

**A Report on the Nebraska Health Care Cash Fund and
the Related Medicaid Intergovernmental Trust Fund
and the Tobacco Settlement Trust Fund**

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Legislative Fiscal Office**

October 30, 2010

A Report on the Nebraska Health Care Cash Fund and the Related Medicaid Intergovernmental Trust Fund and the Tobacco Settlement Trust Fund

Purpose

This report provides an overview of the Nebraska Health Care Cash Fund and related funds, the Nebraska Tobacco Settlement Trust Fund and the Nebraska Medicaid Intergovernmental Transfer Trust Fund.

The Health Care Cash Fund

The Nebraska Health Care Cash Fund receives funds from two sources -- the Nebraska Tobacco Settlement Trust Fund and the Nebraska Intergovernmental Transfer Trust Fund. These funds will be described later in this report.

LB 692 passed in the 2001 Legislative Session provided the current policy framework for the use of the Nebraska Health Care Cash Fund and established the tobacco settlement and intergovernmental transfer funds as the two sources of revenue for the fund. The intent of LB 692 was to use the funds for health-related purposes.

Section 71-7606 states the purpose of the Nebraska Health Care Cash Fund:

(1) The purpose of the Nebraska Health Care Funding Act is to provide for the use of dedicated revenue for health-care-related expenditures.

(2) Any funds appropriated or distributed under the act shall not be considered ongoing entitlements or obligations on the part of the State of Nebraska and shall not be used to replace existing funding for existing programs.

(3) No funds appropriated or distributed under the act shall be used for abortion, abortion counseling, referral for abortion, or research or activity of any kind involving the use of human fetal tissue obtained in connection with the performance of an induced abortion or involving the use of human embryonic stem cells or for the purpose of obtaining other funding for such use.

(4) The Department of Health and Human Services shall report annually to the Legislature and the Governor regarding the use of funds appropriated under the act and the outcomes achieved from such use.

The state investment officer is charged with the responsibility of deciding the amount that will be taken from each fund, equal to the amount of the transfer specified in statute. Every even-numbered year, the State Investment Officer is also charged with conducting a 10-year projection on the viability of the fund.

The Legislature establishes in statute the amount in total to be transferred into the Nebraska Health Care Cash Fund annually. The amount transferred is based on statutory requirements and the appropriations set by the Legislature. Two programs have statutorily designated amounts to be funded annually from the Health Care Cash Fund. Those are biomedical research and the Autism Treatment Program. All others are either earmarked in the mainline appropriations bill or in A-bills. In FY 11, the transfer amount is \$59.1 million. The programs funded by the Health Care Cash Fund in FY 10 and FY 11 are shown on the following page:

HEALTH CARE CASH FUND FY 10 and FY 11

	FY 10 Final	FY 11 Final
BEHAVIORAL HEALTH RATE INCREASES		
Regions	2,599,660	2,599,660
Child welfare	2,734,444	2,734,444
Medicaid	4,765,896	4,765,896
Subtotal: behavioral health provider rate increases	10,100,000	10,100,000
MEDICAID SMOKING CESSATION		
Medicaid services	425,000	425,000
SERVICE CAPACITY		
Mental health and substance abuse regions	6,500,000	6,500,000
Juvenile services	1,000,000	1,000,000
Subtotal: service capacity	7,500,000	7,500,000
EMERGENCY PROTECTIVE CUSTODY		
	1,500,000	1,500,000
RESPITE CARE		
Respite care regions and personnel	404,643	404,643
Respite care aid	810,000	810,000
Subtotal: respite care	1,214,643	1,214,643
DEVELOPMENTALLY DISABLED AID		
	5,000,000	5,000,000
PUBLIC HEALTH		
Public health staff	100,000	100,000
County public health aid	5,600,000	5,600,000
Subtotal: public health	5,700,000	5,700,000
MINORITY HEALTH		
Federally qualified health clinics (2nd CD)	1,400,000	1,400,000
Minority health aid (1st and 3rd CDs)	1,580,000	1,580,000
Minority health satellites	220,000	220,000
Subtotal: minority health	3,200,000	3,200,000
CHILDREN'S HEALTH INSURANCE (CHIP)		
	5,000,000	5,000,000
BIOMEDICAL RESEARCH		
	14,000,000	14,000,000
LEGISLATIVE COUNCIL		
	100,000	100,000
ATTORNEY GENERAL		
	250,000	250,000
EMS TECH REGULATION		
	13,688	13,688
REVENUE AUDITOR		
	52,686	52,686
GAMBLING ASSISTANCE		
Gambling Assistance Aid	225,000	225,000
Gambling Assistance Admin.	25,000	25,000
Subtotal: Gambling assistance	250,000	250,000
AUTISM OPERATIONS AND AID		
	1,000,000	1,000,000
POISON CONTROL CENTER		
	200,000	200,000
PARKINSON'S DISEASE REGISTRY		
	26,000	26,000
LB 316 Funds Transfer Bill:		
TOBACCO PREVENTION AND CONTROL FUND		3,000,000
STEM CELL RESEARCH FUND	500,000	500,000
APPROPRIATIONS TOTAL		
	56,032,017	59,032,017
Transfer amount	56,100,000	59,100,000
Unallocated	67,983	67,983

The following describes the program funded by the Health Care Cash Fund:

Behavioral Health Provider Rates: this was a single rate adjustment in 2001 for behavioral health providers in Medicaid, the regions, juvenile justice and child welfare. It is part of the base funding for each of these programs.

Medicaid Smoking Cessation: LB 959 passed in 2008, appropriated funds to the Medicaid Program for a state plan amendment to include smoking cessation as a Medicaid-covered service. Although the bill saved general fund dollars beginning in 2010, the initial funding needed to provide the services was paid from the Health Care Cash Fund and is now part of the base.

Service Capacity: This was funding to increase service capacity by the mental health and substance abuse regions and in the juvenile justice area. One million a year is earmarked for juvenile justice and \$6.5 million for the regions.

Emergency Protective Custody: The \$1.5 million of funding was added in 2001-02 for the mental health regions to provide emergency protective custody services. It is part of the base funding for the regions.

Respite Care: Aid to the six regional services area is provided for coordination of respite services and direct funding of services as well. Of the \$1,214,643 in total funds, \$404,643 is provided to the regional service areas for personnel and operating with the balance for aid.

Developmentally Disabled: LB 692, passed in 2001, added \$3 million in 2001-02 and \$5 million in 2002-03 to develop services for persons on the waiting list, who had been waiting the longest for services. The \$5 million is part of the on-going base for the program.

Public Health: Funding is distributed on a formula basis to the 18 local public health departments to provide core public health functions include assessment and policy development, prevention of illness and disease, and assurance of services including public health nursing, health education, and environmental health services. The distribution formula is as follows:

- a) \$100,000 for three-county departments with a total population of 30,000 to 50,000
- b) 125,000 to single-county departments or multiple-county departments with three or more counties departments with a total population of more than 50,000 up to 100,000
- c) \$150,000 to departments with a total population of more than 100,000.
- d) Any funding not distributed under the formula shall be equally distributed among all departments receiving funding under the above formula distribution.

Funding cannot be used to replace existing county funding.

There is \$100,000 for staff and operating expenses

Minority Health: Of the \$3,200,000 set aside for minority health, the funding is distributed in the following manner:

- a) \$1,580,000 is for counties in the first and third congressional districts with a minority population equal to or exceeding 5%
- b) \$1,400,000 is divided equally among federally qualified health centers in a congressional district with a minority population greater than 75,000. Only the second congressional district meets this definition.

- c) \$220,000 is also provided for minority health satellite offices in the second and third congressional districts.

The funding is for minority health initiatives which target, but is not limited to, infant mortality, cardiovascular disease, obesity, diabetes and asthma.

Children's Health Insurance Program (CHIP): The state match for CHIP was initially funded with \$25 million from the Health Care Cash Fund. When the initial \$25 million was exhausted, the Legislature in FY 05 provided \$5 million a year as part of the base. Increases above \$5 million in the state's share of the program are picked up by the general fund.

Biomedical Research: The University of Nebraska Medical Center, Creighton Medical Center, the University of Nebraska and Boys Town Research Hospital are eligible for this funding. Twenty-four percent of the appropriated funds shall be distributed annually to the University of Nebraska, sixteen percent to Creighton and Boys town combined. Sixty percent is distributed to the eligible based on the percentage of all funds expended by such institutions from the National Institutes of Health of the United States Department of Health and Human Services in the prior year as contained in a certified report of such, excluding any such funds expended for research involving the use of human fetal tissue obtained in connection with the performance of an induced abortion or involving the use of human embryonic stem cells. At least \$700,000 of such appropriated funds shall be used annually for research to improve racial and ethnic minority health.

Legislative Council: This funding is provided for the Health and Human Services Committee chair to use for health care related studies or reimbursement for expenses of special committees.

Attorney General: The Attorney General is responsible for enforcement of the provision of the Master Settlement Agreement. These funds are used to ensure compliance.

Revenue Auditor: Similar to the funding provided to the Attorney General, the revenue auditor ensures compliance with the Master Settlement Agreement.

EMS Technicians: LB 1033 passed in 2002, authorized emergency medical technicians-intermediate and emergency medical technicians-paramedic to perform out-of-hospital procedures in a health clinic or hospital when supervised by a registered nurse, physician or physician assistant. An additional part-time investigator was funded from the Health Care Cash Fund, as there would be additional investigations.

Gambling Assistance: LB 332 (2005) provided \$250,000 of funding beginning in 2005-06 for the compulsive gambler's assistance program. The intent was to find another funding source to continue this level of support. A constitutional amendment to use lottery funds for this purpose was defeated, so the Legislature continued to fund the program with the Health Care Cash Fund.

Autism Treatment: \$1 million a year was to be used for intensive behavioral services under Medicaid for children with autism. The transfer of up to \$1 million a year for five years was contingent upon the receipt of no less than one dollar of private funds for every two dollars from the Health Care Cash Fund. The organization that had intended to private matching dollars informed the state that no matching funds will be provided, so this funding is not being used.

Poison Control Center: The funding from the Health Care Cash Fund provides \$200,000 of the approximately \$1.4 million operating budget for the Poison Control Center at the University of Nebraska Medical Center. Until 2003, Children's Hospital covered the costs of operating the center. After they decided they could no longer support it, the operations were moved to UNMC. Initially funding was provided from bioterrorism funding and Creighton Medical Center in addition to UNMC. When the bioterrorism funding decreased and Creighton withdrew support, UNMC requested funding from the state so the poison control center could continue to operate. Attempts to secure funding from other hospitals and insurance companies did not materialize. The services are provided to individuals, medical professionals and hospitals free of charge and are documented to save health care dollars through avoidance of emergency room visits and getting the appropriate treatment to patients who are poisoned.

Parkinson's Disease Registry: The registry is the only statewide Parkinson's registry in the country. Originally funded with general funds, state law was changed in 2001 prohibiting general fund support and authorizing cash funds to pay for the registry. A grant from the Michael J. Fox Foundation and another source covered the cost of operations until it was exhausted. In 2009, an appropriation from the Health Care Cash Fund was provided to cover the operating costs.

Tobacco Prevention and Control: The funding is used for a comprehensive statewide tobacco-related public health program which includes, but is not limited to (1) community programs to reduce tobacco use, (2) chronic disease programs, (3) school programs, (4) statewide programs, (5) enforcement, (6) counter marketing, (7) cessation programs, (8) surveillance and evaluation, and (9) administration.

Stem Cell Research: LB 606 passed in 2008, created the Stem Cell Research Act. Grants are awarded to Nebraska institutions or researchers for the purpose of conducting nonembryonic stem cell research. The grants and operating expenses up to \$15,000 are funded through the Health Care Cash Fund.

The state investment officer is also required to report to the Legislature on or before October 1 of every even-numbered year on the sustainability of such transfers. By practice, the investment officer has projected the use of the fund for a 10-year period. In the last report, the 10-year analysis showed the fund to be sustainable. An outside analysis done using the same revenue, earning and expenditure assumptions as the investment officer showed the Nebraska Health Care Cash Fund being depleted in 28 to 32 years.

Related Funds

Although the tobacco settlement and intergovernmental funds are called trust funds in statute, they are not trust funds. Trust funds are assets held in trust and its use is governed by the conditions of the trust. Neither the tobacco settlement nor the intergovernmental transfer fund is governed by the conditions of a trust. Use of the funds is strictly the prerogative of the Legislature.

Nebraska Tobacco Settlement Trust Fund

In 1998, Nebraska along with more than 40 other states and territories entered into a settlement agreement with tobacco manufacturers. The basis of the settlement was reimbursement to the states for additional Medicaid costs the states incurred treating smoking-related illnesses and diseases.

The terms and conditions of the settlement are contained in the Master Settlement Agreement. This agreement contains a schedule of payments the participating manufacturers are required to make to each of the states in perpetuity. Payments are adjusted based on an annual inflation adjustment and an adjustment for declining volume sales. Those payments are deposited in this Nebraska Tobacco Settlement Trust Fund.

The state must meet certain conditions of compliance contained in the Master Settlement Agreement. The Attorney General is responsible for ensuring compliance. The Department of Revenue assists with the compliance activity. ***Once the state receives the funds, there are no restrictions on the use of the funds.***

The following chart shows the estimated payments prior to adjustments:

Year	Amount
1998	14,279,599
1999	-
2000	38,148,843
2001	41,194,622
2002	49,462,718
2003	49,930,829
2004 to 2007	41,672,632
2008 to 2017	42,499,659
2018 to 2025	47,622,465

The balance in the fund as of September 30, 2010, is \$207.9 million.

Nebraska Medicaid Intergovernmental Transfer Trust Fund

Until 2005, the federal government allowed states to establish disproportionate share pools for publicly owned nursing facilities. Payments to the facilities in the pool were allowed to be reimbursed up to the aggregate amount allowed under the Medicare upper payment limit. Since Nebraska reimbursed the facilities at a rate lower than the aggregate amount allowed under the upper limit, a process was established to return the excess payments to the state. The State General Fund was reimbursed in full. The excess federal funds were placed in the Nebraska Medicaid Intergovernmental Trust Fund. Since this loophole allowed states to receive more federal Medicaid funds than the states' respective match rates, the federal government phased out the process that enabled states to take advantage of this loophole.

The balance in the fund as of September 30, 2010, is \$97.9 million.

Sustainability Projection

The latest report by the Investment Council filed on September 22, 2010 shows that based on current appropriations, outflows will exceed inflows in every year in the next decade. John Adams Asst. Vice Chancellor for Budget and Strategic Planning at UNMC does a longer-term projection. He did two-projections, one with the Autism Program funded and another without it being funded. His projection shows the fund being depleted in either 2037 or 2038.

2010 Nebraska Health Care Funding Act Report

**Prepared for the Governor and the
Nebraska Legislature**

**1) USE OF FUNDS APPROPRIATED
UNDER HEALTH CARE FUNDING ACT**

and

2) OUTCOMES ACHIEVED

December 17, 2010

**Submitted by:
Nebraska Department of Health and Human Services**

December 17, 2010

Dave Heineman, Governor
State Capitol
Lincoln, NE 68509

Dear Governor Heineman:

In the 2001 Legislative Session, LB 692 was passed into law. An annual \$50 million endowment for health care programs was created from the principal and investment income of the tobacco settlement fund and the Medicaid intergovernmental transfer (IGT) fund. Currently this endowment has increased to \$56.4 million annually. The purpose of this endowment was to create an ongoing funding mechanism for health care in Nebraska.

In addition, LB 692 required the Department of Health and Human Services and the Department of Health and Human Services Finance and Support to provide an annual report to the Legislature and the Governor detailing the use of funds appropriated under this act and the outcomes achieved from such use.

The following report fulfills that statutory mandate. We appreciate the opportunity to share with the Governor and the Legislature the important work done as a result of LB 692. Please do not hesitate to contact me at 471-9433 if I can be of further help. Thank you.

Sincerely,



Kerry T. Winterer
Chief Executive Officer
Department of Health and Human Services

December 17, 2010

Patrick O'Donnell
Clerk of the Legislature
State Capitol
Lincoln, NE 68509

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Kerry T. Winterer
Chief Executive Officer
Department of Health and Human Services

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Nebraska Tobacco Settlement Biomedical
Research Development Fund Report

EXECUTIVE SUMMARY

LEGISLATIVE BACKGROUND:

LB 692 (2001)

LB 692 was enacted in the 2001 Legislative session. It created an annual \$50 million endowment for health care programs from the principal and investment income from the tobacco settlement fund and the Medicaid intergovernmental transfer (IGT) fund. This \$50 million endowment was transferred to the Nebraska Health Care Cash Fund and initially distributed as follows:

- \$5 million, annually, for grants awarded by the Nebraska Health Care Council; including \$700,000 for grants to improve racial and minority health,
- \$5.6 million in FY (Fiscal Year) 01/02 and FY02/03 to county health departments for local public health services, planning and infrastructure development
- \$100,000 in FY01/02 and FY02/03 for the Office of Public Health Employees
- \$2.8 million in FY01/02 and FY02/03 for minority public health; including \$1.58 million for minority public health services in counties having a minority population equal to or exceeding 5% of the total population of the county in the first and third congressional districts, \$220,000 for satellite minority health offices in the second and third congressional districts and \$1 million to federally qualified health centers that serve primarily African-Americans, Native Americans and Spanish-speaking minorities
- \$3 million in FY01/02 and \$5 million in FY02/03 for services to individuals with developmental disabilities who are on the waiting list for services
- \$1 million in FY01/02 and FY02/03 to Office of Juvenile Services for mental health services to juvenile offenders
- \$1.06 million in FY01/02 and FY02/03 for statewide respite care services
- \$2.4 million in FY01/02 and \$2.6 million in FY02/03 to increase rates paid to providers of inpatient, hospital, or hospital-sponsored residential care services
- \$7.5 million in FY01/02 and FY02/03 to increase rates paid to providers of mental health and substance abuse services
- \$6.5 million in FY01/02 and FY02/03 for community-based mental health and substance abuse services; including intermediate-level residential care
- \$1.5 million in FY01/02 and FY02/03 for the cost of maintenance and treatment of mental health patients under emergency protective custody
- \$10 million in FY01/02 and FY02/03, \$12 million in FY03/04 and FY04/05, \$14 million each FY thereafter, for biomedical research
- \$500,000 in FY01/02 for the study on the Health and Human Services System

LB 692 became effective May 17, 2001.

LB 412 (2003)

LB 412 was enacted in the 2003 Legislative session. This bill changed the funding of public health grants awarded by the Nebraska Health Care Council. Under LB 692, \$5 million of the Nebraska Health Care Cash Fund was to be used for public health grants. At least \$700,000 of the \$5 million was to improve racial and ethnic minority health. LB 412 deleted the specific amounts and inserted the language with "Funds as appropriated by the Legislature" and "fifteen percent of the funds appropriated" respectively. No new funds were appropriated for public health grants. This \$5 million was used to fund the children's health insurance program (See LB 407).

LB 412 also made changes and eliminated provisions relating to minority health offices, the funding of local public health departments, the tobacco prevention and control, the Nebraska Medicaid Intergovernmental Trust Fund and the Nursing Facility Conversion Cash Fund. This bill became operative July 1, 2003.

LB 407 (2003)

LB 407, the 2003 budget bill, appropriated Cash Funds from the Nebraska Health Care Cash Fund to the Department of Health and Human Services and the Department of Health and Humans Services Finance and Support. In addition, LB 407 capped biomedical research funding from the Nebraska Health Care Cash Fund at \$10 million annually. This bill became operative July 1, 2003.

LB 321 (2007):

LB 321, the 2007 budget bill, appropriated Cash Funds from the Nebraska Health Care Cash Fund to the Department of Health and Human Services for compulsive gamblers assistance programs. Also, this bill increased appropriation for biomedical research to \$14 million annually. This bill became operative July 1, 2007.

LB 482A (2007):

LB 482A appropriated Cash Funds from the Nebraska Health Care Cash Fund to the Department of Health and Human Services to carry out the provisions of LB 482, Autism Treatment Program Act. This bill became effective May 25, 2007.

2010 Funding

As amended by LB 412 (2003), LB 407 (2003), LB 321 (2007), LB 482A (2007) and LB 315 (2009), the 2010 funding for "LB 692 purposes" was appropriated as follows:

Administration (Public Health, Respite, Compulsive Gambling)	\$475,331
Public Health (Administration)	\$320,000
Juvenile Services Operation	\$1,000,000
Behavioral Health Mental Health and Substance Abuse	\$10,824,660
Public Assistance	\$3,544,444
Medicaid	\$5,215,896
Children's Health Insurance	\$5,000,000
Developmental Disabilities	\$5,000,000
Local Public Health	\$8,580,000
Biomedical Research	\$14,000,000
Other Agencies	\$2,252,493
Transfer to Tobacco	\$3,000,000
Other Funds Not Appropriated	(\$112,824)
 Grand Total	 \$59,100,000

Additional Information

HHSS has provided a table which details the amended LB 692 funding accomplishments and outcomes. Additional information is also contained in the Appendix.

2010 LB 692 Report:
Table on Appropriations, Uses and Outcomes

**2010 LB 692 Report:
Table on Appropriations, Uses and Outcomes**

DHHS Divisions	Program	FY 10 Appropriations	Use Sections are from LB 315 (09)	Outcomes	Provider Rates
Division of Public Health	033 Administration Public Health	\$13,688	Sec 106 \$13,688 regulatory support for emergency medical technicians-intermediate and emergency medical technicians-paramedic licensing.	Trained emergency medical technicians for paramedic licenses.	
	Smoking Cessation	\$6,000	Sec 106 - \$6,000 cost related to implementation of smoking cessation.	Implemented tobacco quit line enhancements.	
	Parkinson's Disease Registry	\$26,000	LB 106 (Parkinson's Disease Registry)	The Nebraska Parkinson's Disease Registry, the only population-based state registry in the US, requires collection of Nebraska Parkinson's disease patient information as required by Nebraska law. DHHS receives PD-related discharge records from the Nebraska Hospital Association to improve completeness of the data. There are currently bills in the House of Representatives (H.R. 1362) and Senate (S. 1273) to establish national MS and Parkinson's disease registries (National MS and Parkinson's Disease Registries Act). Our registry is mentioned as a source of data for this national Parkinson's Disease Registry.	
Division of Medicaid and Long-Term Care	Medicaid and Long-Term Care (respite)	\$404,643	Sec 106 Respite Care Program in service areas.	Information and referral, support for caregivers, over 6,000 calls to the Lifespan Respite Network. The Lifespan Respite Network currently has 831 agencies and individual providers recruited to provide respite services statewide. Education and training reached 3,750 caregivers, providers, and professionals. Refer to Report, Attachment A.	
Division of Behavioral Health	Behavioral Health-Compulsive Gambling	\$25,000	Sec 106 Compulsive Gambler's Assistance.	Providing support for the gambler's assistance program with program development, administration, and evaluation of direct and indirect services.	
	TOTAL	\$475,331			
Division of Public Health	179 Administration	\$100,000	Sec 111 \$100,000 each year for staffing and operating expenses.	Provide technical assistance to 18 local health departments to provide the 10 essential services.	N/A
	Office of Community Health Development	\$220,000 (*\$110,000 for each office)	Sec 111 for operation a satellite office of minority health in the 2 nd and 3 rd congressional districts.	Congressional District 2 Satellite Office Health Program Manager and Community Health Educator (Omaha). Congressional District 3 Satellite Office Health Program Manager and Community Health Educator (Gering, Grand Island).	N/A

DHHS Divisions	Program	FY 10 Appropriations	Use Sections are from LB 315 (09)	Outcomes	Provider Rates
	Total Program 179	\$320,000			
Division of Children & Family Services	250 Juvenile Service Operations	<p>\$1,000,000 total</p> <p>YRTC-Kearney \$320,147</p> <p>HRC \$590,706</p> <p>YRTC-Geneva \$89,147.00</p>	Sec 115 Mental Health services to juvenile offenders.	<p><u>YRTC-Kearney</u></p> <ul style="list-style-type: none"> ❖ \$320,147 used for 1 Licensed Mental Health Practitioner, 2 Youth Counselor I's and 6 Youth Counselor I's. ❖ Sexual Trauma Program: <ul style="list-style-type: none"> • 105 youth participated in individual therapy. • 950 hours were completed for individual youth therapy. • 507 consultations with youth by a psychiatrist, Dr. Susan Howard. • Dr. Howard visits YRTC-Kearney 3 times per month; no sexual offender recidivism. ❖ Youth Counselor I's and II's made 3,829 contacts with parents and 5,599 contacts with juvenile service officers. ❖ Youth Counselor I's and II's provided 14,451 individual counseling hours with youth. <ul style="list-style-type: none"> • 13 contacts with Guardians Ad Litem. • 58 contacts with Foster Care Review Board Staff. • 139 Family Team Meetings. • 2,470 supervised recreation activities. • 123 work projects. <p><u>Hastings Juvenile Chemical Dependency Program</u></p> <ul style="list-style-type: none"> ❖ Provides 40 beds for chemical dependency treatment at the residential treatment level of care to youth paroled from YRTC-Kearney diagnosed with chemical dependency issues and meeting the criteria for chemical dependency treatment. ❖ 120 admissions with an average length of stay of 114 days. <p><u>YRTC-Geneva:</u></p> <p>Positions Paid -PSL/Benefits:</p> <ul style="list-style-type: none"> • Licensed Mental Health Practitioner (LMHP). • Group Leader- LaFlesche Cottage. • Chemical Dependency Training Specialist. • Group Leader -Steps Program/Orientation. • Tobacco Cessation. <p>Programs/Education:</p> <ul style="list-style-type: none"> ❖ High risk mental health behavior youth cottage . <ul style="list-style-type: none"> • Youth served: 39 (7/1/09 to 6/30/10) • average monthly count: 3. 	NA

DHHS Divisions	Program	FY 10 Appropriations	Use Sections are from LB 315 (09)	Outcomes	Provider Rates
				<ul style="list-style-type: none"> ❖ Girls circle/gender specific program: <ul style="list-style-type: none"> • Special needs outcomes working towards release. • Average count: 3. • 9 youth served. ❖ Steps Program (7/1/09 - 6/31/10): <ul style="list-style-type: none"> • Average count: 3. • 9 youth served. ❖ Vocational Rehab: <ul style="list-style-type: none"> • Average count: 3 • 9 youth served. ❖ Tobacco Education: <ul style="list-style-type: none"> • 3.5 hours per youth during orientation. • Provided to 138 youth for the year; one treatment group per month, averaging 10-12 youth for 3 hrs each. • Chemical Dependency Trainer meetings to address individual tobacco use outcomes averaging 2-3 youth per month. • For all programs more individual specific programming, more group meetings, more individual counseling. 	
	Total Program 250	\$1,000,000			
Division of Behavioral Health	038 Mental Health and Substance Abuse	\$2,599,660	Sec 107 Behavioral Health providers.	Increased rates for Behavioral Health Providers.	7.5%
	Total Program 038	\$6,500,000	Sec 107 to be distributed to SIT Regions based on a formula.	Increased number of services provided in home communities.	
		\$1,500,000	Sec 107 to be distributed to SIT Regions based on a formula.	Crisis Center/hospital reimbursed for days of service provided; increased emergency services to prevent Emergency Protective Custody.	
		\$225,000	Sec. 107 for compulsive gambling services.	Continued execution of problem gambling treatment services as determined by State Committee on Problem Gambling.	
	Total Program 038	\$10,824,660			
Division of Children & Family Services	347 Public Assistance	\$2,734,444	Sec 114 Behavioral Health rate increase.	Provide Behavioral Health rate increases to IV-E Foster Care and Child Welfare Services.	.5%

DHHS Divisions	Program	FY 10 Appropriations	Use Sections are from LB 315 (09)	Outcomes	Provider Rates
Division of Medicaid and Long-Term Care		\$810,000	Sec. 114 Aid in carrying out the NE Lifespan Respite Service payments to caregivers to purchase services.	Assistance for 998 individuals across the lifespan through the Respite Subsidy Program in FY 10 Refer to Report, Attachment A.	N/A
	Total Program 347	\$3,544,444			
Division of Medicaid and Long-Term Care	348 Medical Assistance	\$4,765,896	Sec 115 Continuation of the behavioral health provider rate increase and behavior health provider rate increase for managed care, inpatient and residential treatment.	Continued provision of behavioral health services for clients and participation of providers in the program.	Maintain rate increase provided in original LB 692 funding.
	Smoking Cessation	\$450,000	Sec 115 - State Plan Amendment covering tobacco use cessation in compliance to Title XIX of federal Social Security Act smoking cessation.	Assistance for 877 individuals across the lifespan through the Respite Subsidy Program in FY 10. The Respite Subsidy program received 430 new referrals in FY 10. Refer to Report, Attachment A. Clients may receive medication and counseling services to support up to 2 quit attempts per year; for SFY10 expenditures were under budget. Affordable Care Act contains a requirement that was effective Oct 1, 2010 which requires coverage of the drugs for pregnant women which could increase future spending. Since Oct 1, there have been no requests received for drug cover for pregnant women so the impact may be minimal.	
	Total Program 348	\$5,215,896			
Division of Medicaid and Long-Term Care	344 Child Health Insurance	\$5,000,000	Sec 113 State Aid.	Continued provision of behavioral health services for clients and participation of providers in the program.	N/A
Division of Developmental Disabilities	424 Developmental Disability Act	\$5,000,000	Sec 120 State Aid/Services to Developmentally Disabled on waiting list.	Continued provision of developmental disability services to participants.	
Division of Public Health	502 Local Public Health	\$5,600,000	Sec 121 Aid to local public health departments.	Provide the 3 core functions of public health, which include assessment, policy development, and assurance, and 10 essential services.	N/A
		\$1,400,000	Sec 121 to be equally distributed among federally qualified health centers serving a minority population greater than 75,000 inhabitants.	Charles Drew Health Center and One World Community Health Center provide primary health care to persons with limited resources.	

DHHS Divisions	Program	FY 10 Appropriations	Use Sections are from LB 315 (09)	Outcomes	Provider Rates
		\$ 1,580,000	Sec 121 for minority health services to be distributed to counties having a minority population equal to or exceeding 5% of the total population in the 1 st and 3 rd congressional districts.	<p>The Minority Health Initiative Grant Program is designed to encourage the development/ enhancement of innovative health services for racial ethnic minority populations in communities that lack or have barriers to essential health services. The emphasis of this program is on service delivery through creative strategies by a single organization or by forming a network with at least two additional partners. Through consortia of schools, faith-based organizations, emergency medical service providers, local universities, private practitioners, community-based organizations, and local health departments, communities have an opportunity to bring health parity for racial/ethnic minorities.</p> <p>Populations bring addressed include racial ethnic minorities, Native Americans, refugees, and newly-arrived immigrants.</p> <p>Minority Health Initiative projects are designed to support the direct delivery of health care services by expanding existing services or enhancing health service delivery through health education, promotion, and prevention programs. The program emphasizes the delivery of specific services rather than the development of organizational capabilities. If a network is formed, a letter of commitment outlining their portion of the project is required in order to participate.</p> <p>Twenty-two projects were awarded funding for the 2007-2009 project period, covering 29 counties. Summaries of these projects may be found at www.dhhs.ne.gov/minorityhealth/MHI.htm.</p>	N/A
	Total Program 502	\$8,580,000			
	623 Biomedical Research	\$14,000,000	Sec 128 Biomedical Research.	See Attachment C.	
Other Funds Not Appropriated		(\$112,824)			
Total DHHS		\$53,960,331			
Other Agencies	Legislative Council	\$100,000	Sec 10 Legislative Council.	N/A	
	Attorney General	\$395,807	Sec. 37 Attorney General.	N/A	
	Department of Revenue	\$56,686 \$500,000	Sec 67 Department of Revenue. Stem Cell - LB 316 (2009).	N/A	

DHHS Divisions	Program	FY 10 Appropriations	Use Sections are from LB 315 (09)	Outcomes	Provider Rates
	UNMC	\$1,000,000	UNMC-Autism.	Based on legislative changes in LB 27, DHHS revised the waiver application, which was resubmitted 8/31/09. This revision removed UNMC as the sole provider of all services under the autism waiver. Again, the implementation of the waiver is on hold because the legislation regarding the waiver required the receipt of private matching donations to finance the program. DHHS was notified in July, 2010 that the primary donor decided not to proceed with its planned financial donation. DHHS remains ready to implement the waiver upon receipt of the private funds required in the statute.	
		\$200,000 \$3,000,000	UNMC-Poison Control LB 27. Transfer to Tobacco Prevention & Control Fund.	N/A	
Grand Total		\$59,100,000			

APPENDIX

ATTACHMENT A

Annual Respite Report

for the

**Nebraska Health Care
Funding Act (LB 692)**

**Presented to the Governor and the
HHS Committee of the Legislature**

Division of Medicaid and Long-Term Care

December 2010

RESPIRE PROGRAM ACROSS THE LIFESPAN OUTCOMES

November 2010

INTRODUCTION:

The Nebraska Department of Health and Human Services (DHHS) is responsible for administering the Nebraska Lifespan Respite Services Program in accordance with Neb.Rev.Stat. §§68-1520 through §§68-1528.

The Lifespan Respite Care Act established the Nebraska Lifespan Respite Services Program, which consist of the following:

1. The Lifespan Respite Network designated to coordinate community respite services; and
2. The Lifespan Respite Subsidy Program designated to provide funding for caregivers to purchase respite services. The program is centralized and administered through the Department of Health and Human Service.

The Lifespan Respite Subsidy Program provides Respite Service, which consist of short-term relief for primary caregivers from the demands of ongoing care for an individual with special needs. The Lifespan Respite Subsidy Program offers a maximum of \$125 per month which supports families with loved ones who have special needs to pay for respite services. The program is family focused and encourages families to choose their own providers; decide how much to pay per hour or per day, and set their own schedules. This program is limited to those families who do not receive respite services from other governmental program.

The Lifespan Respite Network is a statewide system with six service areas. The Lifespan Respite Network provides outreach, marketing, recruitment of respite providers, information and referral services and training opportunities for caregivers and providers. DHHS provides a Lifespan Respite Network grant to one agency in each of the areas that is responsible for providing the required network activities. The following agencies currently hold Lifespan Respite Network grants:

1. Central Area - Central Nebraska Community Services
2. Eastern Area – Partnership in Aging
3. Northern Area - Central Nebraska Community Services;
4. Southeast Area - YWCA -Lincoln
5. Southwest Area – Southwest Public Health Department; and
6. Western Area – Panhandle Partnership for Health and Human Services.

The Lifespan Respite Network in each area is responsible for providing the following activities:

1. Recruiting respite providers
2. Offering training for providers, caregivers and consumers
3. Providing information and referrals regarding respite resources and services

4. Marketing availability and need for respite; and
5. Matching families with appropriate respite providers.

LIFESPAN RESPITE SUBSIDY:

Between July 1, 2009 and June 30, 2010, the Lifespan Respite Subsidy Program served 877 individuals. The Lifespan Respite Subsidy Program received 430 new referrals in SFY 2010. Clients eligible for other programs providing respite services are referred to those appropriate programs.

Number of individuals served based on their special need:

Special Need	Number Served
Developmental Disabilities	240
Behavior Disorders	172
Autism	100
Alzheimer/Dementia	89
Brain Injury	84
Multiple impairments	83
Heart Condition	64
Neurological Disabilities	55
Orthopedic Impairments	50
Cerebral Palsy	44
Speech-Language Impairments	43
Visual Impairments	37
Diabetes	30
Parkinson	30
Respiratory System Disorder	29
Arthritis	26
Cancer	21
Hearing Impairments	16
Spinal Disorder/Injury	11
Other	47

NEBRASKA LIFESPAN RESPITE NETWORK

The Lifespan Respite Network currently has 831 individual and agency providers recruited to provide respite services for caregivers statewide. The Respite Network Coordinators meet regularly with Medicaid Service Coordinators from the Department of Health and Human Service, Developmental Disabilities, Area Agencies on Aging, Independent Living Centers, and the Early Development Network to identify gaps and barriers and to recruit providers as needed.

Activities Supported

- 1) Training:

- a) The Lifespan Respite Network partners with local agencies to promote and provide training opportunities for caregivers and providers;
 - b) Information is sent to providers and caregivers about trainings/video conference in their area. From July 1, 2009 through June 30, 2010 trainings and conferences promoted by the Lifespan Respite Network were attended by 3,750 providers and caregivers; and
 - c) Family/Caregivers and providers are given a handbook which includes the following topics:
 - Philosophy of client choice, client direction, and family centered services;
 - How to train and evaluate a provider, particularly with regard to the unique care needs of their loved ones;
 - The Nebraska Nurse Practice Act, which provides an understanding of the health maintenance activities a provider is allowed to conduct;
 - How to identify and report abuse and/or neglect;
 - Administrative issues surrounding respite care (e.g., billing, available financial assistance, reporting changes of condition or need, and fraud); and
 - How to hire and terminate providers.
- 2) Marketing: Through the marketing efforts, the Respite Network coordinators have reached an estimated 230,000 individuals this past year. This was accomplished by :
- a) Public Service announcements on radio, television and newspaper are used statewide to provide respite awareness;
 - b) Community Facilities such as child care, adult day care and assisted living providers are continually recruited to ensure availability of respite slots to be used for temporary or emergency respite situations; and
 - c) Informational booths and presentations across the state are used to promote respite needs, recruit providers, and educate families about respite services.
 - (1) Lifespan Respite Network coordinators have participated in Health Fairs, Community Events, and Conferences such as:
 - Autism Workshop;
 - Common Sense for Raising Children with Disabilities;
 - Living Real Lives and Creating Community Through Natural Supports and Generic Services;
 - Working with Youth and Young Children with Autism and Behavioral Problems;
 - Maternal Health Conference;
 - Special Needs Coalition Training;
 - Special Needs Preparedness Symposium;
 - Lifting Hearts, Lifting Souls;
 - Parenting Classes;
 - Nursing Assistance Classes
 - Stress Relief Strategies Workshop;

- Grandparents and Extended Family Workshop.
- Transition for Life Workshop;
- Fetal Alcohol Spectrum Training Disorders Workshop;
- Autism Syndrome Disorder Conference;
- Western NE Early Childhood Conference;
- State Lifespan Health Conference;
- Traumatic Brain Injury Conference;
- State Early Development Network (EDN) Services Coordinators Conference; and
- Nebraska Youth First Conference.

3) Outreach/Matching:

- a) Respite newsletters and training information are sent to over 16,000 caregivers, providers and interested programs on a continual basis; and
- b) The Respite Network received over 6,000 calls last year from caregivers, providers, and other community agencies requesting information about respite services.

Special Projects: The Nebraska Lifespan Respite Network Coordinators and their Advisory Committees have used the annual \$150,000 (\$25,000 goes to each of the six respite areas) to provide funding to expand or develop programs dedicated to the provision of respite services.

CENTRAL SERVICE AREA:

The Central service area granted 7 organizations funds to expand or develop programs dedicated to the provision of respite services. The following agencies were given mini-grant funds for programming:

1. ARC of Buffalo County- Kearney, received \$8,000. The ARC of Buffalo County provided a wide variety respite activities through their Teens & Youth in Action and children's recreation programs. They also offer training opportunities and workshops for parents and siblings;
2. Custer Care Center-Broken Bow, received \$4,000. Custer Care Center expanded their services and provided respite services to persons in Valley, Custer, and Garfield counties;
3. Families CARE-Kearney, received \$3,000. Families CARE used the funds for two events: a respite workshop for parents and a family weekend camp;
4. Hastings Respite Care-Hastings, received \$3,000. Hastings Respite Care used the funds for the "Let's Take a Break Caregiver Night Out" Support Group. Activities include special nights out events offered every other month and regular outreach through radio and news releases;
5. Easter Seals of Nebraska, received \$2,000. Easter Seals used the funds to provide scholarship assistance to campers;

6. The Autism Society of Nebraska-Grand Island Support Group received \$2,500. The support group provided 2 ½ hours of respite care monthly for children with all types of disabilities; and
7. The remaining \$2,500 was used for Emergency Respite Services. These funds are utilized when other sources of funding cannot be secured.

EASTERN SERVICE AREA

The Eastern service area granted 5 organizations funds to expand or develop programs dedicated to the provision of Respite services. The following programs received funding:

1. Grandparent Resource Program received \$3,000 to provide respite services for 110 grandparents caring for their grandchildren to attend the monthly support group;
2. ALS in the Heartland received \$3,000 to provide approximately 150 hours of respite to families caring for loved ones diagnosed with ALS;
3. Children's Respite Care Center received \$4,000 to provide weekend respite for families caring for children with special needs;
4. The Respite Resource Center (network agency) is using \$5,000 in funds for emergency respite. These funds are utilized when other sources of funding cannot be secured; and
5. The Respite Resource Center used \$10,000 to provide \$250 per individual providers and caregivers with Nursing Assistant Scholarships. Forty scholarships were provided and twenty-two independent providers signed up to provide respite services through Medicaid programs.

NORTHERN SERVICE AREA

The Northern service area granted 5 organizations funds to expand or develop programs dedicated to the provision of respite services. The following agencies were given mini-grant funds for programming:

1. Pawnee Senior Center, received \$500 to provide two respite days for Genoa and the surrounding communities;
2. Building Blocks for Community Enrichment received \$9,000 to provide recruitment of respite providers, respite services for children of domestic violence victims and families who have taken guardianship or adopted children with special needs;
3. SMILE Inc. received \$9,000 to provide short-term relief through its respite-care horse and canine recreational therapy program;
4. Minnechaduzza Foundation received \$4,000 to provide funds to pay for CNA and CPR classes, mileage and training for respite volunteers; and
5. The remaining 2,500 was used for Emergency Respite Services. These funds are utilized when other sources of funding cannot be secured.

SOUTHEAST SERVICE AREA

The Southeast Service Area granted 4 organizations funds to expand or develop programs dedicated to the provision of Respite services. The following programs received funding:

1. YWCA Take a Break Program received \$5,000 to provide camp experiences for children with special needs. This will be done offsite, but also may be offered at the Take A Break Program;
2. Aging Partners received \$10,000 to provide respite services for 25 families in 8 counties in Southeast Nebraska;
3. The Nebraska State Stroke Association received \$5,000 and partnered with Southeast Respite Network to educate the public about strokes and to increase awareness of respite needs; and
4. YWCA Respite Program used \$5,000 to provide emergency Respite. These funds are utilized when other sources of funding cannot be secured.

SOUTHWESTERN SERVICE AREA

The Southwest Service Area utilized the special funds to increase the availability of respite services and caregiver support programs. The following agencies received funding:

1. Family Resource Center – McCook received \$6,145.84 to provided a Family Day Out for families with children who have special needs and their siblings. They also created a resource center for families with educational toys and tool families can borrow and learn from;
2. Ladybug Crossing Daycare - North Platte, received \$3350 to updated daycare equipment for children with special needs which increased their safety and accessibility;
3. Community Outreach Services – North Platte, Ogallala, received \$8842.16 to provide respite for parents and activities for youth 9-12 with verified disabilities;
4. Kingdom Kids Christian Daycare– McCook received \$5,170 to made the facility accessible and purchased educational items for children with special needs; and
5. Ogallala/North Platte Autism Support Group received \$1492 to provide respite for support meetings for parents/caregivers of children with ASD in Ogallala or North Platte and to host Parents Day Out activities.

WESTERN SERVICE AREA

The Western Respite Service Area utilized the special funds to increase the availability of respite services and caregiver support programs.

1. Respite Days Program received \$17,000. Respite Days offers families 8 hours of respite six times each year. Providers must have a background check on file to be paid. A family maximum of \$100.00 is allowed with this program. Generally Respite Days are scheduled around holidays;
2. FUN Days Program received \$5,000. FUN Days brings children with disabilities and their brothers and sisters together for a day of fun. FUN Days are offered in Chadron, Sidney and Scottsbluff once a year. One respite day this past year was funded by the Chadron Elks Club; and
3. Emergency Respite received \$ 3,000 in funds. These funds are utilized when other sources of funding cannot be secured and typically used as a result of such things as the caregiver being hospitalized.

ATTACHMENT B

Department of Health & Human Services



**Annual Report on the Public Health Portion
of the Nebraska Health Care Funding Act (LB 692)**

**Presented to the Governor of the State of Nebraska
and the Health and Human Services Committee of the
Legislature**

**Office of Community Health and Performance Management
Division of Public Health
Nebraska Department of Health and Human Services**

December 1, 2010

The Nebraska Health Care Funding Act (LB 692) was passed in 2001. This Act provides funds to local public health departments to implement the ten essential services and the three core functions of public health. The Act also requires all of the eligible local public health departments to prepare an annual report each fiscal year. The reports identify which programs and activities were funded under each of the ten essential public health services.

This report provides a summary of the key findings from each of the 18 local public health departments that have received funding and covers the period July 1, 2009 to June 30, 2010. The report is divided into three sections. The first section reviews the organizational coverage as well as the funding and spending levels for each department. The second section describes the current activities, services, and programs provided by the departments under each of the ten essential public health services. The final section contains some short stories that describe how the departments are improving the lives of people in their communities.

Organizational Coverage

As of June 30, 2009, a total of 18 local public health departments covering 86 counties were eligible to receive funds under the Health Care Funding Act. The list of eligible public health departments and their affiliated counties is shown in Table 1 and Figure 1. Although Dakota and Scotts Bluff Counties have single county health departments, these departments do not meet the eligibility requirements of the Health Care Funding Act. Staff from the Office of Community Health and Performance Management continues to work toward the goal of having all counties covered by a local public health department under the LB 692 umbrella. During the period that the report covers, West Central District Health Department covered 8 counties. Beginning July 1, 2010, Sandhills District Health Department separated from West Central District Health Department.

Funding and Expenditure Levels

Table 2 depicts the amount of infrastructure and per capita funds distributed to each of the eligible departments. The total amount of funds ranged from \$1,223,102 for the Douglas County Health Department to \$274,948 for the Northeast Nebraska Public Health Department. The table also includes the amount of LB 1060 funding distributed to each department, which totaled \$100,000 per department. The amount of infrastructure funding was based on the 2000 Census population of the area. The departments that had 100,000 people or more received \$150,000. If the population was between 50,000 and 99,999, the amount of funding was \$125,000, and departments that had 30,000 people but fewer than 50,000 received \$100,000. Per capita funds were distributed at approximately \$2.00 per person.

Table 3 summarizes the expenditures by category for the 18 local public health departments that were eligible for funding. As expected, expenses for personnel and benefits accounted for approximately 57 percent of the total expenses. The next largest spending category was equipment and construction expenses which represented about 8 percent of the total expenses. Many of the departments purchased more permanent office space this past year, which accounts for the equipment and construction expenses. The total LB 692 funds spent during this fiscal year was greater than the total funds received because local public health departments reported their funds that were carried over from the previous fiscal year in their reports. Additionally, the total LB 1060 funds spent during this fiscal year was less than the total funds received because departments carried over funds into the current fiscal year.

Leveraging Other Funds

Although funds from the Nebraska Health Care Funding Act serve as the financial foundation for the local public health departments, all of the departments have been very successful in leveraging other funds. For example, federal grant funds have been passed through the state health department to local public health departments for emergency preparedness planning, public education efforts related to West Nile Virus and the Clean Indoor Air Act, Preventive and Maternal and Child Health block grants, and radon testing. Some departments have also received grant funds from private foundations and directly from the federal government. It is estimated that the total amount of additional funds that have been leveraged since July 2002 is well over \$24 million.

Table 1

**Local Public Health Departments funded under the
Nebraska Health Care Funding Act (LB 692)**

NAME	COUNTIES
Central District Health Department	Hall, Hamilton, Merrick
Douglas County Health Department	Douglas
East Central District Health Department	Boone, Colfax, Nance, Platte
Elkhorn Logan Valley Public Health Department	Burt, Cuming, Madison, Stanton
Four Corners Health Department	Butler, Polk, Seward, York
Lincoln-Lancaster County Health Department	Lancaster
Loup Basin Public Health Department	Blaine, Custer, Garfield, Greeley, Howard, Loup, Sherman, Valley, Wheeler
North Central District Health Department	Antelope, Boyd, Brown, Cherry, Holt, Keya Paha, Knox, Pierce, Rock
Northeast Nebraska Public Health Department	Cedar, Dixon, Thurston, Wayne
Panhandle Public Health District	Banner, Box Butte, Cheyenne, Dawes, Deuel, Garden, Kimball, Morrill, Sheridan, Sioux
Public Health Solutions District Health Department	Fillmore, Gage, Jefferson, Saline, Thayer
Sarpy/Cass Department of Health and Wellness	Cass, Sarpy
South Heartland District Health Department	Adams, Clay, Nuckolls, Webster
Southeast District Health Department	Johnson, Nemaha, Otoe, Pawnee, Richardson
Southwest Nebraska Public Health Department	Chase, Dundy, Frontier, Furnas, Hayes, Hitchcock, Perkins, Red Willow
Three Rivers Public Health Department	Dodge, Saunders, Washington
Two Rivers Public Health Department	Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney, Phelps
West Central District Health Department ^a	Arthur, Grant, Hooker, Keith, Lincoln, Logan, McPherson, Thomas

^a In July 2010, the West Central District Health Department reorganized and now covers Lincoln, Logan, and McPherson counties. Arthur, Grant, Hooker, Keith, and Thomas are covered by Sandhills District Health Department, which is not eligible for funding through LB 692.

Figure 1. Map of Nebraska's Local Health Departments

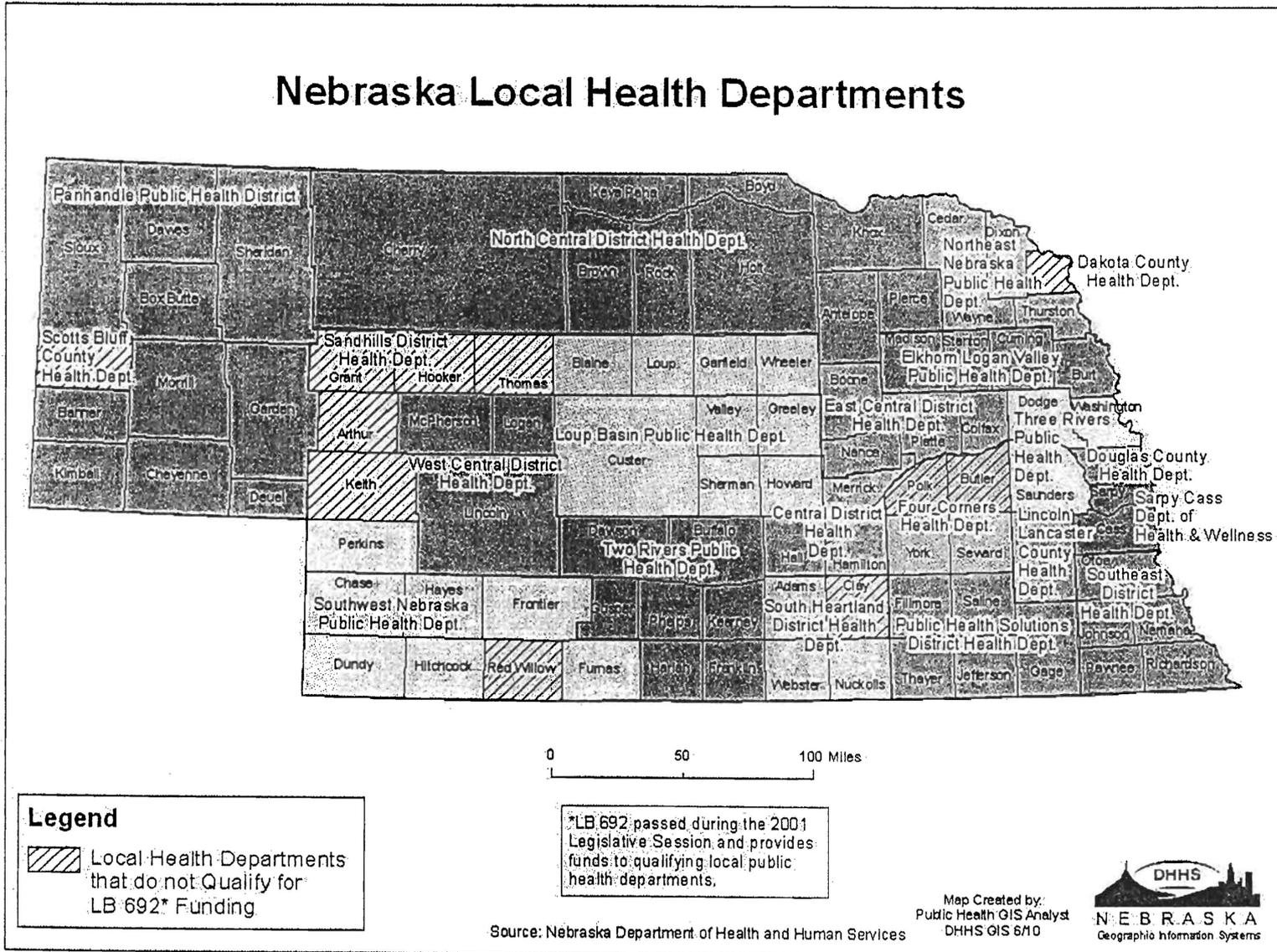


Table 2
LB 692 and LB 1060 Health Department Payments
July 1, 2009 – June 30, 2010

District Name	Infrastructure	Per Capita	LB 1060	Total	Population
Central District	\$125,000	\$148,384	\$106,167	\$379,551	72,447
Douglas County	\$150,000	\$966,935	\$106,167	\$1,223,102	482,112
East Central	\$125,000	\$109,295	\$106,167	\$340,462	51,325
Elkhorn Logan Valley	\$125,000	\$124,469	\$106,167	\$355,636	59,548
Four Corners	\$100,000	\$94,903	\$106,167	\$301,070	45,105
Lincoln-Lancaster	\$150,000	\$522,051	\$106,167	\$778,218	261,545
Loup Basin	\$100,000	\$69,085	\$106,167	\$275,252	32,340
North Central	\$125,000	\$106,550	\$106,167	\$337,717	48,941
Northeast Nebraska	\$100,000	\$68,781	\$106,167	\$274,948	52,129
Panhandle	\$125,000	\$111,504	\$106,167	\$342,671	87,917
Public Health Solutions	\$125,000	\$120,679	\$106,167	\$351,846	57,761
Sarpy/Cass	\$150,000	\$306,461	\$106,167	\$562,628	161,644
South Heartland	\$100,000	\$98,674	\$106,167	\$304,841	46,400
Southeast District	\$100,000	\$83,594	\$106,167	\$289,761	38,844
Southwest District	\$100,000	\$70,103	\$106,167	\$276,270	32,514
Three Rivers	\$125,000	\$155,954	\$106,167	\$387,121	76,015
Two Rivers	\$125,000	\$193,468	\$106,167	\$424,635	93,550
West Central	\$100,000	\$99,110	\$106,167	\$305,277	47,077
Total	\$2,150,000	\$3,450,000	\$1,911,000	\$7,511,000	1,747,214

Table 3

**LB 692 Local Public Health Departments
July 1, 2008—June 30, 2009 Expenses**

Departments:	LB 692 Local Public Health Departments	
Total Funds Received (LB 692):	\$5,600,000	}
Total Funds Received (LB 1060):	\$1,911,000	
		\$7,511,000
Total Funds Spent (LB 692):	\$6,159,042 ^b	}
Total Funds Spent (LB 1060):	\$1,519,772 ^c	
		\$7,678,814
Budget Period:	July 1, 2009 – June 30, 2010	

Line Items	Expenses	
	LB 692	LB 1060
Personnel	\$2,712,503	\$801,357
Benefits	\$792,115	\$150,419
Travel	\$135,539	\$25,957
Office Expense/Printing	\$480,986	\$162,363
Communications/Marketing	\$151,242	\$27,234
Equipment/Construction	\$495,320	\$83,087
Contractual	\$366,898	\$119,745
Public Health Programs	\$406,280	\$53,264
Other	\$618,159	\$96,346
Total	\$6,159,042	\$1,519,772
	<div style="border-top: 1px solid black; width: 100%; margin-top: 5px;"></div> \$7,678,814	

^b The total LB 692 funds spent during this fiscal year was greater than the total funds received because departments reported their funds that were carried over from the previous fiscal year in their reports.

^c The total LB 1060 funds spent during this fiscal year was less than the total funds received because departments carried over funds into the current fiscal year.

Current Activities

The activities and programs of the local public health departments are summarized under the three core functions of assessment, policy development, and assurance as well as the associated ten essential services. The ten essential services of public health provide a working definition of public health and a guiding framework for the responsibilities of local public health systems. These functions and services are specifically referenced in the 2001 Health Care Funding Act.

During the fiscal year July 1, 2009 to June 30, 2010, considerable progress was made in the provision of the core functions and ten essential services. During this year, every health department demonstrated significant improvement in both number and complexity of activities and programs. At this point, all health departments are providing the core functions and all of the ten essential services. Because of the large number of activities, only a few examples are provided under each of the ten essential services so that the report does not become too lengthy. However, the individual reports are available upon request.

Core Function—Assessment

Essential Service 1: Monitor Health Status to Identify and Solve Community Health Problems

This service includes correct identification of the community's health problems and emergencies; review of health service needs; attention to health problems of specific groups that are at higher risk than the total population; and collaboration to manage shared information systems with other health care providers.

- Over the past ten years, all 18 local public health departments have conducted a comprehensive community health assessment process. Beginning in 2009, some of the local public health departments are beginning the third update of this local assessment. Departments are using the Mobilizing for Action through Planning and Partnerships (MAPP) approach to update their local public health improvement plans. This process involves a thorough review of health needs, community health risks (e.g., tobacco use, obesity levels, and environmental quality), and the ease of access of health services (e.g., insurance coverage status). This process also involves full input from a diverse group of community members and the development of local health priorities.
 - Central District Health Department completed their MAPP update from 2009 to 2010. They brought together over 45 local agencies to help set local health priorities.
 - The following health departments began working on their MAPP updates and will complete their local health plans by December 2011: Loup Basin Public Health Department, North Central District Health Department, Elkhorn Logan Valley Public Health Department, Panhandle Public Health District with Scotts Bluff County Health Department, West Central District Health Department, Southwest Nebraska Public Health Department, Four Corners Health Department, and Lincoln-Lancaster County Health Department.

- The remaining departments will work on their community assessment updates over the next two to three years.
- All local public health departments have contracted with the Department of Health and Human Services (DHHS), Division of Public Health to complete an oversample of the Behavioral Risk Factor Surveillance System survey for their districts. This will allow them to continue to monitor health data in their local areas.
 - Douglas County and Lincoln-Lancaster County Health Departments analyze their Behavioral Risk Factor Surveillance System data and provide results to their community partners. They complete special requests for data from their partners.
- Most departments are also using the TRALE health risk assessment tool. The departments make the tool available free of charge to English and Spanish-speaking community members who want to know how good or bad their health is. Each person who completes the tool receives a personalized, detailed report of their health, according to their responses.
 - In the past fiscal year, around 1,826 health risk assessments were completed by residents throughout the Three Rivers Public Health Department coverage area. Data from each of the assessments was compiled into an aggregate report, which allows Three Rivers to identify both area-wide and county specific community health problems.
 - Elkhorn Logan Valley Public Health Department completed 774 health risk assessments.
- All departments worked with staff from the Division of Public Health to track and monitor various diseases such as tuberculosis (TB), West Nile Virus (WNV), food borne illnesses, and pertussis.

H1N1 Influenza

All local public health departments came together with the DHHS Division of Public Health to track and respond to H1N1 influenza activity. The local public health departments have been working over the past 10 years to develop emergency response networks around Nebraska in order to respond to emergencies such as the influenza outbreak. While H1N1 influenza did not turn out to be as lethal as initially feared, the systems were in place to track the development of the outbreak and provide vaccine to Nebraskans.

Local public health departments worked tirelessly throughout the development of the H1N1 pandemic to make sure that schools, businesses, medical providers, and communities had the latest and most accurate information that was available as the understanding of the disease progressed. Countless hours were devoted to monitoring the disease, informing health care and community partners, and distributing vaccine to the Nebraskans who were most at risk.

- All departments participate in a statewide school surveillance program to monitor and report absences due to illness (e.g., flu and asthma). This system allows state and local health officials to respond more promptly to disease outbreaks. The departments are also working with the infection-control nurses in hospitals to identify patients with influenza-like illnesses. This activity allows them to work with local businesses and the community at large to make appropriate disease prevention recommendations.
 - For example, East Central District Health Department contacts 51 schools weekly during the school year to determine the number and percentage of students who are out ill in any given week. The Sarpy/Cass Department of Health and Wellness contacts 68 schools within their two counties. During peak H1N1 influenza periods in the fall of 2009, the surveillance was done daily.
- Most of the local public health departments make local data available to the public on their websites, giving their community partners access to the information (See Appendix A for a list of health departments and their websites).
 - In an effort to improve the health information available to community partners, the departments are working with the Division of Public Health to create a new web system for displaying health data. Lincoln-Lancaster County Health Department is taking the lead by creating the system and the Division of Public Health provides the data.
- Staff at the Two Rivers Public Health Department conducted face-to-face surveys in seven of their counties. Besides informing the residents of programs and services that the department offers, the staff was able to discuss health-related concerns and record comments. The comments were used to make sure the work that the department is doing matches residents' expectations.
- Staff from the Loup Basin Public Health Department participated in the Division of Public Health Maternal and Child Health statewide needs assessment and the Children with Special Health Care Needs state assessment. Their input helped shape statewide priorities in these health areas.
- The local public health departments are working with the Division of Public Health to promote school-based surveys that collect data about the health of young Nebraskans. The departments work with their schools to explain the needs and benefits of collecting data in the Youth Risk Behavior Survey, the Risk and Protective Factor Student Survey, and the Youth Tobacco Survey.
 - North Central District Health Department and Elkhorn Logan Valley Public Health Department are paying for an oversample of the Youth Risk Behavior Survey in their districts to collect data that represent all of the youth in their district.
- South Heartland District Health Department has completed a number of assessments over the past year including survey of pharmacies to determine whether there were shortages of antiviral medication in the district during the H1N1 pandemic and a survey of all primary care facilities, pharmacies, and hospitals to determine the typical number of seasonal influenza

shots given. This helped the department coordinate vaccine distribution efforts in their region.

- Several local public health departments formed Colon Cancer Coalitions over the past year. The coalition members analyzed data obtained from the Division of Public Health on colon cancer occurrence, death, and screening rates. The coalitions then decided on strategies to improve screening rates in their regions.
- At Elkhorn Logan Valley Public Health Department, the Health Educator works with the local schools to complete the School Health Index tool developed by the Centers for Disease Control and Prevention, to analyze the strengths and weaknesses related to health of the selected schools. Upon completion, the Health Educator assists the schools in developing an action plan based on their needs and priority areas. West Central District Health Department and the Sarpy/Cass Department of Health and Wellness are also working with some schools to complete the School Health Index.
 - The West Central District Health Department completed the School Health Index process at Madison Middle School in North Platte. One of their successful health improvement programs is the Backpack Program. The program provides over 200 students in need with nutritious food to take home for the weekend, including fresh fruits and vegetables. In fall of 2010, Madison will adopt a school policy prohibiting food and drinks from being used as a punishment or reward in school. This is a public health best practice.
- Southeast District Health Department partners with other local agencies to provide Growing Great Kids in Otoe County, a program that provides prenatal parenting education and provides support for home visits up to age three. A screening process is completed to make referrals to the program. Southeast District Health Department also started a skin cancer screening program focused on farmers and their families.
- Northeast Nebraska Public Health Department monitors the child, fetal, and infant death rate in their region through the Child-Fetal Infant Mortality Review process (C-FIMR). Northeast Nebraska has a child, fetal, and infant death rate that is higher than the state rate. A team reviews the data to determine how deaths can be prevented in the future. Another team works with service agencies to determine how to work with families at risk for child deaths.
- The Panhandle Public Health District completed a number of assessments over the past year, including suicide prevention, child well-being, colon cancer coalition, and injury prevention assessments.

Essential Service 2: Diagnose and Investigate Health Problems and Health Hazards in the Community

This essential service includes the identification of emerging health threats; the ability of public health laboratories to conduct rapid screening and high volume testing; and ability to investigate disease outbreaks and identify patterns of chronic disease and injury.

- The 2009 H1N1 Influenza Outbreak provided the opportunity to evaluate all of the local public health departments' ability to run expanded surveillance activities for an extended period of time. They monitored school absences due to illness, hospital inpatient and outpatient influenza-like illnesses (ILI), and laboratory testing. They also examined the local retail and hospital pharmacy inventory of antiviral medications and the typical number of seasonal influenza vaccinations administered by various providers in the district. Many of the smaller departments learned that, with a small staff, they have difficulty sustaining the level of activity required to monitor and respond to the outbreak without eliminating or delaying their response to other, lower priority surveillance activities.
- All local public health departments continue to participate in the National Electronic Disease Surveillance System (NEDSS). The system is designed so that state and local public health departments as well as the Centers for Disease Control and Prevention can monitor and assess disease trends and guide prevention and intervention programs. The local health department staffs are the foundation of the system and can intervene more quickly when there is a communicable disease or food borne illness outbreak.
 - Over the past ten years, Lincoln-Lancaster County Health Department investigated and contained nine major outbreaks of gastrointestinal illness that originated in child care settings. These outbreaks negatively impact the community, including many days of missed work and missed school, and medical costs in the range of \$500,000 to \$1,000,000. Nebraska Health Care Funding Act dollars have made it possible to reduce the frequency of outbreaks and number of children and families negatively impacted.

Investigation of tuberculosis

One of the more serious health issues that Elkhorn Logan Valley Public Health Department responded to was a case of active tuberculosis. This case was unique because there was potential for wide-range exposure to the public since the index case was symptomatic for several weeks prior to seeking medical care. After the case was confirmed, the department worked with the Division of Public Health on the process of tracing contact with others. Over 30 potentially exposed people were followed and tested after their contact to the index case. The individual was hospitalized until they could safely be out in public without posing a health threat. The patient was discharged after an 11-week hospitalization. The health department worked with the patient on discharge instructions and to arrange Direct Observation Therapy, where the health department staff observes the patient taking their medication. Representatives from the Centers for Disease Control and Prevention made a site visit to Elkhorn Logan Valley Public Health Department in May 2010 in recognition of their good work.

- Many departments investigated a variety of nuisance problems, including mold, property concerns, animals, and garbage.
 - During the floods in spring 2010 around the state, the departments responded by providing water test kits and tetanus vaccinations, and investigating reports of mold.
- Most departments conducted numerous disease investigations for a variety of health concerns, including rabies, tuberculosis, sexually transmitted infections, West Nile Virus, and E. coli. Often the health department nurse provided follow-up with case management or appropriate educational information.

Investigation of botulism

Elkhorn Logan Valley Public Health Department staff investigated a case of botulism in Madison County, which left the patient temporarily paralyzed. Botulism occurs when toxins produced by bacteria poison the body. Toxins can be found in contaminated food or they can enter the body through an open wound. The patient did not respond to the normal treatment for botulism, so the doctors sent a sample of her spinal fluid to the Centers for Disease Control and Prevention. Researchers determined that the client had a rare form of botulism. The CDC flew the antitoxin to Omaha, and it was delivered to the hospital by the Nebraska State Patrol through collaboration with Elkhorn Logan Valley Public Health Department. The patient slowly recovered after given the antitoxin. The health department staff followed and investigated the case until the patient recovered.

- Local public health departments are a key element of local emergency response in disaster situations. The departments bring together key stakeholders to hold periodic emergency response exercises to test preparedness plans.
- Many departments provided follow-up education and inspection of non-compliance complaints regarding the Clean Indoor Air Act that went into effect in 2009. Few complaints were logged statewide, but those that were required follow-up.
- This year the Nebraska State Fair moved to Grand Island. The Central District Health Department worked to assure that food and beverages at the fair were safe for consumption, visitors were not exposed to West Nile Virus, and visitors protected themselves from exposure to too much sun. Environmental health staff from the department met early and often with state fair planners to ensure that vendors had the appropriate permits and training. They inspected each vendor booth to determine that all food safety requirements were met.

Response to high rates of sexually transmitted infections (STIs)

The rates of chlamydia and gonorrhea in Douglas County are higher than state and national averages. Funding from LB 692 to the Douglas County Health Department has made it possible to raise community awareness of STIs and to support collaborative activities to address the problem. The health department provides STI testing to the community with trained staff funded through LB 692. Staff also notifies community members who have been tested if they have been diagnosed with an STI. They notify them of the infection and facilitate appropriate treatment. The staff notifies sexual partners of their potential exposure to an STI.

Essential Service 3: Inform, Educate, and Empower People about Health Issues

This essential service involves social marketing and targeted media communication; providing health information resources to communities; active cooperation with personal health care providers to reinforce health promotion messages and programs; and joint health education programs with schools, churches, and worksites.

Nebraska's local public health departments are constantly providing information to the public on ways to become and stay healthy. It is the job of the local health department to help both health professionals and the general public to stay informed on how to make healthy choices.

- All departments provided educational information about public health issues—ranging from radon and hand washing to dental care and the benefits of physical activity—to community members and organizations, including local board of health members and county boards.
- Many local public health departments provide health information to community members through a weekly radio spot or newspaper article.
 - Communication with the public was especially important this past year with the H1N1 pandemic in the fall of 2009 and the flooding that occurred in the spring of 2010. Local public health departments coordinated local education efforts and provided up-to-date information during these emergencies.
- The Douglas County Health Department has responded to the community's culturally diverse health needs through the Community Health Worker (CHW) Program for the past eight years. CHWs are trusted community members who connect with peers and establish vital links to health professionals, services, and resources. Two CHWs are partially funded through LB 692 funds. These Sudanese and Hispanic Community Health Workers are primarily charged with providing their respective populations with information on nutrition, lead poisoning prevention, maternal and child health, and hygiene. As the need arises, additional education including safe food storage and handling, domestic violence, smoking, safe housing, infant safe sleep practices, asthma, and dental health is provided.
- Panhandle Public Health District, Loup Basin Public Health Department, and Lincoln-Lancaster County Health Department are working to help local businesses create wellness programs. These departments use a process that includes a review of health, a review of business priorities, a written wellness plan, and implementation of the plan. They provide technical assistance and evaluation help to the businesses. Panhandle is working with 28 worksites, including county governments, to create a culture of health at their worksites. Panhandle is a recipient of the Governor's Excellence in Work Site Wellness Award. Lincoln-Lancaster works with their local worksite wellness council, WorkWell, to provide education and assistance to over 122 local businesses.
- All departments provided educational information to local businesses about the Nebraska Clean Indoor Air Act of 2008 which required indoor workplaces in Nebraska to be smokefree as of June 1, 2009. This Act protects public health and welfare by prohibiting smoking in public places and places of employment.

- The Southwest Nebraska Public Health Department sponsored events at seven amateur rodeos during county fairs promoting tobacco free messages.
- Seventeen departments are working to make their regions healthier through a Healthy Communities program. The departments use a health improvement program to address one of their local health priorities. The programs focus on making improvements to health with policy and environmental changes. They address heart disease, stroke, diabetes, injury, cancer, and the risk factors for these health problems (i.e., poor nutrition, physical inactivity, and tobacco use).
 - The East Central District Health Department has completed the third year of their PACE (Physical Activity Comes Easy) campaign. Many citizens have heard about the benefits of physical activity and that they should be walking, or engaging in another activity of their choice, for a minimum of 30 minutes a day, five days a week.
 - The Northeast Nebraska Public Health Department has completed the second year of their Health Literacy Project. The project helps medical providers and other organizations help their patients to understand complex medical conditions and treatment in the simplest possible way. The *Ask Me Three* campaign is part of the project and it is designed to help improve communication between patients and their medical providers. Patients are encouraged to ask these three questions at an appointment or when picking up a prescription: 1) What is my main health problem; 2) What do I need to do about it; and 3) What happens if I do not take care of the problem?
 - Two Rivers Public Health Department has been working with the Holdrege, Lexington, Alma, and Southern Valley Public School Systems to adopt a school employee wellness program: *Winners of Wellness*. The department works with staff members to complete a health assessment, and with the school to implement health improvement programs.

Core Function—Policy Development

Essential Service 4: Mobilize Community Partnerships to Identify and Solve Health Problems

This essential service involves bringing community groups and associations together, including those not typically considered to be health-related, to help solve health problems; and building coalitions to draw upon the full range of potential human and material resources.

- Nebraska's local public health departments are very good at bringing key people together to address local health problems. The departments convene or participate in coalitions addressing topics such as tobacco, colon cancer, suicide, oral health, physical activity, and behavioral health.
- The departments continue to maintain their preparedness for public health emergencies. They participate or lead emergency planning and training meetings every month. A number of table top exercises have been completed that involve the health department, schools, hospitals, emergency medical services, law enforcement, and local businesses.
- All local public health departments are involved in their regional medical response systems. The purpose of the medical response systems is to bring together hospitals, public health, fire, law enforcement, emergency management, behavioral health, EMS, government entities, and community organizations for an integrated medical response to any disaster that threatens the health and well-being of the public. The systems facilitate communication and cooperation among members to enhance planning, prevention, response, and recovery efforts, whether the disaster is natural, manmade, biological, or terrorist in nature.
- The Lincoln-Lancaster County Health Department started a project to determine how walkable Lincoln's neighborhoods are. The department is working with the City Planning Department, Public Works, the Mayor's Office, and Lincoln Parks and Recreation. The department will develop improved pedestrian and bike routes to school for the Safe Routes to School Program and identify needed improvements around the city such as missing sidewalks and needed crosswalks.

Tobacco Free Coalition Efforts

The East Central District Health Department coordinates the efforts of the Tobacco Free Platte and Colfax Counties coalitions. These community-based coalitions work to prevent young people from starting tobacco use and to promote smoke-free environments. The Colfax County Coalition worked with Cargill Meat Solutions in Schuyler to help them become smokefree.

On July 20, 2010, Cargill Meat Solutions in Schuyler was presented with an award by Tobacco Free Nebraska and recognized by a representative from the Centers for Disease Control and Prevention for their outstanding efforts in tobacco prevention which will impact other Cargill plants worldwide. Cargill is one of the largest privately-held companies in the US with over 160,000 employees in 76 countries. The Schuyler plant has approximately 2,100 employees.

The tobacco prevention efforts in the Schuyler plant include a Quit Tobacco Program, health fair booths, smoke free vehicle events, Great American Smoke Out, preparation for the state smokefree air law, and a celebration to commemorate the first year anniversary of Smoke Free Cargill. 75 employees have enrolled in the Quit Tobacco Program to date. One employee commented, "...my grandkids like to give me a kiss now as I do not stink of tobacco like I used to. So, thank you to Cargill for helping me get it done!"

As a result of the careful planning and successful transition to a smokefree facility, the Schuyler plant has been recommended by Cargill as a model blueprint for other Cargill facilities to become smokefree. The work in Schuyler will impact other Cargill plants worldwide. The work done by Cargill and the Tobacco Free Colfax County Coalition is a great example of thinking globally and acting locally in tobacco control.

Essential Service 5: Develop Policies and Rules that Support Individual and Statewide Health Efforts

This essential service requires leadership development at all levels of public health; regular community-level and state-level planning for health improvement; tracking of measurable health objectives as part of continuous quality improvement strategies; and development of codes, regulations and legislation to guide the practice of public health.

- All departments are continuously updating their emergency preparedness and pandemic influenza plans. The response plans include guidelines for early detection, response and notification, risk communication, environmental safety, quarantine and isolation, and mass vaccination/dispensing clinics. They conduct exercises to test various components of the plans.
 - Loup Basin Public Health Department developed a new tetanus vaccination policy in order to address future flooding experiences.
- Most local health directors advocate for needed health policy changes at the local level by helping to draft ordinances and meeting with the appropriate officials.
 - The Four Corners Health Department and Board of Health distributed information about the benefits of fluoridating public water systems. The Board of Health made a resolution backing the public health benefits of fluoride, and the Board dentist wrote and published an editorial to assure that the public had the facts on the benefits of fluoridation.
 - The Southeast District Health Department has worked with the Southeast Drug Taskforce to pass regulations associated with methamphetamine labs. They are working in two communities to develop ordinances to appropriately clean up methamphetamine labs.
- Most of the departments have completed a review of the Nebraska Standards and Measures Assessment which is based on the ten essential services of public health. The departments compare the work that they are doing to national standards about how health departments should operate and what they should do. The departments use the results in their strategic planning efforts. They will continue to work to improve their accountability by measuring their performance and outcomes and making necessary changes to improve the quality of work that they do.
- South Heartland District Health Department researched regulations, building codes, and model policies regarding radon and developed an action plan to work toward radon resistant new construction practices.
- North Central District Health Department participates in meetings coordinated by the local educational service unit regarding the development of school wellness policies.

Core Function—Assurance

Essential Service 6: Enforce Laws and Regulations that Protect Health and Ensure Safety

This essential service involves enforcement of clean air standards and sanitary codes; and timely follow-up of hazards, preventable injuries, and medical services.

- Local public health departments continue to conduct inspections for compliance with Nebraska's Clean Indoor Air law. Along with inspections, the departments help raise awareness of the requirements by providing educational materials to businesses.
 - South Heartland District Health Department and Two Rivers Public Health Department each investigated 11 reports of smoking violations. In the first visit, the departments used an educational approach and provided information about the requirements of the Clean Indoor Air law. They worked with law enforcement if necessary to enforce compliance.
- Local public health departments respond to nuisance complaints about mold and other problems. The departments work with local law enforcement to ensure that the problems are addressed.
- The Sarpy/Cass Department of Health and Wellness conducted inspections of public swimming pools in their counties. Under the guidance of the DHHS Swimming Pool Program, Sarpy/Cass staff inspected 24 swimming pools for compliance with Nebraska Regulation Title 178, Chapter 2 (Operation and Management of Public Swimming Pools).
- The Three Rivers Public Health Department and other departments provide child car seat installation checks by a certified car seat inspector.
- The Lincoln-Lancaster County Health Department Division of Environmental Public Health enforces laws and functions as a regulatory entity on issues concerning food safety, solid waste, water, and air quality. Over the past year, there were 128 incidents involving hazardous materials.

Essential Service 7: Link People to Needed Medical and Mental Health Services and Assure the Provision of Health Care when Otherwise not Available

This essential service includes assuring that socially disadvantaged people have a coordinated system of clinical care; culturally and linguistically appropriate materials and staff are available to link to services for special population groups; and targeted health information is available for high risk population groups.

- All local public health departments receive calls from community members requesting assistance for medical, dental, and mental health services. The departments refer the individuals to the appropriate clinic or agency.
- Several departments either directly provided or contracted with other agencies to expand funding for public immunization programs. They also provided other health screenings including cholesterol and blood pressure screenings.
- Several departments continue to expand and maintain dental services for residents with lower incomes. For example, the West Central District Health Department established a mobile dental clinic that travels to schools within the region twice per year, providing education and preventive dental services to children in need. A dentist, dental hygienist, and dental assistant travel with the unit. Through the mobile dental unit, 3,419 visits were made. Many other departments continue to participate in Dental Day with the UNMC College of Dentistry by providing care to unserved and underserved children.
 - The Douglas County Health Department Dental Clinic provided dental care to 1,071 patients.
- Douglas County Health Department continues to battle against chlamydia and gonorrhea rates that are significantly higher than state and national rates. The Douglas County Health Department sexually transmitted disease (STD) clinic provides both testing and treatment for STDs and works to serve the population most affected by them.
- Two Rivers Public Health Department continues to provide a dental program for high risk, underserved young children and pregnant mothers in their District. Several pilot projects were funded in their area that target high risk Moms and young children through dental health education, preventive dental supplies, fluoride varnish, use of xylitol chewing gum, development of a surveillance and tracking assessment instrument and other similar projects. Dental Hygienists with certification in public health are contracted to provide preventive services and education. Over 1,500 children and 450 adults have been served by this program.
- All departments are improving access to care for Medicaid and Kids Connection clients through the Public Health Nurse program (PHN), which is operated through a contract with the state Medicaid office. The program is designed to increase access to health care services for individuals eligible or potentially eligible for Medicaid or Kids Connection by helping them to find a medical, dental, or vision home. The PHN nurse assists individuals with the application process, provides education on accessing medical care, and identifies barriers to receiving care and overcoming those barriers.

Public Health Nurse Success Stories

Due to a problem appointment follow-up, the Northeast Nebraska Public Health Department Public Health Nurse had contact with a young woman with multiple mental health diagnoses. She was having challenges in taking her medications and was searching for resources. The Nurse, through case management activities, connected her with Magellan and ultimately counseling and a community support worker. This woman has now found services through an adult mental health day program and also has found new living arrangements where someone will help her with her medications and her life skills.

- Central District Health Department provides daily WIC clinics with an average monthly enrollment of approximately 2,700 families. These families receive vouchers for healthy foods, as well as useful education on childhood nutrition for proper growth and development. As appropriate, WIC staff members educate clients regarding the benefits of breast feeding babies. Additionally, breast feeding peer counselors provide support and assistance to mothers who choose to breastfeed.

Essential Service 8: Assure a Competent Public Health and Personal Health Care Workforce

This essential service includes assessment of workforce to meet community needs for public and personal health services; maintaining public health workforce standards; and adoption of continuous quality improvement and life-long learning programs for all members of the public health workforce, including opportunities for formal and informal public health leadership development.

- Staff members from local public health departments attended a variety of training sessions and conferences to increase their knowledge of public health in the past year. These included emergency preparedness, chronic disease prevention, and health surveillance. When possible, the Telehealth videoconferencing system or webinar is used for trainings to save on travel costs.
- Health department staff provided many educational materials, information, and training to other members of the public health workforce.
 - Panhandle Public Health District coordinates the Training Academy for several organizations in western Nebraska. The department provides marketing, registration processing, contracting with instructors, contact hours, college credit and other arrangements necessary to make trainings available. Ninety-two trainings were held in the past year, with 2,525 students completing a total of 16,537 contact hours.
 - Several departments are participating in a statewide effort to bring a coordinated Medical Reserve Corps to all of Nebraska's counties. The Corps is made up of volunteers to assist in public health emergencies. The departments help recruit and train volunteers.
 - Many local public health departments are also working with the School Health Telehealth system which provides continuing education and information to school nurses and public health nurses.
 - In addition, local public health departments provide internship or practicum opportunities to local students. For example, South Heartland District Health Department provides internships for Hastings College students; Northeast Nebraska Public Health Department provides internships for Wayne State College students; and Two Rivers Public Health Department serves as a public health rotation for nursing and pharmacy students during their education. These educational opportunities help get students interested in public health and help prepare them for a future career in public health.
 - Four Corners Health Department has worked over the past year to grow the capacity of their Board of Health. The President of the Board provided leadership and education to the Board members. She received the Board of Health Member of the Year award for the Midwest region of the National Association of Local Boards of Health.
- Six local health department employees participated in the Great Plains Public Health Leadership Institute. The Institute is a one-year program developed by faculty from the University of Nebraska Medical Center, the University of Nebraska-Omaha, and the public health practice community. The program is designed to strengthen leadership knowledge, skills, and competencies in the public health workforce.

- Health Department staff members continue to keep their licenses and certifications updated. They are also pursuing educational opportunities.
 - At East Central District Health Department, one staff member obtained a Registered Environmental Health Specialist Certification, and three staff members graduated with their Bachelor's degrees in Nursing.
 - At Southwest Nebraska Public Health Department, staff members received their radon measurement and radon mitigation licenses.

Management Academy for Public Health

Two local public health departments participated in the Management Academy for Public Health at the University of North Carolina at Chapel Hill. The Management Academy prepares teams of health professionals for new management challenges in community health. It builds skills in managing money, people, data, and partnerships. Each team writes and presents a public health business plan designed to address a key public health problem in their community. A team from South Heartland District Health Department was accepted in 2009 – 2010 and a team from Lincoln-Lancaster County Health Department is participating in 2010 – 2011.

A team of six representing South Heartland District Health Department attended the Management Academy for Public Health. The team developed a plan to address mental health and substance abuse services in their rural region. Their plan proposed to integrate mental and behavioral healthcare into existing rural primary care clinics, mobilize care providers in order to serve multiple communities, and offer mental and behavioral healthcare as well as healthy living coaching into the service model.

A team of five Lincoln-Lancaster County Health Department staff and one Nebraska DHHS staff was accepted to the Management Academy for Public Health. The Academy will contribute to increased capacity and a more competent public health workforce. The health department in partnership with the local worksite wellness program, WorkWell, will develop a new program to meet the unique health needs of small businesses. The new program will provide a premium option—WorkWell Small Business—for a small annual fee. In addition to the existing WorkWell benefits, each business will receive: 1) free consultation to implement industry-focused worksite wellness plans; 2) industry-focused wellness toolkits; 3) wellness services that fit business needs; and 4) purchase agreements for health and wellness services. The team is working together to create this plan and will travel to North Carolina in April of 2011 to present the final business plan.

Both teams are developing skills in business planning for public health.

Essential Service 9: Evaluate Effectiveness, Accessibility, and Quality of Services within the Health Care Industry and Public Health Departments

This service calls for ongoing evaluation of health programs, based on analysis of health status and service utilization data, to assess program effectiveness and to provide information necessary for allocating resources and shaping programs.

- Almost all of Nebraska's local public health departments have measured their work against national standards based on the ten essential services of public health. This is an evaluation of the effectiveness and quality of services provided by local public health departments. The departments incorporate the results into their strategic planning efforts in order to improve their performance. This is part of a statewide effort that is a partnership between the local public health departments and the Division of Public Health.
- The departments consistently evaluate programs, presentations, and services that they provide to their communities. Additionally, the preparedness exercises conducted by the departments require an after action report and follow-up.
 - The Sarpy/Cass Department of Health and Wellness completed a survey of patients who received immunizations at their H1N1 clinic. The survey measured their satisfaction with the clinic and volunteers. They used the survey results to plan for other immunization clinics and to make improvements.
- The Balanced Scorecard is a tool that allows organizations to implement their strategic plan, prioritize the most important strategies, develop action plans, measure results, and communicate to their employees and the Board of Directors both what is important and how their roles fit into making it happen. The Panhandle Public Health District uses the Balanced Scorecard as a tool for performance measurement and prioritization.
- The East Central District Health Department and Lincoln-Lancaster County Health Department implemented an Electronic Medical Record (EMR) system that has enabled staff to integrate the provision of care which improves the quality and safety of patient management. The EMR lets the departments collect data on workflow and efficiency, and helps them determine if they are meeting performance standards and improving quality.
- Several departments participated in a statewide project with the Office of Health Disparities and Health Equity that was funded through a grant with the Centers for Disease Control and Prevention for pandemic influenza preparedness. The project involved identifying and recruiting interpreters and translators to help provide information and education in a pandemic or other emergency situation. H1N1 education, tabletop exercises, and community forums were held in specific communities around Nebraska.

Essential Service 10: Research and Gain New Insights and Innovative Solutions to Health Problems

This essential service includes linking with appropriate institutions of higher learning and research; engaging in economic and epidemiologic analyses to conduct needed health services outreach; and using evidence-based programs and best practices where possible.

- Seventeen local public health departments have received grants from the Division of Public Health to implement comprehensive evidence-based interventions that address one of their local priorities. These departments are using innovative evidence-based approaches to address health problems.
- The Nebraska DHHS Division of Public Health created a Public Health Practice-Based Research Network (PBRN) in partnership with the University of Nebraska Medical Center, College of Public Health. Several local health directors serve on the advisory committee to the PBRN. Additionally, the local public health departments are working with the PBRN to research the public health workforce in Nebraska. They have completed surveys that contribute to the study.
- The director of the Three Rivers Public Health Department helped conduct a study to determine how local public health departments are able to meet public health performance standards. He worked with professors at the University of Nebraska Medical Center, College of Public Health to complete the research.

Conclusion

During the ninth year of funding and eighth full year of operation, continuing progress has been made in the development of local public health departments throughout the state. All departments provide all of the three core functions of public health: assessment, policy development, and assurance. In addition, all departments provide all of the ten essential services. They are allocating their funds based on health needs and priorities, as determined through regular comprehensive community health planning processes. The departments have assumed a key leadership role in the coordination and planning of health services, and have been successful at bringing together local organizations to plan for emergencies such as pandemic influenza. They continue to fill in the gaps with key services. For example, the departments track and monitor infectious disease outbreaks, identify and follow up with individuals who have communicable diseases, and offer a wide variety of health improvement and disease prevention programs. Finally, there are a few areas where minimal activity is occurring, such as evaluation and research. Progress is being made in these areas as health departments evaluate their programs and activities, and collaborate with research centers to participate in various public health studies. Nebraska's local public health departments are improving their accountability by completing a comparison of their work to national performance standards. The departments identify areas for improvement, and develop activities to make changes to improve the quality of their work.

Public Health Stories

The following short stories are being included in this report to put more of a human face on public health. These stories cover a variety of issues and problems, but the common thread is that they demonstrate how public health agencies have contributed to and improved the quality of life for people in their communities.

Three Rivers Public Health Department Environmental Health Impact

In June 2009, Three Rivers Public Health Department received a call from a local pediatrician. The pediatrician had found very high levels of lead in a one-year-old child's blood system. The levels were high enough that they could cause permanent damage to the child's nervous system and overall development if the levels were to remain the same or increase. The pediatrician had asked our environmental coordinator if she would investigate the source of the lead pollution. Three Rivers Public Health Department gladly accepted the task to find the source of the lead pollution.

We arranged for a home visit with the help of an interpreter. While at the home we utilized a home lead investigation questionnaire from the Nebraska Department of Health and Human Services to thoroughly assess the probable source of lead, so that we may proceed with the clean up process. We collected samples of the tap water and soil from outside the home to be tested. Nearing the end of the questionnaire we asked about the utensils, pots, and plates that the mother used to cook and feed her child. Everything that she had shown us did not seem out of the ordinary or a potential for lead contamination. We finished the survey and talked in the kitchen for a few minutes about how we would test the samples that we had collected.

We asked one more time if there was anything ceramic that she cooked with or used to serve food. "Oh! I almost forgot!" she replied in Spanish. She pulled out a glazed ceramic pot. She said that she often used it to cook the family's beans in. We looked at the burnt and faded text on the bottom. It read, DO NOT USE FOR FOOD. We immediately asked if we could take the pot and have it analyzed. She said yes and we were on our way after we gave her information on how to reduce the lead levels.

The soil and water results came back and they were both negative for lead. We had the pot tested with an X-ray Fluorescence (XRF) machine, and when the results came back to us we were all shocked. The glaze inside the pot had such a high concentration of lead that it was out of the range of the XRF machine. We immediately called the pediatrician and explained our findings and then made a special visit back to the family's home. We explained the results and she was shocked as well. It was at that time that we presented her with a new Crock Pot that she could use to safely cook her family's food. We saved a child's life with our quick and effective actions.

South Heartland District Health Department
School Wellness Efforts

South Heartland District Health Department (SHDHD) is pleased to announce that Sutton Elementary School received an award from Nebraska Action for Healthy Kids at the Action for Healthy Kids summit on April 13, 2010. The purpose of the award is to acknowledge the creative work that Sutton Elementary School is doing to promote health in students and staff. Sutton Elementary School established a School Wellness Council whose goal is to provide a healthy environment and to instill lifelong health habits in their students. The Sutton school wellness program is one of seven in the South Heartland Health District receiving guidance through a project initiated by South Heartland District Health Department and funded by a grant awarded to SHDHD from the Nebraska Department of Health and Human Services.

The Sutton Elementary School Wellness Program's Vision is "Healthy Kids in a Healthy School." Their stated mission is "To promote the health of our students by providing a healthy environment and to instill lifelong health habits". The School Wellness Program uses Alliance for a Healthier Generation's Healthy School Program as a framework for developing a healthier school environment.

The Wellness Council, composed of teachers, dietary staff, a coach, a representative from the health department, and led by school nurse Tonya Perrien, was recognized for striving to improve student eating habits by providing a healthy breakfast at school. The breakfast program demonstrates healthy breakfast food choices and promotes the importance of eating breakfast. All of the elementary school students were able to try the breakfast items at no cost during Breakfast Week in January.

According to a 2009 Robert Wood Johnson Foundation report "F as in Fat," nearly 1/3 of American children are overweight or obese. Nebraska is slightly higher than that number, with 34.2% of our children ages 10 – 17 being overweight and obese according to the 2007 National Survey of Children's Health. Locally, data gathered by the Sutton School Wellness Council showed that in the 2009-2010 school year, 30% of Sutton elementary students were overweight or obese, with 14% being considered obese. Childhood weight problems can lead to high blood pressure, high cholesterol, diabetes, asthma, joint problems, depression, and anxiety. Sutton Elementary students are fortunate to attend a school that is working to improve their opportunities to be healthy!

Central District Health Department
A Grand Affair (and a Great Opportunity): The Nebraska State Fair!

One might not think public health has much to do with a fair, but that is not the case. Central District Health Department (CDHD) started planning for the Nebraska State Fair as soon as its new home in Grand Island was announced. As with many of our public health functions, much of what we do at the state fair is not highly visible but it is highly valuable.

Our Environmental Health Supervisor met early and regularly with State Fair organizers with a focus on food vendors. Applications for food vendor permits were made available and easily accessible on our CDHD website and at our office. CDHD Environmental Staff visited the fairgrounds during construction to review the food vendor layout and meet with fair organizers. As phone calls increased closer to fair time, Registered Environmental Health Specialists provided important information regarding the processes vendors needed to follow.

On the day before the State Fair began, Environmental Staff began the process of inspections. With a total of 67 vendors, it took several days to complete inspections of each vendor's facility. Inspectors revisited locations where they believed a second inspection was necessary to assure food was properly prepared and served. A total of 97 inspections were completed over the eleven day event. A mandatory food handler safety class was provided prior to the opening ceremony. During this class, vendors reviewed safety precautions such as assuring food temperatures were maintained, that running hot water was working properly, and that all workers observed proper hand washing technique.

Inspectors made themselves highly visible and readily available for questions and consultation throughout the fair's duration. During the process, staff maintained a focus on assuring public safety. Preventing a food borne illness outbreak does not get much media attention, but it is highly preferable to dealing with the problems that occur when contaminated food products cause an outbreak.

CDHD also took advantage of several other opportunities to address potential health issues at the fair. In partnership with the Division of Public Health and four other district health departments, we hosted a West Nile Virus educational exhibit. Educational materials were made available to the public with the idea of better preparing those attending the State Fair to "Fite the Bite!" Coincidentally, a press release related to the first human case of West Nile Virus in Hall County was released, making the "Fite the Bite!" message both timely and important.

The CDHD WIC office took the lead in developing and staffing a breastfeeding center at the state fair. New mothers welcomed a break from the hustle and bustle of the fair in this conveniently located room complete with rocking recliners and bottled water. Here in these quiet surroundings they could breastfeed and tend to their infants' needs in privacy. Amazingly, nearly 1,200 mothers and their family members visited the breastfeeding center.

CDHD also partnered in a nutritional activity for the children's area. Healthy trail mix was offered as a treat for children participating in a learning activity related to nutrition. With a total of 309,000 visitors to the State Fair, it is clear to see that there were ample opportunities for CDHD to promote and protect the health of the public. We have already begun to review our processes and outcomes so that we can be even more effective for next year's Nebraska State Fair.

Two Rivers Public Health Department
“From the Ground Down” Water Protection Project

In 2007, Two Rivers Public Health Department received a grant from the Nebraska Department of Environmental Quality (NDEQ) to implement a ground water protection project. The two main components of the grant were public education and Medication Take Back Events.

For the public education piece, we purchased two working water models. These models illustrate how groundwater can become contaminated. With these models, we have given demonstrations at schools and have had them on display at several career fairs. We also created a public service announcement with Senator Ed Schrock who emphasized the importance of preserving our groundwater. A billboard was also created to show how flushing medications may affect our drinking water.

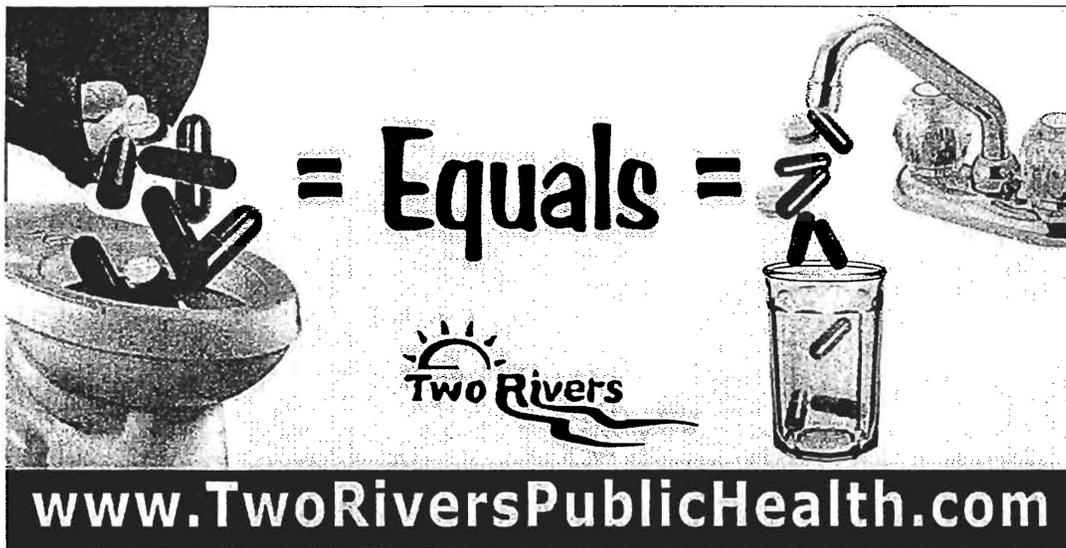
The purpose of the Medication Take Back Events is to collect and properly dispose of outdated and unused prescription and non-prescription medications. According to the Drug Enforcement Administration (DEA), only law enforcement can handle medications at the Take Back Events. Because some of our local law enforcement agencies do not have a large force with officers to spare, two members of the Two Rivers staff have become conditionally deputized in each of our counties specifically to handle the medications for the events. In addition to our staff, we have a pharmacist from a local hospital or pharmacy, and local law enforcement on sight for security purposes during the events. Collected medications go into sealed containers and are stored with a law enforcement agency until they are transported to an incinerator for destruction. The plastic pill bottles are recycled.

At the beginning of the development of the take back process, we were very fortunate to have a hospital with a medical grade incinerator which was willing to incinerate our materials. We also had an agreement with a local law enforcement agency that was willing to transport the materials. Since then, the incinerator has been taken out of service.

In researching alternatives for disposal, a few issues have arisen. The NDEQ has recently created a draft version of new regulations regarding the collection and proper disposal of medications. These new regulations further categorize medications into two categories: 1) medications that are from individuals' homes and 2) medications that come from businesses such as hospitals or clinics. These regulations clearly define which organizations are allowed to collect what types of medications and how they can be disposed.

The new regulations will make it extremely difficult for Two Rivers Public Health Department to continue hosting Medication Take Back Events. Because of this, Two Rivers has been attending Advisory meetings in Lincoln with representatives from law enforcement, waste management specialists, Nebraska Department of Environmental Quality, and the Nebraska Pharmacy Association. At these meetings, options are being investigated that would create a more permanent solution for the proper disposal of unused and outdated medications.

In the past two years, Two Rivers and our local partners have conducted 22 Medication Take Back Events and have collected and disposed of over 400 pounds of medications. This amount does NOT include packaging materials. We have held multiple events in all seven of our counties with each event bringing in more medications than the last. People are beginning to become more aware of the issue and we continue to receive numerous calls inquiring about future events. With the increased interest and heightened awareness of groundwater protection, we will continue to be involved in investigating acceptable methods to dispose of medications.



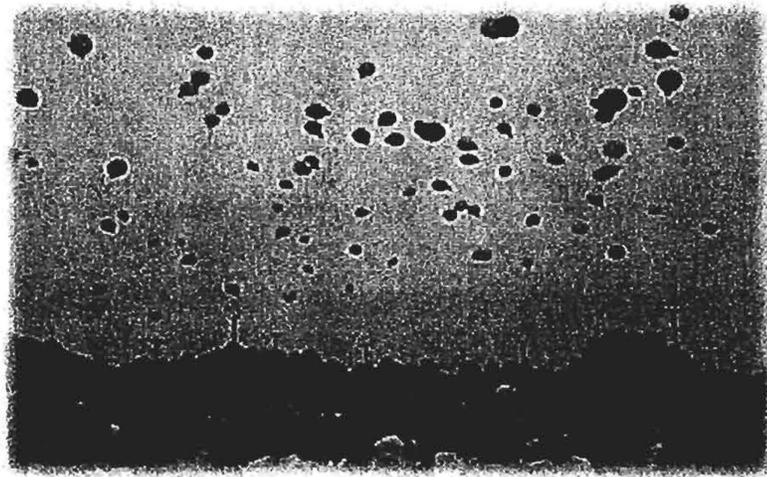
This is the Billboard we designed



Panhandle Public Health District
Out of the Darkness: Suicide Prevention

They walked arm-in-arm for more than a mile. They laughed, they cried, they prayed, they cursed.

Nearly 150 people came together to remember those who have been victims of suicide – both those who have died and those left behind – at the Out of the Darkness community walk in Alliance. This was the first of what organizers hope will become an annual event for the Panhandle, one of nearly 200 walks nationwide to help promote awareness of suicide prevention.



Those walking included families honoring their loved ones with T-shirts emblazoned with the victim's names and the date they died. Others wore bracelets, with the name of a young man who took his life this spring. All were there to remember.

Despite chilling rain the crowd started to swell by 9 a.m. Just before the walk commenced, emcee Tony Amill led the group in a prayer written by local minister William Graham. The launch of nearly 150 blue balloons gave the dreary gray sky its only touch of blue throughout the day as mist continued to dog the walkers throughout the morning.

The community awareness walk was initiated by Donna Jones, who lost her son Logan Anderson to suicide in March 2009. Many members of Jones' family joined in the walk, including members of her church. Jones thanked the walk's supporters from the event's Facebook site. She called the event "a big step to bring suicide 'out of the darkness.'"

With more than \$8,500 raised locally for the American Foundation for Suicide Prevention, Kim Engel of Panhandle Public Health District said she was very pleased by the turnout. "We thought the weather might slow people down," she said. "But the turnout was amazing and exceeded our expectations." Sponsors for the event were the Panhandle Suicide Prevention Coalition, Western Heritage Credit Union, Bank of the West, Box Butte General Hospital, Panhandle Public Health District, and the City of Alliance.

Region I Prevention Coordinator Faith Mills said there can be verbal clues when someone is considering suicide, either direct or indirect, ranging from statements such as, "I wish I were dead," to "I just want out." There may also be behavioral clues: when someone stockpiles pills, buys a weapon, starts putting their personal affairs in order or giving away prized possessions.

Depression, manifesting itself in withdrawal, sleeping a lot and eating poorly, is another major risk factor for suicide, Mills said. Region I, in cooperation with Panhandle Public Health District, offers a free training called *QPR for Question, Persuade and Refer* to any group that may be interested. *QPR*, like *CPR*, gives the common person a way to step in

when they confront someone who may be considering suicide. Risk factors for suicide also include a family history of suicide or child maltreatment, previous suicide attempts, a history of mental disorders (particularly depression) or substance abuse, feelings of hopelessness, impulsive or aggressive tendencies, cultural and religious beliefs (that suicide is a noble resolution of a personal dilemma), local epidemics of suicide, isolation, barriers to accessing mental health, loss (relationships, social, work or financial), physical illness, easy access to lethal methods such as firearms or prescription drugs and the unwillingness to seek help because of the stigma attached to mental health, substance abuse disorders or suicidal thoughts.

Earlier in the week, KCOW radio aired a two-hour special, *“Out of the Darkness – Creating Suicide Prevention Awareness.”* Copies of the interviews for the special are available for download on the radio station’s website at www.kcowradio.com.

Appendix A. Contact Information for Nebraska's Local Health Departments funded under the Nebraska Health Care Funding Act (LB 692)

Central District Health Department

Teresa Anderson, Director
1137 South Locust Street
Grand Island, NE 68801
Phone: (308) 385-5175
Website: www.cdhd.ne.gov

Douglas County Health Department

Adi Pour, Director
1819 Farnam Street, Room 401
Omaha, NE 68183
Phone: (402) 444-7471
Website: www.douglascountyhealth.com

East Central District Health Department

Rebecca Rayman, Executive Director
2282 East 32nd Avenue
Columbus, NE 68601
Phone: (402) 563-9224
Website: www.eastcentraldistricthealth.com

Elkhorn Logan Valley Public Health Department

Kathy Nordby, Director
P.O. Box 779
Wisner, NE 68791
Phone: (402) 529-2233
Website: www.elvphd.org

Four Corners Health Department

Vicki Duey, Executive Director
2101 North Lincoln Avenue
York, NE 68467
Phone: (402) 362-2621
Website: www.fourcorners.ne.gov

Lincoln-Lancaster County Health Department

Judy Halstead, Director
3140 "N" Street
Lincoln, NE 68510
Phone: (402) 441-8000
Website: www.lincoln.ne.gov/city/health

Loup Basin Public Health Department

Chuck Cone, Director
295 North 8th Avenue, P.O. Box 995
Burwell, NE 68823
Phone: (308) 346-5795
Website: www.loupbasinhealth.com

North Central District Health Department

Roger Wiese, Director
422 East Douglas Street
O'Neill, NE 68763
Phone: (402) 336-2406
Website: www.ncdhd.ne.gov

Northeast Nebraska Public Health Department

Deb Scholten, Director
117 West 3rd Street
Wayne, NE 68787
Phone: (402) 375-2200
Website: www.nnphd.org

Panhandle Public Health District

Kim Engel, Director
808 Box Butte Avenue, P.O. Box 337
Hemingford, NE 69348
Phone: (308) 487-3600
Website: www.pphd.org

Public Health Solutions District Health Department

M Jane Ford Witthoff, Health Director
995 East Highway 33, Suite 1
Crete, NE 68333
Phone: (402) 826-3880
Website: www.phsneb.org

Sarpy/Cass Department of Health and Wellness

Dianne Kelly, Director
701 Olson Drive, Suite 101
Papillion, NE 68046
Phone: (402) 339-4334
Website: www.sarpy.com/health

South Heartland District Health Department

Michele Bever, Executive Director
606 North Minnesota, Suite 2
Hastings, NE 68901
Phone: (402) 462-6211
Website: www.southheartlandhealth.org

Southeast District Health Department

Kay Oestmann, Director
2511 Schneider Avenue
Auburn, NE 68305
Phone: (402) 274-3993
Website: www.sedhd.org

Southwest Nebraska Public Health Department

Myra Stoney, Director
P.O. Box 1235
McCook, NE 69001
Phone: (308) 345-4289
Website: www.swhealthdept.com

Three Rivers Public Health Department

Jeff Kuhr, Director
33 West 4th Street
Fremont, NE 68025
Phone: (402) 727-5396
Website: www.threeriverspublichealth.org

Two Rivers Public Health Department

Terry Krohn, Director
701 4th Avenue, Suite 1
Holdrege, NE 68949
Phone: (308) 995-4778
Website: www.tworiverspublichealth.com

West Central District Health Department

Shannon Vanderheiden, Director
P.O. Box 648
North Platte, NE 69103
Phone: (308) 696-1201
Website: www.wcdhd.org

ATTACHMENT C

Nebraska Tobacco Settlement
Biomedical Research
Development Fund

Fiscal Year
2009 – 2010

Progress Report

University of Nebraska Medical Center
University of Nebraska – Lincoln
Creighton University
Boys Town National Research Hospital

Nebraska Tobacco Settlement Biomedical
Research Development Fund

Fiscal Year 2009 – 2010

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Research Development Fund

Section I
Fund Allocation to Each Institution

University of Nebraska Medical Center
University of Nebraska – Lincoln
Creighton University
Boys Town National Research Hospital

University of Nebraska Medical Center
Nebraska Tobacco Settlement Biomedical Research Development Fund
FY 2010 Allocation

Strategic Faculty Recruitment and Retention	Allocation
College of Medicine	
Anesthesiology: Ben Boedeker, PhD, MD, DVM	67,000
Biochemistry/Molecular Biology: Surinder Batra, PhD; David W. Li, PhD	61,295
Cellular & Integrative Physiology: Steven Sansom, PhD; Matthew C. Zimmerman, PhD	35,720
Genetics, Cell, Biology & Anatomy: Vimla Band, PhD; James Turpen, PhD	292,675
Internal Medicine: Hesham Basma PhD; Alison Freifeld, MD; Lynell Klassen, MD; Jennifer L. Larsen, MD; Stephen Rennard, MD; Geoffrey M Thiele, PhD	355,030
Otolaryngology: Alvin Wee, PhD, DDS, MPH	123,315
Pathology/Microbiology: Wing (John) Chan, MD; Steve Hinrichs, MD; Tammy Kielian, MS, PhD; Zhixin Zhang, PhD	593,100
Pharmacology/Exp Neuroscience: Shilpa Buch, PhD; Howard Fox, MD, PhD; Jialin Zheng, MD	427,535
Surgery: B Timothy Baxter, MD; Dmitry Oleynikov, MD; Nora Sarvetnick, PhD	721,575
College of Dentistry	222,000
Keith R. Johnson, PhD; Greg Oakley, PhD; Sundaralingam Premaraj, PhD; Ali Nawshad, PhD	
College of Nursing	78,300
Marlen Cohen, RN, PhD; Michael Rice, MSN, PhD; Constance Visovsky, PhD; Sarah Thompson, PhD	
College of Pharmacy	429,000
Courtney Fletcher, PharmD; Jered Garrison, PhD, Lyudmila Shlyakhtenko, PhD	
College of Public Health	98,300
Sandra Wells, PhD	
Eppley Institute	565,070
Hamid Band, MD, PhD; Michael Brattain, PhD; Michael A Hollingsworth, PhD; Mayumi Naramura, MD; Ming-Ying Tsai, PhD; Rene Opavsky, PhD	
Munroe Myer Institute	203,900
Shelly D Smith, PhD	
Subtotal	\$4,273,815
Research Program & Infrastructure Development	
Comparative Medicine Operations - Dixon	303,300
Comparative Medicine Animal Care Cost Support	250,000
Biosciences Research Training Program (BRTP)- Monaghan	60,000
Library - Web of Science Publication - Woelfl	35,200
Advanced Clinical Application Project (Shaw)	200,000
VCR - ITS Svc Level Agreements - IRB & SPAdmin	182,200
VCR - Institutional Research Resource Coordinator	184,800
VCR - DRC Research Resource Manager	50,000
COBRE Nanomaterial Core Equipment	59,080
GCBA-Hiseq 2000 Sequencing System	30,000
Subtotal	\$1,354,580
Minority Health Research Grants	
Nebraska-Virginia Alliance	181,200
Center for Reducing Hlth Disparities	468,950
COPH Reseach Projects	65,300
Subtotal	\$715,450
Joint UNMC-UNL Research Projects	
Molecular Characterization & Pathogenesis of Tularensis	51,782
Nebraska Center for Virology	180,000
Biomedical Research Awards - Joint UNMC & UNL	34,810
Subtotal	\$266,592
Total FY 2010 Allocation	\$6,610,437

University of Nebraska - Lincoln
Nebraska Tobacco Settlement Biomedical Research Development Fund
FY2010 Allocation

<u>Strategic Faculty Recruitment and Retention</u>	<u>Allocation</u>
Gary Pickard, Ph.D., Veterinary Medicine & Biomedical Sciences	40,000
Heriberto Cerutti, Ph.D., School of Biological Sciences, Plant Science Initiative	40,000
Daniel Peterson, Ph.D., Food Science and Technology	550,000
Srivatsan Kidambi, Ph.D., Chemical & Biomolecular Engineering	50,000
Devin Rose, Ph.D., Food Science & Technology	67,000
Nicole Roswitha Buan, Ph.D., Biochemistry	133,000
Daniel Ciobanu, Ph.D., Animal Science	102,856
Eric Dodds, Ph.D., Chemistry	367,000
Daizaburo Shizuka, Ph.D., School of Biological Sciences	48,000
Julie Honaker, Ph.D., Special Education & Communication Disorders	29,000
John Hibbing, Ph.D., Political Science	25,000
Edward Harris, Ph.D., Biochemistry	133,334
Subtotal	\$1,585,190
<u>Research Program and Infrastructure Development</u>	
Faculty Development in Biomedical Sciences	88,831
Nebraska Center for Virology Support, Charles Wood, Ph.D	518,581
Life Sciences Graduate Recruitment Initiative; Donald Becker, Ph.D	57,000
Nebraska Gateway to Nutrigenomics, Janos Zempleni, Ph.D. and Timothy Carr, Ph.D	50,000
Enhancing research infrastructure in Hamilton Hall	100,000
Chorella Viruses: Model System, James Van Etten, Ph.D	45,000
Enhancement of animal research facilities to support modern biomedical research	749,198
Substance Abuse Research Cluster: Building Translation Research Capacity to Addiction, Rick Bevins, Ph.D	7,667
Magnetic Resonance Elastography of a Traumatic Brain Injury Mouse Model, Shadi Othman, Ph.D	50,000
Subtotal	\$1,666,277
<u>Minority Health Research Grants</u>	
Infertility Pathways and Psychosocial Outcomes, Julia McQuillan, Ph.D	59,986
Risk and Protective Factors for Rural Methamphetamine Dependence, Gustavo Carlo, Ph.D	83,391
Health Disparities in Minorities Living in Rural Communities, Les Whitbeck, Ph.D	72,161
Impact of Violence on the Dropout Rate of Black Males, Trina Creighton, Ph.D	10,000
Food Access, Dietary Behavior, and Obesity Among Hispanic Adults, Lisa Franzen- Castle, Ph.D	9,651
Training for Success: A Pilot Project for a Community-Based Program, Maria Velazquez, Ph.D	9,860
Subtotal	\$245,049
Total FY 2010 Allocation	<u><u>3,496,516</u></u>

Creighton University
Nebraska Tobacco Settlement Biomedical Research Development Fund
FY2010 Allocation

	Allocation
<u>Strategic Faculty Recruitment and Retention</u>	
Medical Microbiology and Immunology, Xian-Ming Chen, MD	54,403
Pharmacology, Janee Gelineau van-Waes, Ph.D.	151,330
Surgery, Ali Khoynzhad, M.D.	381,052
Pharmacology, Tim Simeone, Ph.D.	48,391
Medicine/Osteoporosis Research Center, Gary Xiao, Ph.D.	381,927
Medicine/Osteoporosis Research Center, Peng Xiao, Ph.D.	150,247
Medicine/Osteoporosis Research Center, Lanjuan Zhao, Ph.D.	150,247
Subtotal \$	1,317,597
<u>Research Program and Infrastructure Development</u>	
Gene Therapy Program at Creighton in Vascular Disease, Devendra Agrawal, Ph.D.	458,486
SNP Array Virtual Karyotyping for Chronic Lymphocytic Leukemia, Roger Brumback, M.D./Jill Hagenkord, M.D.	178,121
Vitamin D and T-Regulatory Cells in Coronary Artery Disease, Michael Del Core, M.D.	25,000
Role of Vitamin D Supplementation in Pediatric Asthma, Cristina Fernandez, M.D.	25,000
NIH C06 application support, Donald Frey, M.D.	17,037
Expressivity in Hereditary Breast and Ovarian Cancer: A Polygenic Approach Using SNP Array-Based Karyotyping, Jill Hagenkord, M.D.	100,000
Confocal Microscopy Core Facility, Richard Hallworth, Ph.D.	58,376
Does Defective Catagen Entry Triggers Folliculitis in EGFR Mutant Skin?, Laura Hansen, Ph.D.	100,000
Vitamin D and Circulating T-Regulatory Cells in Patients with Sepsis, Georgios Hatzoudis, M.D.	25,000
Research Fellow, Sumeet Mittal, M.D.	24,000
Probiotic Immunomodulatory Mechanisms in Mechanically Ventilated Patients, Lee Morrow, M.D.	98,658
New Initiative Reviewers, Thomas Murray, Ph.D.	5,200
Establishing a Murine Model of CD5+ B Cell Malignancy, Patrick Swanson, Ph.D.	100,000
Grant Developer/Editor Support, Kathleen Taggart	29,237
Investigation of Severity of Influenza and Serum Vitamin D Levels, Theresa Townley, M.D.	25,000
Shared Equipment for Department of Biomedical Sciences Investigators, John Yee, Ph.D.	96,378
Lab Relocation, Rowen Zetterman, M.D.	39,592
Subtotal \$	1,405,085
<u>Minority Health Research Grants</u>	
Benson Community Health Center, Syed Mohiuddin, M.D.	155,002
Center for Promoting Health and Health Equality, Sade Kosoko-Lasaki, M.D.	86,552
Subtotal \$	241,554
Total FY2010 Allocation	\$ 2,964,236

Boys Town National Research Hospital
Nebraska Tobacco Settlement Biomedical Research Development Fund
FY2010 Allocation

	<u>Allocation</u>
<u>Strategic Faculty Recruitment and Retention</u>	
Lied Learning and Technology Center: M. Hughes, Ph.D., Cochlear Implants	
Lied Learning and Technology Center: N. Smith, Ph.D., Perceptual Development	79,038
Usher Syndrome Center: S. Akulapalli, Ph.D., Cell Signaling	57,942
Usher Syndrome Center: M. Zallocchi, Ph.D., Gene Expression	65,320
Usher Syndrome Center: Y. Peng, Ph.D., Retinal Neurobiology	105,286
Usher Syndrome Center: Y. Lundberg, Ph.D., Vestibular Neurogenetics	
Otolaryngology: R. Tempero, M.D., Ph.D., Lymphatic Biology	260,846
Audiology: K. Janky, Ph.D., Vestibular Services	56,070
Subtotal \$	624,502
 <u>Research Program and Infrastructure Development</u>	
Animal Care Facility Core: J. McGee, Ph.D.	61,214
Media Core: M. Moeller, Ph.D.	
Grant Proposal Preparation Core: W. Jesteadt, Ph.D.	206,650
New Projects Fund: W. Jesteadt, Ph.D. et al.	150,176
Usher Syndrome Center: D. Cosgrove, Ph.D., Genotyping Core	73,376
Auditory Physiology: E. Walsh, Ph.D.	71,633
Usher Syndrome Center: W. Kimberling, Ph.D., Gene Marker	22,097
Behavioral Health: P. Connell	1,369
Recruitment Fund: W. Jesteadt, Ph.D. et al.	5,000
Postdoc Training: W. Jesteadt, Ph.D. et al.	10,200
Subtotal \$	601,715
 <u>Minority Health Research Grants</u>	
Minority Recruitment: M. Gorga, Ph.D.	34,054
Spanish-English Bilinguals: K. Nishi, Ph.D.	37,360
Subtotal \$	71,414
Total FY2010 Allocation \$	1,297,631

Nebraska Tobacco Settlement Biomedical
Research Development Fund

Section II
Project Progress Descriptions

University of Nebraska Medical Center
University of Nebraska – Lincoln
Creighton University
Boys Town National Research Hospital

UNIVERSITY OF NEBRASKA MEDICAL CENTER
Nebraska Tobacco Settlement Biomedical
Research Development Fund

Year 9: July 1, 2009-June 30, 2010
Progress Report

Executive Summary

The UNMC investment of NTSBRDF dollars is concentrated in three areas:

- Recruitment and retention of excellent scientists
- Research infrastructure development and improvement
- Research in health and health – care disparities.

During the year of this report, 2009-10 UNMC received \$6,610,437 in Nebraska Tobacco Settlement Funds, investing \$4,273,815 in strategic recruitment and in the retention of researchers of merit including \$1,787,105 for the retention or recruitment of women and members of under-represented minorities; \$1,354,580 in infrastructure development; \$266,592 in joint research projects; and \$715,450 in research projects directed at health care disparities (11% of the total 2009-2010 award). Combined commitment to recruitment of women and minorities and minority health issues was \$2,502,555.

In FY 2009-2010, total research funding at UNMC reached a new record high of over \$115M. Since the NTSBRDF program was activated at the beginning of fiscal year 2001-02, our ability to apply the funds to strategic recruitment and retention of top-notch scientists has supported remarkable gains in the growth of research funding: using standard growth indices as a reference (U.S. annual inflation, the growth of NIH support, or the historical growth rate of UNMC research), it would have been predicted that, in 09-10, UNMC research funding would reach a total of about \$50M rather than the actual total of over \$115M. This difference of over \$65M is compounded every year, and has had a huge impact, not only upon the progress of key health-related research, but upon the economies of Omaha and the State of Nebraska. The continuing success of the UNMC research enterprise is sensitively dependent upon the wise application of NTSBRDF dollars.

During the entire nine-year period of support NTSBRDF beginning in 2001, UNMC has invested about \$31.8M in the strategic recruitment or retention of 128 researchers of merit. It is remarkable that these scientists, at the time of this report, have attracted a total of over \$472M in extramural research support subsequent to their receiving NTSBRDF funding, for a return on investment of over 15 to 1.

Strategic Faculty Recruitment & Retention

UNMC total extramural support for research has grown about 126% during the eight years that we have been able to leverage support from NTSBRDF. In 2009-2010, UNMC invested \$4,273,815 in strategic recruitment and retention. Total extramural funding for these researchers at the time they received NTSBRDF support was approximately \$141M, indicating once again that NTSBRDF dollars are well-invested. Federal funding sources included: National Institute of Health (National Cancer Institute, National Institute of General Medical Sciences, National Institute of Alcohol Abuse and Alcoholism, National Center for Research Resources, National Institute of Diabetes and Digestive and Kidney Diseases, National Institute on Drug Abuse, National Institute of Mental Health, National Institute for Nursing Research, National Institute of Neurological Disorders and Stroke, National Eye Institute, National Institute of Dental and Craniofacial Research, National Heart, Lung, Blood Institute); Department of Health and Human Services; Health Resources and Services Administration; National Aeronautics and Space Administration; United States Army; United States Air Force; and VA Medical Center. 2009-2010 NTSBRDF recipients also were highly competitive in the contest for the newly created American Reinvestment & Recovery Act (ARRA) funds that were directed to NIH. UNMC's NTSBRDF scientists competed successfully for \$4.4M dollars in 2009-2010, representing 21% of UNMC's total receipt of ARRA funds.

Funded Investigators (First Time NTSBRDF support during 2009-2010)

Investigator: Hesham Basma, PhD

Position Title & Department: Instructor, COM Internal Medicine Pulmonary

Expertise: Regenerative Medicine

External Funding:

Current Funding Total: \$129,500

Funding sources: Nebraska DHHS

Investigator: Shilpa Buch, MS, PhD

Position Title & Department: Professor, COM Pharmacology and Experimental Neuroscience

Expertise: Infectious Diseases of the Brain and their Treatment

External Funding:

Current Funding Total: \$4,264,564

Funding sources: DHHS/NIH/NIDA; DHHS/NIH/NIMH

Investigator: Jared Garrison, PhD

Position Title & Department: Assistant Professor, COP Pharmaceutical Sciences

Expertise: Development of Diagnostic Agents and Drug Treatments in Cancer, Nanomedicine

External Funding:

Current Funding Total: \$747,000

Funding sources: DHHS/NIH/NCI

Investigator: Steven H Hinrichs, MD
Position Title & Department: Stokes-Shackleford Professor and Chairperson, COM Pathology & Microbiology
Expertise: Infectious Disease, Biopreparedness, Development of Diagnostic Assays
External Funding:
Current Funding Total: \$4,333,021
Funding sources: US Air Force; US Army

Investigator: Tammy Kielian, MS, PhD
Position Title & Department: Professor, COM Pathology & Microbiology
Expertise: Bacterial Infections of the Central Nervous System
External Funding:
Current Funding Total: \$1,745,383
Funding sources: DHHS/NIH/NINDS

Investigator: Nora Sarvetnick, PhD
Position Title & Department: Professor, COM Internal Surgery-Transplantation
Expertise: Regulation of the Immune Response, Immunological Implications of Diabetes, Immunology of Autoimmune Diseases
External Funding:
Current Funding Total: \$1,299,844
Funding sources: DHHS/NIH/NIAD

Investigator: Alvin G Wee, DDS, MPH
Position Title & Department: Associate Professor, COM Otol-Head and Neck Surgery
Expertise: Detection of Oral Cancers, Quality of Life Issues
External Funding:
Current Funding Total: \$580,369
Funding sources: DHHS/NIH/NIDCR

Investigator: Sandra Wells, PhD
Position Title & Department: Assistant Professor, COPH Environmental, Agricultural & Occupational Health Sciences
Expertise: Lung Disease, Environmental Factors of Lung Injury
External Funding:
Current Funding Total: \$747,000
Funding sources: DHHS/NIH/NHLBI

Investigator: Zhixin (Jason) Zhang, PhD
Position Title & Department: Associate Professor, COM Pathology & Microbiology
Expertise: Immune System Development, Antibodies
External Funding:
Current Funding Total: \$3,076,631
Funding sources: DHHS/NIH/NIAD

Investigators of High Potential for Extramural Funding

Investigator: Marlene Z Cohen, RN, PhD
Position Title & Department: Professor, CON Adult Health and Illness
Expertise: Mental Health and Disease Prevention
External Funding: Pending

Investigator: Lynell Klassen, MD
Position Title & Department: Professor and Chairperson, COM Internal Medicine
Expertise: Arthritis and Inflammation, Rheumatology
External Funding: Pending

Investigator: Rene Opavsky, PhD
Position Title & Department: Assistant Professor, Eppley Institute
Expertise: Blood Cancers, Epigenetics and Molecular Targeting for Therapeutics
External Funding: Pending

Investigator: Lyudmila Shlyakhtenko, PhD
Position Title & Department: Research Associate, COP Pharmaceutical Science
Expertise: Nanoimaging, Atomic Force Microscopy, Core Facilities
External Funding: Pending

Investigator: Ming-Ying Tsai, PhD
Position Title & Department: Assistant Professor, Eppley Institute
Expertise: Cellular Mechanisms in Cancer Development and Treatment
External Funding: Pending

Investigator: Constance Visovsky, PhD
Position Title & Department: Associate Professor, CON Adult Health and Illness
Expertise: Symptom Management in Cancer Patients
External Funding: Pending

Funded Investigators (Received Continuing NTSBRDF support during 2009-2010)

Investigator: Hamid Band, MD, PhD
Position Title & Department: Professor, Eppley Institute
Expertise: Breast Cancer, Cancer Cell Signaling and Targeted Therapeutics
External Funding:
Current Funding Total: \$5,108,176
Funding sources: DHHS/NIH/NCI; Susan G Komen Breast Cancer Foundation

Investigator: Vimla Band, PhD
Position Title & Department: Professor and Chairperson, COM Genetics, Cell Biology & Anatomy
Expertise: Cancer, Diagnostic/Prognostic Markers for Breast Cancer

External Funding:

Current Funding Total: \$1,658,046

Funding sources: DHHS/NIH/NCI; US Army

Investigator: Surinder K Batra, MS, PhD

Position Title & Department: Professor and Chairperson, COM Biochemistry and Molecular Biology

Expertise: Pancreatic Cancer, Development of Diagnostic/Prognostic Markers for Cancer

External Funding:

Current Funding Total: \$7,476,707

Funding sources: DHHS/NIH/NCI, Susan G Komen Breast Cancer Foundation; US Army

Investigator: B Timothy Baxter, MD

Position Title & Department: Professor, COM Surgery-General Surgery

Expertise: Aortic Aneurysms, Causes and Treatments for Aneurysms; Surgical Interventions

External Funding:

Current Funding Total: \$126,619

Funding sources: Eli Lilly and Company

Investigator: Ben Boedeker, MD, PhD, DVM, MBA

Position Title & Department: Professor, COM Anesthesiology

Expertise: Medical Device Invention, Airway Management, Medical Decision Support

External Funding:

Current Funding Total: \$6,786,000

Funding sources: US Army

Investigator: Michael Brattain, PhD

Position Title & Department: Professor and Associate Director, Eppley Institute

Expertise: Colon Cancer, Molecular Targeting in Cancer

External Funding:

Current Funding Total: \$5,210,325

Funding sources: DHHS/NIH/NCI

Investigator: Wing (John) Chan, MD

Position Title & Department: Amelia & Austin Vickery Jr MD Professorship, COM Pathology & Microbiology

Expertise: Molecular Diagnosis of Cancer, Lymphoma, Diagnostic/Prognostic Marker Development

External Funding:

Current Funding Total: \$792,863

Funding sources: DHHS/NIH/NCI; Lymphoma Research Foundation

Investigator: Courtney Fletcher, PharmD
Position Title & Department: Professor and Dean, COP Pharmacy Practice
Expertise: HIV/AIDS Drug Research, Retroviral Research, Pediatric Drug Development
External Funding:
Current Funding Total: \$1,158,556
Funding sources: Social & Scientific Systems, Inc; University of Alabama-Birmingham

Investigator: Howard Fox, MD, PhD
Position Title & Department: Professor, COM Pharmacology and Experimental Neuroscience
Expertise: Neurodegenerative Diseases and Substance Abuse
External Funding:
Current Funding Total: \$13,699,066
Funding sources: DHHS/NIH/NIDA; DHHS/NIH/NIMH

Investigator: Alison Freifeld, MD
Position Title & Department: Professor, COM Internal Medicine-Infectious Diseases
Expertise: Infectious Disease, Tuberculosis, Diagnostic Assay Development
External Funding:
Current Funding Total: \$260,209
Funding sources: Vical, Inc; Pfizer, Inc; Chimerix, Inc

Investigator: Michael A Hollingsworth, PhD
Position Title & Department: Professor and Director of Pancreatic Cancer Research, Eppley Institute
Expertise: Pancreatic Cancer
External Funding:
Current Funding Total: \$11,361,151
Funding sources: DHHS/NIH/NCI

Investigator: Keith R Johnson, PhD
Position Title & Department: Professor, COD Oral Biology
Expertise: Cellular Signaling
External Funding:
Current Funding Total: \$9,331,240
Funding sources: DHHS/NIH/NIGMS; DHHS/NIH/NCRR; DHHS/NIH/NCI

Investigator: Jennifer L Larsen, MD
Position Title & Department: Associate Vice-Chancellor for Research, Professor & Degan Professorship, COM Internal Medicine-Developmental and Experimental Medicine
Expertise: Diabetes, Clinical and Translational Research
External Funding:
Current Funding Total: \$2,785,491
Funding sources: DHHS/NIH/NIDDK; Lily Research Laboratories

Investigator: David W Li, PhD
Position Title & Department: Associate Professor, COM Biochemistry and Molecular Biology
Expertise: Ocular Development, Diseases and Cancer
External Funding:
Current Funding Total: \$1,028,456
Funding sources: DHHS/NIH/NEI

Investigator: Mayami Naramura, MD
Position Title & Department: Assistant Professor, Eppley Institute
Expertise: Biochemical Pathways Controlling Cancer Stem Cells
External Funding:
Current Funding Total: \$556,875
Funding sources: US Army

Investigator: Ali Nawshad, MA, PhD
Position Title & Department: Associate Professor, COD Oral Biology
Expertise: Cleft Palate, Craniofacial Development
External Funding:
Current Funding Total: \$1,771,681
Funding sources: DHHS/NIH/NIDCR

Investigator: Greg Oakley, PhD
Position Title & Department: Assistant Professor, COD Oral Biology
Expertise: DNA Repair, Cellular Signaling
External Funding:
Current Funding Total: \$760,000
Funding sources: NE DHHS; American Cancer Society

Investigator: Dimtry Oleynikov, MD
Position Title & Department: Associate Professor, COM Surgery-General Surgery
Expertise: Robotic Surgery, Minimally Invasive Surgery, Computer Assisted Surgery
External Funding:
Current Funding Total: \$5,814,999
Funding sources: US Army; NASA; University of Nebraska-Lincoln; Coviden

Investigator: Sundaralingam Premaraj, BDS, MS, PhD
Position Title & Department: Assistant Professor and Postgraduate Program Director of Orthodontics, COD Growth and Development
Expertise: Cranial Suture Biology, Biology of Tooth Movement
External Funding:
Current Funding Total: \$15,000
Funding sources: American Association of Orthodontists Foundation

Investigator: Stephen Rennard, MD

Position Title & Department: Professor and Larson Professor for Research in Respiratory Diseases, COM Internal Medicine-Pulmonary

Expertise: Chronic Obstructive Pulmonary Disease, Smoking Cessation, Lung Injury and Repair

External Funding:

Current Funding Total: \$4,131,588

Funding sources: Wyeth Pharmaceuticals; GlaxoSmithKline; Novartis Pharmaceuticals; CSL Behring GMBH; Nabi Biopharmaceuticals; Otsuka Maryland Research Institute; University of North Carolina-Chapel Hill

Investigator: Michael Rice, MSN, PhD

Position Title & Department: Professor, CON Community Based Health

Expertise: Psychiatric Nursing

External Funding:

Current Funding Total: \$977,543

Funding sources: DHHS/HRSA

Investigator: Steven C Sansom, PhD

Position Title & Department: Professor, COM Cellular/Integrative Physiology

Expertise: Diabetes and Hypertension

External Funding:

Current Funding Total: \$2,664,519

Funding sources: DHHS/NIH/NIDDK

Investigator: Shelley D Smith, PhD

Position Title & Department: Professor, Munroe Meyer Institute

Expertise: Molecular Genetics of Language and Learning Disorders

External Funding:

Current Funding Total: \$12,381,517

Funding sources: DHHS/NIH/NCRR; University of Colorado-Boulder; University of Kansas

Investigator: Geoffrey M Thiele, PhD

Position Title & Department: Professor, COM Internal Medicine-Rheumatology

Expertise: Rheumatology/Immunology

External Funding:

Current Funding Total: \$1,411,052

Funding sources: DHHS/NIH/NIAAA

Investigator: Sarah Thompson, MSN, PhD

Position Title & Department: Associate Dean, Niedfeldt Professorship & Professor, CON Community Based Health; Professor COPH Health Services Research & Administration

Expertise: End of Life Health Care, Geriatric Nursing

External Funding:

Current Funding Total: \$2,344,638
Funding sources: DHHS/NIH/NINR; DHHS/HRSA

Investigator: James Turpen, PhD
Position Title & Department: Professor, COM Genetics, Cell Biology & Anatomy
Expertise: Developmental Immunology, Regenerative Medicine, Biomedical Education
External Funding:
Current Funding Total: \$18,012,725
Funding sources: DHHS/NIH/NCRR

Investigator: Jialin Zheng, MS, MD
Position Title & Department: Associate Dean International Affairs, Professor, COM Pharmacology/Experimental Neurosciences
Expertise: Neurodegenerative Disease, Infectious Disease, Neuroimmunology
External Funding:
Current Funding Total: \$4,821,720
Funding sources: DHHS/NIH/NINDS; DHHS/NIH/NIMH; University of Nebraska-Lincoln; NE DHHS

Investigator: Matthew Zimmerman, PhD
Position Title & Department: Assistant Professor, COM Cellular and Integrative Physiology
Expertise: Reactive Oxygen Species, Hypertension and Vascular Disease
External Funding:
Current Funding Total: \$2,174,250
Funding sources: DHHS/NIH/NHLBI; American Heart Association-National; University of Nebraska-Lincoln

Research Program and Infrastructure Development

A total of \$1,354,580 was invested in research program and infrastructure development in 2009-2010, in the general areas of animal facilities support, research core laboratories, grant management, educational/training & compliance programs for NIH-funded scientists, and equipment upgrades. These infrastructure items help support total research awards of over \$115M / yr.

Because of the increasing cost and sophistication of research technology, our providing the finest research support facilities is vital to successful recruiting and retention of top researchers. One of the most important developments in biomedical genetics is growth in the use of genetically-modified mice, for example, in cancer research. In this reporting period, we have continued to provide significant NTSBRDF support to NIH-funded scientists that utilize these animals for models of human diseases. The Department of Comparative Medicine was awarded \$553,000, or 41% of the total for infrastructure, for the merit-based support of animal costs for NIH-funded researchers.

NTSBRDF support has enabled UNMC to update very expensive multi-user items of research equipment. In 2009-2010, \$80,000 was invested in equipment upgrades including a gene sequencing system and start-up equipment for a new Nanomaterial Core Facility. In addition, UNMC utilized NTSBRDF funds to facilitate access of our scientists to new management and educational software and programs to increase research efficiency while decreasing the risk of non-compliance.

Minority Health Research Grants

The goal of the Center for Reducing Health Disparities (CRHD) is to improve public health and the quality of health and wellness of racial/ethnic minorities, rural populations and other underserved groups by reducing and ultimately eliminating health disparities through research, community engagement, and education. The CRHD research and education efforts focus on diseases and/or conditions affecting racial/ethnic minorities and the underserved. CRHD provides culturally and linguistically appropriate education, resources, and services designed to enhance minority participation in research and clinical trials. The CRHD supports UNMC and collaborating investigators through consultation on design and implementation of research studies, minority study participant recruitment, and translation of IRB-related documents into Spanish. The CRHD is staffed by Academic, Clinical and Community Liaisons from underrepresented minority populations in Nebraska. These staff members are located within the communities they serve, thus increasing their access to specific populations. Staff members are active members of various cultural and community organizations (see below, North and South Omaha offices). Through staff interactions with many community organizations, the CRHD is developing expertise in community-based participatory research.

In 2009-2010, UNMC invested \$715,450 in the overall UNMC health disparities initiative. Several important community-initiated research projects have been supported by this mechanism since the beginning of the NTSBRDF program. There were two projects selected for funding in 2009-2010: (1) Health Literacy-Nisha Kumi, principal investigator (PI) and (2) Risk & Protective Factors for Rural Methamphetamine Dependence-Kathleen Grant (PI). The CRHD is headed by Shireen Rajaram, Ph.D. within the UNMC College of Public Health, and has thriving centers located in both North and South Omaha. An Academic Liaison housed at the Northern Plains Tribal Epidemiology Center (NPTEC) in Rapid City, South Dakota operates under the leadership of the Center for Reducing Health Disparities (CRHD), College of Public Health and the UNMC Center for Clinical and Translational Research and NPTEC/Aberdeen Area Tribal Chairmen's Health Board (AATCHB). This liaison is responsible for supporting projects in epidemiology, research and health practice to improve the health status of the Northern Plains tribal communities. The liaison also facilitates collaborations between UNMC faculty and American Indian groups for epidemiology, research, and health practice that are already or will likely lead to new external funding initiated by either UNMC faculty or American Indian Groups within the Aberdeen Area. The liaison also assesses the cultural competence of proposed projects and protections for research subjects as appropriate for American Indian populations. An investment of \$534,250 was made in the Center for Reducing Health Disparities. These funds are designed to facilitate the development of community outreach, recruitment of minority research subjects into new and ongoing UNMC research programs, and support research grant proposal development.

Another major project that has been supported by the NTSBRDF is the “Nebraska – Virginia Alliance”, which has established a strong academic affiliation between UNMC and the historically Black colleges in Virginia. This program is intended to open and maintain a pipeline of the highest-quality African-American undergraduate students into UNMC graduate and professional programs. Data indicate that a large proportion of individuals establish residency and remain on the job in the state where they complete their education; therefore this is an issue, not only for enhancing diversity among UNMC colleges, but to improve the diversity of the Nebraska health care work-force.

In FY09-10 UNMC invested \$181,200 in the Nebraska-Virginia Alliance. These funds supported summer research experiences for undergraduate students. Funds also supported the Nebraska-Virginia Summer Faculty Development Program where faculty members from Historically Black Colleges and Universities in Virginia work with UNMC faculty on federally-funded research projects.

UNIVERSITY OF NEBRASKA-LINCOLN
Nebraska Tobacco Settlement Biomedical
Research Development Fund

Year 9: July 1, 2009 - June 30, 2010
Progress Report

Executive Summary

The nine years of NTSBRDF funding have enabled the University of Nebraska-Lincoln to strategically invest funds to achieve immediate results and to build significant biomedical research capacity that have well served the State of Nebraska and the nation. UNL's goals for the NTSBRDF program are to increase our biomedical research capacity and external funding, which in turn will enable us to contribute to the health of Nebraskans and stimulate economic development and employment opportunities in our state.

UNL has invested the NTSBRDF funds in three main areas:

- **Recruitment and retention of biomedical research faculty**, whose work aligns with our strategic priorities and who either bring significant funding with them, or have a high likelihood of immediate success in obtaining funding. This investment in faculty is one of the most effective means of increasing our research capacity and often has the most immediate return.
- **Development of new research projects or infrastructure** leading to NIH and other external funding. These grants are focused on major inter-disciplinary research programs aligned with the research priorities both of UNL and NIH and other funding agencies. They also include investments in programs to develop collaborative projects with UNMC.
- Research projects that specifically address issues of importance to the health of Nebraska's minority populations.

In 2009-2010, UNL made 27 awards totaling \$3,496,516. These included an allocation of \$1,585,190 for 10 faculty recruitments and 2 faculty retentions; \$1,666,277 for 9 grants supporting infrastructure and new research projects; and \$245,049, or 7 percent of the total, for 6 projects in minority health research.

As in the previous eight years of the NTSBRDF program, we are seeing impressive results from these investments in people and projects. As a group, the new faculty recruits already have brought approximately \$3M in new external biomedical funding to UNL, with numerous proposals pending for \$16M in external funding. Related to the aging research infrastructure, NTSBRDF funds have been invested in cutting edge equipment and facilities to enhance our capacity to leverage extramural funding.

Strategic Faculty Recruitment & Retention

UNL's strategic recruitment grants have two goals: to expand our expertise in key areas of biomedical research and to increase our base of NIH and other extramural funding. Both of these goals were met through the 10 new hires made in 2009-2010. NTSBRDF funding has helped us to recruit new faculty to consolidate strengths in life sciences, and to retain critical expertise in redox biology and epigenetics. Investments to further expand the capacity of the renowned Nebraska Center for Virology, an externally funded, collaborative center with UNL, UNMC and Creighton. NTSBRDF funding has helped us to recruit a diverse group of new faculty to provide expertise in a wide variety of areas. As a group these new recruits already brought approximately \$3M in new external biomedical funding to UNL with many applications pending for an additional \$16M in external funding.

Faculty Recruitment

Investigator: Gary Pickard, Ph.D

Position Titles & Department: Professor, Veterinary Medical Education Program

Expertise: Circadian timing and viral proteins

External Funding:

Current Funding Total: \$1.2M

Proposals Currently Pending: \$2.5M

Funding Sources: NIH

Investigator: Julie Honaker, Ph.D

Position Titles & Department: Assistant Professor, Special Education & Communication Disorders

Expertise: Vestibular and balance disorders

Investigator: Daniel Ciobanu, Ph.D

Position Titles & Department: Assistant Professor, Animal Science

Expertise: Microorganisms and the environment

External Funding:

Proposals Currently Pending: \$1.2M

Funding Sources: NIH, US Department of Agriculture, Industry

Investigator: Daizaburo Shizuka, Ph.D

Position Titles & Department: Research Assistant Professor, School of Biological Sciences

Expertise: Neuroscience

Investigator: Srivatsan Kidambi, Ph.D

Position Titles & Department: Assistant Professor, Chemical and Biomolecular Engineering

Expertise: Neural Tissue Engineering, Drug delivery systems

External Funding:

Proposals Currently Pending: \$1.5M

Funding Sources: NIH

Investigator: Nicole Buan, Ph.D
Position Titles & Department: Assistant Professor, Biochemistry
Expertise: Biochemical mechanisms of energy conservation

Investigator: Edward Harris, Ph.D
Position Titles & Department: Assistant Professor, Biochemistry
Expertise: Stabilin receptors; glycosaminoglycan metabolism; Receptor-mediated endocytosis

Investigator: Daniel Peterson, MD, Ph.D
Position Titles & Department: Assistant Professor, Food Science & Technology
Expertise: Gut Microbiota - Host interactions, gnotobiotics

External Funding:
Current Support: \$380K
Proposals Currently Pending: \$10.3M
Funding Sources: NIH, US Department of Agriculture, Industry

Investigator: Eric Dodds, Ph.D
Position Titles & Department: Assistant Professor, Chemistry
Expertise: Mass Spectrometry

Investigator: Devin Rose, Ph.D
Position Titles & Department: Assistant Professor, Food Science & Technology
Expertise: Effects of dietary fiber chemical structure on prevention and alleviation of disease
External Funding:
Proposals Currently Pending: \$590K
Funding Sources: US Department of Agriculture, Industry

Faculty Retention

Investigator: Heriberto Cerutti, Ph.D
Position Titles & Department: Professor, School of Biological Sciences, Plant Science Initiative
Expertise: Gene silencing in eukaryotes
External Funding:
Current Funding Total: \$800K
Proposals Currently Pending: \$10.3M
Funding Sources: NIH, NSF

Investigator: John Hibbing, Ph.D
Position Titles & Department: University Distinguished Professor, Political Science
Expertise: Genetics and Biology of Social Behavior and Health
External Funding:
Current Funding Total: \$600K
Funding Sources: NSF

Research Program & Infrastructure Development

Research program and infrastructure grants support both promising new research projects with the potential to improve human health and the development of facilities and equipment that enhance UNL's ability to compete for external biomedical research funding. This year, funds were expended to meet the objectives of a strategic plan to systematically improve animal facilities that support biomedical research. In addition activities to enhance the development of faculty in biomedical sciences and recruit top-notch graduate students, the research projects funded in 2009-10 cover important areas of health research, including virology, nutrigenomics, and mechanisms of brain injury. NTSBRDF funding supported early basic research in these projects and served as a bridge to help researchers collect important preliminary data necessary for new and renewed NIH funding. Several of these projects include collaborators across institutions in Nebraska, evidence of the success of our efforts to promote more collaboration between the institutions.

Project Title: Faculty Development in Biomedical Sciences

Amount of Funding: \$88,831

Description of Goals and Accomplishments: A nationally known grant writing consultant provides workshops to enhance competitiveness for federal funding.

Project Title: Life Sciences Graduate Recruitment Initiative

Principal Investigator: Donald Becker, Ph.D

Amount of Funding: \$57,000

Description of Goals and Accomplishments: This initiative seeks to expand recruitment efforts for domestic graduate students in STEM areas.

Project Title: Nebraska Center for Virology Support

Principal Investigator: Charles Wood, Ph.D

Amount of Funding: \$581,581

Description of Goals and Accomplishments:

Funds were provided to support research seed grants, research staff support and equipment needs of the pre-eminent Nebraska Center for Virology.

Project Title: Nebraska Gateway to Nutrigenomics

Principal Investigator: Janos Zempleni, Ph.D. and Timothy Carr, Ph.D

Amount of Funding: \$50,000

Description of Goals and Accomplishments: This program examines the role of nutrition in the re-growth of tissue loss to disease or injury.

Project Title: Chorella Viruses: Model System with Implications for Disease and Health

Principal Investigator: James Van Etten, Ph.D

Amount of Funding: \$45,000

Description of Goals and Accomplishments: This bridge funding was provided to support cutting edge work in eukaryotic algae viruses.

Project Title: Magnetic Resonance Elastography of a Traumatic Brain Injury Mouse Model

Principal Investigator: Shadi Othman, Ph.D

Amount of Funding: \$50,000

Description of Goals and Accomplishments: The primary goal of this project is to use Magnetic Resonance Elastography imaging to characterize the mechanism of damage to nerve cells that result from traumatic brain injury.

Project Title: Substance Abuse Research Cluster: Building Translation Research Capacity to Addiction

Principal Investigator: Rick Bevins, Ph.D

Amount of Funding: \$7,667

Description of Goals and Accomplishments: Support was provided for collaborative efforts of researchers in the University of Nebraska system to revise an application for an NIH program project focusing on new addiction treatments.

Infrastructure Development

Project Title: Enhancement of Animal Research Facilities to Support Modern Biomedical Research

Principal Investigator: Donald Beermann, Ph.D., Director, Institutional Animal Care Program

Amount of Funding: \$ 749,198

Description of Goals and Accomplishments: The long term goal is to renovate and modernize the facilities that house research animals to enable cutting edge biomedical research. Funding was provided for the first phase, that included developing the strategic plan, upgrading equipment, replacing flooring, outfitting two quarantine rooms, and building out a functional short term facility for modern animal care.

Project Title: Enhancing Research Infrastructure in Hamilton Hall

Principal Investigator: James Takacs, Ph.D

Amount of Funding: \$100,000

Description of Goals and Accomplishments: Funding to support the development of NIH G20 facilities renovation proposals to improve available research facilities in Hamilton Hall.

Minority Health Research Grants

Minority health research grants support research focusing on the health needs of racial and ethnic minorities, particularly in the areas of mental and behavioral health and access to health services. These projects also serve the needs of diverse communities in Nebraska.

Project Title: Health Disparities in Minorities Living in Rural Communities

Principal Investigator: Les Whitbeck, Ph.D

Amount of Funding: \$72,161

Description of Goals and Accomplishments: Infrastructure support for minority related research to develop and enhance access to local communities and collect pilot data in support of a P20 center application.

Project Title: Risk & Protective Factors for Rural Methamphetamine Dependence

Principal Investigators: Gustavo Carlo, Ph.D

Amount of Funding: \$83,391

Description of Goals and Accomplishments: The major goal of this program is to collect pilot data regarding methamphetamine dependence and cultural risk/resilience in pathways to successful treatment in rural minority adults.

Project Title: Infertility Pathways and Psychosocial Outcomes

Principal Investigator: Julia McQuillan, Ph.D

Amount of Funding: \$59,986

Description of Goals and Accomplishments: This program seeks to improve outreach and data collection in minority women who experience infertility using an innovative survey design and novel engagement strategies.

Project Title: Training for Success: A Pilot Project for a Community-based Program

Principal Investigator: Maria Velazquez, Ph.D

Amount of Funding: \$9,860

Description of Goals and Accomplishments: Funding will enable the development and initial evaluation of a training program to promote health resilience through intergenerational maintenance of Spanish and culture.

Project Title: Impact of Violence on Drop-out Rate of Black Males.

Principal Investigator: Trina Creighton, Ph.D

Amount of Funding: \$10,000

Description of Goals and Accomplishments: Support to identify the factors related to violence at the community and family level that contribute to adverse learning outcomes, including school drop-out.

Project Title: Food Access, Dietary Behavior, and Obesity among Hispanic Adults.

Principal Investigator: Lisa Franzen-Castle, Ph.D

Amount of Funding: \$9,651

Description of Goals and Accomplishments: Funding will help to understand the relationship of variable access to high quality food and dietary preferences/behavior in promoting obesity, by enabling collection of pilot data to support the approach.

CREIGHTON UNIVERSITY
Nebraska Tobacco Settlement Biomedical
Research Development Fund

Year 9: July 01, 2009 – June 30, 2010
Progress Report

Executive Summary

Creighton University is an urban Jesuit university located in Omaha, Nebraska. Founded in 1878, Creighton University (CU) is nationally recognized as a high-quality teaching, research and patient-serving institution that offers undergraduate, graduate, and professional degrees, including those in health professions (Medicine, Dentistry, Pharmacy, Occupational Therapy, Physical Therapy, and Nursing). Creighton is No. 1 in U.S. News & World Report's 2011 ranking of Midwest masters' universities. It is the eighth consecutive year that Creighton has been named No. 1 and the 24th straight year the University has been ranked at or near the top of the magazine's "America's Best Colleges" edition. For a second year in a row, Creighton is No. 5 in the Midwest as a "school to watch" for its focus on the future and continued improvement. With the support of the Nebraska Tobacco Settlement Biomedical Research Development Fund (LB692), Creighton University continues to address some of the world's most complex and perplexing health care challenges. Research investigators play a fundamental role in enhancing the quality of life for individuals and in expanding the research community in Nebraska and the larger region. The primary purpose and use of the LB692 program at Creighton University is to increase funding from federal health agencies and institutes. In 2009-2010, the collective efforts of the research investigators at Creighton University produced significant results. Creighton University received \$46 million in extramural funding. Investigators were awarded federal grants from the Department of Defense, National Institutes of Health, National Science Foundation, Department of Energy, and many other non-federal grants from corporations and foundations. The university and its investigators look forward to continuing to use LB692 funds as a springboard to benefit the citizens of Nebraska and to adding to research and health care knowledge everywhere.

Strategic Faculty Recruitment & Retention

Creighton University's goals include the recruitment of talented investigators and the enhancement of its research resources, its research mentoring, and its research faculty development. In 2009-10, Creighton University used LB692 funds to support new faculty in the departments of Medical Microbiology and Immunology, Pharmacology, Internal Medicine/Osteoporosis Research Center and Surgery. These investigators, Drs. Xian-Ming Chen, Janee Gelineau van-Waes, Tim Simeone, Ali Khoynzhad, Gary Xiao, Peng Xiao, and Lanjuan Zhao used LB692 funds to assist with start up and the enhancement of their research endeavors.

Principal Investigator: Xian-Ming Chen, M.D.

Department: Medical Microbiology & Immunology

Expertise: Regulation of Epithelial Anti-microbial Immune Responses

External Funding:

Current Funding Amount: \$653,433

Proposals Currently Pending: \$3,609,335

Funding Sources: NIH, NE DHHS, Health Future Foundation

Principal Investigator: Janee Gelineau van-Waes, Ph.D.

Department: Pharmacology

Expertise: Teratology studies in mice, and the collection of maternal blood and urine, as well as placental and fetal tissue for LC-ESI-MS analysis.

External Funding:

Current Funding Amount \$648,279

Proposals Currently Pending: \$5,923,239

Funding Sources: NIH, NE DHHS, Health Future Foundation

Principal Investigator: Ali Khoynzhad, M.D.

Department: Surgery

Expertise: Nano Engineered Heart Valve

External Funding:

Current Funding Amount: \$381,052

Proposals Currently Pending: \$3,317,529

Funding Sources: NIH, NE DHHS, Health Future Foundation

Principal Investigator: Tim Simeone, Ph.D.

Department: Pharmacology

Expertise: Mitochondrial Ion Channels in Epilepsy Research

External Funding:

Current Funding Amount: \$317,004

Proposals Currently Pending: \$613,562

Funding Sources: NSF, NE DHHS, Health Future Foundation, Epilepsy Foundation, Klingenstein Fund

Principal Investigator: Gary Guishan Xiao, Ph.D.

Department: Medicine/Osteoporosis Research Center

Expertise: To identify novel genes and proteins as biomarkers useful for early diagnosis and prediction of osteoporosis and cancer.

External Funding:

Current Funding Amount: \$500,986

Proposals Currently Pending: \$6,262,959

Funding Sources: NIH, NE DHHS, Health Future Foundation

Principal Investigator: Peng Xiao, Ph.D.

Department: Medicine/Osteoporosis Research Center

Expertise: MicroRNA array research on human circulating monocytes and B cells in vivo between high and low bone mass women to identify significant microRNAs underlying the etiology of osteoporosis.

External Funding:**Current Funding Amount:** \$278,272**Proposals Currently Pending:** \$4,046,151**Funding sources:** NIH, NE DHHS**Principal Investigator:** Lanjuan Zhao, Ph.D.**Department:** Medicine/Osteoporosis Research Center**Expertise:** Research to identify genes related with osteoporosis, obesity, and osteoporosis related health problems.**External Funding:****Current Funding Amount:** \$150,247**Proposals Currently Pending:** \$8,485,068**Funding Sources:** NIH, NE DHHS

Research Program & Infrastructure Development

Research Program and Infrastructure Development included research investigating a wide variety of topics such as Gene Therapy in Vascular Disease; Vitamin D; T-Regulatory Cells in Coronary Artery Disease; Establishing a Murine Model of CD5+ B Cell Malignancy, Role of Vitamin D in Pediatric Asthma and Expressivity in Hereditary Breast and Ovarian Cancer. Moreover, the Research Program and Infrastructure Development portion of LB692 supported needed infrastructure projects such as the Operation of an Advanced Confocal Microscopy Core Facility at Creighton University; and provided financial support for biomedical research through purchasing shared equipment and employing a Technical Writer/Editor to aid investigators in the development of competitive applications.

Project Title: Gene Therapy Program at Creighton University in Occlusive Vascular Disease**Principal Investigator:** Devendra Agrawal, Ph.D.**Department:** Biomedical Sciences**Award Amount:** \$458,486

Description of Goals and Accomplishments: Although angioplasty, stenting, and bypass grafts produce varying degrees of relief in heart patients, these procedures do not eliminate the problem in its entirety because of uncontrolled proliferation of cells leading to re-narrowing of the vessels over months-to-years. Thus, there is a need to develop a more precise and cost-effective treatment. Gene therapy presents a novel and exciting opportunity for treatment to delay and/or eliminate arterial re-narrowing. However, the widespread use of gene therapy in clinical practice is limited by variable transfection efficiency, short duration of gene expression, potential side effects, lack of efficient and clinically applicable means of gene delivery, and selection of ideal gene(s) for a clinical condition. Based on our preliminary findings, we are investigating the effect of two genes that will be delivered locally to the site of stent injury in in vivo atherosclerotic pig model to inhibit re-narrowing of arteries with minimal systemic viral distribution. Cardiovascular system of pigs is very similar to human. We are comparing the effects of combined gene therapy with those of drug-eluting stents on the delay and/or elimination of re-narrowing of arteries after stenting. The hope is that these studies will help in developing a gene therapy approach in cardiovascular diseases for future widespread clinical use.

Project Title: SNP Array Virtual Karyotyping for Chronic Lymphocytic Leukemia
Principal Investigator: Roger Brumback, M.D./Jill Hagenkord, M.D.

Department: Pathology

Award Amount: \$178,121

Description of Goals and Accomplishments: Specific chromosomal gains and losses are recognized as important prognostic factors in chronic lymphocytic leukemia (CLL). The current clinical approach to identification of these genetic lesions is a standard FISH panel targeting five regions of the genome. Recently, it has been shown that these abnormalities can be reliably detected using array comparative genomic hybridization or SNP arrays to generate karyotypes in silico from isolated DNA. The optimum array density for routine clinical use has not been explored. We will process CLL samples with varying percentages of CD5+/CD19+ B-lymphocytes on low (Affymetrix 10K2.0), medium (250K Nsp), and high (6.0) density SNP arrays. We will compare break point definition and detection rates for clinically relevant lesions and as well as chromosomal gains or losses of uncertain significance. Based on the results of this comparison, we will clinically validate the appropriate array for routine clinical use in risk assessment for CLL. It is anticipated that this platform will outperform FISH and conventional cytogenetics, both technically and financially, as an ancillary study for CLL. The primary goals of this validation project are to demonstrate the feasibility of this platform for routine clinical use in detecting known significant aneuploidies in CLL.

Project Title: Vitamin D and T-Regulatory Cells in Coronary Artery Disease

Principal Investigator: Michael Del Core, M.D

Department: Cardiology

Award Amount: \$25,000

Description of Goals and Accomplishments: The central hypothesis is that vitamin D-deficiency or insufficiency in patients with Cardiovascular Disease correlates with low number and function of circulating T-regulatory cells and vitamin D supplementation improves Cardiovascular Disease outcome and function of circulating T-regulatory cells. **Project Title:** Role of Vitamin D Supplementation in Pediatric Asthma **Principal Investigator:** Cristina Fernandez, M.D. **Department:** Pediatrics **Award Amount:** \$25,000 **Description of Goals and Accomplishments:** The purpose of this study is to assess asthmatic children's vitamin D level and asthma control through a double blind placebo controlled study of vitamin D supplementation over a one year period. The hypothesis is vitamin D supplementation will be beneficial to the management of children with asthma.

Project Title: NIH C06 Application Support

Principal Investigator: Don Frey, M.D.

Department: Vice President for Health Sciences

Award Amount: \$17,037

Project Title: Expressivity in Hereditary Breast and Ovarian Cancer: A Polygenic Approach Using SNP Array-Based Karyotyping

Principal Investigator: Jill Hagenkord, M.D.

Department: Pathology

Award Amount: \$100,000

Description of Goals and Accomplishments: Germline mutations in BRCA1 portend a dramatically increased lifetime risk of breast and ovarian cancers in the individuals that carry these mutations. BRCA1 mutations are characterized by remarkable variability in phenotype, or expressivity, even among individuals with identical causal mutations. If the same mutation is present in all of our cells, why do some individuals develop cancer in their twenties while others do not until later in life? Factors that determine phenotypic variability in hereditary breast cancer families are largely unknown. We hypothesize that modifier genes contribute to disease expressivity in hereditary breast cancer patients. We propose a polygenic model whereby a large number of alleles, each conferring a small genotypic risk, combine additively or multiplicatively to confer a range of expressivity among carriers of a specific BRCA1 mutation. Until recently, laboratory techniques and computational tools for vetting such a hypothesis were not available. With the advent of array based karyotyping, we can now scan the genomes of confirmed BRCA1 mutation carriers for additional shared genetic aberrations.

Project Title: Confocal Microscopy Core Facility

Principal Investigator: Richard Hallworth, Ph.D.

Department: Biomedical Sciences

Award Amount: \$58,376

Description of Goals and Accomplishments: The Integrated Biomedical Imaging Facility (IBIF) of Creighton University School of Medicine operates the confocal microscopy core facility as a Service Center under Creighton University Policies and Procedures. The goal of the IBIF is to increase the competitiveness of Creighton University researchers for Federal research funding by making available the latest in confocal microscopy and related technologies. This goal is achieved by maintaining the most advanced instruments, the most knowledgeable staff, and by extensive outreach activities to enhance research at Creighton University. The imaging techniques now available to Creighton University School of Medicine and other researchers include, but are not limited to:

- Imaging of fluorescent molecular labels in tissue,
- Three dimensional reconstruction,
- Imaging of molecular dynamic processes in living cells,
- Imaging of transmembrane currents,
- Fluorescence Resonance Energy Transfer (FRET), a method of demonstrating intermolecular associations,
- Fluorescence Lifetime Imaging (FLIM), which gives information about the excitation state of molecules,
- Metabolic imaging, which gives a direct reading of energy utilization in living cells,
- Single molecule fluorescence imaging for structural and dynamic studies.
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- Single molecule fluorescence imaging for structural and dynamic studies

Project Title: Does Defective Catagen Entry Triggers Folliculitis in EGFR Mutant Skin?

Principal Investigator: Laura Hansen, Ph.D.

Department: Biomedical Sciences

Award Amount: \$100,000

Description of Goals and Accomplishments: Signaling pathways downstream from the epidermal growth factor receptor (EGFR) are involved in the development of many kinds of cancer. Promising therapeutics targeting EGFR are in use or underdevelopment for these cancers. However, patients treated with EGFR inhibitors develop a folliculitis that can limit treatment. Recently, we have successfully established a mouse model to specifically ablate Egfr in the epithelial cells of the skin, and found that these mice develop an inflammatory reaction that mimics the response of patients to EGFR inhibitors. In addition, we have demonstrated that EGFR signaling is necessary for progression from the hair growth phase to involution (catagen) a necessary intermediate stage in hair follicle cycling. Our preliminary data suggests that defective catagen entry in Egfr mutant mice leads to inflammation in the skin. This proposal is designed to test the hypothesis that defective catagen entry triggers folliculitis in Egfr mutant skin by 1) documenting the type and timing of inflammatory cell infiltration into Egfr mutant skin relative to the hair cycle and 2) repairing the hair cycle defect in Egfr mutant skin to determine whether that prevents perifollicular inflammation.

Project Title: Vitamin D and Circulating T-Regulatory Cells in Patients with Sepsis

Principal Investigator: Georgios Hatzoudis, M.D.

Department: Surgery

Award Amount: \$25,000

Description of Goals and Accomplishments: The purpose of this study is to evaluate a correlation, if any, between vitamin D deficiency/insufficient and lower T-regulatory cells with sepsis. The central hypothesis is that trauma patients with vitamin D-deficiency or insufficiency develop sepsis in the intensive care unit and this correlates with decreased level of cathelicidin and low number and function of circulating T-regulatory cells.

Project Title: Research Fellow for the Esophageal Center

Principal Investigator: Sumeet Mittal, M.D.

Department: Surgery

Award Amount: \$24,000

Project Title: Probiotic Immunomodulatory Mechanisms in Mechanically Ventilated Patients

Principal Investigator: Lee Morrow, M.D.

Department: Pulmonary Critical Care

Award Amount: \$98,658

Description of Goals and Accomplishments: The goal of this collaborative, translational study is to expand on a recent randomized, placebo-controlled, double-blind, clinical trial that demonstrated a probiotic agent (Lactobacillus GG) was effective in reducing rates of various nosocomial infections in a large cohort of critically ill patients receiving mechanical ventilation. This study will explore the immunomodulatory mechanism(s) through which these effects occurred. The objective of this project will be to compare changes in the expression of key innate immune system mediators of critically ill patients in response to probiotic exposure.

Project Title: Nebraska Tobacco Settlement Biomedical Research Development New Initiative Reviewers

Principal Investigator: Thomas Murray, Ph.D.

Department: Associate Dean for Research and Chair, Pharmacology

Award Amount: \$5,200

Description of Goals and Accomplishments: The recently established competitive seed grant program is aimed at developing sufficient preliminary data from new projects to serve as the foundation for competitive NIH R01 applications. An external peer review committee composed of faculty from around the United States has been established to review all proposals. These committee members are experienced with peer review inasmuch as all have served as reviewers of NIH or NSF applications. The LB692 funds were used to provide honoraria for all reviewers.

Project Title: Establishing a Murine Model of CD5+B Cell Malignancy

Principal Investigator: Patrick Swanson, Ph.D.

Department: Medical Microbiology and Immunology

Award Amount: \$100,000

Description of Goals and Accomplishments: The goals of this project are to establish the clonality, malignancy, and immunoglobulin gene mutation status of tumor-associated CD5+ B cells, and identify and validate genes associated with CD5+ B cell accumulation and transformation in Double-transgenic mice. These studies will enable us to determine which variant of B cell chronic lymphocytic leukemia or mantle cell lymphoma the malignancy that emerges in double-transgenic mice most closely resembles and will illuminate molecules and pathways that can serve as biomarkers for disease progression and provide possible new therapeutic targets to treat CD5+ B cell neoplasms.

Project Title: Biomedical Research Program Development-Technical Writer/Proposal Editor

Principal Investigator: Kathleen Taggart, CRA

Department: Research and Compliance

Award Amount: \$29,237

Description of Goals and Accomplishments: The Office of Research and Compliance at Creighton University provides essential technical writing and proposal editing services to Nebraska Tobacco Settlement Biomedical Research Development Fund awardees as well as to the university at large. The Technical Writer and Proposal Editor is an especially useful asset for investigators for whom English is not a native language. Further, this position provides extensive support for science and medical writers who are masters of their respective content, but may need assistance in polishing their writing to a professional level. The Technical Writer and Editor provides three levels of writing services for investigators at Creighton University, ranging from proof reading through exhaustive developmental editing.

Project Title: Investigation of Severity of Influenza and Serum Vitamin D Levels

Principal Investigator: Theresa Townley, M.D.

Department: Family Medicine

Award Amount: \$25,000

Description of Goals and Accomplishments: This clinical research proposal will pair a primary care physician with a basic science researcher to determine the relationship, if any, between [25(OH)D] levels and the risk and severity of influenza infections along with the role of

circulating T-regulatory cells in influenza A. The hypothesis is that [25(OH)D] status is positively correlated with regulatory T-cell function in patients with influenza A.

Project Title: Shared Equipment for Investigators in the Department of Biomedical Sciences

Principal Investigator: John Yee, Ph.D.

Department: Biomedical Sciences

Award Amount: \$96,378

Project Title: Lab Relocation

Principal Investigator: Rowen Zetterman, M.D.

Department: Medical Dean

Award Amount: \$39,592

Minority Health Research Grants

Creighton's core values include the inalienable worth of each individual and appreciation of ethnic and cultural diversity coupled with service to others. As such, the Biomedical Research Development funds support Creighton University's commitment to improving the health of racial and ethnic minorities. In 2009-10, the funds were used to support the Creighton Community through clinical and educational services primarily to the African-American community in Omaha.

Project Title: Bensen Community Health Center

Principal Investigator: Syed Mohiuddin, M.D.

Department: Medicine

Award Amount: \$155,002

Description of Goals and Accomplishments: Through a collaboration between Charles Drew Health Center Inc., we plan to expand the delivery and coordination of health related services and programs.

Goals:

- Improve access to healthcare services by establishing a satellite clinical program.
- Increase community outreach to develop expanded health screening and assessment programs.
- Develop tailored health education and prevention programs to address chronic disease issues.
- Help educate the minority community regarding the importance of participating in scientific studies to address health disparities.
- Improve education and training for health professions to foster better understanding of the healthcare needs of diverse population groups.

Research:

- Creighton provides and promotes training and research in cardiovascular risk factors and health care disparities.
- The research program includes an advisory board to help with the educational outreach and patient recruitment strategies in the community which will ensure that the research performed is of the highest quality, innovative in scope, and meaningful to the

population.

- 2 NIH proposals have been submitted with collaboration from Charles Drew Health Center, Inc. 1. Healthy Bodies Healthy Souls 2. Childhood Obesity Grant
- AHA Community Action Award: Ladies on the Move

Education and Outreach:

- The Education and Outreach has implemented a comprehensive program that engages the local community to manage their health and to promote lifestyles that reduce health disparities.
- This community and individual involvement with minority health issues encourages community-directed, culturally sensitive programming.
- Best practices for communicating health promotion materials are being developed along with information about research findings and the need for minority recruitment into research studies.

Project Title: Center for Promoting Health and Health Equality

Principal Investigator: Sade Kosoko-Lasaki, M.D.

Department: Health Sciences Multicultural and Community Affairs

Award Amount: \$86,552

Description of Goals and Accomplishments: The purpose of the Center for Promoting Health and Health Equality (CPHHE) is to enhance community health through community-university collaborative research, education, and implementation in communities of Omaha and the region. To build a comprehensive, community-driven, and sustainable center, CPHHE is modeled on the tenets of The National Center on Minority Health and Health Disparities (NCMHD).

**BOYS TOWN NATIONAL RESEARCH HOSPITAL
Nebraska Tobacco Settlement Biomedical
Research Development Fund**

Year 9: July 01, 2009 – June 30, 2010
Progress Report

Executive Summary

During the ninth year of the NTSBRDF program, the Boys Town National Research Hospital (BTNRH) continued to pursue strategic objectives established during the first year. Funds received under the program were invested in recruitment and retention, research program and infrastructure development, and minority health research in pursuit of four major goals:

- Improve the health of Nebraskans through biomedical research.
- Increase NIH funding.
- Achieve positive impact for Nebraska from external funding and technology transfer.
- Enhance collaboration among Nebraska's major biomedical research institutions.

During Year 9, we continued support of four new researchers recruited in earlier years. One of our major success stories for Year 9 is Dr. Sudhakar Akulapalli, who received an initial R01 in addition to significant private foundation funding to study inhibition of tumor angiogenesis. Dr. Akulapalli joined our staff in 2004, after completing a three-year postdoctoral fellowship at Harvard. He recently received the Michael O'Connor Young Investigator Award, presented by Dr. James Watson at a symposium held at the Mayo Clinic and has been asked to serve on several editorial boards. He is now applying techniques developed to inhibit tumor angiogenesis to inhibition of macular degeneration and is preparing a second R01 application to fund that work. The NTSBRDF program made it possible for us to recruit Dr. Akulapalli and to continue providing supplemental funding for his research program until an R01 was awarded.

Two new appointments in Year 9 were made for Drs. Marisa Zallocchi and Kristin Janky. We provided support for Dr. Zallocchi, a research associate in Dr. Cosgrove's laboratory, when her R03 grant application received an outstanding score but was administratively withdrawn by NIH. She has resubmitted the application and will continue to study the effects of a complex of Usher syndrome proteins on the development of auditory system innervation. Dr. Janky recently received a Ph.D. in audiology from UNL and also holds the clinical doctoral AuD degree. We are providing start-up funds to enable her to develop a translational research program in the area of vestibular function while also serving as director of our vestibular clinic. Dr. Janky took a leave of absence during the second half of Year 9 to complete a one-year NIH postdoctoral fellowship at Johns Hopkins.

In the area of Minority Health, we continued to support a program on perception of speech in difficult listening environments in Spanish-English bilinguals which received R03 support from NIH during Year 8. As part of Research Program and Infrastructure Development, we continued to provide interim support for the Auditory Physiology Laboratory and start-up funds for a Behavioral Health research program to track and analyze patterns of psychotropic drugs that have been prescribed to children prior to admission to our Intensive Residential Treatment Center. We continued supplemental support for other core functions that are essential to the success of the research program.

During Year 9, BTNRH faculty continued teaching courses in the audiology program at UNL and provided stipend and tuition support for UNL graduate students. We worked closely with UNMC as

part of the Great Plains Health Research Consortium on submission of an application to NIH for a Clinical and Translational Science Award.

Strategic Faculty Recruitment & Retention

Most entries in this category represent multiple-year start-up packages for new investigators. As they obtain external support and become fully independent, they drop off the list making way for new people. We occasionally support established laboratories to allow them to maintain active research programs despite short-term lapses in funding. Dr. Akulapalli achieved independence during Year 9 and will not be on the list for Year 10. Two new entries in the list for Year 9 are Drs. Marisa Zallocchi and Kristin Janky.

Investigator: Sudhakar Akulapalli, PhD

Position Title & Department: Director of the Cell Signaling Laboratory, Usher Syndrome Center.

Expertise: Role of integrin/matrix interaction and signaling mechanisms in new blood vessel formation (vasculoneogenesis) as it applies to cancer and retinal degenerative diseases.

External Funding:

Current Funding Total: \$1,904,775

Funding Sources: NIH/NCI, FAMRI

Investigator: You-Wei Peng, PhD

Position Title & Department: Director of the Retinal Neurobiology Laboratory, Usher Syndrome Center.

Expertise: Mechanisms of photoreceptor degeneration associated with retinitis pigmentosa. A specific focus on the cellular processes that regulate retinal degeneration associated with Usher syndrome.

External Funding:

Current Funding Total: \$1,214,893

Funding Sources: NIH/NCRR

Investigator: Richard Tempero, MD, PhD

Position Title & Department: Director of the Lymphatic Biology Laboratory, Usher Syndrome Center.

Expertise: Roles of lymphangiogenesis in inflammation and cancer. Regulation of cellular cues that promote or inhibit formation of new lymphatic vessels using cell culture and *in vivo* modeling systems.

External Funding:

Pending

Investigator: Nicholas Smith, PhD

Position Title & Department: Director of the Perceptual Development Laboratory, Lied Learning and Technology Center.

Expertise: Use of behavioral methods including eye tracking to study the perceptual development of infants; acoustic measures of speech communication patterns between care givers and infants.

External Funding:

Current Funding Total: \$435,080

Funding Sources: NIH/NIDCD

Investigator: Marisa Zallocchi, PhD

Position Title & Department: Research Associate, Gene Expression Laboratory, Usher Syndrome Center.

Expertise: Biochemical mechanisms of Usher pathobiology in photoreceptors and cochlear hair-cells.

External Funding:
Pending

Investigator: Kristen Janky, AuD, PhD

Position Title & Department: Coordinator, Vestibular Services, center for Audiology and Vestibular Services.

Expertise: Physiological and behavioral assessment of vestibular function.

External Funding:
Pending

Research Program & Infrastructure Development

Many entries in this category are identical to those for the preceding year. We have provided updates in the descriptions of the projects.

Project Title: Animal Care Facility Core

Principal Investigator: JoAnn McGee, PhD

Amount of Funding: \$61,214

Description of Goals and Accomplishments: Core support is necessary to maintain adequate staffing levels and uniform *per diem* charges in the Animal Care Facility in spite of fluctuating levels in the use of the facility.

Project Title: Grant Proposal Preparation Core

Principal Investigator: Walt Jesteadt, PhD

Amount of Funding: \$206,650

Description of Goals and Accomplishments: The goal of this core is to facilitate submission of grant proposals by providing central support for preparation of the proposals, including development of grant budgets, maintenance of a up-to-date biographical sketches for all members of the research staff, maintenance of standard descriptions of laboratories and other research resources, aid in obtaining copies of important references, final formatting, and color printing of pages containing photographs, line drawings, and figures. The availability of a small but experienced support staff allows principal investigators to focus on the quality of the body of the proposal and insures that other sections of the proposal will be in compliance with the latest regulations. This support was invaluable during the rush to submit supplemental applications under the Recovery Act. The financial commitment will decline in coming years as we build more support into the BTNRH research administration budget.

Project Title: New Projects Fund

Principal Investigator: Michael Gorga, PhD

Amount of Funding: \$147,439

Description of Goals and Accomplishments: A central fund was continued in Year 9 to provide startup funds for pilot projects proposed by current members of the BTNRH research and clinical staff. This money was used to provide honoraria for research subjects, to pay part-time research assistants and to cover minimal supply costs. Requests for support were reviewed by a 3-member committee of senior investigators, chaired by Dr. Gorga. A separate 3-member committee of senior investigators chaired by Dr. Morley reviewed equipment requests from current members of the BTNRH research staff.

Project Title: Auditory Physiology Core Facility

Principal Investigator: Edward Walsh, PhD

Amount of Funding: \$71,633

Description of Goals and Accomplishments: The Auditory Physiology Laboratory provides core support in systems physiology for a number of new investigators supported by the NIH COBRE grant shared by UNMC, Creighton and BTNRH. Data provided by the lab have been used to describe the auditory phenotype of several strains of mice used in specific research projects.

Project Title: Behavioral Health

Principal Investigator: Patrick Connell

Amount of Funding: \$1,369

Description of Goals and Accomplishments: Psychotropic drugs are frequently prescribed to children with severe behavioral problems in the absence of normative data from clinical trials that would document the effects of such drugs in a pediatric population. In preparation for a research program to explore the effects of multiple psychotropic drugs on the neurobehavioral development of children, this project has tracked specific patterns of psychotropic drugs that have been prescribed to children prior to admission to our Intensive Residential Treatment Center. This pilot study was phased out in Year 9, but will form the basis of a major research initiative in future years.

Project Title: Recruitment Fund

Principal Investigator: Walt Jesteadt, PhD

Amount of Funding: \$5,000

Description of Goals and Accomplishments: A recruitment fund allows us to separate the costs of advertising and interviewing candidates from the costs of individual recruitment packages. The initial costs of recruitment occur well in advance of the start date for a position and we have found it beneficial to recruit for more positions than we actually fill. Allocation of a separate fund has facilitated advertisement of positions and coordination of recruitment visits.

Project Title: Postdoctoral Training

Principal Investigator: Walt Jesteadt, PhD

Amount of Funding: \$10,200

Description of Goals and Accomplishments: The longest running NIH grant at BTNRH provides support for a postdoctoral training program. The postdoctoral fellows contribute in many ways to the success of the research program as a whole. The grant does not support the cost of recruiting postdoctoral fellows and provides minimal support for travel to national meetings. We have therefore created a fund to support those costs.

Minority Health Research Grants

In Year 9 we have continued two projects reported in year 8.

Project Title: Minority Recruitment

Investigator: Michael Gorga, PhD

Amount of Funding: \$34,054

Description of Goals and Accomplishments: The Minority Recruitment project begun in Year 5 has continued to be successful in greatly increasing the representation of minority subjects in our NIH-funded research studies. The funds have been used to provide support for translation of consent forms and other documents, interpreters to aid in the consent process, and consultants in the minority communities. The value of this effort was increased by the presence of an NIH-funded Human Subjects Research Core at BTNRH that facilitates recruitment of subjects for all NIH-funded clinical studies. By attaching the Minority Recruitment effort to the existing core function, we have been able to spread the benefit of a proactive minority recruitment program across many laboratories.

Typical minority participation in our research studies is well above the representation of minorities in our community.

Project Title: Spanish-English Bilinguals

Investigator: Kanae Nishi, PhD

Amount of Funding: \$37,360

Description of Goals and Accomplishments: The previous phase of the project found that Spanish learners of English (L2) relied heavily on contextual information to process speech presented in noise and that their reliance on context varied widely among individuals even for listeners with similar English proficiency. This year, we are examining the influence of the extra processing listeners use to incorporate contextual information to fill in the missing portion of the speech signal. So far, 29 L2 listeners have been tested and data analysis is on-going. The results are expected to provide important information regarding the strategies L2 listeners use to overcome the detrimental influence of noise. Such information could be used to help poor performers improve their speech perception in noise. This study has practical value for bilinguals working in noisy environments.