

Agency 365 – Washington State University
2009-2011 Operating Budget Request

The Land Grant University for the 21st Century
Performance Level Decision Package – Policy Level “HI”

Better Health and Healthcare Through Informatics

Agency Recommendation Summary:

A \$2 million state biennial operating package for new research and master's degree graduates in health informatics at Spokane is requested by Washington State University and the Inland Northwest Health Services (INHS), a private non-profit organization. Health Informatics is the use of information technology in health care such as telemedicine and electronic medical record (EMR) systems. This research and technology is used to improve clinical care, safety, quality and cost.

The request to improve health care is for a director, three research faculty and support including four graduate research assistants. The goal is to improve health and healthcare through the creation of a rigorous Health Informatics research and education program.

Fiscal Details:

	2009-10		2010-11		2009-11 Biennium
By Fund	FTE	Dollars	FTE	Dollars	Dollars
General Fund State	5.5	1,000,000	11.7	1,000,000	2,000,000
Operating Fees			1.0	85,000	85,000
Total	5.5	\$ 1,000,000	12.7	\$ 1,085,000	\$ 2,085,000

Package Description:

This request takes advantage of the local partnership with INHS and existing Riverpoint health sciences programs to address the broader research and serious workforce issues in healthcare informatics.

The INHS organization is headquartered in Spokane, where the WSU Spokane campus focuses on graduate and professional education and research in the health sciences. INHS links three dozen hospitals electronically, along with its partner physician offices, imaging centers and laboratories. This type of data collection provides an excellent opportunity for faculty and students to research clinical data for new treatments, better therapies, and improved knowledge. In an unprecedented partnership, this health informatics research and graduate education program is being developed jointly by Washington State University and INHS.

A serious workforce shortage exists both in the state and nationally in Healthcare Informatics. Health care organizations and businesses that use services such as INHS and other forms of information technology in healthcare are having difficulty finding quality people to employ in well-paying jobs. Master's-level students with extensive education in healthcare informatics are needed by employers as health care professionals, medical/nursing information officers, health information managers, informatics researchers and informatics instructors. There is an estimated need for approximately 110,000 information technology professionals in health care setting nationally. As adoption increases to levels required for improved safety, quality, and cost savings in all hospitals, the need for such professionals is estimated to increase by approximately 40,000. A 2007 American Academy Association of Science (AAAS) report said that 'Expansion of graduate training at the WSU Spokane campus is critical to the success of WSU health science research'. One of the new programs the AAAS recommended for development at WSU Spokane was Health Informatics. No other informatics program in the State or country has access to a healthcare system as advanced in its use of health information technology as that available in Spokane.

Narrative Justification and Impact Statement:

Electronic medical records are becoming more common in hospitals, and throughout healthcare, but the adoption is still uneven and the ramifications are not fully understood. The explosion of medical and biological information has made it clear that innovative advances in storing, retrieving, and interpreting information are essential for the delivery of optimal patient care as well as to monitor patient data for potential disease outbreaks and to alert public health officials. A recent Rand report concludes that an interconnected healthcare system would save more than \$80 billion per year and save lives by preventing medical errors. The combination of a strong health informatics research focus and a strong health information infrastructure hold promise for a strong positive and measurable impact on patient savings and health care costs.

Research to improve healthcare: The proposed WSU program will conduct research on the ramifications, clinical outcomes and efficiencies of moving from paper to electronic record-keeping. WSU will research how to use electronic record-keeping more successfully. Researchers will look at expanding clinical data repositories to include outpatient records as well as current electronic inpatient data collection. Such information can be used to evaluate clinical outcomes, health care efficiencies, and the added value of health information technology provides to such outcomes.

Research will also be conducted on the implementation and adoption of information technology in health care settings. Such technology is typically adopted in clinical practice within individual practices first, then between practices, and finally, across the system. This will be collaborative and complementary to competitive basic science medical and bioinformatics research activity at Institute for Systems Medicine, WSU, UW, Gonzaga, EWU, etc.

WSU proposes an interdisciplinary program: The proposal requests salary and operations support for a new director and three research-intensive faculty members to develop a program of research and Masters of Science degree program in

Health Informatics. The faculty will leverage and enhance the current educational and research activities from the Colleges of Pharmacy, Nursing, and Business. The core faculty would be housed in the Department of Health Policy and Administration in the College of Pharmacy, which is a component of the WSU Division of Health Sciences. The program will build upon and leverage recent state and university investments in the health sciences in Spokane (medical, dental, pharmacy, nursing, and allied health sciences). Health Informatics will become a critical research focus and graduate academic program to be developed with INHS and within the WSU Health Sciences at the WSU Riverpoint campus. This program will be interdisciplinary in nature, recruiting additional faculty to participate in their educational and research activities from the Colleges of Pharmacy, Nursing, and Business.

Informatics complements other Riverpoint Health Sciences programs. The Legislature has already made a significant investment in health sciences research and education by funding medical, dental and nursing programs on the Spokane Riverpoint campus. The addition of health informatics will bring a greater return on the investment. Collectively the health sciences and health professional programs at WSU provide a strong framework for health care and applied research. This program represents a university/private/non-profit partnership with a national healthcare leader as well as the healthcare sector in Eastern Washington.

OUTCOMES:

1. The education program is intended to produce a highly competent workforce in health informatics in Eastern Washington. This will further increase adoption and integration of healthcare technology in Eastern Washington health care.
2. The director and faculty will be expected to implement a program that that will enroll 12 masters-level students by fall, 2010. In the following and succeeding year, additional cohorts of at least twelve students will be admitted.
3. The courses and dual-degree opportunities will be made available to about 160 students currently enrolled in the Masters Health Policy and Administration program, the Doctor of Pharmacy Program, the Ph.D. Nursing program, the Executive MBA program, and others currently offered by WSU Spokane that can provide synergies. The students will be trained both to conduct practically important research with their faculty mentors and expected to improve the quality of the healthcare workforce by working in targeted areas.
4. Faculty are expected to secure approximately \$5 million in federal research grants for health informatics over the next five years.
5. One of the benefits will be to enhance the visibility of leading edge health informatics research for the state of Washington.
6. Over a period of several years, the state investment will be matched by leveraging federal and private foundation research grants.
7. The information gained from the research will improve the delivery of health care in the region through increased adoption and efficiency of health information technology in the health care system. It will influence the delivery of health care nationally through improvements in the timely delivery, efficiency (reduction of duplication) and coordination of health services.

8. Through integration into the medical education, nursing, pharmacy and dental education programs, the Health Informatics program will support the unique inter-professional Health Sciences training programs at WSU. Finally, the masters of Science degree will provide the foundation and the pipeline for an interdisciplinary Ph.D. program.

Calculations:

FISCAL DETAIL TABLES-BETTER HEALTH AND HEALTHCARE THROUGH INFORMATICS					
	2009-10		2010-11		2009-11
By Program	FTE	Dollars	FTE	Dollars	Biennium
Instruction	1.9	315,000	4.0	332,000	647,000
Research	3.6	585,000	7.5	616,000	1,201,000
Public Service	-	-	-	-	-
Primary Support	-	100,000	.3	56,000	156,000
Libraries	-	-	.1	10,000	10,000
Student Services	-	-	.2	12,000	12,000
Inst. Support	-	-	.3	28,000	28,000
Plant	-	-	.3	31,000	31,000
Total	5.5	\$ 1,000,000	12.7	\$ 1,085,000	\$ 2,085,000
By Object					
Salaries					
Faculty	4.5	500,000	4.5	500,000	1,000,000
AP	-	-	.5	32,000	32,000
TA/GA	-	-	6.0	148,000	148,000
Classified	1.0	40,000	1.7	65,000	105,000
Benefits	-	162,000	-	200,000	362,000
Goods/Services	-	148,000	-	61,000	209,000
Travel	-	50,000	-	26,000	76,000
Equipment	-	100,000	-	53,000	153,000
Total	5.5	\$ 1,000,000	12.7	\$ 1,085,000	\$ 2,085,000

Cost Calculations -- Healthcare Informatics Enrollment									
Requested FTE, by type of student, multiplied by the rate, equals total dollars requested.									
Dollars rounded to the nearest thousand.									
Pullman / Spokane									
2009-10									
2010-11									
Biennium									
State Funds	Level	FTE	Rate	Dollars	FTE	Rate	Dollars	FTE	Dollars
Healthcare Informatics	G				12	29,200	350,000	12	350,000
Totals		-		-	12		350,000	12	350,000
Operating Fees	Level	FTE	Rate	Dollars	FTE	Rate	Dollars	FTE	Dollars
Healthcare Informatics	G				12	7,082	85,000	12	85,000
Totals		-		-	12		85,000	12	85,000

Washington State University	
Rates Used in the Calculation of the Cost of Healthcare Informatics Enrollment	
State rates were determined based on the program budget summarized below	
	Healthcare Informatics
Salaries	
Faculty	175,000
AP	31,000
TA/GA	51,958
Classified	39,298
Benefits	80,494
Goods/Services	27,000
Travel	9,750
Equipment	20,500
Total Program Cost, 09-11 Biennium	435,000
Operating Fees, 09-11 Biennium	(85,000)
State General Fund, 09-11 Biennium	350,000
Total student FTE served	
Y1	-
Y2	12
Biennium total	12
Per Student Funding Requested	\$ 29,200

For more information, contact Larry Ganders, Assistant to the WSU President, Olympia at 360-534-2333