Information Technology Professionals in Health Care:
Program of Assistance for University-Based Training

(funded through ARRA / HITECH Sec. 3016; released December 17, 2009; application due January 25, 2010)

Proposal submitted by the
Louisiana Center for Health Informatics
at the
University of Louisiana at Lafayette

1. DUNS Number

79-945-1273 (University of Louisiana at Lafayette)

2. Project Abstract

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The Louisiana Center for Health Informatics (LCHI) at the University of Louisiana at Lafayette (UL Lafayette) proposes an integrated approach to university-based training of information technology professionals in the healthcare sector. LCHI intends to achieve the program's goals by partnering with Louisiana's two existing Council on Accreditation for Health Informatics and Information Management Education (CAHIIM)-accredited degree programs in health information management and allying with Louisiana's three medical schools, two schools of public health, and the State-owned public hospital system to facilitate leverage of existing faculty, facilities, and infrastructure resources and to tap into a ready source of students from whom candidates for the Office of the National Coordinator for Health Information Technology (ONC)-identified HIT workforce roles will be recruited. This consortial application seeks $5,957,760 in ARRA / HITECH Section 3016 funding to be expended in the expansion and extension of the existing degree programs, for the purpose of explicitly focusing on the training of new students in *all six targeted roles* identified in Funding Opportunity Announcement FOA-OC-HIT-10-003. A core "common body of knowledge" health informatics curriculum is proposed, to be complemented by specialized training that will be uniquely appropriate to one or more of the defined targeted roles. A menu of new, innovative program options will be made available to students, including the following modalities: "Minors," "Certificates, " "Residency Programs," "Continuing Education Programs," "Master's Degrees," and "Doctoral Concentrations and Post-doctoral Fellowships." The LCHI program will articulate with parallel efforts being made at the Community College level to seamlessly address the full range of workforce development issues that are of interest to ONC. Further, this program will coordinate with the Louisiana Health Care Quality Forum (LHCQF) in its implementation of a Regional Extension Center (REC) and of the Louisiana Health Information Exchange (LaHIE) project.

3. Project Narrative

(i) Goals, Objectives, and Outcomes

The overall goal of this Louisiana Center for Health Informatics (LCHI) proposal is consistent with that of the Office of the National Coordinator for Health Information Technology (ONC) in relation to this series of funding opportunities, and can be stated as follows.

Goal

> ***To support development of a robust HIT workforce in Louisiana and the region by providing university-based Health Informatics training to students from a variety of clinical, technical, and administrative backgrounds, in the six specific roles identified by the Office of the National Coordinator for Health Information Technology.***

LCHI recognizes that to be successful in the achievement of the overall goal, a considerable effort must be undertaken early on to develop, staff, and equip role-specific training programs and to assure a targeted student capacity for each program.

Objectives

1. ***Develop and implement university-based Health Informatics training curricula in a menu of diverse program formats, to address the career interests and time constraints of both undergraduates and post-academic professionals.***
2. ***Establish inter-institutional, inter-disciplinary commitments between two Louisiana's established, Council on Accreditation for Health Informatics and Information Management Education (CAHIIM)-accredited programs in Health Information***

Management and among Louisiana's schools of medicine, schools of nursing, and schools of public health.

3. ***Support, via education and training, the efforts of the Louisiana Health Care Quality Forum (LHCQF) in its implementation of a Regional Extension Center (REC) and of the Louisiana Health Information Exchange (LaHIE) project.***

LCHI anticipates being able to recruit, enroll, and retain students into a training "pipeline" of responsive capacity, leading to the students' completing their training in a reasonable and appropriate timeframe that is consistent with the goals of the program. To that end, LCHI is committing itself, and by extension its consortial partners, to achieving to following outcomes.

Outcomes

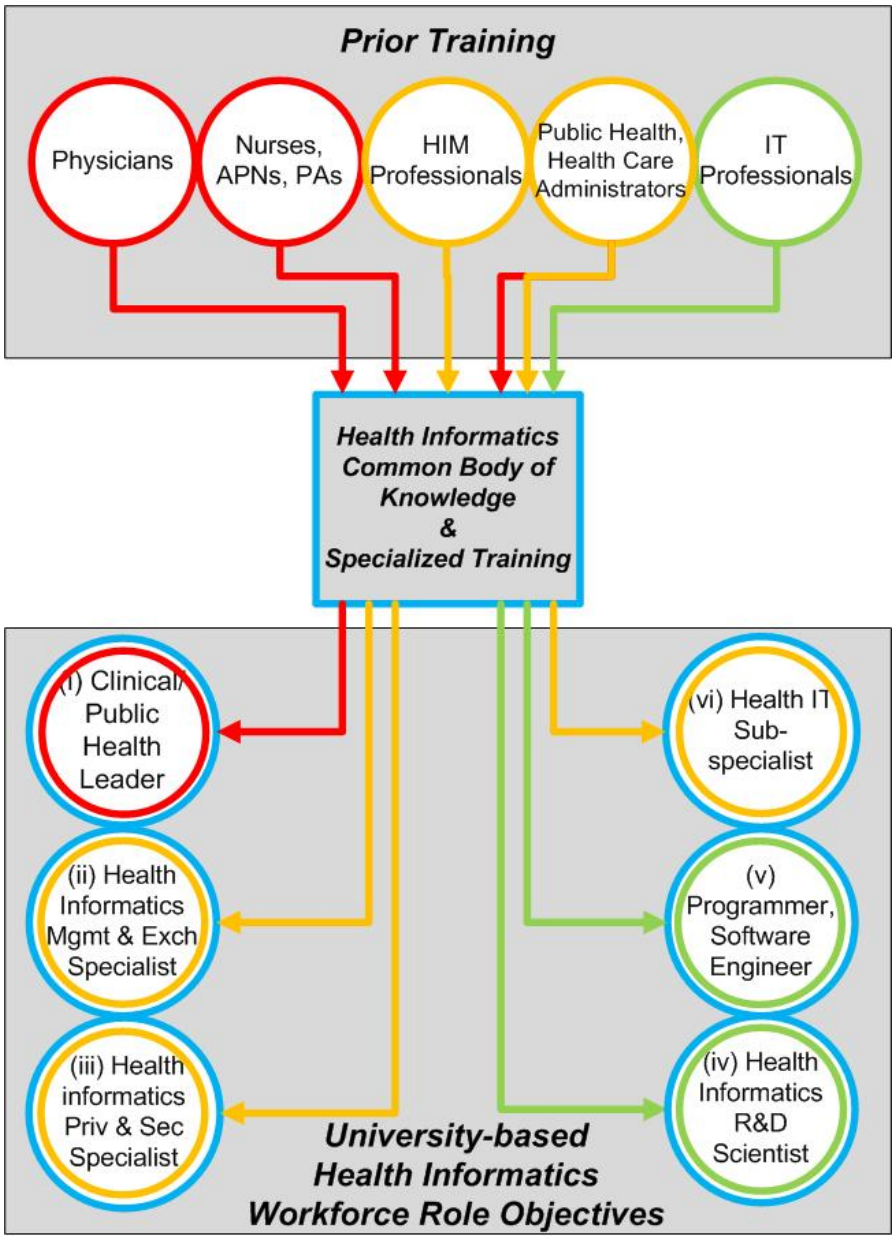
1. ***By the completion of the three-year period of funding, to have recruited, enrolled, trained, and graduated as many as nine hundred (900) (i.e., three hundred (300) per year) Health Informatics professionals in tuition-supported training positions, some with stipends and health insurance provided, at the following levels of training:***
    - ***Baccalaureate minor programs – thirty (30) per year***
    - ***Continuing education programs – two hundred forty (240) per year***
    - ***Post-baccalaureate certificate programs – twenty (20) per year***
    - ***Physician residency programs – annual and grand total to be determined***
    - ***Master's degree programs – eight (8) per year***
    - ***Doctoral research concentration programs – two (2) per year***
2. ***By the completion of the three-year period of funding, to have established an ongoing demand for approximately the same number of training positions.***

(ii) Proposed Strategy

Figure 1 depicts the potentially transformative effect of university-based health informatics training on the career paths of clinical, administrative, and information technology professionals. In essence, health informatics training becomes a "wrapper" that adds depth and a new dimension to the repertoire of trainees, creating a cadre of professionals in a rapidly expanding field that is critical to the adding of value to healthcare in the United States. Health Informatics professionals can apply their knowledge and skills to aid in the enhancement of clinical and administrative quality while working toward the reduction of the costs of clinical duplication and administrative overhead.

The proposed strategy must, however, take into account that potential students will begin their pursuit of health informatics training at differing levels and expect to exit their course of training at differing points. Some students will come to this program with ongoing professional careers in clinical disciplines, looking to enhance or refocus those careers. Other students will enter into training as undergraduates searching for a launch point into their futures. All serious students will be welcomed into the proposed university-based health informatics workforce training program, with a variety of options available to meet their needs.

Figure 1. Pathways from Prior Training to Targeted Health Informatics Workforce Roles



LCHI recognizes that an inter-disciplinary, inter-institutional approach is essential to achieving the stated goal. With this in mind, Table 1 summarizes the considerable variety of program offerings LCHI intends to offer. Each institution identified in a cell will have a contractual obligation to LCHI for delivery of training services and the gathering of data required for reports.

Table 1. Categories of University-based Health Informatics Programs by Targeted Role

Health Informatics Programs								
Program Level		**Baccalaureate-Level**		**Post-Baccalaureate-Level**				
Program Type		Type 1*	Type 1*	Type 1*	Type 1*	Type 1*	Type 1* or Type 2**	Type 2**
Program Category		Concentration in Health Informatics	Minor in Health Informatics	Continuing Education Programs in Health Informatics	Certificate in Health Informatics	Physician Residency Programs in Health Informatics	Master's Degrees in Health Informatics	Doctoral Concentrations and Post-doctoral Fellowships in Health Informatics
Program Credit		Academic Credit: 10 Semester Credit Hours	Academic Credit: 18 Semester Credit Hours	CE Credit: varies by program	Academic Credit: 18 Semester Credit Hours	GME Credit: varies by program	Academic Credit 30-36 Semester Credit Hours	Academic Credit: 12-15 Semester Credit Hours
Role (i): Clinician/ Public Health Leader		*Not Applicable*	*Not Applicable*	*Not Applicable*	✓ UL:HIM LTU:HIIM LSUHSC SPH LSUHCSD TUSPH&TM	✓ LSUHSC SPH LSUHCSD TUSOM	✓ UL:MSHI LTU:MHIM	*Not Applicable*
Role (ii): Health Information Management and Exchange Specialist		*Not Applicable*	✓ UL:HIM,MIS LTU:HIIM	✓ UL:HIM LTU:HIIM	✓ UL:HIM LTU:HIIM	*Not Applicable*	✓ UL:MSHI LTU:MHIM	*Not Applicable*
Role (iii): Health Information Privacy and Security Specialist		*Not Applicable*	✓ UL:HIM,MIS LTU:HIIM	✓ UL:HIM LTU:HIIM	✓ UL:HIM LTU:HIIM	*Not Applicable*	✓ UL:MSHI LTU:MHIM	*Not Applicable*
Role (iv): Research and Development Scientist		*Not Applicable*	*Not Applicable*	*Not Applicable*	*Not Applicable*	*Not Applicable*	✓ UL:MSHI LTU:MHIM	✓ UL:CACS LTU:HIM
Role (v): Programmers and Software Engineers		*Not Applicable*	✓ UL:MIS	✓ UL:MIS	✓ UL:MIS LSUHSC SPH	*Not Applicable*	✓ UL:MSHI LTU:MHIM	*Not Applicable*
Role (vi): Health IT Sub-specialist		*Not Applicable*	✓ UL:HIM LTU:HIIM	✓ UL:Nursing UL:HIM LTU:HIIM	✓ UL:HIM LTU:HIM LSUHSC SPH LSUHCSD	*Not Applicable*	✓ UL:MSHI LTU:MHIM	*Not Applicable*

* Type 1: Programs, typically of one year duration or less, leading to award of an institutional certificate or a master's degree without thesis.
** Type 2: Programs, typically of a maximum of two years' duration, leading to award of a master's degree with thesis.

In Table 1, each column represents a distinct training category of university-based health informatics training. Within each column, multiple offerings could be tailored to the specific needs and goals of the student, depending (1) on the qualifications the student brings to the program as a result of prior training or experience and (2) on the specific workforce role sought by the student. The phrase "Not Applicable" has been inserted into cells where it is thought unlikely that candidates could be recruited into programs within a specific category and role. The following descriptions introduce specific offerings in each category.

"Concentrations" – a category of offerings to be made available through existing baccalaureate programs in General Studies (or other generalist curricula), each entailing 10 – 12 semester credit hours, i.e., usually 30% or more of the major requirements in an undergraduate curriculum.

Program A. Health Informatics Concentration within Any Baccalaureate Curriculum,

while possibly useful for the student who intends to continue in his or her education, *the "Concentration" option is not considered to be a sufficient number of course hours to qualify a student for any of the ONC-designated workforce roles covered in this particular grant program.*

This proposal does not intend to emphasize this offering, but does recognize that partial completion of undergraduate minors by some students will in fact benefit the HIT workforce. *No specific financial support for training positions is requested for Program A.*

"Minors" – a category of offerings to be made available through existing baccalaureate programs in Health Information Management and Management Information Systems, each entailing approximately 18 – 21 semester credit hours, i.e., usually 15% or more of total hours required in an undergraduate curriculum.

Program B. Health Informatics Minor within HIM Major Curriculum,

to be added to the Health Information Management curriculum at UL Lafayette.

Program C. Health Informatics Minor within MIS Major Curriculum,

to be added to the Management Information Systems curriculum at UL Lafayette.

This proposal seeks implementation of both Program B and Program C as new Type 1 offerings that will complement and extend existing baccalaureate degrees at UL Lafayette. Currently, an annual average of twenty (20) HIM students and thirty (30) MIS students graduate each year. With the addition of the proposed Health Informatics Minor, twenty (20) new training positions would be created for HIM students and ten (10) for MIS students, for a total of thirty (30) training positions in the combination of Programs B and C.

HIM baccalaureate graduates routinely sit for the national examination to become Registered Health Information Administrators (RHIA), which is a certification of the Commission on Certification for Health Informatics and Information Management (CCHIIM). Some HIM graduates will no doubt later sit for the CCHIIM's Certified Coding Specialist (CCS) and CCS-P (Physician-based) credentials. The addition of the proposed Health Informatics minor to both the HIM and MIS programs will increase the number of baccalaureate graduates from both of these programs who sit for the CCHIIM examinations of Certified Health Data Analyst (CHDA) and

of Certified in Healthcare Privacy and Security (CHPS) – both areas of interest for this workforce development grant. Additionally, graduates will be qualified for and may also or alternatively be interested in sitting for examinations offered by various industry groups, including the Certified Professional in Health Information Management Systems (CPHIMS), offered by the Health Information and Management Systems Society (HIMSS); and the Certified Professional in Health Information Exchange (CPHIE), the Certified Professional in Health Information Exchange (CPHIT), and the Certified Professional in Health Information Technology (CPHIT), sponsored by the Workgroup on Electronic Data Interchange (WEDI), by the e-Health Initiative (eHI), and Association for Healthcare Documentation Integrity (ADHI).

Programs B and C:

18 semester-credit-hours (2 semesters)

Minor in Health Informatics awarded by the undergraduate institution

Average Total Tuition for a 2-semester undergraduate program = $4,475.20

i.e., $3,189.20 (in-state student tuition) and $9,619.20 (out-of-state student tuition)

Assumptions:

1. 2-semester program

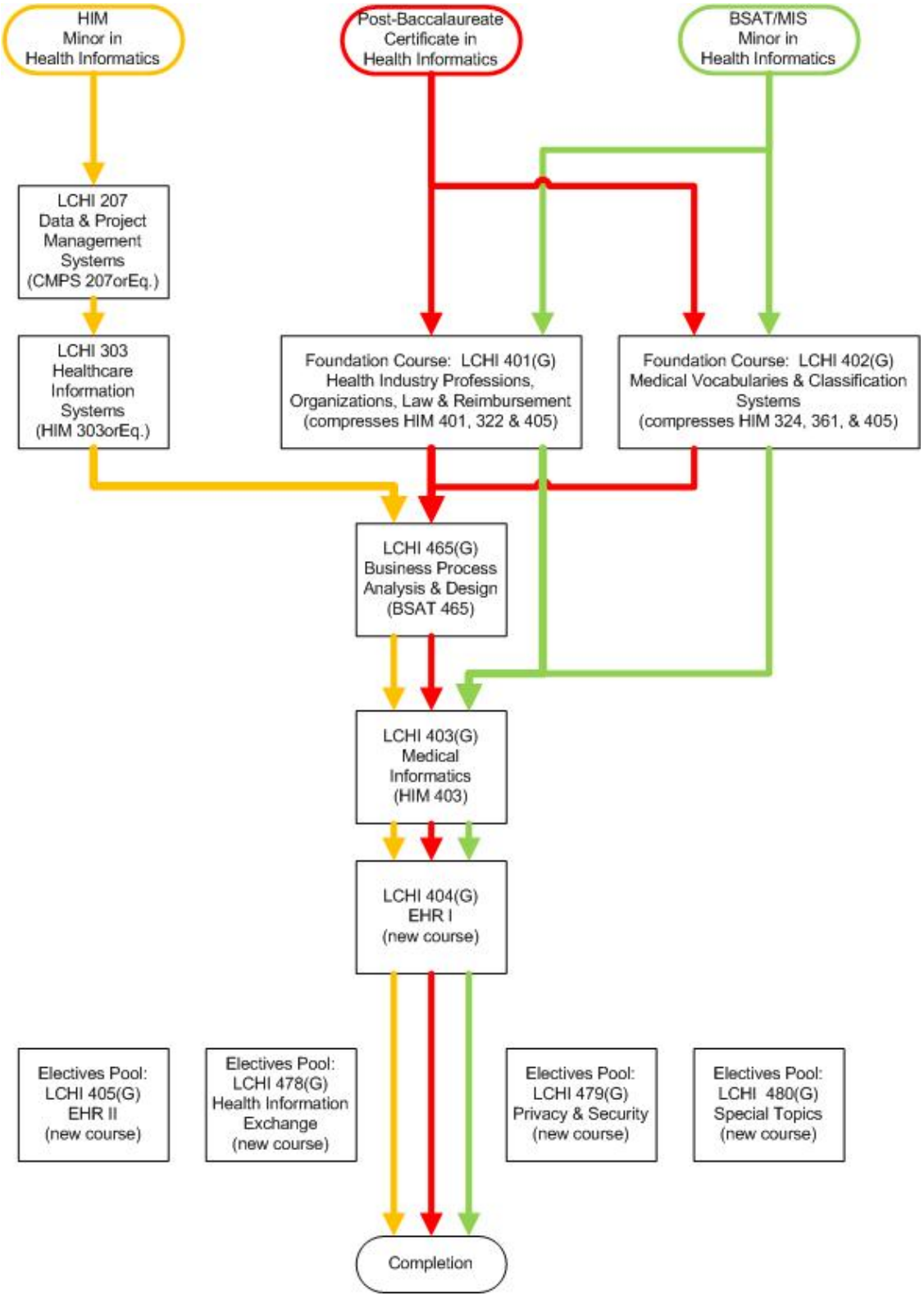
2. 4:1 ratio of in-state to out-of-state students

3. Full-Time, In-State, Undergraduate Tuition for 9 SCH in 1 semester = $1,594.60 per semester

4. Full-Time, Out-of-State, Undergraduate Tuition for 9 SCH in 1 semester = $4,809.60 per semester

The curriculum for Programs B and C is depicted in Figure 2, with specific course descriptions detailed in Appendix A. The budget calculations for Programs B and C are found in Section 5.

Figure 2. Curriculum Sequence for HIM and MIS Minor (Programs B and C) and for Health Informatics Certificate Program (Programs F).



"Continuing Education Programs" – a category of offerings intended for clinical practitioners who have previously completed their professional education and who are constrained by their routine obligations and thus unable to participate in more formal academic programs; to be offered for continuing education credit, rather than academic credit.

Program D. Health Informatics Continuing Education Curriculum,

to be offered jointly by UL Lafayette's Department of Health Information Management and Louisiana Tech University's Department of Health Informatics and Information Management as a service to HIM professionals and healthcare professionals.

Program E. Nursing Informatics Continuing Education Curriculum,

to be offered jointly by UL Lafayette's Department of Health Information Management and College of Nursing and Allied Health Professions as a service to nursing professionals.

This proposal seeks implementation of both Program D and Program E as new Type 1 offerings that will address the need for annual continuing education credits in these professions, while expanding the workforce of persons trained in health informatics.

Programs D-E:
40 contact-hours (non-credit) per program (or fewer, if dictated by marketplace demand)
Continuing Education Programs in Health Informatics awarded by the Louisiana Center for Health Informatics
Tuition = $2,500.00

Curricula for Programs D & E will be marketplace-responsive and will be drawn from the course catalog detailed in Appendix A. The budget calculations for Programs D and E are found in Section 5.

"Certificates" – a category of offerings to be made available to post-baccalaureate, re-entry students who may already be employed in the healthcare sector or in information technology (IT) positions outside of the healthcare sector, each entailing 18 semester credit hours.

Program F. Health Informatics Certificate,

to be offered as a post-baccalaureate program at UL Lafayette, at Louisiana Tech University, and at the LSU and Tulane Schools of Public Health.

This proposal seeks aggressive implementation of Program F as a new Type 1 offering that will attract re-entry students who hold at least a baccalaureate degree in some field of study such as Health Information Management, Management Information Systems, Nursing, or others.

While the result of participation in this program will be a university-based post-baccalaureate certificate in health informatics, graduates may be encouraged by this training to also sit for national CCHIIM examinations (e.g., RHIA, CCS, CCS-P, CHDA, and CHPS) and/or for examinations offered by various industry groups (e.g., CPHIMS, CPHIE, CPHIT, and CPHIT), as previously described in the narrative included under Programs B and C, above.

Program F:
18 semester-credit-hours (2 semesters)
Certificate in Health Informatics (CHI) awarded by the Louisiana Center for Health Informatics

Average Total Tuition for a 2-semester post-baccalaureate program = $6,311.60
i.e., $4,597.20 (in-state student tuition) / $13,169.20 (out-of-state student tuition)

Assumptions:
1. 2-semester program
2. 4:1 ratio of in-state to out-of-state students
3. Full-Time, In-State, Graduate Tuition for 9 SCH in 1 semester = $2,298.60 per semester
4. Full-Time, Out-of-State, Graduate Tuition for 9 SCH in 1 semester = $6,584.60 per semester

A model curriculum for Program F is depicted in Figure 2, with specific course descriptions detailed in Appendix A. The budget calculations for Program F are found in Section 5.

"Residency Programs" – a category of offerings uniquely focused on training physicians through elective options in addition to their chosen principal clinical specializations; to be offered for Graduate Medical Education credit.

Program G. Health Informatics Residency,

to be offered by jointly by the LSU System's Office of Health Affairs and Medical Education, Tulane's School of Medicine, and UL Lafayette's Louisiana Center for Health Informatics and Department of Health Information Management and housed principally at University Medical Center in Lafayette, one of ten safety-net hospitals affiliated with the Louisiana State University Health Care Services Division.

This proposal seeks implementation of Program G as a new Type 1 offering that will complement and the training of clinical professions holding medical degrees. Because the restrictive timing for submission of this proposal, and because of the multiple levels of approval required for the initiation of such a program, no training positions can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

Program G:
Graduate Medical Education (GME) credit
Elective Medical Residency in Health Informatics awarded by the GME institution in conjunction with Louisiana Center for Health Informatics

The curriculum for Program G will be selected from the catalog of specific course descriptions detailed in Appendix A, and coupled with an intensive hands-on practicum. Budget calculations for Program G are found in Section 5, however the number of training positions is currently undetermined, as stated above.

"Master's Degrees" – a category of offerings focused on advanced academic credentialing of both thesis and non-thesis graduates.

Program H. Master of Science in Health Informatics (MSHI),

to be offered jointly by UL Lafayette's Louisiana Center for Health Informatics, Department of Health Information Management, and MBA Health Care Administration Program.

This proposal seeks implementation of the MSHI, as a complement to the MHIM currently offered by Louisiana Tech University. The MSHI curriculum will require approval of the Louisiana Board of Regents prior to implementation. Verbal commitment from Regents' staff has been offered of its willingness to expeditiously review LCHI's submission – a submission that will be made promptly upon notification of the award of grant funds.

Program H:
30-36 semester-credit-hour (4-semesters)
Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics

Average Total Tuition for a 4-semester master's program = $12,623.20
i.e., $9,194.40 (in-state student tuition) / $26,338.40 (out-of-state student tuition)

Assumptions:
1.4-semester program
2. 4:1 ratio of in-state to out-of-state students
3. Full-Time, In-State, Graduate Tuition for 9 SCH in 1 semester = $2,298.60 per semester
4. Full-Time, Out-of-State, Graduate Tuition for 9 SCH in 1 semester = $6,584.60 per semester

The curriculum for Program H is detailed in Table 2, with specific course descriptions detailed in Appendix A. This proposed curriculum is intended to meet the requirements of the draft CAHIIM standards (September 2009) for accreditation of master's degree programs in Health Informatics. The budget calculations for Program H are found in Section 5.

Table 2. Proposed Master of Science in Health Informatics (MSHI) Curriculum

Health Informatics Themes	**Technical Track**		**Management Track**	
Introduction to Health Informatics	3	Required	3	Required
Information Systems for the Healthcare Industry	3	Required	3	Required
Information Technology & the Healthcare Industry	3	Required		Elective
Management of Information Systems & Technology	3	Required	3	Required
Health Information & Data Management	3	Required	3	Required
Biostatistics & Epidemiology	3	Required		Elective
Quality & Outcomes Management in the Healthcare Industry	3	Required		Elective
Biometry (STAT 417(G))		Elective		Elective
Nursing Informatics		Elective		Elective
Medical Informatics for Physicians		Elective		Elective
Information Systems in Non-Acute Healthcare Delivery Settings		Elective		Elective
Health Insurance Information Systems		Elective		Elective
Sub-Total	21		12	
Health Industry Themes				
Healthcare Economics & Policy	3	Required	3	Required
Healthcare Delivery Systems (HIM 401+)	3	Required	3	Required
Organizational Behavior in Health Care (HCA 520)		Elective		Elective
Quality Management in Health Care (HCA 550)		Elective		Elective
Human Resource Management in Health Care (HCA 565)		Elective		Elective
Strategic Management in Health Care (HCA 590)		Elective	3	Required
Sub-Total	6		9	
Research Themes				
Directed Individual Study I		Elective		Elective
Directed Individual Study II		Elective		Elective
Research Methods		Elective		Elective
	0		0	
Electives [chosen from Health Informatics, Health Industry, or Research themes or Data Mining (CMPS 566), GIS (GIS 305+)]				
Elective I	3		3	
Elective II	3		3	
Elective III			3	
Elective IV			3	
	6		12	
Total for Non-Thesis Option	33		33	
Thesis Option				
Elective I	-3		-3	
Elective II	-3		-3	
Thesis	6		6	
Sub-Total	0		0	
Total for Thesis Option	33		33	
One internship must be served within a health industry organization, in addition to the 33-hour requirement.				
Students with significant health industry experience may petition to have this internship waived.				

"Doctoral Concentrations and Post-doctoral Fellowships" – a category of academic-credit course offerings and research mentorships extending existing PhD programs in Computer Science and Computer Engineering, focusing on advanced research and development for healthcare IT.

Program I. Research concentrations in Health Informatics topics within existing doctoral programs in Computer Science or Engineering or other disciplines, or post-doctoral fellowships in Health Informatics, to be offered jointly by UL Lafayette's Louisiana Center for Health Informatics, Department of Health Information Management, and Center for Advanced Computer Studies, with participation by researchers at LTU.

Research themes for Program I include the following subject areas, consistent with the Strategic Health IT Advanced Research Projects (SHARP) Program:

1. Security of Health Information Technology
2. Patient-Centered Cognitive Support
3. Healthcare Application and Network Platform Architectures
4. Secondary Use of EHR Data

In addition to the above, Louisiana Tech University (LTU) has ongoing research activities in the area of Clinical Decision Support and both LTU and UL Lafayette have researchers working in Health Data Mining and Knowledge Discovery.

Program I:

24-36 semester-credit-hour (4-semesters)
mentorship and supervision of doctoral-level dissertation research (or post-doctoral research), coordinated by a qualified faculty member associated with the Louisiana Center for Health Informatics, with award of doctoral degree through home department and institution of candidate

Average Total Tuition for a 4-semester master's program = $12,623.20
i.e., $9,194.40 (in-state student tuition) / $26,338.40 (out-of-state student tuition)

Assumptions:
1.4-semester program
2. 4:1 ratio of in-state to out-of-state students
3. Full-Time, In-State, Graduate Tuition for 9 SCH in 1 semester = $2,298.60 per semester
4. Full-Time, Out-of-State, Graduate Tuition for 9 SCH in 1 semester = $6,584.60 per semester

The budget calculations for Program I are found in Section 5.

The remainder of this section is devoted to a more detailed description of how each targeted workforce role is addressed by the proposed training programs. Tables 3a and 3b provide an overall summary of proposed training strategies for the targeted workforce roles.

Table 3a. Proposed Strategies for Targeted Workforce Roles

Proposed Strategy for Role	Role					
	(i) Clinician/ Public Health Leader	**(ii) Health Information Management and Exchange Specialist**	**(iii) Health Information Privacy and Security Specialist**	**(iv) Research and Development Scientist**	**(v)Programmers and Software Engineers**	**(vi) Health IT Sub-Specialist**
A. The role being addressed and (for consortial programs) the name of the institution that will be home to the program.	University of Louisiana at Lafayette	University of Louisiana at Lafayette	University of Louisiana at Lafayette	University of Louisiana at Lafayette	University of Louisiana at Lafayette	University of Louisiana at Lafayette
B. The overall educational goals for the program.	Prepare individuals to lead the successful deployment and use of health IT..	Prepare individuals to support the collection, management, retrieval, exchange, and/or analysis of information in electronic form, in health care and public health organizations.	Prepare individuals to maintain trust by ensuring the privacy and security of health information in IT deployment, by qualifying them to serve as institutional/ organizational information privacy or security officers.	Prepare individuals to support efforts to create innovative models and solutions that advance the capability of health IT, and conduct studies on the effectiveness of health IT and its effect on health care quality, by qualifying them to take positions as teachers in institutions of higher education.	Prepare individuals to serve as architects and developers of advanced health IT solutions, by cross-training them in IT and health domains.	Prepare individuals for employment in research and development settings, and in teaching settings.
C. Whether the applicant is proposing to establish a new program or to expand an existing one.	New program with 2 options for enrollees.	New programs with 4 options for enrollees, expanding on existing programs.	New programs with 4 options for enrollees, expanding on existing programs.	New program with 2 options for enrollees.	New programs with 4 options for enrollees, expanding on existing programs.	New programs with 4 options for enrollees, expanding on existing programs.
D. The duration of the training and whether a degree or certificate will be awarded. **If a degree, specify the degree and which institutional department will award it.** **If a certificate, specify the proposed title of the certificate and which department will award it.**	Enrollee options: Program F: 18 semester-credit-hour (2-semester) Certificate in Health Informatics (CHI) awarded by the Louisiana Center for Health Informatics Program G: (to be determined) Program H: 30-36 semester-credit-hour (4-semester) Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics	Enrollee options: Programs B or C: 18 semester-credit-hour (2-semester) Minor in Health Informatics awarded by the undergraduate institution Programs D-E: 40 contact-hour (non-credit) Continuing Education Programs in Health Informatics awarded by the Louisiana Center for Health Informatics Program F: 18 semester-credit-hour (2-semester) Certificate in Health Informatics (CHI) awarded by the Louisiana Center for Health Informatics Program H: 30-36 semester-credit-hour (4-semester) Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics	Enrollee options: Programs B or C: 18 semester-credit-hour (2-semester) Minor in Health Informatics awarded by the undergraduate institution Programs D-E: 40 contact-hour (non-credit) Continuing Education Programs in Health Informatics awarded by the Louisiana Center for Health Informatics Program F: 18 semester-credit-hour (2-semester) Certificate in Health Informatics (CHI) awarded by the Louisiana Center for Health Informatics Program H: 30-36 semester-credit-hour (4-semester) Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics	Enrollee options: Program H: 30-36 semester-credit-hour (4-semester) Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics Program I: 24-36 semester-credit-hour (4-semester) mentorship and supervision of doctoral-level dissertation research (or post-doctoral research), coordinated by a qualified faculty member associated with the Louisiana Center for Health Informatics, with award of doctoral degree through home department and institution of candidate.	Enrollee options: Programs B or C: 18 semester-credit-hour (2-semester) Minor in Health Informatics awarded by the undergraduate institution Programs D-E: 40 contact-hour (non-credit) Continuing Education Programs in Health Informatics awarded by the Louisiana Center for Health Informatics Program F: 18 semester-credit-hour (2-semester) Certificate in Health Informatics (CHI) awarded by the Louisiana Center for Health Informatics Program H: 30-36 semester-credit-hour (4-semester) Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics	Enrollee options: Programs B or C: 18 semester-credit hour (2-semester) Minor in Health Informatics awarded by the undergraduate institution Programs D-E: 40 contact-hour (non-credit) Continuing Education Programs in Health Informatics awarded by the Louisiana Center for Health Informatics Program F: 18 semester-credit-hour (2-semester) Certificate in Health Informatics (CHI) awarded by the Louisiana Center for Health Informatics Program H: 30-36 semester-credit-hour (4-semester) Master of Science in Health Informatics (MSHI) awarded by the Louisiana Center for Health Informatics

Table 3b. Proposed Strategies for Targeted Workforce Roles (continued)

Proposed Strategy for Role	Role					
	(i) Clinician/ Public Health Leader	**(ii) Health Information Management and Exchange Specialist**	**(iii) Health Information Privacy and Security Specialist**	**(iv) Research and Development Scientist**	**(v)Programmers and Software Engineers**	**(vi) Health IT Sub-Specialist**
E. If the program is a new program, when the training program will matriculate its first trainees.	Fall of 2010	Fall of 2010	Fall of 2010	Fall of 2010	Fall of 2010	Fall of 2010
F. Whether the program addresses health care, public health, or both.	Both	Both	Both	Both	Both	Both
G. The target number of trainees to be enrolled in this program per year, and, separately, the number of these trainees to be supported by funds from this grant.	Program F = 20 Program H = 8 All trainees will be supported by funds from this grant.	Program B = 20 Program C = 20 Program D = 120(10fte) Program E = 120(10fte) Program F = 20 Program H = 8 All trainees will be supported by funds from this grant.	Program B = 20 Program C = 20 Program D = 120(10fte) Program E = 120(10fte) Program F = 20 Program H = 8 All trainees will be supported by funds from this grant.	Program H = 8 Program I = 2 All trainees will be supported by funds from this grant.	Program B = 20 Program C = 20 Program D = 120(10fte) Program E = 120(10fte) Program F = 20 Program H = 8 All trainees will be supported by funds from this grant.	Program B = 20 Program C = 20 Program D = 120(10fte) Program E = 120(10fte) Program F = 20 Program H = 8 All trainees will be supported by funds from this grant.
H. The curriculum for the program listing titles and credit hours (or trainee time commitment) of all required courses and other required experiences.	Refer to course descriptions in Appendix A.	Refer to course descriptions in Appendix A.	Refer to course descriptions in Appendix A.	Refer to course descriptions in Appendix A.	Refer to course descriptions in Appendix A.	Refer to course descriptions in Appendix A.
I. The faculty members who will be offering the required courses and other experiences.	Refer to biosketches in Section 3(v).	Refer to biosketches in Section 3(v).	Refer to biosketches in Section 3(v).	Refer to biosketches in Section 3(v).	Refer to biosketches in Section 3(v).	Refer to biosketches in Section 3(v).
J. Mechanisms for student mentoring and advising, also specifying how trainees' progress through the program will be monitored and evaluated.	Each student will be assigned an advisor who will monitor program progress through a Learning Management System.	Each student will be assigned an advisor who will monitor program progress through a Learning Management System.	Each student will be assigned an advisor who will monitor program progress through a Learning Management System.	Each student will be assigned an advisor who will monitor program progress through a Learning Management System.	Each student will be assigned an advisor who will monitor program progress through a Learning Management System.	Each student will be assigned an advisor who will monitor program progress through a Learning Management System.
K. If the program requires supervised research or scholarship (a terminal project, thesis, or dissertation), a description of the resources that will be available to students as venues for this work.	Hospitals and clinics associated with HIM internship sites, with LSU HCSD, and OPH health units.	Hospitals and clinics associated with HIM internship sites, with LSU HCSD, and OPH health units.	Hospitals and clinics associated with HIM internship sites, with LSU HCSD, and OPH health units.	Hospitals and clinics associated with HIM internship sites, with LSU HCSD, and OPH health units.	Hospitals and clinics associated with HIM internship sites, with LSU HCSD, and OPH health units.	Hospitals and clinics associated with HIM internship sites, with LSU HCSD, and OPH health units.

(iii) Recruitment Plan and Expertise

While it is expected that LHCQF's REC and LaHIE projects will aid in driving demand for university-based training positions, LCHI expects to be proactive in this context by creating a position of Recruitment Specialist to coordinate with the current efforts of UL Lafayette Graduate School and those of the consortium-partner institutions, for the purpose of recruitment of candidates to the various anticipated programs. In addition to coordination of consortial efforts, the Recruitment Specialist will be responsible for the following:

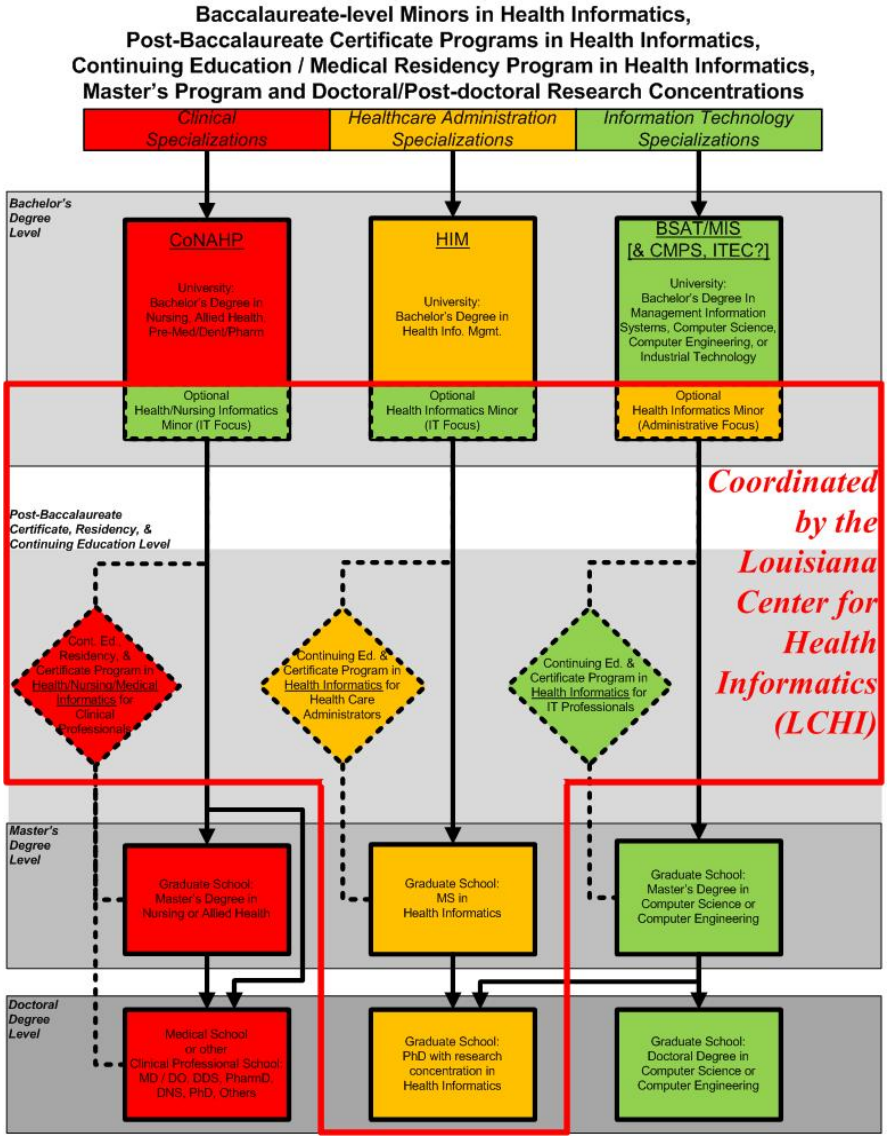
- Development of recruiting initiatives for these programs, including but not limited to,
    - Materials for marketing and advertising for recruitment.
    - Correspondence via email, letter, and phone with prospective and current students related to recruitment, the application process, and similar topics.
    - Opportunities to reach out to prospective students through GradSchools.com, GRE Search Service, and other similar services.
    - Recruiting events, workshops, and other related events.
- Identification of and participation in appropriate recruiting events sponsored by UL Lafayette or consortial partners or external entities.
- Routine and *ad hoc* reporting of program statistics related to inquiry, application, admission, and enrollment of students and related to recruiting initiatives, as needed.
- Assistance to UL Lafayette and consortial partner admissions offices for review of application procedures and other policies that impact student recruitment.

LCHI will also seek out national resources for referrals and participate with booth space taken at appropriate regional and national conferences.

(iv) Project Management

LCHI, under direction of L. Philip Caillouet PhD, will administer the program and will coordinate the interactions of various efforts and consortial institutions including those listed in Section 3(vii) and Section 4. Figure 3 depicts graphically the nature of this coordination and illustrates the innovative concept of inter-disciplinary and inter-institutional cooperation for development of the health informatics workforce.

Figure 3. LCHI Coordination of Various Health Informatics Training Programs



In the proposed model, UL Lafayette would be the primary degree- and/or certificate-awarding institution, with LCHI being the responsible department. This approach may well have exceptions however, owing to requirements or provisions of the governing bodies and accrediting agencies of the various institutions participating in the consortium. As such an inter-disciplinary, inter-institutional, workforce development initiative has limited precedent in Louisiana, general subcontracts will be in place but the specifics of the arrangements will be left to the post-award period and will be confirmed by subcontract amendment. It is expected that all funds from grant funding will flow first to UL Lafayette and then to each participating institution in proportion to its successful recruitment of students, hosting of training services, and faculty commitment of time. While it is not necessarily preferred, it is anticipated that some institutions may opt to have their faculty participate as independent contractors, if satisfactory indirect cost sharing arrangements cannot be struck. All in all, LCHI and UL Lafayette are prepared to bear the responsibility of management of this complex but very important project, because the long-term benefits to the people of Louisiana warrant the investment.

The LCHI program will also make efforts to articulate with programs being created at the Community College level to seamlessly address the full range of workforce development issues that are of interest to ONC. Further, this program will coordinate with the Louisiana Department of Health and Hospitals IT workforce development activities and with LHCQF's efforts in the implementation of a REC and of the LaHIE project – Dr. Caillouet is a member of the Board of Directors of the LHCQF and, as are many others, is actively involved in the development of the REC and LaHIE activities.

(v) Resumés of Key Personnel

The following persons from UL Lafayette and from the consortial institutions have agreed to participate in the initial faculty of the LCHI-coordinated programs as described in this proposal:

Toni Cade MBA RHIA – UL Lafayette (1979, B.S. Medical Record Science; 1991, Masters in Business Administration, University of Southwestern Louisiana). Toni Cade is an Associate Professor in the Department of Health Information Management at the University of Louisiana at Lafayette, where she has been on the faculty since 1987. Prior to 1987, Mrs. Cade worked as a supervisor and assistant director in a medical record department of a hospital, as well as a data analyst and utilization review supervisor for the state peer review organization under the Medicare program. Mrs. Cade also works as a consultant and seminar leader in the healthcare industry. She is the recipient of the Louisiana Health Information Management Association's Distinguished Member Award and holds the credentials of RHIA (Registered Health Information Administrator), CCS (Certified Coding Specialist) and FAHIMA (Fellow of the American Health Information Management Association). Her particular interests are coding (ICD and CPT) and reimbursement. In the context of the programs proposed in this grant application, she will serve as a Recruiter and Student Advisor, and as an Instructor for the following courses:

- LHCI 401(G)
- LCHI 402(G)
- LCHI 497(G)
- LCHI 597

L. Philip Caillouet PhD – UL Lafayette (1968, BS Physics, Louisiana State University; 1973, MS and 1975, PhD Computer Science, University of Southwestern Louisiana – now known as University of Louisiana at Lafayette). Dr. Caillouet is Director of the Louisiana Center for Health Informatics and a Professor in the Department of Health Information Management at University of Louisiana at Lafayette, where he has been on the faculty since 1996. Dr. Caillouet is holder of the J. Robert Rivet MD / BORSF Chair in Health Informatics. Prior to 1996, Dr. Caillouet worked as a system developer, implementer, and consultant in the healthcare industry. He is a recipient of the Health Level Seven (HL7) Pioneer Award, having been Secretary of that health information standards organization from 1989-1994. His particular interests are in Electronic Health Records, Health Information Exchange, and Public Health Informatics. In the context of the programs proposed in this grant application, he will serve as overall Program Administrator, as a Recruiter and Student Advisor, and as an Instructor for the following courses:

- CMPS 207
- HIM 303
- HCA 503
- HCA 597
- LCHI 403(G)
- LCHI 465(G)
- LCHI 493(G)
- LCHI 494(G)
- LCHI 497(G)

Alice P. Carter, PhD – LTU (1995, PhD, Clinical Health Psychology and Behavioral Medicine, University of North Texas; 1976, EdD, Education, Northeast Louisiana University; 1969, M.S., Mathematics, Northeast Louisiana University). Dr. Carter is a licensed clinical psychologist and is Assistant Professor of Psychology at Louisiana Tech

University, where she has been on the faculty since 2006. Previously, she has worked as a psychologist and clinical director of a managed care company in the Chicago area for 5 years, taught in Louisiana, Texas, Wisconsin, and Illinois for 14 years, and worked in business for 12 years. She teaches the research methods course in the masters' program for Health Information Management majors. Her research interests are in the areas of mathematics and statistics anxiety, motivation and achievement, diversity, and self-regulated learning.

Angela (Yu-Wen) Chiu DrPH – LSUHSC-NO SPH. Assistant Professor, Health Policy and Systems Management Program, School of Public Health, Louisiana State University Health Sciences Center, New Orleans, Louisiana. Dr. Chiu holds a Doctor of Public Health degree and a Master of Public Health degree from Tulane University. She currently serves as an Assistant Professor with a joint appointment in the Health Policy and Systems Management (HPSM) and Epidemiology Programs. In that capacity, she serves as course director for two graduate level courses: Methods in Healthcare Quality, and Health Outcomes Research. She is the Chair of HPSM Admission Committee and representative of HPSM on the SPH Curriculum Committee. She also serves on the Scientific Committee of International Health Economics Association. Her research interests include: economic evaluation, health outcomes, health insurance coverage, and access to care. She specializes in various risk adjustment methodology and measurement of individual's comorbidity and disease burden in the context of evaluating treatment effects, quality of care, and health care cost/payment. Her current research activities involve: (1) investigating the determinants of colorectal cancer surgery outcomes in

Medicare population; (2) assessing the quality of cancer care as described by the National Quality Forum consensus standards; (3) examining the access to and barriers of health care among the uninsured and vulnerable populations. Dr. Chiu will teach courses on healthcare quality and healthcare economics.

Lisa Delhomme MHA RHIA – UL Lafayette (1999, B.S. Health Information Management, University of Southwestern Louisiana; 2003, M.S. in Health Services Administration, University of St. Francis). Lisa Delhomme is an Instructor in the Department of Health Information Management at the University of Louisiana at Lafayette, where she has been on the faculty since 2007. Prior to 2007, Mrs. Delhomme worked as a Business Manager, Education Director, and Personnel Director for a physician practice and ambulatory surgery center. She holds the credentials of RHIA (Registered Health Information Administrator). Her particular interests are CPT coding, privacy and security, and data collection, analysis, and reporting. In the context of the programs proposed in this grant application, she will serve as a Recruiter and Student Advisor, and as an Instructor for the following courses:

- LHCI 207
- LCHI 401(G)
- LCHI 402(G)
- LCHI 479(G)
- LCHI 497(G)

Mark L. Diana PhD – TUSPH&TM (1989, BS in Respiratory Therapy Education and 1994, MBA at Shenandoah University; 2003, MS in Information Systems and 2006, PhD in Health Services Organization and Research, Virginia Commonwealth University). Dr. Diana also has extensive experience in educational technology, particularly in the use of

distance learning technologies, including the development and delivery of courses and programs over the World Wide Web. Before coming to Tulane, he was most recently an Instructor, the local area network manager, and the Webmaster in the Department of Health Administration at Virginia Commonwealth University (VCU). Dr. Diana received his Master of Science in Information Systems and PhD in Health Services Organization and Research degrees while at VCU. The focus of Dr. Diana's dissertation work was on health information technology, specifically the propensity of health care delivery systems to outsource various aspects of the information systems function. Since arriving in Louisiana, Dr. Diana has worked on a variety of state and local initiatives. He was a co-evaluator of the Health Information Security and Privacy Collaboration (HISPC) Project, Phase II; and is currently the lead evaluator on the Louisiana Long-term Care Real Choice Systems Transformation Grant, both through the Department of Health and Hospitals, State of Louisiana. He worked with the Louisiana Public Health Institute (LPHI) on its report on the Assessment of the Ambulatory Care Workforce in Greater New Orleans, and on a technology assessment of the Primary Care Access and Stabilization Grant (PCASG) clinics conducted in cooperation with the National Alliance for Health Information Technology. Dr. Diana has also worked with the Louisiana Health Care Quality Forum as the primary author of the CMS Electronic Health Record Demonstration project application, and is currently working with them to help further the goals of the HITECH act.

Jan C. Fuller, MBA, RHIA, CPHIMS, FAHIMA – LTU (1992, MBA, Louisiana Tech University). Ms. Fuller is an associate professor in the department of Health Information

Management at Louisiana Tech University. She has been a faculty member at Louisiana Tech since 1992. She is a Fellow of the American Health Information Management Association and recently obtained the certification of Certified Professional in Healthcare Information and Management Systems from the Health Information Management Systems Society. She has provided extensive professional service to the Louisiana Health Information Management Association, most recently serving as President. She presently serves nationally on the AHIMA Clinical Terminology and Classification Practice Council. Her interests are in clinical terminology and classification systems and its' use in the EHR.

Ron Harris PhD – LSUHSC-NO SPH. Associate Professor, Health Policy and Systems Management Program, School of Public Health, Louisiana State University Health Sciences Center, New Orleans, Louisiana. Dr. Harris will be the primary contact person at LSU Health Sciences Center with the LCHI and teach courses on health policy and management and healthcare information systems. Dr. Harris was formerly Director for Research, Evaluation, and Information Technology, Louisiana Department of Health and Hospitals, Office for Addictive Disorders. He has had experience as a public health leader facilitating agency transition to electronic health records. As agency Chief Information Officer, Dr. Harris was Data Processing Coordinator on the Department of Health and Hospitals WAN with ~400 end-users in 8 regions of Louisiana. Dr. Harris directed and coordinated data processing for the block grant, minimum data set, strategic plan, operational plan, State of the State, annual health report card, national surveys, ad-hoc reports, and grant applications. As the agency's HIPAA coordinator, he arranged for

a gap analysis with Sprint E|Solutions. He also negotiated and monitored research and information technology contracts. Under his Information Technology Plan, the agency moved away from legacy systems to web-based applications and paperless transactions to improve operations efficiency. Web-based on-line data collection, a contracts management system, and a web-based financial management system were implemented. As Director of the Louisiana Drug Court Task Force, Dr. Harris led an information technology design team comprised of drug court professionals to customize a web-based software for data collection and cross-site evaluation of ~30 drug courts in Louisiana.

Anita Hazelwood MLS RHIA FAHIMA – UL Lafayette (1981, Library Science, Louisiana State University). Ms. Hazelwood is a Professor in the Health Information Management Department at the University of Louisiana at Lafayette and has been on the faculty since 1976. Ms. Hazelwood is the holder of the Louisiana Health Systems/BORSF Professor in Health Care Administration. Prior to 1976, Ms. Hazelwood worked at the Hamilton Medical Center in Lafayette and she is a consultant in the academic/healthcare industries. She was the recipient of the Legacy Award from the American Health Information Management Association and has also received several other state, national, and international awards. Her particular interests are in the areas of electronic health records and health information and data management. For the programs that are proposed in this grant, she can serve as a Recruiter and Student Advisor and as an instructor for at least the following courses.

- LCHI 401(G)
- LCHI 402(G)
- LCHI 404(G)
- HCA 580

Angela Kennedy MEd MBA RHIA CPHQ – LTU. Chair of the Department of Health Informatics and Information Management. Angela Kennedy has 21 years experience in the Health Information and Informatics field. Kennedy serves as the Her career experience includes: Director of Health Information, Admissions, Utilization, Cancer Registry, Medical Staff Services, Quality Management, and Quality and Project Management Consultant for Rural Health Information Systems implementation. Additional experience includes 11 years of service in higher education in the areas of instruction, administration and research. Kennedy has served on many state-wide committees that address issues in Health Information Management and Informatics. Kennedy is the current chair of the Commission on Health Informatics and Information Management Education (CAHIIM). She has also served on the Education Strategies Committee for the American Health Information Management Association (AHIMA). Most notably she has served as a director on the AHIMA Board of Directors. Kennedy has served as state President of the Louisiana Health Information Management Association (LHIMA) and the Louisiana Chapter of the Health Information and Management Systems Society (LAHIMSS). She has received both the LHIMA Distinguished Member Award and Career Achievement Award. Additionally Kennedy has received an AHIMA Triumph Award for Mentoring. Courses taught: HIM 513, HIM 521.

Alice LeBlanc MPH – LSUHSC-NO. Instructor, Health Policy and Systems Management Program, and Director of Admissions and Student Affairs, School of Public Health,

Louisiana State University Health Sciences Center, New Orleans, Louisiana. Ms. LeBlanc will recruit new students into the certificate program.

Michelle Martin, MBA, M.Ed, RHIA – LTU (1998, MBA, MEd, Louisiana Tech University). Ms. Martin is the Program Director of the Health Information Administrator program and is an Associate Professor in the Department of Health Informatics and Information management at Louisiana Tech University. She has 11 years of higher education teaching experience in the HIM field. She has completed AHIMA's Train-The-Trainer program in ICD-10 CM/PCS and is also trained specifically in Project Management techniques. She has incorporated Project Management fundamentals in her graduate courses as well. Michelle has served in various capacities on the Board of Directors for LHIMA and has tirelessly volunteered her time and expertise for the benefit of the membership. She was awarded Fellowship through AHIMA and now serves on the Fellowship Committee of AHIMA. She has given numerous presentations about coding as well as other topics at local, regional, state and national conventions and symposiums. Courses taught: HIM 511.

Vijay Raghavan PhD – UL Lafayette (1978, Computer Science, University of Alberta). Dr. Raghavan is the Distinguished Professor of Computer Science at the Center for Advanced Computer Studies and a co-director of the Laboratory for Internet Computing (LINC). His research interests are in data mining, information retrieval, machine learning and Internet computing. He has published over 170 peer-reviewed research papers- many of which appear in top-level journals, has served as the major advisor for

21 doctoral students and has garnered $8 million in external funding. He currently has industry-supported research projects on literature-based biomedical discovery, data-driven monitoring of Alzheimer's disease progress and modeling of movable asset usage using RFID monitoring. From 1997 to 2003, Dr. Raghavan worked closely with the USGS National Wetlands Research Center and with the Department of Energy's Office of Science and Technical Information on a digital library with data mining capabilities incorporated. He chaired the IEEE International Conference on Data Mining in 2005 and received the ICDM 2005 Outstanding Service Award. He is a member of the Advisory Committee of the NSF Computer and Information Science and Engineering directorate. His service work at the university includes coordinating the Louis Stokes-Alliance for Minority Participation (LS-AMP) program. In the context of this proposal, Dr. Raghavan will offer independent study courses, advise thesis and dissertation students and serve on thesis committees.

Prerna Sethi PhD – LTU (2006, PhD, Computational Analysis and Modeling, Louisiana Tech University). Dr. Sethi is an Assistant Professor in the department of Health Informatics and Information Management and an Adjunct Assistant Professor of Research in the School of Biological Sciences at Louisiana Tech University in Ruston since 2006. She also serves as a Program Director for the Masters in Health Informatics Program at Tech. She did her Post Doc from Louisiana State University Health Sciences Center, New Orleans. Dr. Sethi's research interests are in the area of Data Mining for health related areas, Gene expression data analysis and Clinical Decision Support. She is currently funded by the INBRE program of NIH and has also obtained funding in the past

from Department of Health and Human Services and Louisiana Board of Regents. In 2008, she received the award for Outstanding Researcher by the College of Applied and Natural Sciences at Tech. She has been an active member of AHIMA since 2006 and is also a member of AMIA and HIMSS. Courses taught: HIM 501, HIM 502, HIM 522, HIM 523.

Kim Theodos MS RHIA – LTU (2004, Healthcare Management, University of New Orleans). Ms. Theodos is an Assistant Professor of Health Informatics and Information Management in the Department of Health Informatics and Information Management at Louisiana Tech University where she has been a faculty member since 2004. She is currently pursuing a Juris Doctorate degree from William Howard Taft University, which she will complete in October of 2010. She serves as the President Elect of the Louisiana Health Information Management Association and will assume the duties of President of that association in July of 2010. At Louisiana Tech University, Ms. Theodos teaches undergraduate courses focused on Legal Aspects of HIM, Regulatory Standards in Healthcare, Health Information Technology, and Quality Improvement in Healthcare. She also serves as the advisor for the Health Information Technology program and was recognized by the College of Applied and Natural Sciences as Outstanding Instructor of Introductory Level Courses.

Carol Venable MPH RHIA FAHIMA – UL Lafayette (1975, Public Health and Tropical Medicine, Tulane University). Ms. Venable is the Department Head of the Department Health Information Management at the University of Louisiana at Lafayette. She is a

professor and has been on the faculty since 1975. Ms. Venable is the holder of the Lafayette General Medical Center BORSF/Professor in Health Sciences. Prior to 1975, Ms. Venable worked as the director of medical records at Lafayette General Medical Center, and is consultant in the academic/healthcare industries. She was a recipient of the Legacy Award from the American Health Information Management Association and has also received several other state and national awards. Her particular interests are in the areas of health information and data management. Ms. Venable will serve as a Recruiter and Student Advisor and as an instructor for at least the following courses:

- LCHI 401(G)
- LCHI 402(G)
- LCHI 479(G)
- LCHI 497(G)

Wayne A. Wilbright MD MS – LSUHSC-NO. (1988, Doctor of Medicine, Tulane University School of Medicine; 1993, Mayo Clinic Residency in Neurology; 1999 NLM Fellowship in Medical Informatics, Masters of Science in Information Science/Medical Informatics, Center for Biomedical Informatics, University of Pittsburgh). Adjunct Assistant Professor, Health Policy and Systems Management Program, School of Public Health, Louisiana State University Health Sciences Center, New Orleans, Louisiana. Dr. Wilbright will teach a course on medical informatics and consult with faculty on curriculum development. The Health Care Services Division will be used as a laboratory for training on clinical informatics applications. Dr. Wilbright is the Chief Medical Information Officer (CMIO) and CIO for the LSU Health Care Services Division and Adjunct Professor in Health Policy and Systems Management at the LSU School of Public Health. Dr. Wilbright has held a variety of applied and faculty Medical

Informatics-related positions with LSU since 1999 and worked as a Consulting Physician Executive with Cerner Corporation, a major electronic health record vendor. Prior to starting the NLM Fellowship in Medical Informatics in 1997, Dr. Wilbright practiced clinical neurology and electromyography at Ochsner Clinic Foundation in New Orleans. Dr. Wilbright is the recipient of membership in the Alpha Omega Alpha Honor Medical Society and the Beta Phi Mu, National Honor Society for Library Science. He has received the Pfizer Excellence Award for his work in medical informatics at LSU Health Sciences Center, the LSU HCSD CMO's Recognition Award for Health Care Effectiveness, and chosen as the ACHE Student Chapter Professor of the Year for his Introduction to Healthcare Informatics course for MHA students at the Tulane University School of Public Health and Tropical Medicine. As an applied medical informaticist at LSU, Dr. Wilbright leads a team of 16 members, including clinicians, network/ telecommunication specialists and computer application development staff in the design, development and implementation of information system and telecommunication technologies that help clinicians, administrators and health care consumers use information to improve health. In addition to LSU HCSD technical operations, applied informatics and teaching, Dr. Wilbright's interests include planning, research and development of computer-based strategies for enhancing clinical decision making and care quality, outcome-based measurement and medical errors reduction, and development of clinical information systems to support disease management and preventive health.

Xiao-Cheng Wu MD MPH – LSUHSC-NO SPH (1983, MD, Xi'an Medical University, China; 1986, MPH, Xi'an Medical University, China/Fourth Military Medical University,

China). Associate Professor, Epidemiology Program, School of Public Health, Louisiana State University Health Sciences Center, New Orleans, Louisiana. Dr. Wu is Assistant Director, Louisiana Tumor Registry. Dr. Wu will teach courses on database management and epidemiology.

Ke Xiao PhD – LSUHSC-NO SPH (1982, BE Computer Science, University of Science and Technology, Harbin, China; 1973, 1988, MS Mapping and Remote Sensing, Chinese Academy of Sciences, Beijing, China; and 2002, PhD Computer Mapping and GIS, Louisiana State University). Assistant Professor, Health Policy and Systems Management Program. Dr. Xiao is IT Project Coordinator, Medical Informatics and Telemedicine, Health Care Services Division, Louisiana State University Health System. Dr. Xiao is database administrator for the Disease Management Program. Dr. Xiao's work includes teaching courses: 1) database management system; 2) Spatial Analysis/GIS in SPH; researching on medical information projects; coordinating and developing; planning, creating, maintaining, and updating DMED database; developing web applications including Asthma patients administration system, DM statistic package, Electronic Health Records; GIS applications in medical informatics, etc; and management as data user/provider group leader. He will teach courses on geographic information systems (GIS) for health and database management.

(vi) Evaluation

LCHI is prepared to cooperate with all grantor-mandated data collection and reporting, including data on recruitment, enrollment, participation, completion, post-completion employment, employment earnings, and retention. Most of the data structures required are routinely available through the systems already in place in the Enrollment Management functional area at UL Lafayette. New methods and data systems will be put into place for post-completion tracking of program participants. These systems – to include traditional "alumni tracking" capabilities based on existing follow-up procedures performed by UL Lafayette HIM as required by CAHIIM – will be invaluable in determining the effectiveness of LCHI's training and placement initiatives, and are expected to become models for use in support of the university's overall educational mission.

(vii) Organizational Capability Statement(s)

The LCHI-led consortium includes the following institutions:

- University of Louisiana at Lafayette (UL Lafayette) – lead institution
- Louisiana Tech University (LTU) in Ruston, Louisiana
- Louisiana State University (LSU) System
  - LSU Health Sciences Center- New Orleans (LSUHSC-NO)
    School of Medicine (LSUHSC-NO SOM)
    School of Public Health (LSUHSC-NO SPH)
  - LSU Health Sciences Center- Shreveport (LSUHSC-S)
    School of Medicine (LSUHSC-S SOM)
  - LSU Health Care Services Division (LSUHCSD), with ten hospitals statewide
- Tulane University (TU) in New Orleans, Louisiana
  TU School of Medicine (TUSOM)
  TU School of Public Health and Tropical Medicine (TUSPH&TM)

Both UL Lafayette and LTU have Council on Accreditation for Health Informatics and Information Management Education (CAHIIM)-accredited degree programs in health information management. Each of the institutions has access to distance-learning capabilities and each is linked through the Louisiana Optical Network Initiative (LONI) to the National LambdaRail. LONI provides Louisiana researchers with one of the most advanced optical networks in the country and the most powerful distributed supercomputer resources available to any academic community with over 85 teraflops of computational capacity.

The following pages are devoted to a discussion of the pertinent organizational capabilities of each of the participating institutions.

University of Louisiana at Lafayette (UL Lafayette)

HIM

The Department of Health Information Management (HIM) at the University of Louisiana at Lafayette is one of only two schools in Louisiana offering a Bachelor of Science Degree in Health Information Management. The program graduated its first class of students in 1965.

This program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

The curriculum prepares students for a professional career in the field of Health Information Management. In addition to academic course work, students also complete

two semesters of "clinical experience" and the last semester of the curriculum includes a one-month "management internship". The "clinical experiences" are completed at area hospitals and other types of healthcare facilities. The "management internship" can be performed at a hospital anywhere in the United States.

After graduation, students are prepared to take the certification exam offered by the American Health Information Management Association (AHIMA). Over the past several years, the average pass rate of UL Lafayette graduates on this certification exam is excellent and above the national average. Upon successful completion of this exam, one earns the credential of Registered Health Information Administrator (RHIA) and may be eligible for a wide variety of employment opportunities.

LCHI

The Louisiana Center for Health Informatics (LCHI) is a designated “Unique Area of Excellence” at UL Lafayette. LCHI was created in the Spring of 1999, and was originally known as the Health Informatics Center of Acadiana. LCHI’s goal is to complement the health-related educational and research missions of the University and to connect traditional public health agencies and Louisiana's vital healthcare industry. "Health Informatics" is the applied science that uses computer and communications technologies to gather and analyze health data, and to disseminate health information to clinical and administrative decision makers. The Center serves students, faculty, healthcare providers, and the public at large, while positioning UL Lafayette at the forefront of an extremely critical field.

LCHI's mission is four-fold:

1. To augment the education of health professionals and healthcare administrators at the undergraduate, graduate, and continuing education levels.
2. To provide an avenue for scholarly research into community health needs and into the effectiveness of the healthcare community's response to those needs.
3. To serve the goals of Lafayette, Acadiana, and all of Louisiana in access to healthcare and in improving public health generally, especially within Region IV of the Office of Public Health, and to serve as a vital resource to "healthy communities" initiatives throughout the State of Louisiana.
4. To fulfill community-information requirements of healthcare providers in Region IV, and to aid policymakers and statewide professional and trade associations in matters relating to healthcare delivery and financing.

The Louisiana Center for Health Informatics at UL Lafayette serves as a focal point for interdisciplinary curricular, research, and grant-seeking activities benefiting students and faculty in several colleges at the University, especially the colleges of Business Administration, Sciences, and Nursing. Academic programs in Health Information Management, Health Care Administration, Insurance & Risk Management, Nursing, Emergency Health Science, Communicative Disorders, Dietetics, and Health Education are the principal collaborators with Programs in Statistics, Computer Science, and Telecommunications also participating in health-related applications. Even during its planning stages, LCHI was instrumental in attracting private endowments for two $1,000,000 Chairs -- tangible evidence of community willingness to partner with UL

Lafayette in this field. The Louisiana Health System-funded J. Robert Rivet MD Chair in Health Informatics and the Acadian Ambulance Chair in Telehealth will speed the creation of an interdisciplinary Master of Science degree program in Health Informatics at UL Lafayette.

College of Nursing and Allied Health Professions

The UL Lafayette College of Nursing and Allied Health Professions (CNE) is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation and has a 29-year history of providing continuing nursing education at the regional, state, and national level.

The CNE provides programming to 2,000 nursing professionals annually and has a monthly mail distribution to 5,000 registered nurses. The work of the CNE is solidly supported by the University and is well respected in public opinion. We manage educational grants for the Incumbent Worker Training Program for the State of Louisiana by coordinating, developing, and teaching health care content to a large employee base throughout the state.

The system is in place for 40-contact hour programs and for more intensive and focused offerings. The resources for registered nurses seeking basic and advanced education in HIM is limited and needs assessments indicate an interest. The potential for continuing nursing education programming to be the introduction to the next level of a certificate program through the University would be a viable option for those desirous of advancing

their careers in HIM.

Center for Advanced Computer Studies (CACS)

The mission of the Center for Advanced Computer Studies (CACS) at University of Louisiana at Lafayette is to:

- Provide quality, cutting-edge educational experiences to computing majors at the Bachelor's, Master's, and PhD levels.
- The Department aims to provide students with strong conceptual foundations (theoretical and experimental), and also expose them to the forefront of the developments in the field of computing. Recognizing the applicability of computing to all fields of knowledge and practice, the Department will provide a variety of degrees and programs at each of the degree levels, and will cooperate with other units of the University to provide interdisciplinary degree programs.
- Be a source of computing expertise to UL Lafayette, Lafayette, and Louisiana State. The Department's mission includes industrial outreach and other methods of sharing its expertise with the University, the Region, and the State, as is appropriate for a department in a State University.

Louisiana Tech University (LTU)

The Health Informatics and information Management Department offers an associate degree in Health Information Technology (HIT), a bachelor's degree in Health Information Administration (HIA), and a master's degree in Health Informatics. The department currently offers a progression program in health information administration for students who have received an

associate degree in HIT from an accredited school and have attained the RHIT credential within the past three years. The progression program from HIT to HIA is offered through distance education technologies such as the Internet accompanied by Blackboard and on-line lectures. Louisiana Tech University has an excellent track record in both academics and in funded research in this discipline, having received workforce development and research funds from NIH and from the Department of Health and Human Services. Two particular research specialties include:

1) Data Mining and Knowledge Discovery for Health-Related Areas

Advancement in IT and the data collection methods have led to the availability of large datasets in the healthcare arena there by presenting an opportunity to analyze the available data and extract meaningful information. Successful mining applications that have been implemented in healthcare include, but are not limited to, genomic medicine, identifying and classifying high-risk patients, evaluating the effectiveness of treatment, customer relationship management, healthcare fraud detection and management of healthcare. This research area will benefit researchers, physicians, nurses, and other healthcare professionals, hospital administrators, system developers, and programmers.

2) Clinical Decision Support

Increasingly data-intensive medical fields, advances in automated data collection, practical use of the Electronic Medical Record, Disaster preparedness. These concerns have led to a renewal of demand for the development of novel technologies designed for the organization and mining of this data for enhanced healthcare delivery, and clinical, computing and biomedical research.

Through applications such as data mining, heterogeneous data integration, and automated trend monitoring, data mining can achieve a symbiosis of expert domain knowledge, patient data, and physician input to provide substantial clinical decision support at point of care.

LSUHSC SOM & SPH, and LSUHCSD

Establishment of the Louisiana State University Health Sciences Center School of Public Health (SPH LSUHSC) was approved by the Louisiana State Board of Regents in 2003/4 and students were enrolled in three masters degree programs (MPH) in 2004/5 and into five MPH programs in the fall of 2005/6. Despite the arrival of Hurricane Katrina two weeks after the opening of the fall semester and the displacement of the faculty, students and staff until January 2006, the School continued to teach via interactive software until our return to New Orleans when in-person classes resumed. We have since added a PhD program in Biostatistics and expect approval this year of two additional PhD programs – Epidemiology and Community Health. We currently have 105 graduate students enrolled in classes this year. We include graduate student training opportunities in all of our research projects and public health practice programs.

The environment at the LSUHSC SPH is rich in opportunities for research based in large, well-funded public health practice programs. We have not yet achieved the full research potential that these programs could support. Examples of these public health practice programs in the SPH include the statewide Ryan White-funded HIV/AIDS program, the CDC-funded Louisiana Breast and Cervical Cancer Early Detection Program, the state tobacco-tax funded Tobacco Cessation Initiative in the state public hospital system serving the un – and under-insured poor, the NCI-SEER Louisiana Tumor Registry, the Louisiana Juvenile Justice Program, and more.

These programs have large databases and can and do generate questions to be addressed systematically in epidemiologic, health policy, behavioral and methodological research. The AREA grants provide an opportunity for well-trained faculty in the SPH to obtain funding to address important research questions which would not otherwise be funded through the existing program funds, and to investigate important questions in our unique populations that are disproportionately poor, minority, less well educated and vulnerable for adverse health outcomes. Research to understand and subsequently address these issues is critically important.

Louisiana State University Health Sciences Center (LSUHSC) and Louisiana Hospitals Health Care Service Division (HCSD) will collaborate with the Louisiana Center for Health Informatics (LCHI) to provide university-based training on health informatics to Clinicians/ Public Health Leaders and Programmers and Software Engineers. These are roles (i) and (v), respectively. The School of Public Health (SPH) will coordinate local recruitment and training efforts with LCHI and Schools of Allied Health, Dentistry, Medicine, and Nursing, and the Health Care Services Division of LSU Health System to provide post-graduate training in health informatics for clinicians, public health leaders, and information technology professionals in Louisiana and surrounding states. The purpose is to facilitate rapid adoption and meaningful used of EHRs.

TUSOM & TUSPH&TM

Founded in 1834, Tulane University is one of the most highly regarded and selective independent research universities in the United States. A member of the prestigious Association of American Universities, we take pride in being a part of this select group of 62 universities with “pre-eminent programs of graduate and professional education and scholarly research.”

Our schools and colleges offer undergraduate, graduate and professional degrees in the liberal arts, science and engineering, architecture, business, law, social work, medicine and public health and tropical medicine.

The Tulane School of Medicine has 20 academic departments: Anesthesiology, Biochemistry, Family and Community Medicine, Medicine, Microbiology and Immunology, Neurosurgery, Obstetrics and Gynecology, Ophthalmology, Orthopaedics, Otolaryngology, Pathology and Laboratory Medicine, Pediatrics, Pharmacology, Physiology, Psychiatry and Neurology, Radiology, Structural and Cellular Biology, Surgery and Urology. In keeping with the diversity of its missions—education, research and patient care—the Tulane School of Medicine is continually developing centers and programs of excellence, including the Tulane Cancer Center, Center for Gene Therapy, Center for Infectious Diseases, Hayward Genetics Center, Hypertension and Renal Center of Excellence, Institute of Sports Medicine, Center for Abdominal Transplant and the Tulane Hospital for Children. The Tulane School of Medicine is in the midst of a spectacular renaissance and it has become a most interesting place to study medicine. While much can be said about the faculty, curriculum, research programs, facilities and other components of the medical school, there can be no doubt that what has made Tulane University School of Medicine special is its student body, among the most diverse of all the nation's medical schools. The diversity of students, combined with an open and cooperative faculty, has led to the development of a true academic community, a community in which students learn in a non-hostile environment, with the help of friends and colleagues.

The Department of Health Systems Management is one of seven departments that comprise the

Tulane University School of Public Heath and Tropical Medicine. Tulane's Schools of Medicine and Public Health and Tropical Medicine form the downtown campus of Tulane University, near New Orleans' historic French Quarter. Within a few blocks of the 24-story Tidewater Building that houses the School and the Program are four major hospitals as well as the Louisiana Office of Public Health, a school of pharmacy, and a school of nursing. All HSM professional degree programs, including the MHA, the Master of Public Health (MPH), and the MD/MPH prepare men and women for management careers in health-related organizations. The MHA courses and programs of study set the standard for management education in the Program's other management degrees and provide the faculty and core management curriculum to maintain the quality of the administrative component of School degree programs. The Program is organized around a Practitioner-Scholar philosophy that advocates the integration of academic content with practice experience. To support this philosophy, faculty members are recruited who have previous professional experience in clinical or management practice. Many consult in areas relevant to their academic disciplines and are active in local, regional, national, or international health care delivery and health policy environments. Others remain involved with the world of practice through applied research or service activity.

4. Collaborations and Letter of Commitment from Key Participating Organizations and Agencies

Letters from each of the collaborative partners are collected in the following pages.

Louisiana Center for Health Informatics (LCHI)
- Letter from L. Philip Caillouet PhD, Professor & Director of LCHI.

Louisiana Health Care Quality Forum (LHCQF)
- Letter from Michael Fleming MD, LHCQF President.

The University of Louisiana at Lafayette (UL Lafayette)
- Letter from Steve Landry PhD, Provost and Vice President for Academic Affairs.

Ray P. Authement College of Sciences
- Letter from Bradd Clark PhD, Dean.

Department of Health Information Management
- Letter from Carol Venable MPH RHIA FAHIMA, Department Head.

B. I. Moody III College of Business Administration
- Letter from Joby John PhD, Dean.
- Letter from P. Robert Viguerie JD, MBA Director.

Department of Business Systems, Analysis, & Technology
- Letter from Harlan Etheridge PhD, Acting Department Head.

College of Nursing and Allied Health Professions
- Letter from Gail Poirrier RN DNS, Dean.

Louisiana Tech University

Department of Health Informatics and Information Management
- Letter from Angela Kennedy MEd MBA RHIA CPHQ, Department Head.

Louisiana State University System, Office of Health Affairs and Medical Education
- Letter from Fred P. Cerise MD, Vice-President for Health Affairs and Medical Education.

Louisiana State University Health Sciences Center – New Orleans

School of Public Health
- Letter from Joseph M. Moerschebaecher III PhD, Vice Chancellor for Academic Affairs.
- Letter from Elizabeth T.H. Fontham DrPH, Dean.

Tulane University

School of Medicine and School of Public Health & Tropical Medicine
- Letter from Benjamin P. Sachs MB BS DPH FACOG, Senior Vice President and Dean, School of Medicine.

5. Budget Narrative/Justification

Budget calculations are based on the following assumptions about training positions.

Training Positions by Program by Academic Year	Year 1 (2010-2011)	Year 2 (2011-2012)	Year 3 (2012-2013)	Total
Program A	0	0	0	0
Program B	20	20	20	60
Program C	10	10	10	30
Program D	120	120	120	360
Program E	120	120	120	360
Program F	20	20	20	60
Program G	*	*	*	*
Program H	8	8 continuing plus 8 new	8 continuing plus 8 new	24
Program I	2	2 continuing plus 2 new	2 continuing plus 2 new	6
Total	300	300	300	900

* Note: Training positions and tuition can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

Academic Year 2009-2010 tuition rates for undergraduate and graduate students at UL Lafayette have been used to compute expected totals for Programs A-C, F, and H-I. $2,500 by student has been used to compute expected totals for Programs D and E, those being Continuing Education programs rather than academic credit programs.

Tuition by Program by Academic Year	Year 1 (2010-2011)	Year 2 (2011-2012)	Year 3 (2012-2013)	Total
Program A	$0.00	$0.00	$0.00	$0.00
Program B	$89,504.00	$89,504.00	$89,504.00	$268,512.00
Program C	$44,752.00	$44,752.00	$44,752.00	$134,256.00
Program D	$300,000.00	$300,000.00	$300,000.00	$900,000.00
Program E	$300,000.00	$300,000.00	$300,000.00	$900,000.00
Program F	$126,232.00	$126,232.00	$126,232.00	$378,696.00
Program G	*	*	*	*
Program H	$50,492.80	$100,985.60	$151,478.40	$302,956.80
Program I	$12,623.20	$25,246.40	$37,869.60	$75,739.20
Total	$923,604.00	$986,720.00	$1,049,836.00	$2,960,160.00

* Note: Training positions and tuition can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

Stipends and health insurance have been computed on the basis of $15,000 and $2,000, respectively, per Type 2 student only.

Stipend & Health Insurance by Program by Academic Year	**Year 1 (2010-2011)**	**Year 2 (2011-2012)**	**Year 3 (2012-2013)**	**Total**
Program A	$0.00	$0.00	$0.00	$0.00
Program B	$0.00	$0.00	$0.00	$0.00
Program C	$0.00	$0.00	$0.00	$0.00
Program D	$0.00	$0.00	$0.00	$0.00
Program E	$0.00	$0.00	$0.00	$0.00
Program F	$0.00	$0.00	$0.00	$0.00
Program G	*	*	*	*
Program H	$136,000.00	$272,000.00	$408,000.00	$816,000.00
Program I	$34,000.00	$68,000.00	$102,000.00	$204,000.00
Total	$170,000.00	$340,000.00	$510,000.00	$1,020,000.00

* Note: Training positions and tuition can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

Training-Related Expenses (TRE) have been computed on the basis of $6,500 per expected full-time-equivalent (fte) student. A student enrolling in a program of nine (9) semester-credit-hours (or more) for each of two (2) semesters is considered "full time" for this calculation. As twelve (12) (i.e., one per calendar month) cohorts of 10 students each are expected for Programs D and E, TRE calculations for Program D and for Program E assume only ten (10) full-time-equivalent students (fte), even though 120 persons will be trained per year in each of these two programs.

Training-Related Expenses by Program by Academic Year	**Year 1 (2010-2011)**	**Year 2 (2011-2012)**	**Year 3 (2012-2013)**	**Total**
Program A	$0.00	$0.00	$0.00	$0.00
Program B	$130,000.00	$130,000.00	$130,000.00	$390,000.00
Program C	$65,000.00	$65,000.00	$65,000.00	$195,000.00
Program D	$65,000.00	$65,000.00	$65,000.00	$195,000.00
Program E	$65,000.00	$65,000.00	$65,000.00	$195,000.00
Program F	$130,000.00	$130,000.00	$130,000.00	$390,000.00
Program G	*	*	*	*
Program H	$52,000.00	$104,000.00	$156,000.00	$312,000.00
Program I	$13,000.00	$26,000.00	$39,000.00	$78,000.00
Total	$520,000.00	$585,000.00	$650,000.00	$1,755,000.00

* Note: Training positions and tuition can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

The following table computes a subtotal of tuition, stipends and health insurance, and TRE by program by academic year.

Budget Subtotal by Program by Academic Year	Year 1 (2010-2011)	Year 2 (2011-2012)	Year 3 (2012-2013)	Total
Program A	$0.00	$0.00	$0.00	$0.00
Program B	$219,504.00	$219,504.00	$219,504.00	$658,512.00
Program C	$109,752.00	$109,752.00	$109,752.00	$329,256.00
Program D	$365,000.00	$365,000.00	$365,000.00	$1,095,000.00
Program E	$365,000.00	$365,000.00	$365,000.00	$1,095,000.00
Program F	$256,232.00	$256,232.00	$256,232.00	$768,696.00
Program G	*	*	*	*
Program H	$238,492.80	$476,985.60	$715,478.40	$1,430,956.80
Program I	$59,623.20	$119,246.40	$178,869.60	$357,739.20
Total	$1,613,604.00	$1,911,720.00	$2,209,836.00	$5,735,160.00

* Note: Training positions and tuition can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

The following table adds an amount equal to 8% of TRE, intended as Facilities & Administration (F&A) Expense, to the previous subtotal of tuition and TRE by program by academic year.

Budget Total (including 8% F&A) by Academic Year	Year 1 (2010-2011)	Year 2 (2011-2012)	Year 3 (2012-2013)	Total
Program A	$0.00	$0.00	$0.00	$0.00
Program B	$229,904.00	$229,904.00	$229,904.00	$689,712.00
Program C	$114,952.00	$114,952.00	$114,952.00	$344,856.00
Program D	$370,200.00	$370,200.00	$370,200.00	$1,110,600.00
Program E	$370,200.00	$370,200.00	$370,200.00	$1,110,600.00
Program F	$266,632.00	$266,632.00	$266,632.00	$799,896.00
Program G	*	*	*	*
Program H	$253,532.80	$507,065.60	$760,598.40	$1,521,196.80
Program I	$63,383.20	$126,766.40	$190,149.60	$380,299.20
Total	$1,668,804.00	$1,985,720.00	$2,302,636.00	$5,957,160.00

* Note: Training positions and tuition can be definitively projected at this time. The consortial partners have expressed, however, their commitments to making Program G available if this award is received.

Academic Year: **TOTAL GRANT**	**Proposed Average Program Development/TRE per student**	**Proposed Tuition**	**Proposed Average Stipend**	**Proposed Average Student Health Insurance**	**Proposed Average Total Cost per student per year**	**Academic Years per Student**	**TOTAL SUPPORTED STUDENTS PROPOSED**	**TOTAL PROPOSED COSTS**
Type 1	$6,500	$2,581,478	$0	$0	$ 4,536	1	870	$3,946,464
Type 2	$6,500	$ 378,696	$15,000	$2,000	$29,812	2	30	$1,788,696
Subtotal Direct Costs		$2,960,160					900	$5,735,160
Facilities & Administration (F&A) Percentage Proposed							8%	
Facilities & Administration (F&A) Cost Base (Subtotal Direct Minus Tuition)								$2,775,000
Facilities & Administration (F&A) Costs Proposed								$ 222,000
TOTAL PROPOSED COSTS – DIRECT PLUS F&A								$5,957,160

Cost of tuition and fees for Type 1 students has been calculated based on the actual fees expected to be charged for the number of credit hours required, at the level anticipated (baccalaureate or graduate) for the programs described in the program narrative. Because these costs are less than the maximum allowed for this category of costs, we have proposed only the expected actual costs per year.

Each of the following three tables refers to a specific academic year of the proposed program, i.e. Academic Year 2010-2011, Academic Year 2011-2012, and Academic Year 2012-2013.

Academic Year 1: **2010-2011**	**Proposed Average Program Development/TRE per student**	**Proposed Tuition**	**Proposed Average Stipend**	**Proposed Average Student Health Insurance**	**Proposed Average Total Cost per student per year**	**Academic Years per Student**	**TOTAL SUPPORTED STUDENTS PROPOSED**	**TOTAL PROPOSED COSTS**
Type 1	$6,500	$860,488	$0	$0	$ 4,536	1	290	$1,315,488
Type 2	$6,500	$ 63,116	$15,000	$2,000	$29,812	2	10	$ 298,116
Subtotal Direct Costs		$923,604					300	$1,613,604
Facilities & Administration (F&A) Percentage Proposed							8%	
Facilities & Administration (F&A) Cost Base (Subtotal Direct Minus Tuition)								$690,000
Facilities & Administration (F&A) Costs Proposed								$ 55,200
TOTAL PROPOSED COSTS – DIRECT PLUS F&A								$1,668,604

Academic Year 2: **2011-2012**	**Proposed Average Program Development/TRE per student**	**Proposed Tuition**	**Proposed Average Stipend**	**Proposed Average Student Health Insurance**	**Proposed Average Total Cost per student per year**	**Academic Years per Student**	**TOTAL SUPPORTED STUDENTS PROPOSED**	**TOTAL PROPOSED COSTS**
Type 1	$6,500	$860,488	$0	$0	$ 4,536	1	290	$1,315,488
Type 2	$6,500	$126,232	$15,000	$2,000	$29,812	2	10 continuing 10 new	$ 596,232
Subtotal Direct Costs		$986,720					300	$1,911,720
Facilities & Administration (F&A) Percentage Proposed							8%	
Facilities & Administration (F&A) Cost Base (Subtotal Direct Minus Tuition)								$925,000
Facilities & Administration (F&A) Costs Proposed								$ 74,000
TOTAL PROPOSED COSTS – DIRECT PLUS F&A								$1,985,720

Academic Year 3: **2012-2013**	**Proposed Average Program Development/TRE per student**	**Proposed Tuition**	**Proposed Average Stipend**	**Proposed Average Student Health Insurance**	**Proposed Average Total Cost per student per year**	**Academic Years per Student**	**TOTAL SUPPORTED STUDENTS PROPOSED**	**TOTAL PROPOSED COSTS**
Type 1	$6,500	$ 860,488	$0	$0	$ 4,536	1	290	$1,315,488
Type 2	$6,500	$ 189,348	$15,000	$2,000	$29,812	2	10 continuing 10 new (thru completion)	$ 894,348
Subtotal Direct Costs		$1,049,836					300	$2,209,836
Facilities & Administration (F&A) Percentage Proposed							8%	
Facilities & Administration (F&A) Cost Base (Subtotal Direct Minus Tuition)								$1,160,000
Facilities & Administration (F&A) Costs Proposed								$ 92,800
TOTAL PROPOSED COSTS – DIRECT PLUS F&A								$2,302,636

* * * * *

Each participating institution has submitted a letter of commitment to the LCHI-led consortium. These letters include a pledge, contingent on award, to conclude subcontracts with LCHI for a percentage of the total award, proportional either to the number of training positions created or to the number of student contact or credit hours of training delivered. Each anticipated subcontract will cover a 36- month period beginning no sooner than July 1, 2010.

Appendix A. Course Descriptions

The following courses will be taught as part of the Health Informatics Minors in the HIM and MIS Curricula (Programs B and C) and as part of the Health Informatics Certificate Program (Program F). Selected components of these courses will be extracted and taught (as non-credit courses) as part of the Health Informatics and Nursing Informatics Continuing Education curricula (Programs D and E), and will available as part of the Health Informatics Residency (Program G).

LCHI 207: Data and Project Management Systems in Healthcare Organizations.
Fundamental concepts of computer applications in the context of the healthcare industry, including skills development for effective and efficient usage of software applications. (Existing Course under CMPS 207 designation.)

LCHI 303: Management Information Systems in Healthcare Organizations. (Credit – 3 semester hours)
Analysis of health care related clinical and administrative information technology and systems to include such topics as: database architecture and design, file structures, data quality, storage, security and retrieval, and the application systems life cycle concepts. (Existing Course under HIM 303 designation.)

LCHI 401(G): Foundations I.
A first foundation course for non-HIM majors, intending as an entry point for those beginning the Health Informatics Certificate program or the Health Informatics Minor for MIS majors.
(New Course, representing a compression of the content of the following existing courses: HIM 401, 322, and 405.)

LCHI 402(G): Foundations II.
A second foundation course for non-HIM majors, intending as an entry point for those beginning the Health Informatics Certificate program or the Health Informatics Minor for MIS majors.
(New Course, representing a compression of the content of the following existing courses: HIM 324, 361, and 405.)

LCHI 403(G): Medical Informatics. (Credit – 3 semester hours)
A broad survey of topics – considered introductory to a broad range of health information technology issues from the EHR, to diagnostic imaging, to health policymaking.

LCHI 404(G) & 405 (G): Electronic Health Records I & II. (Credit – 3 sem. hrs. each)
A review of EHR systems and of a practical to their design, development or purchase, implementation, and evaluation.
(New Course, however the content has been previously offered as HIM 403(G).)

LCHI 465(G): Business Process Analysis and Design. (Credit – 3 semester hours)
Modeling of processes, relationships, and costs and re-engineering of processes to reduce waste, add value, shorten cycle times, decrease variability, and improve productivity.
(Existing Course, currently under designation as BSAT 465, but will be tailored more particularly to healthcare-related processes, both clinical and administrative.)

LCHI 478(G): Health Information Exchange. (Credit – 3 semester hours)
Explores the clinical and public health purposes of health information exchanges (including CHINs, RHIOs, and other more current forms), and focuses on business plan modeling and governance issues as well an technology issues.
(New Course.)

LCHI 479(G): Privacy and Security. (Credit – 3 semester hours)
Explores the ethical basis of patient privacy, the rationale for federal law and regulation, and administrative and technical issues relating to compliance with regulation.
(New Course.)

LCHI 480(G): Special Topics. (Credit – 3 semester hours)
Emerging themes of special interest.
(New Course.)

LCHI 497(G): Directed Individual Study. (Credit – 3 semester hours)
This for-credit activity pairs a faculty mentor with an individual student and is tailored to a specific research topic of interest to the student.
(New Course.)

LCHI 503: Healthcare Information Systems. (Credit – 3 semester hours)
Information management, information systems, and information technology topics related both to strategic positioning and to day-to-day administrative, financial, and clinical operations of healthcare organizations.
(Existing Course, currently under HCA 503 designation.)

LCHI 597: Directed Individual Study. (Credit – 3 semester hours)
This for-credit activity pairs a faculty mentor with an individual student and is tailored to a specific research topic of interest to the student.
(Existing Course, currently under HCA 597 designation.)

In addition to the above courses, the following (currently unnumbered) new courses will be developed in conjunction with the Master of Science in Health Informatics curriculum (Program H):

Introduction to Health Informatics
Thematic areas include: History of Medical Informatics; Specialties: Medical, Nursing, Health Informatics; Predicting the Future by Designing It

Information Systems for the Healthcare Industry
Thematic area include: Clinical Systems; Administrative Systems; Financial Systems; HIMSS or AMIA field trip

Information Technology & the Healthcare Industry
Thematic areas include: Human Interface; Telemedicine; Internet; Technology Trade Show field trip

Management of Information Systems & Technology (based on existing BSAT 518)
Thematic areas include: Business, Data, Technical, & Control Architectures; Information Systems Strategic Planning; RFP Preparation, Vendor Selection, & Contract Negotiation

Health Information & Data Management
Thematic areas include: Coding & Reimbursement; Privacy, Confidentiality, Security; HIPAA

Biostatistics & Epidemiology
Thematic areas include: Data Mining; Public Health; Managed Populations

Quality & Outcomes Management in the Healthcare Industry
Thematic areas include: Defining Objectives; Designing Systems; Ensuring Compliance

Biometry (based on existing STAT 417(G))
Thematic areas include: Statistical Applications in the biological and health sciences; Descriptive statistics, hypothesis testing, prediction; Survey design and analysis, use of statistical software

Nursing Informatics
Thematic areas include: Computing Applications in Nursing (NUR 454); Clinical Information Security; Staff Training & Compliance

Medical Informatics for Physicians
Thematic areas include: Clinical Decision Support; Office-based Applications; Patient Education Applications

Information Systems in Non-Acute Healthcare Delivery Settings
Thematic areas include: Home Health & Hospice, & Long-Term Care; Rehabilitation and Physical Medicine; Ancillary Services: Laboratory, Radiology, & Pathology

Health Insurance Information Systems
Thematic areas include: Risk Contracts and Data Management; Information Needs in Traditional Indemnity vs. Managed Care; Information Needs in Competitive vs. Single-Payer Settings

In addition to the new courses or enhanced courses proposed above by LCHI, Louisiana Tech University currently offers the following applicable coursework (fully applicable to its proposed post-baccalaureate certificate program in health informatics) in its on-line Master of Health Information Management (MHIM) degree program catalog:

HIM 501: Healthcare Information Network Systems
Study of prominent technology architectures for health information systems and networks. Addresses issues related to technology standards, hardware, integration, security of information systems and networks.

HIM 502: Database Architecture
Study of information engineering principles associated with data and application architectures. Includes aspects of data modeling and database development.

HIM 511: Project Management
In depth study of successful information system management including information systems planning, management controls, development, project management, operations and quality improvement, and human resource management.

HIM 513: Evaluation of Information Systems
Methodologies, techniques, and barriers encountered during deployment of information systems. Emphasis placed on training and evaluation, documentation, interface design, legacy systems, data conversion and interoperability.

HIM 521: EHR Infrastructure
Study of information systems theory, theory of electronic patient records including infrastructure and applications, and NHII initiatives. Emphasis placed on strategic planning for health information systems.

HIM 522: Computerized Decision Support
Study of concepts related to decision making and decision contexts. Exploration of technology support for decision making with study of purposes, architecture development, and implementation.

HIM 523: Healthcare Information Analysis
A capstone course designed to employ case study, use of basic and advanced statics and data mining applied to solve real-world problems in healthcare.