A large, thick black L-shaped graphic is positioned on the left and bottom right sides of the slide, framing the central text.

USING AN INTEGRATED APPROACH TO ASSESS HEPATITIS B VACCINATION AND IMMUNITY AMONG PEOPLE LIVING WITH HIV

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Background

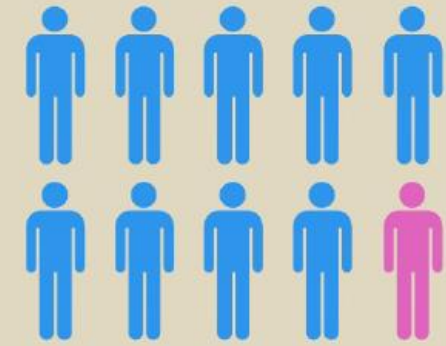
- People with HIV are at an increased risk of HBV infection
 - *Mode of transmission*
 - *Chronic infection, e antigen, higher DNA levels, cirrhosis, liver-related death*
- Hepatitis B vaccine is the most effective way to prevent infection
 - *WHO – eliminate HBV as a public health threat by 2030*
 - *HHS National Viral Hepatitis Action Plan – 60% reduction in new hepatitis B cases by 2020*
 - *Advisory Committee on Immunization Practices recommends hepatitis B vaccine for all people with HIV*
 - *U.S. Department of Health and Human Services guidelines indicate all HIV-positive patients susceptible to HBV should get vaccinated*
 - How do we assess?

Background

- Medical Monitoring Project - 44.2% of U.S. HIV patients eligible for vaccine
 - *Medical record review and patient interview*
- Wyoming is not an MMP state
 - *3 HIV providers / HIV case management in every county*
 - Private providers
 - Many people travel to surrounding states for care
 - *No Ryan White clinics – funding goes to WDH and reimburses providers for services*
 - *Hard/time consuming to do medical record review of all patients*
 - *No national hepatitis surveillance or immunization database*

Background

- *Wyoming rural / low incidence and prevalence*
 - Approximately 2% of PLWH in Wyoming are coinfectd with HBV



91% of new diagnoses were among men

36%

of newly reported infections were diagnosed as AIDS

91%

of newly reported cases were among non-Hispanic Whites. Hispanics of any race accounted for an additional 9%

HIV case rate per 100,000 people, Wyoming, 2013-2017



Background

- 2017 hepatitis B in Wyoming
 - *15 cases reported*
 - *60% male*
- HIV coinfection
 - *National estimate is approximately 10%*
- Adult Immunization Program
 - *Provide free hepatitis vaccines to adults*
 - *Offered in every county*

Fifteen (15) cases of HBV were reported in 2017, two of which were acute infections. This is a decrease from the number of infections reported in 2016 (34).



■ Male ■ Female

Of the 15 reported HBV cases, 9 were male.

3.2%

The percentage of people with HIV in Wyoming that are co-infected with HBV

3,000

The approximate number of people that receive at least one dose of hepatitis B vaccine through the Wyoming Department of Health Adult Hepatitis Vaccine Program each year

Background

- Systems used in Wyoming
 - *PRISM – Surveillance system used for STD and viral hepatitis surveillance and partner services*
 - HIV partner services, HIV rapid test data, all HIV cases
 - *CAREWare – Ryan White case management system*
 - *eHARS – HIV surveillance system*
 - *WyIR – Wyoming Immunization Registry*
 - Immunization database for all WY residents
 - *STARLIMS – public health laboratory system*
 - *NEDSS – electronic laboratory reports*

Methods

- HIV cases currently living in Wyoming
 - *eHARS*
- Cross-sectional analysis of:
 - *Vaccination (full or partial)*
 - Wyoming Immunization Registry (WyIR), CAREWare
 - *Immunity*
 - STARLIMS (Public Health Lab), CAREWare, NEDSS
 - *Infection*
 - PRISM

Methods

- Vaccine-eligible
 - *No documentation of vaccination (including partial)*
 - *No documentation of immunity*
 - *No documentation of infection*

Methods

- Sociodemographic variables
 - *Race/ethnicity*
 - *Age*
 - *Residence at diagnosis (WY vs everywhere else)*
 - *Enrolled in Ryan White Services*
 - *Birth sex*
 - *Stage 3 (AIDS) status*

Methods

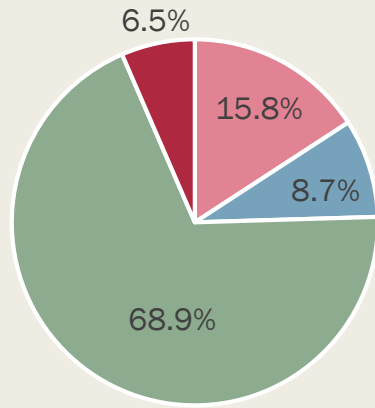
- Analysis
 - *Frequencies to describe HIV population*
 - *Pearson's chi-square to assess associations between vaccine eligibility and sociodemographic characteristics*
 - SAS 9.4

Results

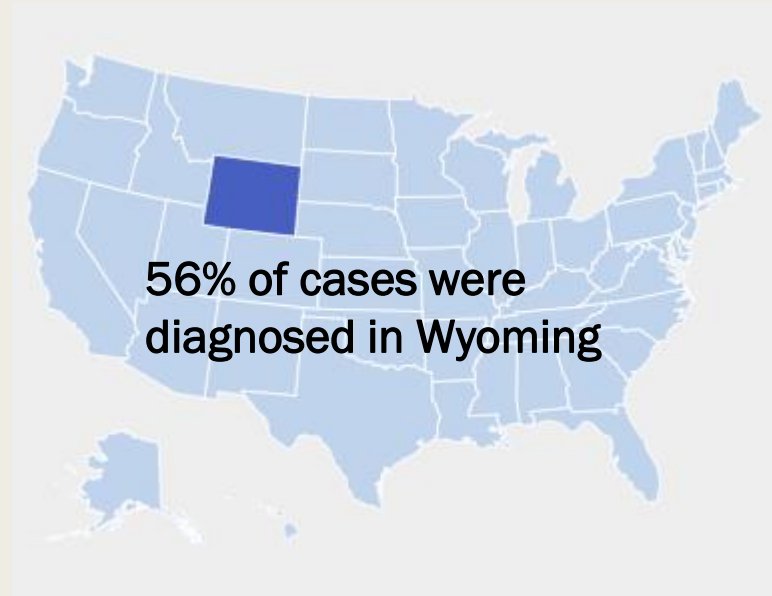
Variable	N	%
Ryan White Participant		
Yes	180	58.3
No	129	41.7
Diagnosed while living in Wyoming		
Yes	173	56.0
No	136	44.0
Diagnosis of HIV Stage 3 (AIDS)		
Yes	170	55.0
No	139	45.0

Results

Race/Ethnicity



■ Hispanic ■ Black ■ White ■ Other



80% Male



75% were 40 years or older

Results

Vaccine/Immunity Status	Total
Full vaccine series	91 (29.4%)
Partial vaccine series	24 (7.8%)
Immunity	29 (9.4%)
Infection	7 (2.3%)
No documentation of vaccine, immunity, or infection	158 (51.1%)
Total	309 (100%)

Results

Vaccine/Immunity Status	Total
Full vaccine series	91 (29.4%)
Partial vaccine series	24 (7.8%)
Immunity	29 (9.4%)
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Total	309 (100%)

The table includes graphical annotations: a blue bracket on the right side groups the first three rows (Full vaccine series, Partial vaccine series, and Immunity) with the label "Ineligible". A red arrow on the right side points to the "No documentation of vaccine, immunity, or infection" row with the label "Eligible".

Results

Variable	Vaccine-Eligible	Ineligible for Vaccine	Pearson's Chi-Square Test <i>P</i> value
Ryan White Participant			
Yes	77	103	0.0005
No	81	48	
Diagnosed while living in Wyoming			
Yes	78	95	0.0165
No	80	56	
Diagnosis of HIV Stage 3 (AIDS)			
Yes	99	71	0.0057
No	59	80	

Results

Variable	Vaccine-Eligible	Ineligible for Vaccine	Pearson's Chi-Square Test <i>P</i> value
Age Group			
<40 years	39	46	0.2554
40+ Years	119	105	
Race/Ethnicity			
Hispanic	18	31	0.17
Black/Not-Hispanic	14	13	
White/Not-Hispanic	116	97	
Other/Not-Hispanic	10	10	
Birth Sex			
Female	32	32	0.8387
Male	126	119	

Conclusions

- Only 40% of PLWH had documentation of a full vaccine series or immunity
- Over half of those with HIV eligible for vaccine
- Results of Chi-Square are expected
 - *RW Status*
 - *Residence of Diagnosis*
 - *AIDS status*

Limitations

- No medical record review
- Migration
- Getting care out of state
- Vaccination does not equal immunity

Current Efforts and Next Steps

- Current efforts
 - *Enrollment form*
 - *Screening Project*
 - *DIS linkage to care*
- Chart audits
 - *Discrepancy between patient charts and CAREWare*
- Provider and case manager education
- Improvement of HAB measures

Current Efforts

The Wyoming Department of Health recommends that all HIV-infected persons be vaccinated for Hepatitis A & B as well as screened for Hepatitis B & C.

Have you been vaccinated against hepatitis A or B?
Do you have a copy of your vaccination records?

Yes No DON'T KNOW

Yes No DON'T KNOW

Date of vaccination #1: _____

Date of vaccination #2: _____

Date of vaccination #3: _____

Would you like to be vaccinated against hepatitis A or B?

Yes No DON'T KNOW

Have you ever been screened for hepatitis C?

Yes No Date: _____

If yes, have you ever been diagnosed with hepatitis C?

Yes No DATE: _____

If yes, do you currently receive treatment for hepatitis C?

Yes No

If no, would you like to be screened for hepatitis C?

Yes No



If the client wishes to be vaccinated or screened for hepatitis, or if the client has hepatitis C, screened for Tuberculosis, needs to see an oral health provider or is pregnant but not in care, provide a supported referral to a medical provider. Integrated counseling, testing, and referral programs offer hepatitis vaccination and screening services, in addition to TB, STD screening and HIV testing.

Thank you!

