Louisiana Health Works Commission Statewide Simulation Faculty Development and Simulation-based Inter-professional Team Training at Point-of-Care

Louisiana Board of Regents Contract

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Summary Report
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Introduction

For the 2014-15 fiscal year, *the Louisiana Health Works Commission* Executive Committee (HWC-EC) allocated $100,000 to support two related, but distinct, simulation-based education projects, each described as follows:

1. Simulation-based inter-professional teamwork training at the point-of-care (PoC) – Expand training in established and new hospital partnerships and determine the feasibility of expanding the successful LSUHealthNewOrleans regional training model to achieve sustainable statewide availability to Louisiana hospitals and other healthcare and health professions education organizations, and
2. Simulation faculty development, implementation, and evaluation - Final four modules in a 12-module statewide simulation faculty development program (SimFD) and determination of an operational infrastructure and process for facilitating high quality, statewide implementation for the long term future.

The 2014-15 simulation-based education project built strategically upon the results and insights gained from previous simulation-based projects that were supported by the Louisiana Health Works Commission (HWC) through the Louisiana Board of Regents (BOR) and the School of Medicine at LSUHealthNew Orleans: PoC training in 2011-12, 2012-13, and 2013-14 and SimFD in 2012-13 and 2013-14. Both initiatives are key components of a strategic plan that was created by the SMTEC in October 2009. This year-end project report summarizes the results for both components of the 2014-15 contracted work.

Project Outcomes

The 2014-15 project activities targeted several specific outcomes for each of the PoC and SimFD project components, as listed below:

- POC:
  - In the Southeast Louisiana region, build upon the existing academic-practice partnerships to expand opportunities for delivering point-of-care, inter-professional team training using the infrastructure and business model developed and refined over the past three funded projects.
  - In the Southwest Louisiana region, collaborate with leaders and simulation faculty at the University Louisiana at Lafayette School of Nursing and interested LSUHealthNew Orleans faculty based in Lafayette (e.g., University Medical Center) to conduct a PoCSim demonstration for hospital and continuing education leaders in the greater Lafayette area and engage with interested leaders to determine the feasibility of a second regional model for providing PoCSim.
  - In the North Louisiana region, collaborate with leaders and simulation faculty at LSUHealthShreveport to conduct a PoC demonstration for hospital and continuing education leaders in the region and engage with interested leaders to determine the feasibility of developing a third regional model for providing PoCSim.

- SimFD:
  - Develop, implement, and evaluate the final four modules of the 12-module curriculum.
  - Conduct Modules 4-8 that were developed in 2013-14 for faculty in the northern region of Louisiana, given the circumstances in the 2013-14 project period that interfered with faculty participation.
  - Explore and recommend a feasible and sustainable model (infrastructure and operations) for long-term, high quality statewide delivery of the program.

PoC

Implementation

Development and implementation activities began immediately upon notification of the funding award. In the southeast region, follow-up with existing partner hospitals focused on scheduling and logistics and building upon prior efforts to identify and prioritize training needs to design and deliver customized PoC simulation-based team training. Efforts also targeted developing new hospital partners. The model and operational processes developed and refined in previous project periods was continued for the 2014-15 project to design, deliver, and evaluate customized inter-professional team training targeting priority training needs identified in collaboration with hospital leaders and stakeholders. Site visits and conference calls were used to connect with relevant hospital stakeholders and leaders to examine training needs and establish priority and the appropriate fit between identified needs and simulation-based training design and implementation. As has been done in previous projects, all staff comprising a target unit were scheduled to participate in training to facilitate the transfer of learning from training to everyday practice. In addition to continuing established academic-hospital partnership, outreach activities to identify and engage new hospital partners for PoC team training began in September 2014 and continued throughout the project period. PoC training sessions began September 19, 2014 and concluded June 10, 2015. Three demonstration sessions were conducted in different regions of the state to explore interest and feasibility of establishing additional regional training bases and to increase awareness of PoC training opportunities statewide. Cooperation with the Louisiana Hospital Association and academic institutions in regions where the sessions were conducted facilitated broad dissemination of invitations to hospital leaders (e.g., CEOs, medical and nursing staff directors, and quality, safety, and education officers).

Training was developed and facilitated by the dedicated PoC simulation faculty team (Drs. Carlisle and S. Rusnak) and additional LSUHealthNewOrleans faculty were engaged, as needed from specific specialties and areas of unique expertise, to addressed targeted training priorities (e.g., obstetrics and gynecology). Program evaluation activities targeted both processes and outcomes for both formative and summative purposes. Participants completed a session evaluation instrument and provided feedback. Direct observation during training sessions and follow-up with key stakeholder informants regarding impact also informed decisions about effectiveness. Follow-up program evaluation continues beyond the 2014-15 project period to examine further the influence and outcomes resulting from the training sessions that were conducted.

Results

Considerable program evaluation data was collected and additional program evaluation continues to further examine effectiveness of process and outcome results and to identify future training priorities. Some data analysis has been completed and additional analysis will need to be done as program evaluation continues. With continued support across several years for the PoC and SimFD components has facilitated these efforts to develop into continuous operations rather than staccato events. Preliminary results achieved to date from the simulation project activities are summarized as per the project outcomes listed previously.

Southeast Louisiana region: Forty-three (43) PoC team training sessions were completed between September 19, 2014 and June 10, 2015. Most training sessions fit the two-hour, scenario-based, inter-professional team training

format that has become a standard approach in the PoC delivery model. A very limited use of a focused, one-hour skills training approach occurred in the PoC component for 2014-15 project. Depending on the training priority and logistical needs of a hospital, two or three team training sessions occurred on any given day. For training, individuals were scheduled into inter-professional teams that reflected the typical team composition for the targeted unit and context that occurred in real-life at the particular hospital (e.g., one physician, two nurses, 1 respiratory therapist, and one licensed practical nurse). The local hospital leader(s) working the PoC team completed scheduling to optimize individuals in teams for training were as similar as possible to the actual real-life teams within which they worked to provide patient care. That is, particular attention was given to developing a simulation-based learning environment that was as realistic as possible for the participants. On average, a team participating in training included between 5-7 individuals.

For the 2014-15 project, 252 healthcare professionals participated in the 43 sessions for a total of 484 total contact hours, representing a substantial increase in volume of PoC training sessions and participation compared to what was achieved in the 2013-14 project period. Given the composition of training teams across hospitals, the majority of trainees were nurses, particularly because each team completing training included more than one nurse. Training priorities identified from needs assessments that were targeted by PoC training sessions included arterial line placement, sepsis, postpartum hemorrhage, shoulder dystocia, pediatric respiratory distress and other acute care situations, airway management, central line placement, and emergency medical management (e.g., code situations).

Training participants were asked to complete a short questionnaire to provide responses regarding targeted knowledge and skills prior to and immediately following the training session and a standard set of features related to overall training process effectiveness. Dependent t tests were calculated, where applicable for pre/post training responses. While additional analyses are still underway, overall preliminary findings reflect improvement from pre to post-training that were statistically significant ($p = 0.001$) most often for nurses, and in some instances, for physicians and respiratory therapists ($p = 0.01$ or 0.05). The number of physicians and respiratory therapists was small. In some instances the examination of item means for pre compared to post-training responses reflected meaningful improvement. If sample sizes for these professional groups had been larger, then achieving statistical significance would have likely been achieved. The very small number of other types of health professionals (e.g., physician assistant) prevented this type of statistical analysis by profession.

Overall, all participants reported high rating for effectiveness and receptivity to PoC team training, with typical item responses between 4.5 and 5.0 on a 5-point Likert scale (1=definitely no to 5=definitely yes). Item standard deviations were consistently small, reflecting a commonly shared perspective among training participants. Participant responses indicated that individuals understood their respective roles in the training scenario, viewed the experience to be realistic and that participation improved abilities (e.g., technical, teamwork, communication skills, and management of similar real-life situations). Responses also indicated high receptivity to additional PoC training opportunities and that they would recommend this type of training to colleagues. These observations were consistent across sessions within a hospital, clinical focus of training, and across hospital-based PoC training programs. Follow-up evaluation will occur in the near future to examine more specifically additional influence and impact of training that may have been experienced and observed since training programs were completed. In particular, interviews with stakeholder informants and leaders will seek to identify “stories of impact” to examine the extent to which learning from training has transferred to everyday practice (e.g., improved processes) and contribute to improved outcomes for patients and patient care practices.

For established hospital partners resulting from previous project years, effort included working with leaders to further develop PoC as a regular component within the overall, annual continuing education planning and programming. One hospital expanded training from two days for one unit and one training priority in 2013-14 to six days scheduled through the 2014-15 project period for multiple units and training priorities. Two other existing hospital partners expanded use of PoC in 2014-15 in similar ways. Three hospital training partners from prior years did not participate in 2014-15. One hospital was in the midst of acquisition by a new health system and training was postponed until after the reorganization and high interest in additional PoC training was communicated. A second hospital had

closed. The third hospital desired PoC training continuation, but due to a change in educational leadership they preferred to postpone training until the new leader was in position later in 2015.

As a result of outreach efforts, several new hospitals were identified as potential PoC training partners. However, the remaining time in the project period was insufficient for adequate preparation to implement training. There is excellent potential for establishing active partnership and conducting training later in 2015 and beyond.

Southwest Louisiana region: A PoC demonstration session was conducted at University Medical Center in Lafayette on November 20, 2014. Hospital leaders from throughout the southwest region of Louisiana were invited and 24 leaders representing eight hospital and health systems participated in the session. Leaders from several hospitals expressed interest and follow-up was conducted to explore potential for establishing a training partnership. However, no new training sessions were scheduled during the project period, as a result of the demonstration session. Communication continues with one health system and a few individual hospitals, and there is potential for developing training partnerships in 2015-16.

The results of individual and group discussions with faculty colleagues within the region (e.g., nursing faculty and leaders at the University of Louisiana at Lafayette, and LSUHealth faculty based in Lafayette) revealed that establishing a regional base of operations for PoC is not feasible at this time. There is not sufficient simulation equipment available and there is not sufficient faculty availability and capacity to conduct PoC training at hospitals and other healthcare organizations in the region. Further, the extent to which there is solid interest and commitment to the regular use of PoC training across multiple hospitals is not yet clear to justify further development of a regional base for southwest Louisiana at this time. At present, the only solution remains with the LSUHeathNewOrleans PoC team and its simulation equipment and resources to take this type of training to interested hospitals.

North Louisiana region: Similar to that reported above for the southwest Louisiana region, efforts to schedule a demonstration sessions early in the project year were less successful because of logistical constraints. However, a PoC demonstration was conducted on April 30, 2015. With assistance from the Louisiana Hospital Association and other directory resources, invitations were distributed to leaders of hospitals and health systems in the central and northern regions of Louisiana. Twelve hospital leaders, representing five hospitals and health systems in the region, participated in the session. Several expressed interest in PoC training, follow up from the LSU PoC team occurred, but given the timing, training sessions were not possible within the project period. There is potential for a few hospital training partnerships to develop in the central and northern region for late 2015 or into 2016.

Exploration with key stakeholders in the north Louisiana region regarding the feasibility of a regional base for PoC training using individual and group discussions produced similar results to that reported for the southwest Louisiana region. At present, there is interest, but insufficient faculty and simulation equipment capacity at LSUHealthShreveport to conduct PoC at interested hospitals. There is a level of interest at one institution to provide center-based simulation-based training, but additional staffing would be necessary, and it is not yet clear whether interest lies with PoC delivery or only for center-based training. Internally, additional discussion with central leaders is necessary to clarify both specific interest and whether resources are available and could be devoted to developing increased capacity to participate and a training provider.

Based on relationships developed with leaders at the Louisiana Hospital Association in prior years and during the 2014-15 project period, a third demonstration session was conducted at the January 2016 meeting of the Louisiana Rural Hospital Association at the LHA conference center. A number of hospital representatives expressed interest in PoC training to address a number of needs and constraints that are particular to rural hospitals. Follow-up communication occurred and PoC was completed for one rural hospital in the southwest region of Louisiana before the close of the project period. Additional follow-up will continue to explore and nurture potential PoC participation in the future.

SimFD

Implementation

The primary focus of the 2014-15 project for SimFD was to develop, implement, and evaluate the effectiveness of the final four modules in the 12-module curriculum for this statewide simulation faculty development program. The Appendix (pages 14-16) shows the order of module presentations in a day-long format, brief module descriptions and corresponding learning objectives. Table 1 shows the multi-year progression of the SimFD module development and implementation, with the 2014-15 column indicating the final four modules that were targeted for this project period. Note that three of the final four modules were at the *Expansion* level and the fourth one (project management) was the final Fundamental level module in the curriculum.

Table 1: Summary of the SimFD curriculum, by year of development and implementation.

2012-13	2013-14	2014-15
Curriculum and Instruction: Development and Evaluation[1]	Getting Started with Simulation: What? How? Why?[1]	Practical Project Management Strategies[1]
Designing and Using Assessment in Simulation-based Training and Debriefing[1]	Developing Effective Simulation-based Skills/Procedures Training[2]	Developing Inter-professional Simulation-based Education[3]
Selecting and Developing Simulation Scenarios and Cases [1]	Strategies to Enhance Learning in Scenario-based Simulation Training[2]	Practical Strategies for Enhancing Professional and Scholarly Writing[3]
Coaching and Feedback Strategies in Simulation-based Training and Debriefing Sessions[2]	Effective Program Evaluation: Design, Implementation, and Use [2]	Developing Sustainable Collaboration for Simulation-based Education[3]

Development Levels within the SimFD Curriculum: 1 = Fundamental, 2 = Enhancement, and 3 = Expansion

With contract funding support, faculty were able to participate without any tuition or registration fees and handout materials and CNE credits were provided at no cost. However, given the smaller funding award for 2014-15 than in previous years, participants' lunch and break refreshments were on their own, and they covered their own travel expenses (e.g., mileage and parking fees, as applicable). Due to the low number of physicians participating in the program and the expense associated with CME accreditation and certificates, CME credit was not provided. Participants in professions outside of nursing received a certificate of completion that could be used on their own for securing continuing education accreditation from their respective organizations.

As was done in 2013-14 to manage reduced funding, the development of the four final modules was completed initially by Dr. Chauvin and key project personnel. Input was then solicited from regional faculty trainers for finalizing content, activities, and materials. The format for each module was consistent with that used for the previous eight modules and Dr. Chauvin created extensive, detailed facilitator notes for both background and presentation of each module. Faculty training in assigned modules was completed via participant observation during the March 3 training session and/or one-on-one teleconference with Dr. Chauvin. In addition, Dr. Chauvin observed all sessions at all sites in which faculty trainers taught their assigned modules. Short debriefing discussions with faculty trainers provided feedback to strengthen content, materials, and faculty training effectiveness. Given the reduced level of funding, the honorarium for faculty trainers was reduced by 50%, compared to prior project periods, and so was the workload pertaining content development and preparation for implementing modules. All administrative processes related to information and announcements, registration and participation, materials production and management, and program evaluation was centrally-based at LSUHealthNewOrleans and managed directly by Dr. Chauvin. Finally, repeated efforts were made to offer the four modules developed in the 2013-14 project to the north Louisiana region.

Despite best efforts of all parties, this training could not be scheduled, due to multiple, unresolvable schedule and site location challenges.

Faculty Training Teams and Engagement

Early in September 2014, regional faculty trainer teams were confirmed. In some instances, faculty trainers who participated in previous project periods were no longer available. For the southeast Louisiana region, the training team remains intact at LSUHealthNewOrleans, as does the team in the southwest region, based at the University of Louisiana at Lafayette. The training team for the north Louisiana region and based at LSUHealthShreveport lost all of its members due to relocation or increased or changed responsibilities that resulted in no longer being available for this training role. One new faculty trainer was identified, but no other faculty involved in simulation-based education could be identified. Consequently, Drs. Chauvin and Carlisle participated with the single LSUHealthShreveport faculty trainer to deliver the SimFD program in the north Louisiana region. For the 2014-15 regional SimFD implementation, faculty trainers by region and module(s) taught are shown below in Table 2.

Table 2. Faculty trainers by regional implementation and modules taught.

Region/Site/Date	Faculty Trainers	Modules Taught[a]			
		PPM	DIS	PSW	DSC
LSUHealthNewOrleans March 3, 2015	Sheila W. Chauvin, PhD, MEd	X		X	
	Matthew Carlisle, MD, MAS				X
	Daryl Lofaso, MEd, RRT		X		
LSUHealthShreveport April 29, 2015	Sheila W. Chauvin, PhD, MEd	X		X	
	Matthew Carlisle, MD, MAS				X
	Stacy Lee, MHA		X		
University of Louisiana at Lafayette May 18, 2015	Lisa Broussard, RN, CNS, CNE			X	X
	Jennifer Lemoine, PhD		X		
	Frances Steuben, MSN	X			

[a] PPM = Practical Project Management Strategies, DIS = Developing Inter-professional Simulation-based Education, PSW = Practical Strategies for Enhancing Professional and Scholarly Writing, DSC= Developing Sustainable Collaboration for Simulation-based Education

SimFD Sustainability Model

During the 2014-15 project period, various options were explored for establishing a sustainable and effective statewide infrastructure and process to support ongoing implementation of the SimFD program. Input was solicited from project team members, faculty trainers in each of the regions, education leaders of health professions education programs, and through discussion with members of the statewide Simulation Medical Training and Education Council of Louisiana.

Effectiveness of SimFD Implementation

Faculty participation rates, participants' responses to evaluation questionnaires for each SimFD module, direct observations, and feedback from faculty trainers were gathered as evidence of implementation effectiveness and to identify areas for improvement and future development.

Initial program evaluation consisted of participants' reactions to learning in the modules, as measured by post minus pre-module scores for perceived self-confidence related to objectives-related knowledge and abilities. For each faculty development module, participants were asked to respond to pre- and post- module objectives-based items.

Between four to seven objectives-based items were used for each of the four modules, as reflected in the learning objectives for each module (see Appendix for module descriptions and objectives). In addition, the post- module questionnaire included a standard set of six items pertaining to overall effectiveness of the learning experience. For all items, a five-point Likert scale was used (1=definitely no, 2=no, 3=neutral, 4=yes, 5 definitely yes). Also, the post-module instrument included items pertaining to perceived commercial bias (1=no, 2-yes) and three open-ended questions pertaining to most beneficial features, intentions to apply learning to practice, and perceived barriers to application in real-life. Program evaluation also included direct observation of training implementation and informal debriefing and feedback from faculty trainers. Additional program evaluation activities for the faculty development program are important, but were not possible during the short, 10-month project period. For example, a six or 12-month delayed program evaluation was not possible, but is planned for the near future.

Descriptive statistics were calculated for all pre/post and post-only items to include item means, standard deviations, minimum and maximum response. To examine pre-post differences, dependent t tests were calculated for items and statistical significance determined after Bonferroni adjustments. For post-only items, descriptive statistics were calculated. Thematic analyses of narrative responses to open-ended questions are being done, but are not yet complete. The resulting themes will be examined and compared within and across modules and regional sites to examine effectiveness of the modules and their implementation. Qualitative results will also be used to expand and clarify interpretations of quantitative results.

SimFD Results

The SimFD component of the 2014-15 project was an ambitious one, given the short project period and scope of work. Efforts were focused primarily on development, implementation, data gathering, and some preliminary analysis and evaluation. Additional evaluation work will be ongoing, as noted previously.

Faculty participation: The majority of registrants were nursing faculty, broadly representing all levels of nursing education programs. Table 3 summarizes the registration and participation in SimFD training (Modules 9-12) at each region/site.

Table 3. Participation in SimFD Modules 9 -12 by region.

Region/Date	Registrants	Participants	%[a]	Physicians	Nurses	RRTs[b]	Other[c]
New Orleans (3/3/15)	49	35	71.43	6	15	3	11
Shreveport (4/29/15)	31	16	51.61	0	10	1	5
Lafayette (5/18/15)	84	44	52.38	0	38	0	6
Column Totals	164	95	57.93	6	63	4	21

[a] % = percentage of registrants who participated (e.g., 35/49 = 71.43%)
[b] RRT = registered respiratory therapist
[c] Other = other professions (e.g., occupational therapy, education) and not indicated

Faculty Trainers

As noted previously, all of the faculty trainers were experienced in using simulation-based training and education. Consistent implementation of modules was observed across faculty trainers and sessions. Results of direct observations also revealed that all of the faculty trainers invested satisfactory preparation for conducting the faculty development modules. The ongoing, on-site faculty development of trainers by Dr. Chauvin (e.g., direct observation and post-presentation debriefing) was important for solidifying accuracy and consistency of a standard curriculum and gathering additional input from faculty trainers for ongoing refinement of the modules and program, as a whole. Debriefing with this and other faculty trainers after sessions, revealed that the detailed facilitator notes was instrumental in achieving effective presentation for all the modules. Overall, the cooperation and coordination for both centralized and regional operations were exemplary.

Faculty Development: Impact on Learning and Performance

Of the 95 participants, 83 returned completed program evaluation packets, for a response rate of 87.37%. Results of data analyses revealed very positive receptivity to the faculty development program and highly effective implementation. For all pre/post items, positive and statistically significant ($p < .001$) pre-to-post gains were observed across all modules and sessions/sites. Item means for the six items pertaining to effectiveness of learning experiences (i.e., post-session only quantitative items) were consistently well above 4.5. Only a few items means were below 4.5. The range of item means for each regional implementation was as follows: New Orleans (4.07-4.86), Shreveport (4.56-4.94), and Lafayette (4.31-4.56). When asked, *To what extent would recommend this session to colleagues?* the range of item mean scores across all four modules and for each of the three sites was 4.37-4.88, with the majority of scores above 4.5. These results are consistent with those obtained for implementation of Modules 1-4 (2012-13) and Modules 5-8 (2013-14). Once thematic analyses of narrative responses are complete, results will provide additional results to examine the specific features that contributed to the pre-post gains and high session effectiveness item mean scores. There was no evidence of concerns regarding commercial bias.

SimFD Sustainability Model

Based on broad input, a seven-member statewide SimFD oversight council, with broad geographic and stakeholder representation, was established for moving forward with implementation of the SimFD program at the completion of the project period. The statewide SimFD oversight council will begin its work in the fall 2015, with the first order of business to be the finalization of the model, processes, and tools for the proposed sustainability model, followed by broad dissemination of an announcement and program details to health professions education leaders in Louisiana academic institutions. Among the features for the proposed sustainability model are the following:

- The statewide SimFD oversight council will use the sustainability model for continuing the SIMFD program as a statewide resources.
- The model will include a standard menu of SimFD offerings and associated costs.
- Options will allow for customized delivery of training (one module to a full day of four modules or a schedule for all 12 modules) and features (e.g., options for including continuing education accreditation and credits). An application/program request form and standard process will also be established.
- The oversight council will be responsible for receiving requests and securing appropriate and verified SimFD faculty trainers to provide training sessions at a sponsored program site.
- The oversight council will also monitor and evaluate the ongoing effectiveness of programs, and use results to make decisions about ongoing development and refinements, including additional recruitment and preparation of SimFD faculty trainers. Regular reports will be provided to the Simulation Medical Training and Education Council of Louisiana and input from this council will be solicited and incorporated into ongoing programming and development.
- The oversight council will not collect, expend, or manage any funds, but solely function as a program oversight entity for communicating, coordinating SimFD program activities and for evaluating, and assuring quality programming.
- Implementation of SimFD programs will be sponsored by one or more academic institutions that choose to assume financial and administrative responsibility for site-specific program implementation (e.g., local arrangements, administration of registrants and participants, and associated financial support).
- Institutional sponsor(s) of a site-specific SimFD program will cover costs associated with the program and may apply institutional funds or establish a registration fee to cover costs, in keeping with the standard rates reflected in the program options menu and stipulations set forth for SimFD implementation.
- For each program, the selected SimFD faculty trainers will be responsible for facilitating assigned SimFD modules and gathering evaluation data from participants.
- SimFD faculty trainers will be compensated by a modest, standard-rate faculty honorarium for each assigned module(s) completed. The honorarium will be paid by the sponsoring institution directly to the

faculty trainer. That is, the only exchange of funds will be honorarium payment(s) at the standard rate established that will occur solely between each individual faculty trainer and the institutional sponsor of the site-specific SimFD program.

- SimFD faculty trainers will accept honorarium payments when it is allowable by their employing institution.

Conclusions and Recommendations

Significant work was accomplished in the short 10-month project period. This section addresses first the PoC components of the 2014-15 project scope and is followed by conclusions and recommendations that resulted from the SimFD activities and outcomes.

PoC

For the PoC component, 43 team training sessions in eight hospitals were achieved, a significant increase from that accomplished in 2013-14. For several hospital partners, a substantial step forward was achieved for incorporating PoC simulation-based training into its ongoing continuing education plan. As was observed in prior project periods for PoC simulation-based team training, training evaluation results in the 2014-15 activities provided clear evidence that health professionals were very receptive to and valued the opportunities to participate in this type of training, including those who participated in PoC training each year since its initial offering in 2011. Even in instances where certain interprofessional teams or specific team members (e.g., physicians) did not achieve statistically significant gains in perceived abilities, those individuals still reported high ratings for benefits and value of such training for achieving highest quality patient care, teamwork effectiveness, and safety. Direct observations during training and unsolicited feedback from trainees and hospital leaders also reinforced the benefits and value of PoC team training for enhancing individual and team-centered knowledge and skills and patient care, as a whole. The ability to focus and learn as a team with, from, and about each other in one's own professional practice environment contributes to greater assurance that learning in training transfers to everyday practice, individually and collectively. Similarly, training in one's one care environment facilitates immediate identification and timely resolution of latent safety threats that can impact safety, teamwork effectiveness, and quality of care. Over time, such in situ experiences also enhance the culture of professional learning and continuous quality improvement.

As in previous project periods, training priorities often reflected acute and emergent patient scenarios and those situations that reflect low frequency, high consequence patient problems. Since 2011, PoC team members have encouraged hospital leaders to consider purposeful and appropriate incorporation of PoC as a method for achieving effective continuing education. In the 2014-15 PoC training, several participating hospitals assumed this broader perspective to incorporate this type of training into ongoing continuing education and quality improvement initiatives. Observations of this emerging pattern in several hospitals suggest that it will likely continue to develop in the future at these and other participating hospital sites. Thus, the PoC team training is an effective resource for emergent training needs and for proactive, long-term goals of overall professional and organizational development. Including explicit, focused continuous quality improvement. .

The regional demonstration sessions conducted as part of the 2014-15 project facilitated increased awareness of PoC simulation-based team training as a continuing education and quality and safety improvement option and new connections between academic and hospital/healthcare organization leaders. In both ways, new potential training partnership were identified and continue to be pursued and explored. Discussions continue and there is good potential for expanding the number of hospital/healthcare organization partners for participating in PoC team training in the near future. As has been experience in past project periods, establishing solid, effective academic-hospital partnerships for training can sometimes take more than a year to develop, but the effort pays off in sustainable, active engagement for PoC training.

The exploration of creating PoC simulation-based training bases in the southwest and north regions of Louisiana, similar to the base already established at LSUHealthNewOrleans, resulted in conclusions that insufficient resources and faculty trainer capacity in both regions prevent establishing a viable and sustainable PoC base at present. There may be opportunity to provide some, limited center-based simulation-based training for teams or for specific professions (e.g., procedure or specific skill training) and connections between interested academic and hospital leaders were established, as appropriate. Follow-up inquiry and discussions should occur in the future. Monitoring the changing contexts and exploring opportunities to build and sustain sufficient resources and PoC training capacity to establish regional bases across the state will be important for those interested academic and healthcare organizations within the respective regions. For the very near future, the LSUHealthNewOrleans team will continue to engage with interested organizational leaders and will strive to be responsive and actively engaged in provide PoC training at requesting institutions within the southeast region of Louisiana, and to the extent logistically possible, across the state, as a whole.

SimFD

For the 2014-15 project period, the final four SimFD modules were completed and implemented in three regions of Louisiana: New Orleans, Shreveport, and Lafayette. Overall, 95 health professions education faculty members gained new knowledge and skills to enhance their engagement and effectiveness in teaching and assessing using simulation-based methods. In addition, because each of the modules incorporated foundational educational principles and best practices with simulation-specific methods and applications, these faculty participants also enhanced their professional development as teachers in general. The in-person sessions also facilitated networking and inter-institutional collaboration. Many of the participants in each regional program were repeat attendees from the prior two years of programming.

Three of the four modules reflected *Expansion* level knowledge and skills that were intended predominantly to address professional development needs of experienced simulation users who are striving to achieve collaborative with others and to produce scholarly products and publication. However, for the purposes of pilot testing and initial implementation, any health professions education faculty was welcomed to participate. Based on participant responses to evaluation questionnaire, direct observations and interactions with faculty participants, even novice and less experienced simulation users found valuable opportunities and gained knowledge and skills from all of four of the modules. The ability to use hands-on activities and to receive individualized assistance from the program faculty during these activities was essential to engaging participants and maximizing their learning potential at all levels of abilities. Having multiple faculty trainers in attendance for the full-day program proved to be tremendously helpful in accommodating the range of learning needs within the large group attendance.

The results for SimFD implementation suggest that there is value in each of the modules across skill and experience levels of participants and the modules offer an effective element of flexibility and accommodation for meeting the professional development needs of diverse faculty audiences. A review of the descriptive statistics and results of paired/dependent t tests for the pre and post-session measures clearly indicated that the LaSimFD program contributed to enhancing simulation-based training and education in Louisiana. These results also demonstrated that fairly short (i.e., 90 minutes) sessions that incorporate didactics, hands-on, interactive applications, and follow-up debriefing and refinement can significantly enhance faculty members knowledge, skills, and confidence for making improvements in their simulation-based teaching, learning, and assessment practices. As was experienced in the 2012-13 and 2013-14 projects, very little revision was necessary for the final four modules developed in the 2014-15. Consequently, the conceptual framework and instructional design approaches that were used for developing and realizing the simulation faculty development curriculum and program implementation appear to be highly effective for both initial and long-term sustainability as a statewide simulation faculty development program.

The faculty trainer cohorts in New Orleans and Lafayette remain strong and active, both in number of available individuals and the effectiveness of each trainer. In the Shreveport region, none of the original faculty trainer cohort remains, due to changing responsibilities or relocation to another state. Recruitment of additional faculty trainers did

not result in any being identified. Currently, one new faculty trainer identified in 2013-14 remains. Particularly for the north Louisiana region and applicable across the state, as whole, additional faculty trainers are needed. Consequently, an important step in the near future will be solicit nominations of knowledgeable and skilled faculty members engaged in using simulation who are also effective presenters will need to be done. Identified, interested faculty should be trained to strengthen teams in existing regions and to establish new training teams on other regions of the state (e.g., Lake Charles, Alexandria, Houma-Thibodaux). Ongoing communications, monitoring, and follow-up train-the-trainer activities will be important. Ongoing recruitment and train-the-trainer activities for new faculty trainers will be similarly important.

The establishment of a statewide SimFD oversight council will be a key component for effectively and efficiently sustaining the availability, implementation, and overall quality of the program. The oversight council will also be instrumental in facilitating recruitment and training of faculty trainers. The council will be lead initially by Dr. Sheila Chauvin.

Appendix begins on the next page.

Simulation Faculty Development 2014-15: New Courses Development

Single, Full-Day Format: Overall Objectives

By the end of this Simulation Faculty Development day-long program (Modules 9-12), participants will enhance their abilities to do each of the following, as related to their specific roles in simulation-based training and education:

1. Apply a systematic approach to developing effective inter-professional simulation-based learning experiences.
2. Apply a step-by-step model to developing effective and sustainable scholarly collaboration for simulation-based education.
3. Apply key elements for the following stages of project management: define, plan, implement, and close.
4. Apply practical strategies to maximize time and resources for achieving productivity and quality of various types of professional writing (e.g., abstracts, manuscripts, educational materials, and technical reports).

Descriptions and Learning Objectives for Modules 9 - 12

As with the Modules 1-8, each faculty development module will include a variety of large and small group and individual hands-on learning activities that are appropriate to the content and specific learning objectives. While application-based activities and materials will be included in the module, participants will be encouraged to use their own simulation-based training and education situations, ideas, and materials to enhance relevant and meaningful "take-home" outcomes. When presented as a collection of four modules in a day-long program, the modules are ordered to facilitate building on prior modules and experiences and provide learners with a logical approach to designing and implementing sound and replicable simulation-based training/education. However, modules can presented individually or in alternate groupings to accommodate specific audiences, needs, and/or purposes. In general, each module will include three predominant sections: 1) introduction to essential concepts and principles of best practices and/or standard models or approaches in the education sciences that are relevant for simulation-based training and education (~30 minutes); 2) hands-on application of principles and/or standard models/approaches (~30 minutes); 3) large group debriefing discussion and closure (~30 minutes). Below are the descriptions and proposed learner-centered learning objectives for Modules 9-12:

Module 9:	Developing Inter-professional Simulation-based Education
Content Focus:	Content will define inter-professional education, example forms of IPE simulation-based application, common benefits and challenges, and strategies to achieve effective development, implementation, and evaluation of effectiveness. A systematic, step-by-step model will be introduced as one way to engage with others successfully to achieve IPE SBE.

Description:	In this session, participants will differentiate inter-professional from inter-disciplinary simulation-based education and explore ways to determine the appropriate choice, given desired learning outcomes. Using hands-on application, participants will be able to apply principles and design techniques to their own ideas or desires for maximizing inter-professional learning features and dealing effectively with common challenges and barriers associated with achieving effective inter-professional learning.
Learning Objectives:	*By the end of this workshop, participants will enhance their abilities to do each of the following:* 1. Differentiate inter-professional from concepts such as uni-disciplinary, multi-disciplinary, and inter-disciplinary. 2. Identify core domains of inter-professional competencies that can be addressed in SBE. 3. Use systematic approach to developing effective IPE learning experiences. 4. Use strategies to facilitate success and manage common challenges in IPE SBE. 5. Explore options to evaluate effectiveness of IPE SBE experiences.

Module 10:	Developing Sustainable Scholarly Collaboration for Simulation-based Education
Content Focus:	Content in this workshop will target defining what is scholarly work and scholarship in education. In addition, forms of and strategies for forming collaborative relationships, typical incentives and barriers to collaboration, and strategies for sustaining effective collaborative relationships, especially in simulation-based education.
Description:	A systematic, step-by-step model will be introduced that is applicable to a wide variety of collaborative relationships, including between departments/schools in a single institution and for inter-institutional and academic-industry collaboration. Included in the model are processes that facilitate optimizing collaboration and achieving sustainable relationships. Participants are encouraged to bring their ideas and desires for such collaborative relationships in simulation-based education to use in the hands-on application portion of the session.
Learning Objectives:	*By the end of this workshop, participants will enhance their abilities to do each of the following:* 1. Differentiate collaboration, partnership, and contract as a means to clarify potential purposes and types of scholarly relationships. 2. Apply a step-by-step model for creating sustainable collaborative relationships. 3. Explore incentives and barriers to scholarly collaboration, particularly in simulation-based training and education. 4. Use strategies to optimize collaboration among individuals, groups/units, and/or organizations.

Module 11:	Project Management 101
Content Focus:	Content in this workshop will introduce learning to fundamental elements of project management. Included will be defining and differentiating a project from a program or curriculum, defining critical attributes of a project, identifying the typical phases of a project and strategies and tools for managing a project through each of these phases.
Description:	Managing tasks, people, time, and resources is key to successful completion of any project, and especially, in the resource-intensive, and often asset-poor circumstances of simulation-based education. Practical tools, examples, and opportunities to apply practice strategies in relation to a specific project will be emphasized in this session.
Learning Objectives:	*By the end of this workshop, participants will enhance their abilities to do each of the following:* 1. Differentiate projects from programs and curricula. 2. Describe the critical attributes of a project. 3. Discuss the phases of project management process. 4. Explain the essential elements of defining or initiating a project. 5. Organize the steps involved in planning a project. 6. Use specific techniques to manage project implementation effectively. 7. Identify the essential elements of closing a project effectively.

Module 12:	Practical Strategies for Enhancing Professional and Scholarly Writing
Content Focus:	Content in this session will target defining various types of professional and scholarly writing, resources and strategies for various stages of the writing process, and tips for maximizing efficiency and effectiveness of various writing activities (e.g., planning, organizing, editing, and refining).
Description:	Professional and scholarly writing effectiveness is critical to success in academic publishing and development of successful project/grant proposals for simulation-based education. In this workshop, participants will learn strategies to enhance quality, efficiency, and productivity for writing, editing, and finalizing writing projects for submission (e.g., manuscripts, proposals, educational materials, technical reports).
Learning Objectives:	*By the end of this workshop, participants will enhance their abilities to do each of the following:* 1. Define the various types of professional and scholarly writing that are typically part of academic work. 2. Identify and use relevant resources and strategies for enhancing personal effectiveness and productivity in professional writing. 3. Use the attributes of scholarship to plan and organize professional writing projects. 4. Use specific techniques to maximize time and resources for professional writing. 5. Use specific techniques to avoid challenges in professional writing.

Standard session effectiveness questionnaire items applied to each of the four modules included the following:

For this session, to what extent do you agree with each of the following?

1. Content was relevant to your role(s) in simulation-based education.
2. Presentation was easy to understand (e.g., clear, logical order).
3. Session facilitator(s) were effective.
4. Materials enhanced presentation (e.g., slides and handouts).
5. Session activities (e.g., hands-on application, discussion) enhanced your learning.
6. To what extent would you recommend this session to colleagues?