health Information Exchange Cooperative
Agreement Program – Letter of Support

Ms Fox,

On behalf of **South Florida Hospital & Healthcare Association (SFHHA)**, I am pleased to
express our strong support to the application submitted by Florida International University (FIU)
to conduct independent evaluation of the State Health Information Exchange Cooperative
Agreement Program. We are confident that FIU, a prominent educational institution in the South
Florida community, is in unique position to demonstrate understanding of the project, propose a
feasible approach to program evaluation, and succeed in meeting the objectives of this program.
SFHHA will be happy to provide the necessary support and assistance needed to make this
program evaluation successful.

For 65 years the **SFFHA** has offered a cooperative forum for healthcare providers and
community leaders to address the issues of the day. The **SFFHA** seeks to be an advocate,
educator, and facilitator for our 150+ member organizations, and a voice for improving the
health status of our communities. We promote a broad dialog between our members and elected
officials, educators, the business community, the media and the public. Further, **SFHHA**
provides educational programs, legislative advocacy opportunities, shared best practice groups,
and cooperative community planning forums to its members and other interested parties who are
willing to work in making the healthcare system better in South Florida.

SFHHA lends its full and unqualified support to the application submitted by FIU.

Sincerely,

Linda S. Quick
President

March 16, 2011

Heidi Fox, Administrator
Office of Health Policy and Research
Agency for Health Care Administration
2727 Mahan Drive, MS #16
Tallahassee, FL   32308

Officers

Jose Perdomo, M.H.S.A., J.D.
Chair

Ed Rosasco, FACHE
Vice Chair

Nelson Lazo, M.B.A.
Treasurer

Debra S. Walker, Ph.D.
Secretary

Board Members

Kim Bassett, M.B.A., B.S.N.

Melvyn Fletcher, M.D., F.A.A.P.

Pascal Goldschmidt, M.D.

Rev. Ted Greer, Jr., PhD.

Arianna Nesbitt M.P.S.A

Fred Stock, M.S.W., L.N.H.A.

Fermin Leguen, M.D.

President & CEO

Marisel Losa, M.H.S.A.

*An Equal
Opportunity
Employer*

Dear Ms. Fox,

On behalf of the Health Council of South Florida, I'm pleased to support the application of Dr. Monica Tremblay and Dr. Gloria Deckard from Florida International University to evaluate the statewide implementation of health information exchange. I have met and discussed health care issues with them and know that they are knowledgeable in this field. Both Drs. Tremblay and Deckard are experienced health care researchers who will bring a balanced information systems, health care policy and health care management approach to the project.

These researchers are not only informed about the health information needs in South Florida but have also worked with organizations and providers in Central and North Florida. I believe they will bring a balanced perspective to the evaluation and an understanding of the different issues affecting the implementation of health information exchange across the various regions of the state.

The Health Council of South Florida, Inc. is a private, non-profit 501(c) 3 organization serving as the state designated local health planning agency for Miami-Dade and Monroe Counties. For over 40 years, the Council has been engaged in forecasting health care needs and access to health care delivery systems; providing data analysis and insight; increasing public awareness; and providing consultation and assistance to Miami-Dade County officials in the development and implementation of health care policy. It is our mission to be the source of unbiased health data, quality program planning, management and evaluation and strong community partnerships in Miami-Dade and Monroe Counties.

Thank you for your consideration of their application. I know they provide outstanding work and service to the state and its efforts to implement the statewide HIE.

Sincerely,

Marisel Losa, MHSA
President & CEO

8095 NW 12th Street, Suite 300 – Doral, FL 33126
Phone 305-592-1452 – Fax 305-592-0589 – Web www.healthcouncil.org – Email healthcouncil@healthcouncil.org

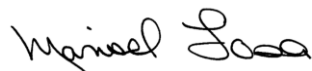*Our Mission is to be the source of unbiased health data; quality program planning, management and evaluation; strong community partnerships in Miami-Dade and Monroe Counties; and targeted healthcare policy at the local, state, and national levels.*

March 16, 2011

Heidi Fox, Administrator
Office of Health Policy and Research
Agency for Health Care Administration
2727 Mahan Drive, MS #16
Tallahassee, FL   32308

Dear Ms. Fox,

I would like to support the application of Dr. Monica Tremblay and Dr. Gloria Deckard from
Florida International University to evaluate the statewide implementation of health information
exchange. As Director of the Health Care Informatics Masters Program at the University of
Central Florida (UCF), I have met and discussed health informatics issues with them and know
that they are knowledgeable in this field. Both Drs. Tremblay and Deckard are experienced
health care researchers who will bring a balanced information system, health care policy and
health care management approach to the project.

I and other researchers from UCF are currently developing health informatics research with Drs.
Tremblay and Deckard. This research focuses on electronic health records and implementation
of Computerized Physician Order Entry (CPOE) in a hospital in Central Florida. They are
familiar with the health care environment across the state, understanding both urban and rural
issues of concern. I believe they will bring a balanced perspective to the evaluation and
researchers in our Department of Health Management and Informatics and will provide informal
assistance to them as appropriate if needed.

I know Drs. Tremblay and Deckard will provide outstanding work and service to the state and its
efforts to implement the statewide HIE.

Sincerely,

Kendall Cortelyou-Ward, Ph.D.
Assistant Professor
Program Director, Health Care Informatics
kcortely@mail.ucf.edu
407-823-2639

Appendix D: Resumes of Key Personnel

Monica Chiarini Tremblay, Ph.D.

Gloria J. Deckard, Ph.D.

MONICA CHIARINI TREMBLAY, PhD

Assistant Professor
Florida International University
Department of Decision Sciences and Information Systems
College of Business Administration
Florida International University
11200 SW 8 Street RB250
Miami, FL 33199
Email: tremblay@fiu.edu
Phone: 305-348-3741
Fax: 305-348-4126

PUBLICATIONS

Published Papers:

"Focus Groups and Critical Social IS Research: How the Choice of Method Can Promote Emancipation of Respondents and Researchers" with Bernd Carsten Stahl and Cynthia LeRouge in European Journal of Information Systems (in press, 2011)

"Using Data Mining Techniques to Discover Bias Patterns in Missing Data" with Kaushik Dutta and Debra VanderMeer in ACM J. Data and Information Quality 2, 1 (Jul. 2010), 1-19. DOI= http://doi.acm.org/10.1145/1805286.1805288

"Using Focus Groups for Artifact Refinement and Evaluation" with Alan Hevner and Donald Berndt in Communications of the AIS Vol. 26, Article 27. Available at: http://aisel.aisnet.org/cais/vol26/iss1/27

"Identifying Fall-Related Injuries: Text Mining the Electronic Medical Record" with Donald Berndt, Steve Luther and Phil Foulis in Information Technology and Management (December 2009) Volume 10, Issue 4, Pages 253-265. http://www.springerlink.com/content/p218724663444728/

"Using Dashboard Technology Properly" with Cynthia LeRouge and Lynn Basket, Health Progress, 89, 5 (2008), p. 29-33.

"Doing more with more information: Changing healthcare planning with OLAP tools" with Robert Fuller and Donald Berndt, Decision Support Systems (August 2007) Volume 43, Issue 4, Pages 1305-1320

"Communication Challenges in Requirements Elicitation and the use of the Repertory Grid Technique," Chris Davis, Robert Fuller, and Donald Berndt - Journal of Computer

Information Systems (2006) Vol. 46, Issue 5; p. 78
Funded Research

2008 Co-Investigator - "Using Knowledge Discovery Strategies to Identify Fall-related Injuries in the VA",   Veterans Administration, Health Services Research and Development [$386,000]

2008 Co-Investigator "Using Text Mining to Differentiate Between PTSD and Mild TBI in OEF/OIF Veterans" Veterans Administration, Health Services Research and Development [$122,400]

2009-2012 Co-Investigator in "Consortium for Healthcare Informatics Research", Veterans Administration, Health Services Research and Development [$704,000]

2010 "Stakeholder Distrust as a Barrier to Health Information Exchange (HIE) participation" with Nancy Borkowski and Gloria Deckard [$18,000], HIMSS (Healthcare Information and Management Systems Society) of North Central Florida

Peer Reviewed Conference Proceedings:

"Using Text Mining to Differentiate Between PTSD and Mild TBI in OEF/OIF Veterans: Preliminary Results," with D. J. Berndt, S. L. Luther, D. K. Finch, P. Foulis, and R. Vanderploeg, PhD, American Medical Informatics Association (AMIA) Spring Congress, Orlando, Florida, May 28-30, 2009.

"Measuring Information Volatility in a Health Care Information Supply Chain" with Alan Hevner and Don Berndt, Fourth International Conference on Design Science Research in Information Systems and Technology, Philadelphia 2009. **Best paper runner up.**

"Focus Groups and Critical Social IS Research: How the Choice of Method Can Promote Emancipation Of Respondents And Researchers" with Bernd Carsten Stahl and Cynthia LeRouge in the European Conference on Information Systems, Verona 2009

"Using Data Mining Techniques to Discover Systematic Biases in Missing Data" with Kaushik Dutta and Debra VanderMeer in the proceedings of Workshop of Information Technologies and Systems, Paris 2008

"The use of Focus Groups in Design Science Research" with Alan Hevner and Don Berndt, Third International Conference on Design Science Research in Information Systems and Technology, Atlanta 2008.

"Uncertainty in the Information Supply Chain: Integrating Multiple Data Sources" with Donald Berndt, Rosann Collins and Alan Hevner, Fourth Annual CABIT Symposium, Phoenix 2006.

"Investigative Data Warehousing and Mining for Database Security" with Areej Yassin and Donald Berndt, AMCIS, Acapulco 2006

"Feature Selection for Predicting Surgical Outcomes" with Donald Berndt and James Studnicki, Hawaii International Conference on System Sciences, 39.

"Utilizing Text Mining Techniques to Identify Fall Related Injuries" with Donald Berndt, Steve Luther AMCIS, Omaha 2005 – **Nominated for best paper**

"Simulating Decision Making in Multi-Attribute Reverse Auctions-Work in progress", with Joni Jones, INFORMS, Denver 2004.

"Using Knowledge Discovery Strategies to Identify Fall Related Injuries." P Foulis, M Tremblay, S Luther, D Berndt, D French, G Powell-Cope Veterans Administration Health Services Research & Development Service Annual Meeting, 2005, Baltimore 2005

"Using Knowledge Discovery in Databases to Identify Fall-related Injuries". Luther SL, Tremblay M, Berndt D, Foulis P, French DD, Rubenstein LZ. Academy Health Annual Research Meeting. Boston, MA. 2005.

Invited Presentations:

"Stakeholders Distrust as a Barrier to Health Information Exchange Participation" at Central North Florida HIMSS Spring Executive Conference, Melbourne, Florida, April 2010.

"Designing a Community-Benefit Dashboard" with Cynthia LeRouge, Lynn Basket for The Association for Community Health Improvement, Audio Panel, November 2008

"Designing a Community-Benefit Dashboard" with Cynthia LeRouge, Making an Impact: Evidence-Based Community Benefit sponsored by the Catholic Health Association, VHA, and St. Louis University School of Public Health, St. Louis, Missouri, July 2008.

"Utilizing Text Mining Techniques to Identify Fall Related Injuries" at M2007 SAS Data Mining Conference, Las Vegas, Nevada. October 2007.

Book Chapters:
"Data Mining and Knowledge Discovery on EHRs," with Donald Berndt, Steve Luther, in: *Information Discovery on Electronic Health Records,* C. Hall/CRC (ed.), 2009.

"Focus Groups in Design Science Research" with Alan Hevner and Donald Berndt in: Alan Hevner and Samir Chatterjee. *Design Science Research in Information Systems:*

Theory & Practice, Springer, Fall 2010.

EDUCATION

Ph. D.   University of South Florida – College of Business (August 2007)
    Major Area: Information Systems and Decision Sciences
    Dissertation Title: Uncertainty in the Information Supply Chain:
            Integrating Multiple Health Care Data Sources
    Co-chairs: Donald J. Berndt and Alan R. Hevner
    Specialization: Information Systems, Data Warehousing, Data Mining,
            Data Quality, Business Intelligence, OLAP tools

Master of Science in Management Information Systems
        University of South Florida, Tampa, FL – August 2003

Bachelor of Science in Engineering
        University of Florida, Gainesville, FL - August 1991
        Major: Industrial and Systems Engineering

American Medical Informatics Association 10x10 Certification - The Department of
Medical Informatics & Clinical Epidemiology (DMICE) at Oregon Health & Science
University

AWARDS AND HONORS

Best Course Award, Masters of MIS, Class of Summer 2010, Business Intelligence
Best Course Award, Masters of MIS, Class of Fall 2009, Business Intelligence
Best Course Award, Masters of MIS, Class of Summer 2009, Business Intelligence
Best Course Award, Masters of MIS, Class of Fall 2010, Business Intelligence

University of South Florida College of Business Doctoral Research Award (2007)
Doctoral Consortium, ICIS 2006 Milwaukee
Doctoral Consortium, AMCIS 2006 Acapulco
University of South Florida Graduate Fellowship 2003-2004
Beta Gamma Sigma (National Business Honor Society)
Phi Kappa Phi
Alpha Pi Mu (Industrial Engineering Honor Society)

ORGANIZATIONS AND PROFESSIONAL MEMBERSHIPS

American Medical Informatics Association
Society for Information Management
Association for Information Systems/ SIGDSS, SIG-Health (Vice Chair)

INFORMS / Data Mining
Association for Computing Machinery/ SIGKDD
Healthcare Information and Management Systems Society (HIMSS)

SERVICE

Ad Hoc Reviewer, National Institute of Health, Agency for Healthcare Research and Quality (AHRQ) – Healthcare Technology and Decision Sciences Study Section
Fall 2010
Spring 2011

Member of the   Technical Advisory Panel for the Health Council of South Florida's (HCSF) Miami Matters, a new web-based information system that will serve as a conduit for informed and resourceful community action on community issues.

Member of steering committee (Workforce Development Sub-Committee) of the South Florida Regional Extension Center (SFREC), one of 60 centers nationwide to receive federal stimulus funds to help local physician offices and other healthcare providers select, implement and use certified electronic health records to improve the efficiency, quality and value of healthcare.

IS COMMUNITY

Sig-Health Vice-Chair

Reviewer
MIS Quarterly (2009, 2010, 2011) – 3 articles
Computers in Biology and Medicine (2008) – 1 article
ACM Journal of Information and Data Quality (2009) – 3 articles
Journal of the AIS (2010) – 1 article
Communication of the AIS (2010, 2011) – 3 articles
European Journal of Information Systems (2009, 2010) – 2 articles
Decision Support Systems (DSS) (2007, 2009, 2010, 2011) – 4 articles
IEEE Interfaces – 1 article
Journal of Computer Information Systems – 1 article
The DATA BASE for Advances in Information Systems – 1 article

European Conference of Information Systems 2008, 2009
International Journal of Information Management 2008
Hawaii International Conference on System Sciences 2003, 2004, 2006
AMCIS 2005, 2006
ICIS 2006, 2007, 2008
ICIS 2009, 20011 - **AE for Healthcare track**

UNIVERSITY

Created and maintains certificate in Business Intelligence for undergrad students.

Committee Member for Healthcare Initiatives- University Wide Committee.

Organizer, CIO Panel for Lunch and Learn/ Master of MIS – "Competitive Advantage through Business Intelligence", November 1, 2008.

Organizer, CIO Panel for Lunch and Learn/ Master of MIS – ""Women and IT: The Facts", with Women in Technology in Miami, March 2010

Panelist "Women Who Lead", a daylong conference designed to further enhance the leadership development of female students at FIU. 2010

TEACHING

My teaching interests are in the areas of data analytics and business intelligence, including: database design, development, and administration, data warehousing and data mining. When teaching a course, my primary goal is student engagement. I encourage discussion and try to communicate how the topics we discuss are present in their everyday life. I believe in keeping the material as relevant and current as possible. Our field is in constant flux, and students should be aware of developments in the fieldMy previous experience as a practitioner has allowed me to enrich the classroom by providing examples from the field. When possible, I utilize the lab – hands-on activities are an excellent way for students to understand the concepts and empower them in the learning process. My evaluations are consistently extremely favorable.

Courses Taught:
Business Intelligence (ISM6136). Florida International University. This graduate course exposes the student to several aspects of Business intelligence (BI) by exposing them to the set of technologies, tools and procedures used by companies to collect, store, share data, and to perform data analysis (Spring 2008, Summer 2008, Spring 2009, Summer 2009, Spring 2010, Summer 2010, Spring 2011).- **Best MSMIS Course Summer 2010, Fall 2009, Summer 2009, Fall 2010**

Business Intelligence (ISM4402). Florida International University. This undergraduate course exposes the student to several aspects of Business intelligence (BI) by exposing them to the set of technologies, tools and procedures used by companies to collect, store, share data, and to perform data analysis (Spring 2010).

Healthcare Informatics and Management (ISM6930)
Driven by quantum advancements in IT and cost-effective technology, information

December 2011

Monica Chiarini Tremblay

systems methods and techniques are evolving to keep up with today's information driven society. This course investigates several of these important concepts in the rich context of Medical Informatics. Both case studies and hand-on lab exercises are used to explore (Summer 2010, Fall 2010, Spring 2011).

Other Courses Taught:

Introduction to Business Information Systems (CGS3300)   Florida International University
Undergraduate course that teaches business majors how to use IT systems to master their jobs and to help ensure the success of their organization. Additionally, they learn advanced uses of the Office toolset.
Fall 2007, Spring 2008

Business and Economic Statistics II (QMB 3200)   University of South Florida
Undergraduate course that covers: simple linear regression and correlation, multiple regression and model building, forecasting models, analysis of variance, chi-square tests and non-parametric methods.
Summer 2006, 2 sections

Database Administration (ISM 4212)   University of South Florida
An undergraduate course that introduces the concepts and principles of database management.
Fall 2005, Spring 2005

Teaching Assistant:

Data Warehousing (ISM6930)   University of South Florida
A graduate course that covered the design, implementation, administration and use of data warehouses.
Co-instructor – Fall 2006

Data Mining (ISM6930)   University of South Florida
A graduate course that covered the business motivations for data mining, a review of related data warehousing material, and coverage of data mining techniques such as decision trees, neural nets, market basket analysis, and genetic algorithms.
Co-instructor – Spring 2007

PROFESSIONAL EXPERIENCE

Florida International University College of Business Administration
Decision Sciences and Information Systems Department
  Assistant Professor 2007-Present

University of South Florida College of Business

Information Systems and Decision Sciences Department
  Instructor and Research Assistant 2003-2007

Catalina Marketing St Petersburg, Florida
DBA Intern - Database/Date Warehouse Architecture Group (January 2003 – May 2003)

Exxon Company USA
 Baton Rouge, Louisiana
Senior Systems Analyst, (1993-1996)

Assignments:
- Introduced the Houston-based Information Systems Department to information systems users in the refinery by transitioning and consolidating various information systems in the refinery (supported by various vendors and contractors).
- Designed functional specifications for a contractor access control and timekeeping system.
- Interfaced with the Environmental Strategic Leader in the selection of vendor packages to suit client's needs.
- Instrumental in the formation of the Environmental and Safety Systems Group. Organized and consolidated environmental systems previously supported by various individuals at 4 separate refineries.
- Team lead in troubled Powerbuilder/SQL development project to track waste management at the refinery. System was then also implemented at other refineries.

Exxon Company USA
Houston, Texas
Systems Analyst, (1991-1992)
- Participated in the functional and design specifications, coding, code review, integration and parallel testing and installation of a large system to allocate revenue to interest owners on oil leases.
- Recognized by Exxon and the user group for migrating the legacy revenue allocation system (COBOL with no documentation or the source code) into MICROFOCUS COBOL in order to analyze how royalties were calculated.
- Successfully interacted with the business analyst and systems analyst to finalize the system design.

IBM Corporation,
Boca Raton, Florida
Coop (Summer 1990)
- Formulated procedures for field problem prioritization, and created a problem tracking database.
- Designed stress tests for hardware in the PS/2 Mid-Range Systems.

Siemens Telecommunications

Milano, Italy
Summer Intern (Summer 1989)

PERSONAL INFORMATION

- Naturalized U.S. Citizen/ Dual EU/US Citizenship
- Foreign Languages: Fluent in Spanish, Italian and proficient in French, Portuguese
  - Lived in six countries: Italy, Mexico, Venezuela, Brazil, Dominican Republic, United States
- Hobbies include tennis, traveling, cooking
- Married with two children, ages 16 and 12

Gloria J. Deckard, Ph.D.

Decision Sciences and Information Systems
Florida International University
University Park, RB 250
Miami, FL 33199

800 Claughton Island Drive
#1603
Miami, FL 33131

305.348.0429
deckardg@fiu.edu

305.377.2769

EDUCATION

Ph.D., Department of Psychology, (Community Psychology with concentration in Health Care Systems) 1985, University of Missouri - Kansas City.

M.P.A., Cookingham Institute for Public Administration, (Concentration in Health Services Administration) 1982, University of Missouri - Kansas City.

B.S., School of Dentistry, (Dental Hygiene) 1973, University of Missouri - Kansas City.

PROFESSIONAL EXPERIENCE

1/2010 – present
Associate Professor
Decision Sciences and Information Systems
College of Business Administration
Florida International University

6/2009 – 12/2009
Associate Professor
Health Policy and Management
Stempel School of Public Health
Florida International University

1/2008 – 5/2009
Associate Professor and Chair
Health Policy and Management
Stempel School of Public Health
Florida International University

6/2006 to 12/2007
Associate Professor
Health Policy and Management
Stempel School of Public Health
Florida International University

2003 to 5/2006   Associate Professor and Chair
Department of Health Policy and Management
Stempel School of Public Health
Florida International University

2001 to 2003   Associate Professor
Health Services Administration
Florida International University

1999 to 2001   Interim Director and Associate Professor
School of Policy and Management
Florida International University

1998-1999   Associate Director of Graduate Programs and Associate Professor
School of Policy and Management
Florida International University

1996 to1998   Associate Professor and Graduate Program Coordinator
Health Services Administration
Florida International University

1993 to 1996   Assistant Professor and Broward Program Coordinator
Health Services Administration
Florida International University

1990 to 1993   Assistant Professor
Health Services Administration
Florida International University

1985 to 1990   Assistant Professor
Health Services Management
University of Missouri - Columbia

1982 to 1985   Doctoral Candidate and Graduate Teaching
Assistant, Department of Psychology
University of Missouri - Kansas City

1984   Lecturer
School of Business and Public Administration
University of Missouri - Kansas City

1983   Research Coordinator

                            Mid-America Coalition on Health
                            Midwest Research Institute
                            Kansas City, Missouri

1983 to 1985   Organizational Consultant, Behavior and
                            Performance Group, Spencer & Associates,
                            Shawnee Mission, Kansas

1982 to 1983   Graduate Research Assistant
                            L.P. Cookingham Institute for Public Administration
                            University of Missouri - Kansas City

                            Research Assistant
                            UMKC Institute
                            University of Missouri - Kansas City

PEER-REVIEWED PUBLICATIONS

Deckard, G., Borkowski, N., Diaz, D., Sanchez, C. & Boisette, S. (2010). Improving timeliness and efficiency in the referral process for safety net providers: Application of the Lean Six Sigma methodology. Journal of Ambulatory Care Management, 33(4).

Gumus, G., Borkowski, N., Deckard, G.J. & Martel, K.J. (2009) Gender differences in professional development of healthcare managers. Leadership in Health Services, 22(4), 329-339.

Deckard, G.J. & McCoy, H.V. (1997) Physician perceptions of health care reform: State versus National knowledge, input, and support. Journal of Health and Social Policy, 8(4) 1-12.

Schultz, D. M. & Deckard, G.J. (October, 1995) Survey of the impact of patient-focused care on hospital pharmacies in Florida. Journal of Health-System Pharmacy, 52(19), 2121-2124.

Deckard, G. (1995). A comparison of concurrent general and HMO-affiliated medical practice experience. Journal of Health & Social Policy, 7(2), 69-79.

Deckard, G. & McCoy, H.V. (1995) Physician issues and Florida health care reform. Journal of the Florida Medical Association, 82(4), 265-268.

Deckard, G. (1995). Physician responses to a managed environment: A perceptual paradox. Health Care Management Review, 20(1), 40-46.

Deckard, G., Meterko, M. & Field, D. (1994). Physician burnout: An examination of personal, professional, and organizational relationships. <u>Medical Care</u>, <u>32</u>(7), 745-754.

Golembiewski, R. & Deckard, G. (1994). Professions, norms, and the phase model, II: Physicians as a special case? (Report B). <u>Journal of Health and Human Services Administration</u>, <u>17</u>(1), 48-62.

Golembiewski, R., Boudreau, R., Deckard, G., Goto, K., Munzenrider, R., Murai, T. & Scherb, K. (1994). Report of task force on burnout norms (Report A). <u>Journal of Health and Human Services Administration</u>, <u>17</u>(1), 32-47.

Deckard, G.J., Hicks, L.L., & Hamory, B.H. (1992). The occurrence and distribution of burnout among Infectious Diseases physicians. <u>Journal of Infectious Diseases</u>, <u>165</u>, 224-228.

Deckard, G.J. & Present, R.M. (Sept. 1989). The impact of role stress on physical therapists' emotional and physical well- being. <u>Physical Therapy</u>, 713-718.

Golembiewski, R.T., Deckard, G.J. & Rountree, B.H. (1989).   The stability of burnout assignments: Measurement properties of the phase model. <u>Journal of Health and Human Resources Administration</u>, <u>12</u>(1), 63-78.

Rountree, B.H., Golembiewski, R.T. & Deckard, G.J. (1989). A causal path analysis of burnout and agitation: A study of human asset depletion in LTC settings, <u>Journal of Health and Human Resources Administration</u>, <u>12</u>(1), 95-111.

Deckard, G.J., Rountree, B.H., & Hicks, L.L. (1988). Nursing productivity: A qualitative view of performance, <u>Nursing Economic$</u>, <u>6</u>(4), 184-188.

Deckard, G.J., Hicks, L.L. & Rountree, B.H. (1986). Long-term care nursing: How satisfying is it?, <u>Nursing Economic$</u>, <u>4</u>(4), 194-200.

Deckard, G.J., Rountree, B.H. & Golembiewski, R.T. (1986). Work-site features and progressive burnout phases: Another replication cum extension, <u>Journal of Health and Human Resources Administration</u>, <u>9</u>(1), 38-53.

Rountree, B.H. & Deckard, G.J. (1986). Nursing in long-term care: Dispelling a myth, <u>Journal of Long-term Care Administration</u>, <u>14</u>(3), 15-19.

Golembiewski, R.T., et al (1986). The epidemiology of progressive burnout: A primer, <u>Journal of Health and Human Resources Administration</u>, <u>9</u>(1), 16-37.

Deckard, G.J. & Rountree, B.H. (1984). Burnout among dental hygienists, <u>Dental</u>

Hygiene, 58(7), 307-313.

BOOKS, BOOK CHAPTERS AND BOOK REVIEWS

Deckard, G.J. & Borkowski, N. (in preparation) Case Studies in Organizational Behavior in Health Care.   Sudbury, MA: Jones and Bartlett.

Deckard, G.J. (2009) Trait and Behavioral Theories of Leadership. Organizational Behavior, Theory, and Design in Health Care. Nancy Borkowski (Ed). Sudbury, MA: Jones and Barlett.

Deckard, G. J. (2009) Contingency Theories of Leadership. Organizational Behavior Theory, and Design in Health Care. Nancy Borkowski (Ed). Sudbury, MA: Jones and Barlett.

Deckard, G.J. (2009) Contemporary Theories of Leadership. Organizational Behavior, Theory, and Design in Health Care. Nancy Borkowski (Ed). Sudbury, MA: Jones and Bartlett.

Deckard, G.J. (2008) Trait and Behavioral Theories of Leadership. Organizational Behavior in Health Care. Nancy Borkowski (Ed). Sudbury, MA: Jones and Bartlett.

Deckard, G. J. (2008) Contingency Theories of Leadership. Organizational Behavior in Health Care. Nancy Borkowski (Ed). Sudbury, MA: Jones and Bartlett.

Deckard, G.J. (2008) Contemporary Theories of Leadership. Organizational Behavior in Health Care. Nancy Borkowski (Ed). Sudbury, MA: Jones and Bartlett.

Deckard, G.J. (2003) Health Care Education in the U.S.   Lessons for Eastern European Countries in Public Administration and Health Care Education in Eastern Europe. J. Nemec and A. Rosenbaum (Eds).

Deckard, G.J. (1990). The American Health Care System: Workbook and Study Guide. Center for Independent Study, Extension Division, University of Missouri, Columbia, MO.

Deckard, G.J. (1987). [Review of The Home Health Care Solution by Janet Zhun Nassif] The Journal of Health Administration Education, 5(1), 154-155.

Other Publications

Deckard, G. J. (2010) August Health IT and Medical Homes South Florida Hospital News and Healthcare Report, 7(2), 4.

Borkowski, N & Deckard, G. (2009) July. Defining Medical Homes South Florida Hospital

& Healthcare Report, 6 (1), 1,14.

Deckard, G. & Tremblay, M. (2010) February. FIU's College of Business Takes Lead in Healthcare Management and Information Programs, South Florida Hospital & Healthcare Report, 6(8), 1, 22

Community Projects and Reports

Physician Distrust as a Barrier to HIE Participation, Central and North Florida Health Information Management Systems Society (CNFHIMSS) with Mohammed, S., Deckard, G., Chiarini Tremblay, M. and Borkowski, N. (February, 2011)

Stakeholders Distrust as a Barrier to HIE Participation, Interim Report for the Central and North Florida Health Information Management Systems Society (CNFHIMSS) with Mohammed, S., Deckard, G., Chiarini Tremblay, M. and Borkowski, N. (October, 2010)

Evaluation of the Training and Implementation for AHCA Point of Care EHR Demonstration Project with Health Choice Network and Miami-Dade Department of Public Health (2009)

Community Based Evaluation of HealthConnect in our Community with Urban Institute (2005-2006)

Community Access Program: A Healthy New Start. Evaluation of Community Health Workers, Health Navigators and Disease Managers with Christy Lemak, Ph.D., University of Florida, for the Jackson Health Foundation, Miami, FL   (2004-2005)

Health Care Access Summit, Human Services Coalition, Miami, FL (2004)

Patient Satisfaction and Cultural Sensitivity, Health Choice Network, Miami, FL (2003)

Patient Satisfaction of Care with Bergwall, D. (October, 1992). Stanley Myers Community Health Center, Miami Beach, FL.

Physician Satisfaction and Perceptions of Organizational Structure (June, 1991). Park Nicollet Medical Center, Minneapolis, MN.

Report on Clinical Laboratory Climate Survey and Feedback Sessions: Results and Recommendations (June, 1990). St. Mary's Health Center, Jefferson City, MO.

Physicians Perceptions of Work in a Group-Model HMO with Clang, M., Clang, T. and Roper, R. (May, 1990). PacifiCare of Oregon, Lake Oswego, OR.

Physicians Perceptions of Work in a Group-Model HMO with Clang, M., Clang, T. and

Roper, R. (April, 1990). PacifiCare of Oklahoma, Tulsa, OK.

Physician Satisfaction and Reactions to Work in Staff Model HMOs with Hicks, L. (February, 1990). Harvard Community Health Plan, Brookline, MA.

Determinants of CEO Performance and Turnover in Minnesota Hospitals with Shirk, M. (August, 1989). Minnesota Hospital Association, Minneapolis, MN.

Strategic Problem-Solving for Improved Effectiveness in the Emergency Department (March, 1989). Still Hospital, Jefferson City, MO.

Clinician Satisfaction and Reactions to Work with Hicks, L. (October, 1989). Prime Health HMO and the Prime Health Foundation, Kansas City, MO.

Quality of Work Life in Life-Care Retirement Communities with Rountree, B. (June, 1985). Life Care Services Corporation, Des Moines, IA.

PAPERS AND PRESENTATIONS DELIVERED AT PROFESSIONAL MEETINGS

International health care management: Defining managerial competencies and educational opportunities in the Dominican Republic. Paper presented at the International Healthcare Services Academic Conference, Global Business Forum, January, 12, 2011, Miami, FL.

Justification of unethical behavior: An attributional perspective. Borkowski, N. & Deckard, G. Panel presentation. Annual Meeting of the Association of University Programs in Health Administration (AUPHA), June 2010, Portland, OR.

Innovations by safety net providers: Management and physician leadership respond to reduced public funding and increased need for primary care services. Deckard, G., Borkowski, N., Gumus, G., Anglin, L., Gambon, T. & Boisette, S. International Conference in Organization Behavior in Health Care, April 2010, Birmingham, England.

Teaching change management: A mini-case simulation approach. Borkowski, N., Gordon J. and Deckard G. 4036.0 Translation of Health Administration Theory & Research to Health Administration Practice, November, 2009, American Public Health Association, Philadelphia, PA.

Learning from a Community-based Evaluation: The HealthConnect in our Community Evaluation Experience, Palmer, L., Deckard, G., Edwards, C. and Saunders, L., November, 2006, American Evaluation Association.

Disaster Training in Healthcare Management Programs, Panel Presentation, Annual Meeting of the Association of University Programs in Health Administration (AUPHA), June, 2006, Seattle, WA.

Accreditation Issues in Public Health, Panel Presentation, Annual Meeting of the Association of Schools of Public Health, November, 2005, Philadelphia, PA

Improving Health Care Access: The Importance of Public/Private Collaboration (April, 2003) Deckard, G. and Rosenbaum, J. Paper presented at the 11th NISPAcee Conference (Network of Institutes and Schools of Public Administration in Central and Eastern Europe), Working Group on Public Sector Quality, Bucharest, Romania.

Preparing Managers for the U.S. Health Care System: Models for Designing and Accrediting Quality Curriculum (April, 2003). Deckard, G. and Rosenbaum, J. Paper presented at the 11th NISPAcee Conference, Working Group on Public Health Management and Policy, Bucharest, Romania

Sustainable Development: Healthy People and Healthy Communities (June, 2001) Deckard, G. Paper presented at The Sino-American Public Administration Seminar, The National School of Administration, The People's Republic of China, Florida International University and Yunnan College of Public Administration, Kunming, China.

Florida Health Care Reform: Perceptions of Physician Input and Impact (June, 1995). Deckard, G. and McCoy, H. V. Poster session at the annual meeting of the Association   for Health Services Research, Chicago, IL.

Women and AIDS: Access and Utilization of Preventive and Support Services for Migrants. (June, 1995) Deckard, G., McCoy, H.V. and Weatherby, N. Poster session at the annual meeting of the Association for Health Services Research, Chicago, IL.

Matching Performance Appraisal to CQI/TQM Demand Characteristics (November, 1994). Strowd, V., Newman, F. and Deckard, G. Paper presented at the annual meeting of the American Public Health Association, Washington, D.C.

The Joint Commission's Impact on Health Administration Education (June, 1994). Invited Panel Participant with Ente, B., Fine, D., and Arrington, B. at the annual meeting of the Association of University Programs in Health Administration. San Diego, CA.

Physician Perceptions of Quality of Care in Staff Model HMOs (June, 1992). Paper presented at poster session, annual meeting of the Association for Health Services Research, Chicago, IL.

Variations in Emotionality Under Stress. (May, 1986). Deckard, G.J., Rountree, B.H., &
    Golembiewski, R.T. Paper presented at the Conference on Organizational Policy and
    Development, University of Louisville, Louisville, KY.

Role Differences in Nursing Staff Perceptions of the Work Environment. (August, 1984).
    Deckard, G.J. & Rountree, B.H.   Paper presented at meeting of the American
    Psychology Association, Toronto, Canada.

Prediction of Juvenile Recidivism based on Multivariate Techniques (August, 1984).
    Ghiselli, W.B., Thomas, J.G. & Deckard, G.J. Paper presented at the 92nd Annual
    Convention of the American Psychology Association, Toronto, Canada.

Internal Work Motivation, Work Stress and Burnout: An Interactional Perspective. (May,
    1984). Rountree, B.H. & Deckard, G.J. Paper presented at the Conference on
    Organizational Policy and Development, University of Louisville, Louisville, KY.

RESEARCH AND PUBLICATIONS IN PROGRESS

Gumus, G., Borkowski, N., Deckard, G. & Martel, K. (article in press, Journal of Health and
Human Services). Healthcare Managers' Perception of Professional Development and
Organizational Support.

Borkowski, N., Gumus, G. & Deckard, G. (article in review, Advances in Health Care
Management). Modifying Physician Behaviors: Evidence Supporting the Effectiveness of
Change Strategies

SEMINARS AND WORKSHOPS PRESENTED

Management Team-building Workshop (December,1993). Abbey Delray Life-Care
    Retirement Community, Delray Beach, FL.

Creating Our Future....Improving Our Performance (July, 1993). Seminar and Workshop,
    Cities in Schools of Miami, Inc., Miami, FL.

Human Resource Management in Health Care Institutions (July, 989). Advanced Training
    Module, Universidad del Norte, Baranquilla, Colombia.

Burnout: Personal and Organizational Responses (March, 1989). Administrative
    Management Society, Columbia, MO.

Burnout: Symptoms and Solutions (January, 1989). Seminar presented for the Missouri
    Institute for Executive Development, Columbia, MO.

Personal Approaches to the Management of Stress and Burnout (November, 1988).
    Section of Behavioral Science, Department of Family and Community Medicine,
    University of Missouri School of Medicine, Columbia, MO.

Work and Organizational Environments in Long-Term Care Settings. (October, 1988).
    Seminar presented at the Advanced Management Institute, The Hillhaven Corporation,
    Tacoma, WA

The Care Environment: Critical Influences on Patients and Staff. (June, 1987). Seminar
    presented to the Kansas City Area Directors of Nursing, Kansas City Area Hospital
    Association.

Managing Ourselves and Our Environment. (February, 1986). Seminar-in-Retreat for
    Veterans Administration Mid-management Network, Columbia, MO.
Networking: An Aid to Survival. (May, 1985). Seminar presented to the Veterans
    Administration Mid-management Network, Columbia, MO.

Linking Organizational Strategy and Organizational Development, (January, 1985).
    Seminar-in-Retreat, Region 1, Life Care Services Corporation, Des Moines, IA.

PROFESSIONAL SERVICE

Manuscript Reviewer, Journal of Health Administration Education, 2010 to present

Manuscript Reviewer, Journal of Health Organization and Management, 2009

Statewide Faculty Discipline Committee: Health Services Administration, Board of
Governors, State of Florida, 2008 to present

Chair, Health Administration Council, Association of Schools of Public Health, 2006
    Chair-Elect, 2005

Chair, Public Health Forum, Association of University Programs in Health Administration, -
2006
    Chair-Elect, 2005

Grant Reviewer, Health Foundation of South Florida, 2001- 2005

Manuscript Reviewer, Journal of Consulting and Clinical Psychology, 2003

Outside Reviewer, Tenure and Promotion for University of Memphis, 2001

Reviewer, Journal of Health and Social Behavior, 2001

Independent Appeals Board, Chair, Accrediting Commission on Education for Health
     Services Administration (2001)

Annual Meeting Planning Committee, Association of University Programs in Health
Services Administration (1999-2002)
     Co-Chair, 2001-2002
     Poster Review Committee Chair   (2000-2001)
     Poster Review Committee Member   (1999-2000)

Accreditation Site Visit Reviewer, Accrediting Commission on Education for Health
     Services Administration (1995).

Pre-Publication Reviewer, <u>Assessment in a Quality Improvement Framework: A
Sourcebook for Health Administration Education</u>, Gelmon, S. and Reagan, J., 1995.

Reviewer, <u>Medical Care</u>, 1994-1995.

Reviewer, <u>Policy Studies Review</u>, 1994.

Fellow, Accrediting Commission on Education for Health Services Administration (1992)
Reviewer, <u>Journal of Consulting and Clinical Psychology</u>, (1992) Curriculum Topics

Review Committee, Accrediting Commission on Education for Health Services
Administration (1992-1993)
Health Care Administration Program Committee, Academy of Management (1990-1991)

Reviewer, <u>The Journal of Health Administration Education</u>, (1990)

Editorial Board, Frontiers of Empirical Research and Development, Public Administration
Quarterly (1988 to 1990)

Curriculum Advisory Committee, National Center for Managed Health Care Administrators,
Kansas City, Missouri (1989)

Affiliated Faculty, School of Nursing, University of Missouri-Kansas City (1985-1988)

<u>COMMUNITY SERVICE</u>

Florida Association of Free Clinics Committee, Health Council of South Florida (2009 –
present)

Evaluation of Implementation of Electronic Health Records for Free Clinics in Miami-Dade, Health Choice Network and Miami-Dade Department of Public Health (1/09 – present)

Evaluation Committee, Community Access Programs: A Healthy New Start (Miami-Dade County), HRSA and University of Florida 5/06 – 12/06)

Health Care Summit Planning Committee, Human Services Coalition, Miami, FL (2006)

Evaluation Committee, HCAP Miami-Dade County, Jackson Health Systems, Miami, FL (2005-2006)

Governance, Planning and Organization Committee, Mayor's Healthcare Access Task Force, Miami-Dade County, (2002-2003)

Board of Directors, Academy for Strategic Management, Miami, FL (1997-2000)

Transcultural Enhancement Continuous Improvement Team, Baptist Hospital of Miami, Miami, FL (1995).

Health Care Committee, Greater Fort Lauderdale Chamber of Commerce Fort Lauderdale, FL (1993 to 1995)

Executive Advisory Board, HomeNet, Inc., Hollywood, FL (1994-1995)

Board of Directors, Institute for HealthCare Research, Miami Lakes, FL (1994-1995).

Technical Advisory Committee, Dade Children's Partnership, Miami, FL (1994).

Patient Outcomes Workgroup, Agency for Health Care Administration, Governor Appointment, Tallahassee, FL (1993)
Government Relations Committee, Women in Healthcare, Miami, FL (1992-1993)

Humana Disaster Relief Team, Field Health Clinics, Homestead, FL, (August-September, 1992)

Community Campaign Volunteer, Woodhaven Learning Center, Columbia, MO (1989)

Volunteer Consultant, Center for Management Assistance, Kansas City, MO (1985)

Volunteer, Rainbow Mental Health Center, Kansas City, KS (1984)

Volunteer, KCMO Radio Call for Action, Mission, KS (1983-1984)

UNIVERSITY SERVICE

Advisor, Healthcare Executive Student Organization, 2009-2010

Advisor, Student Case Competition, National Association for Health Services Executives, 2009

Faculty Senate, Florida International University, 2006-2009

Faculty Senate Steering Committee, Florida International University, 2006 - 2009

G51 Task Force on the Role of Chairs, Florida International University, 2007-2008

G-51, Committee of University Chairs and Directors 2003-2009

Educational Policy Committee, Stempel School of Public Health, 2006-2008

Faculty Assembly, Chair, College of Health and Urban Affairs, Faculty Assembly, 2005-2006

Steering Committee College of Health and Urban Affairs, Faculty Assembly, 2004-2006

Strategic Planning Committee, School of Public Health, Florida International University, 2004-2006

Executive Committee, School of Public Health, Florida International University, 2004-2006

Tenure and Promotion Committee, School of Public Health, Florida International University, 2004-2006

Search and Screen Committee, Chair, School of Public Health, Positions in Health Policy and Management and Health Promotion and Disease Prevention, Florida International University. 2004-2005

Search and Screen Committee, Chair, School of Public Health, Positions in Health Policy and Management and Health Promotion, Florida International University. 2003-2004

Steering Committee, Kaufman Foundation Grant for Entrepreneurship, Florida International University, 2003-2004

Nominations Committee, College of Health and Urban Affairs, Florida International University (2002-2004)

Search and Screen Committee, Chair, Health Information Management, School of Policy and Management, Florida International University (2003)

Search and Screen Committee, Health Services Administration, School of Policy and Management, Florida International University (2002-2003)

Tenure Committee, Health Services Administration, School of Policy and Management, Florida International University (2002-2003)

Search and Screen Committee, Chair, Health Information Management, Florida International University (2002)

PhD Program Re-engineering Committee, School of Policy and Management, Florida International University (2002-2003)

G-51, Committee of University Chairs and Directors (1999-2001)

University Curriculum Committee, Florida International University (1997-1999)

Faculty Senate, Florida International University (1995-1999)

Faculty Governance Committee, Chair, School of Policy and Management (1996-1997)

Health Services Administration Program Committee, School of Policy and Management, Florida International University (1994-1995)

Task Force on Governance, School of Policy and Management, Florida International University (1994-1995)

Curriculum and Student Affairs Committee, School of Policy and Management, Florida International University (1994-1995)

Curriculum Working Group, College of Urban and Public Affairs, Florida International University (1994)

Broward Program Coordinator, Health Services Administration, Florida International University (1993 to 1999)

Accreditation Coordination, Health Services Administration, Florida International University (1992-1993)

Faculty Search and Screen Committee, Health Services Administration, Florida International University (1990-1993)

Student Recruitment Committee, Health Services Administration, Florida International University (1992-1993)

Alumni Committee, Health Services Administration, Florida International University (1993)
Student Organizations, Government and Activities Committee, University of Missouri - Columbia (1987-1989)

Sesquicentennial Special Projects Committee, University of Missouri - Columbia (1988-1989)

Program Assessment Committee, Health Services Management, University of Missouri - Columbia (1985-1987)

ACADEMIC HONORS AND AWARDS

Outstanding Service Award, College of Health and Urban Affairs, Florida International University, 2004

Professional Development Fellowship, Competitive Award from the Educational Leadership Enhancement Grant Program to attend Bryn Mawr College Summer Institute for Women in Higher Education Administration, State of Florida Department of Education, 1995.

Education Internship, Competitive Award from the Women and Minority Leadership Program, Florida International University and Miami Dade Community College in conjunction with the State of Florida Department of Education, 1994.

Women and Minority Faculty Development Award, Florida International University, 1990

Outstanding Teacher Award, Health Services Management, University of Missouri - Columbia, 1989

Kemper Doctoral Fellowship, University of Missouri - Kansas City, 1985.

Psi Chi, National Honor Society for Psychology (President, UMKC chapter), 1984-1985.

Stanley Fisher Outstanding Graduate Award, L.P. Cookingham Institute for Public Administration, 1982

Pi Alpha, National Honor Society for Public Administration, 1982

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

AMIA, Association for Informatics Professionals
Association of University Programs in Health Administration
Academy of Management
HIMSS, Health Information Management Systems Society, National and South Florida
Chapter
Organization Behavior Teaching Society
WHEN, Women's Healthcare Executive Network

COURSE PREPARATIONS

Advanced Health Services Seminar
Applied Organization Theory and Behavior
Applied Epidemiology
Behavioral Aspects of Health
Health Care Management Theory and Practice
Health Policy and Economics
Human Resources Management
Independent Study/Directed Research
Introduction to the Health Care System
Introduction to Health Policy and Management
Management of Healthcare in the 21st Century
Management for Health Professions
Managerial Applications of the Social Determinants of Health
Master's Research Project
Healthcare Residency and Internship
Organizational Behavior
Organization Design and Change
Organization Theory and Behavior in Health Services
Professional Seminar in Health Services Administration
Research Methods in Program Evaluation in Health Services