



Northern Plains Consortium

Montana ~ North Dakota ~ South Dakota ~ Wyoming ~ Idaho

It all began in 2006....



- 3-year CDC grant to “integrate public health testing in clinical laboratories”
- Organized to develop a regional laboratory system, and coordinating laboratory system improvement activities across the region
- Group of professionals representing PHLs and Communicable Disease /Epis from Montana, North Dakota, South Dakota, and Wyoming
- Share demographic characteristics which contribute to common challenges facing us and our clinical laboratory partners

Shared Demographic Statistics

(US Census Bureau Rankings 2005, 2014)



Category	MT		ND		SD		WY		ID
	05	14	05	14	05	14	05	14	14
Resident Population	44	44	48	47	46	46	50	50	39
Resident Population, % American Indian Population	5	5	6	6	3	3	8	8	10
Resident Population, % 65 Years and Older	10	6	4	31	7	19	34	40	38
Gross State Product	47	49	49	43	46	46	48	47	41
Average Annual Pay	50	43	47	15	49	33	42	21	40

Shared Challenges



- Sparsely populated areas, with several larger cities
- Service a large geographical area
- Public health laboratory staff few in number
- Limited budgets

Selected Characteristics

(A Practical Guide to Assessing and Planning Implementation of Public Health Laboratory Service Changes, LEI/CDC/APHL May 2012)



Category	MT	ND	SD	WY
No. of personnel (FTE)	39	36	28	29
No. of samples tested/year	56,150	72,642	62,742	72,600
No. of tests performed/year	247,588	278,617	180,000	340,000
Budget (FY 2011)	\$5.0 Mil	\$4.5 Mil	\$5.3 Mil	\$3.3 Mil
Budget from general fund (%)	7	44	0	51
Budget from fees (%)	65	15	60	20
Budget from grants (%)	28	41	40	29

Northern Plains Consortium



- 2013 – Idaho joined the Consortium
- Limited formal agreements exist between the states
 - Most activities are done informally (handshake agreement)
 - All states have ability to invoice others for services provided, if volume becomes too burdensome

Project Oriented Activities



Projects based on Identified Needs/System Improvement

Surveys and trainings with clinical laboratories: AST Practices, STD Practices, *C. difficile*, QMS

Regional and State Communication Plans

Transportation Exercises

Workforce Development Plans

LRN PT and Western States PT

TB NAAT testing and Educational Campaign

Succession Planning

Electronic test orders and results (ETORs)

Biosafety Outreach

Shared Testing Services



Tests that are/have been shared between states

HIV Multispot Supplemental Testing

Hepatitis C RNA, genotyping

16s Ribosomal bacterial ID

Lyme Disease Western Blot

Hantavirus (SNV) Serology

TB NAAT Testing

Certain VPD IgM tests

Shared Testing Services Spreadsheet



Test Group	States Currently Testing	Analytes Reported	Method	Instrumentation	Sample Type	Willing to provide shared service?
Respiratory Syncytial Virus		RSV	PCR			
Respiratory Viral Panel	ND	9 Viral Agents	PCR - Microbead Assay		Respiratory Sample	
Rocky Mountain Spotted Fever	MT	RMSF IgG Serology	CDC RMSF Antigen IFA	Manual	Serum	
Rubella		Rubella by PCR				
Rubella	MT	Rubella IgG Serology	Wampole - ELISA	Semi-automated	Serum	
Rubella		Rubella IgM Serology	DiaMedix - ELISA			
Rubeola (Measles)		Rubeola by PCR	CDC Method			
Rubeola (Measles)	MT	Rubeola by Viral Culture	Virus Culture + DFA identification	Manual	NP, Throat Swab	MT
Rubeola (Measles)	MT	Rubeola IgG Serology	Wampole - ELISA	Semi-automated		
Rubeola (Measles)		Rubeola IgM Serology	IFA - Zues Wampole Slides			
S. pneumoniae serotyping		S. pneumoniae serotype	Molecular			
Salmonella serotyping		Salmonella serotype	Manual Agglutination		Salmonella Isolate	
Salmonella serotyping		Salmonella serotype	Microbead Assay	BioPlex	Salmonella Isolate	
St. Louis Encephalitis Virus		SLE IgG Serology	CDC ELISA method	Semi-automated	Serum	
St. Louis Encephalitis Virus		SLE IgM Serology	CDC ELISA method	Semi-automated	Serum	

Example from 2011

Shared Technical Services



Technical Services Shared Between States

Referral work for short term needs /during revalidations

Chlamydia culture troubleshooting

External audit findings/responses (Select Agent, CLIA, FAA, DOT)

Grant applications, funding – successes and challenges

Sharing protocols for new processes (IQCP, Competencies)

Sharing technical SOPs, conducting PHL trainings

April 2014 – Succession Planning



- Long time Laboratory Directors were retiring (MT, WY, SD)
- Brainstormed and prioritized the skills and knowledge required to be an effective PHL director or manager in a rural state
- Generated ways to develop and transfer these skills and knowledge sets to emerging leaders
- Addressed ways to capture institutional knowledge
- The Northern Plains Consortium Emerging Leader Program was born

Regional Emerging Leaders Program



- February/March 2015: 8 future Lab/Epi leaders began the year-long program
- Follow a prescribed curriculum
 - Based on succession planning meeting held in April 2014
 - Modeled after APHL Emerging Leaders and ASCLS Leadership Academy
 - Faculty is primarily current leaders in the NPC states
 - Monthly webinars, face-to-face meetings, team project
- Peer to Peer Visits
- Measure of success: 3 of the 8 members have been promoted



Overall Benefits of NPC



- Collective brainstorming; draw on the ability and knowledge of a broad group of SMEs
- Capitalize on each other's strengths and successes; adopt other laboratories' approaches to specific problems
- Maintain capacity for certain low volume tests
- Identify opportunities for sharing protocols, expertise, and trainings
- Identify ways to leverage shared resources
- Develop priorities and improve the public health laboratory system

Challenges faced



- Each laboratory has limited staff; hard to devote time to activities of the NPC
- Seeking funding opportunities to continue face-to-face meetings
 - Travel logistics due to large geographic area
- Costs and coverage prohibit bringing more lab staff/epidemiologists to the meetings
- Some activities (ETORs) require additional funding

Lessons Learned



- One state needs to take a lead role to administer the NPC
- Sharing services is much broader than shared testing
- Find activities that have relevance in each state; costs of many activities have been minimal or absorbed into existing budgets
- There is value in including Communicable Disease/Epidemiologists in activities and discussions
- **Face-to-face meetings foster the relationships – key to success**

NORTHERN PLAINS CONSORTIUM

ID-MT-ND-SD-WY

