

### HB1012 Disease Control and Forensic Pathology Detail

Kirby Kruger, Director of Disease Control and Forensic Pathology Jan. 20, 2025



Health & Human Services

# **Our Vision**

North Dakota is the healthiest state in the nation.

# **Our Mission**

HHS fosters positive, comprehensive outcomes by promoting economic, behavioral and physical health, ensuring a holistic approach to individual and community well-being.



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### **Disease Control and Forensic Pathology Section Overview**



#### Who we are

- Public Health
- Program and subject matter specialist
- Epidemiologists
- Investigators



Our role

- Better understand causes of disease and death
- Primary prevention
- Secondary and tertiary prevention



### Services

- Autopsies
- Prevention measures and programs
- Disease patterns, data and reports



#### Partners | Providers

- County coroners
- Law enforcement
- Local public health
- Tribal Health
- Health care providers
- Other state agencies
- Schools, childcare



# **Disease Control and Forensic Pathology**

NORTH





# **Disease Control and Forensic Pathology**

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FIELD SERVICES Brenton Nesemeier, MS, Director	INFECTIOUS DISEASE & EPIDEMIOLOGY Michelle Dethloff, Director	IMMUNIZATIONS Molly Howell, MPH, Director	SEXUALLY TRANSMITTED & BLOODBORNE DISEASES Lindsey VanderBusch, MPH, Director	Forensic Examiner Vacant, Director
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East Central Mary Bruns	Jeannie Woolston, HIS Data Quality Analyst Jill Hanson, HIS Epidemiologist	Mary Woinarowicz, Manager Allison Dykstra, NDIIS Coordinator Melissa Marto, NDIIS Data Quality	HIV.STI.Hepatitis Surveillance Luke Unger, HIV.STI Surveillance Coordinator	Autopsy Technician Brittany Mohl
North Central Linda Larson	Amy Hanson, Manager Surveillance Epidemiology	Ronda Kercher, NDIIS Data Administrator Vaccines for Adults (VFA)	Claire Erickson, Hepatitis C Surveillance Coordinator Ryan White Part B/ADAP Gordana Mathem, Ryan White Program Coordinator	Autopsy Assistant Gerri Heard
Rachel Goebel - Crystal Duncan	Allison Klassen - Katelyn Nelson Genomic Epidemiology	Jenny Galbraith, Manager Kristen Vetter, VFA Coordinator	Courtney Ali, Ryan White Specialist TB Prevention & Surveillance	
Heather Kontz – Samantha Janecek	Abbey Fraser Enteric/Zoonotic Disease Epidemiology Slate Boyer HAI Grant Coord/Disease Epidemiology	Vaccines for Children (VFC)/QI Abbi Berg, Manager Miranda Baumgartner, West Rachel Flores, East	Laura Cronquist	
	Robert Peters Healthcare Associated Infections/Prevention Faye Salzer, Manager <i>IP Consultants</i> Jordan Taghon, Lead Megan Compson - Shea Griffith – Morgan Messer <i>Antibiotic Stewardship</i> Emily Perry, NDSU ~	CDC Public Health Advisor Lynde Monson *		
	Respiratory Epi & Syndromic Surveillance Levi Schlosser			<ul> <li>NDIT Staff</li> <li>CDC Staff</li> </ul>
	Vectorborne/General Epidemiology Amanda Bakken			~ NDSU Staff



### **Disease Control and Forensic Pathology** Team Structure and Function

Section Name			
23-25 FTE	25-27 FTE Requested	# of Temporary	# of Vacancies
40	40	19	1

Average Age	39
Avg Years of Service	9
Retirement Risk	2.5%
Turnover 2023	3.0%
Turnover 2024	10.0%



# **Disease Control and Forensic Pathology Units**

Forensic Examiner's Office	lmmuniza Unit	ation	Field Services Unit
Infect	ious	Sex	kually
Disease	es and	Transm	hitted and
Epidem	iology	Bloo	dborne
Un	it	Disea	ase Unit



# Forensic Examiner's Office

Determine Cause and Manner of Death

- Non-natural deaths
- Work with county coroners
- Work with law enforcement
- Work with state's attorneys





# State Coverage for Forensic Pathology Services with UND and Health and Human Services







# **Forensic Examiner's Office**



Autopsies

- 2023 188
  - 272 at UND
- 2024 122 cases (48 referrals to UND)
  - 372 at UND
- Continued work with LifeSource on organ/tissue procurement

### Building Improvements

- Updated the heating, ventilation, air conditioning system
- Updated security





### Immunization Unit



- Working with local public health, health care providers and other key stakeholders to promote the prevention of severe disease and disability through immunizations
- Report immunization coverage rates and assure citizens and healthcare providers have access to immunization records
- Administer the federal Vaccines for Children Program (VFC) for North Dakota
- Provide the most up-to-date information on vaccine recommendations and schedules to citizens and health care providers
- Prevent and respond to vaccine-preventable diseases

# **Impacts of Vaccines and Vaccination – Polio**







# **Impact of Vaccines and Vaccination**





FIGURE. Estimates<sup>\*</sup> of percentage of coverage with 2024–2025 COVID-19 vaccine (A), influenza vaccine (B), and respiratory syncytial virus vaccine (C) among nursing home residents, by U.S. jurisdiction and U.S. Department of Health and Human Services region<sup>†</sup> – National Healthcare Safety Network, United States, November 2024<sup>§</sup>





Percentage of estimated coverage

>75 >60-75

>45-60

>30-45 >15-30

0-15

Not reported or fewer than five facilities reporting



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Return

### **Immunization Unit Successes**



- RSV combined immunization coverage in first year of availability for infants estimated at 55.4%; likely > 70% this year
- 2024 Immunization Conference 313 attendees
- High adolescent immunization rates
- Fourth in the U.S. for COVID-19 vaccination rates amongst skilled nursing facility residents
- NDIIS Modernization
  - Go-live: November 18, 2024
  - 75 interoperable connections that impact 520 individual sites, 6,015 users and all North Dakotans (provided 761,176 immunization records since July 1, 2023)
  - Improved user experience and modernized security



# **Immunization Unit Challenges**



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Preliminary school immunization survey data





## Immunization Challenges: VPDs in ND

- Pertussis- 148 cases in 2024
  - 13 infants
  - 8 hospitalizations (max 54 days)
- *Haemophilus influenzae* type B in 2023
  - Unvaccinated infant with

meningitis

• Hepatitis A – 6 cases in 2024



### **Immunization Unit Activities to Increase Rates**



- Reminder/recall of infants, school-aged children and adolescents who are 30 or more days behind on immunizations
- Immunization Quality Improvement for Providers
- Collaboration to increase rates with key stakeholders: local public health, coalition, NDSU Center for Immunization Research and Education, children's science museum, etc.
- Immunization and motivational interviewing education of healthcare providers and at schools of health
- Get FACTSinated Campaign: A healthy dose of information about immunizations





Infectious Disease and Epidemiology Unit

- Monitor disease trends and impacted populations/communities
- Provide technical guidance on reducing health care associated infections
- Promote antimicrobial stewardship
- Investigate sources of illness or outbreaks such as foodborne related infections
- Monitor disease vectors such as ticks, mosquitos and animal rabies cases

# Infectious Diseases and Epidemiology Disease Monitoring



### Respiratory Dashboard

- Influenza
- RSV
- COVID-19

	Overview	Demographics	Hospitalization/Death	ILI and Lab Positivity		Data Descriptions
D	N O RT H Akota   Health & Human Services No Lagendary.	<b>2024-202</b> North Da	5 Respiratory Pathogen Wee skota Department of Health and Huma	kly Report n Services		Week 1 Ending Saturday, January 04, 2025 Last updated: 1/8/2025
(	C	ombined			Last Week	Season Total
(	Influenza	RSV COVID-19		Cases of <b>Influenza</b> :	559	1,982
Overall respiratory activity remains elevated and RSV increasing from the previous week. continue to rise and nationally overall respir patterns.	Overall respiratory activity remains ele	evated with newly reported cases of COVID-1	9	Cases of <b>RSV</b> :	49	150
	respiratory activity appears to follow similar		Cases of COVID-19:	500	7,365	
	Vaccines are our best defense against COVID-19, and RSV. For more informa immunization page <u>here</u> .	serious illness from viruses like influenza, ation on immunizations, please visit our	Outpatient Visits f	or Respiratory Illness:	6.66%	3.14%





### **Other Activities in Infectious Diseases and Epidemiology**









Assisting with rabies investigation

- Human case non-resident
- Health Care
   worker follow-up

Enteric Illnesses

- More than 500 reports in 2024
- Try to determine source and spread (DNA sequencing)
- Prevention

Health Care Associated Infections

- Work with facilities (ICARS)
- Assist with MDRO investigations

#### Antibiotic Stewardship

- Monitor prescribing trends
- Promote appropriate antibiotic prescribing



# **Antibiotic Stewardship Awards, North Dakota**





### **Infectious Diseases and Epidemiology Goals**



- Modernize EDSS (Electronic Disease Surveillance System)
- Analyze antibiotic prescribing and use data for more targeted stewardship interventions
- Automate enteric sequencing data and metadata from SEDRIC to EDSS
- Finalize internal respiratory and enteric disease surveillance dashboards
- Develop comprehensive multi-year historical dashboard of tick surveillance data by species and county and make publicly available







### **Field Services**



- Verify diagnoses of reportable conditions
- Follow-up with people who have reportable conditions
- Work with people at increased risk for an infectious disease
- Primary, secondary and tertiary disease prevention
- Work with partners and stakeholders





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Field Services and Pertussis

- 148 cases of pertussis reported in 2024
- Work closely with the Immunization Unit and local public health
- Interview cases and or family members
- Notify contacts
- Work with schools and childcare facilities

### **Field Services Goals**



- Collaborating with local public health to bring Binx boxes to underserved regions of the state – Increase in testing and availability of testing for citizens
- Continue to work with community partners to prevent syphilis cases – especially cases in pregnant women/babies
- Conduct Field Visits and educate providers on importance of testing/treating





### Sexually Transmitted and Bloodborne Diseases (and TB)

Prevention through early detection and treatment

- Congenital Syphilis
- Late effects of syphilis
- Neonatal infections and infertility secondary to gonorrhea and chlamydia infections
- Reducing viral loads to non-detectable levels
  - Hepatitis C (elimination of hepatitis C infection)
  - HIV
- Working with local harm reduction programs
- Assuring TB cases are treated and contacts are notified and offered testing and treatment





### Syphilis In North Dakota

- 343 cases in 2024 up 60% from 2023
- 20% of new cases reported resulted from partner services
- 14/16 pregnant cases successfully treated prior to delivery
  - 2 cases of congenital syphilis in mothers with late or no prenatal care.





Gonorrhea in North Dakota

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- 781 cases in 2024, down 32% from 2023
  - Down 55% from our peak in of 1,738 cases in 2021
  - 18% of cases resulting from partner notification
- Challenges continue with the emergence of strains resistant to main-line antibiotics

### **Sexually Transmitted and Bloodborne Disease Goals**



- Start Planning for 2026-2031 Integrated HIV Prevention & Care Plan
- Continue to push for community centered approach to syphilis
- Continue fostering collaboration with Community Engagement and Field Services Units



### **Collaboration with our Internal Partners**

#### • Medicaid

- Immunizations
- Ryan White
- HIV and Hepatitis
- Sexually Transmitted Infections
- TB
- Healthcare Associated Infections
- Child Care Services
  - Across all Disease Control Units
- Behavioral Health
  - Harm Reduction
  - STI and Bloodborne Diseases
  - Field Services





# **Comparison of budgets and funding**

By Major Expense

	2023-25 BASE				2025-27 EXECUTIVE	
DESCRIPTION		PUDGET		INCREASE/DECREASE		BUDGET
		BODGET				RECOMMENDATION
Salaries and Benefits	\$	14,890,554	\$	(1,119,796)	\$	13,770,758
Operating		12,248,518		3,450,898		15,699,416
IT Services		13,377,225		1,881,563		15,258,788
Capital Asset Expense		-		25,000		25,000
Capital Assets		-		278,000		278,000
Grants		23,758,800		(7,593,452)		16,165,348
TOTAL	\$	64,275,097	\$	(3,077,787)	\$	61,197,310
GENERAL FUND	\$	6,747,269	\$	37,155	\$	6,784,424
FEDERAL FUNDS		56,518,991		(7,464,191)		49,054,800
OTHER FUNDS		1,008,837		4,349,249		5,358,086
TOTAL FUNDS	\$	64,275,097	\$	(3,077,787)	\$	61,197,310



# **Decision Package Detail**

#### By Ongoing, One-Time and Funding Source

#### **Coordinated Immunization Access**

- Purchasing of Hepatitis B and RSV vaccines for healthcare providers off federal contract
  - \$2,213,930 ongoing Special Funds

#### Eastern ND Autopsy Contract

- Inflationary increase for University of North Dakota to perform autopsies
  - \$1,866,156 ongoing Special Funds

#### Forensic Examiner Electronic Records System

- Purchase of electronic records system to record forensic cases
  - \$278,000 one-time Special Funds

#### Executive Compensation Plan

• \$565,324 ongoing General Fund



# **Comparison of budgets and funding**

#### **By Budget Account Code**

				20	025-27 EXECUTIVE
DESCRIPTION	2023-	25 BASE BUDGET	INCREASE/DECREASE		BUDGET
				RE	COMMENDATION
511x Salaries - Regular	\$	5,925,303	\$ 517,129	\$	6,442,432
513x Salaries Temp		6,159,682	(1,883,408)		4,276,274
514x Salaries Overtime		193,770	(193,770)		-
516x Salaries Benefits		2,611,799	440,252		3,052,051
TOTAL SALARIES & BENEFITS	\$	14,890,554	\$ (1,119,796)	\$	13,770,758
52x Travel		431,200	(134,997)		296,203
53x Supply		109,453	(63,377)		46,076
54x Postage & Printing		381,358	72,910		454,268
56x Utilities		84,562	317		84,879
58x Rent/Leases - Bldg/Equip		127,571	6,276		133,847
59x Repairs		110,850	(45,792)		65,058
61x Professional Development		167,480	(64,194)		103,286
62x Fees - Operating & Professional		10,836,044	3,679,755		14,515,799
53x Supplies		51,161	44,906		96,067
60x IT Expenses		13,326,064	1,836,657		15,162,721
68x Land, Building, Other Capital		-	25,000		25,000
69x Equipment Over \$5,000		-	278,000		278,000
71x Grants, Benefits, & Claims		23,758,800	(7,593,452)		16,165,348
TOTAL OPERATING	\$	49,384,543	\$ (1,957,991)	\$	47,426,552
TOTAL	\$	64,275,097	\$ (3,077,787)	\$	61,197,310



# Operating

	(	2025-27 EXECUTIVE BUDGET	INCREASE/
DESCRIPTION	2023-25 BASE BUDGET	RECOMMENDATION	(DECREASE)
Interpreter, disease response, investigation and advertising fees	\$ 40,700	\$ 28,000	\$ (12,700)
Vaccine Storage, Bridge Access Program and Letter of Agreements	106,850	109,022	2,172
Legal Fees	28,500	36,000	7,500
Hepatitis and other outbreaks - Case Management Follow-Up	80,000	80,000	-
Immunization - Purchase of agreements, State Conference and Media Campaign	1,254,000	560,000	(694,000)
HIV - Media Campaign and Prevention Walk	280,000	280,000	-
Sexually Transmitted Infections Education and Quality Management Detailing	250,000	50,000	(200,000)
Tuberculosis Case Management, Contract Pharmacy and Infection Coordinator	262,000	262,000	-
Electronic Verification of Vital Events (EVVE) - Data Cleansing	16,000	16,000	-
Ryan White Community Planning and Evaluation and 340B Consultant	60,000	60,000	8
HIV, Hepatitis and Sexually Transmitted Infections At Home Test Collection	1,050,000	800,000	(250,000)
Public Health Subject Matter Experts	715,000	527,000	(188,000)
Public Health Conference and Infection Prevention Conference and Training	40,000	30,000	(10,000)
Transportation for deceased	22,000	22,000	-
Toxicology testing, genetic testing, specimen samples and neuropathology	260,076	320,267	60,191
Autopsy contract for eastern ND	1,718,864	3,585,020	1,866,156
Medical Waste	25,729	34,210	8,481
Medical Supplies Forensic Pathology	47,065	19,272	(27,793)
Ryan White Pharmaceutical Payments and Insurance Premiums	4,145,410	5,049,228	903,818
HIV, Hepatitis, Tuberculosis test kits	433,850	433,850	-
Coordinated Immunization access for Hepatitis B and RSV		2,213,930	2,213,930
GENERAL FUND	\$ 1,077,234	\$ 1,124,613	\$ 47,379
FEDERAL FUNDS	8,758,810	8,311,100	(447,710)
OTHER FUNDS	1,000,000	5,080,086	4,080,086
GRAND TOTAL	\$ 10,836,044	\$ 14,515,799	\$ 3,679,755



### Grants

DESCRIPTION	2023-25 BASE BUDGET	2025-27 EXECUTIVE BUDGET RECOMMENDATION	INCREASE/ (DECREASE)
Immunization Program - provide assistance with surveillance and reporting			
vaccine preventable diseases, immunization disparities, and pediatric rates	\$ 7,288,000	\$ 7,110,000	\$ (178,000)
Immunization Education campaign	5,705,000	2,000,000	(3,705,000)
Ryan White Case Management Contracts	2,875,000	3,400,000	525,000
Integrated HIV prevention and care advisory board community based education	100,000	250,000	150,000
State-wide antibiotic resistance prevention and stewardship activities	495,000	504,000	9,000
Tuberculosis Surveillance contracts HIV Prevention Counseling Testing & Referral Contracts - patient testing/raid	80,000	80,000	-
testing	325,000	450,000	125,000
Hepatitis Contracts	180,000	243,000	63,000
Sexually Transmitted Infections - at-home test collection and targeted marketing	480,000	350,000	(130,000)
COVID response and mitigation contracts for Local Public Health, confinement			
and homeless communities	6,230,000	1,500,000	(4,730,000)
Quantitative Molecular Surveillance of water collected from waste autosampler			
for analysis	-	200,000	200,000

GENERAL FUND	\$ 50,000 \$	50,000 \$	-
FEDERAL FUNDS	23,708,000	16,037,000	(7,671,000)
OTHER FUNDS			
GRAND TOTAL	\$ 23,758,000 \$	16,087,000 \$	(7,671,000)



# **Contact Information**

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![](_page_36_Picture_3.jpeg)