



EXAMINING THE WASHINGTON STATE PERINATAL HEPATITIS B PREVENTION PROGRAM CASE MANAGEMENT MODEL

July 15, 2015

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Presentation Outline

- Background/Significance
- Purpose
- Methods/Results
 - ▣ LHJ
 - ▣ States, City, and Canadian Province (Non-WA Sample)
- Discussion
- Implications for Practice
- Conclusion



Background

- Hepatitis B one of the most common infectious diseases in the world^{1,2}
- Estimated 25,000 infants born to HBsAg-positive mothers in United States each year³
- Women of Asian or Pacific Islander (API) descent represent 75% of HBsAg-positive mothers in the United States⁴
- Washington State has the fifth highest API population in the United States⁴



Washington State

2009 Annual Assessment of Progress Toward Goals to Prevent Perinatal HBV Transmission⁵

- Maternal screening 95% for HBsAg
- Identified 45% of the expected HBsAg+ births
- Total case managed 330 infants
 - Ninth highest of the 64 PHBPPs
 - 330 (100%) received HBIG and first HB dose
 - 246 (75%) completed HB series by 8 months
 - 235 (71%) received PVST



Purpose

- Examine the Washington State DOH, Office of Immunization and Child Profile PHBPP case management model
- Evaluate the PHBPP model to improve efficiency, effectiveness and sustainability
- Develop recommendations relevant to the changing healthcare system and evaluate where changes are needed in the model of care



Methods

- Literature review
- Interview questions
- Key informants identified and contacted between December 2014 and March 2015
- Interviews performed between January and March 2015
 - ▣ Three in-person, 11 telephone
 - ▣ Time range 25 minutes to 1 hour and 25 minutes (average 43 minutes)



Results: LHJ Sample

Washington State LHJs

- Eight selected as key informants
 - ▣ Clark . Grays Harbor . King . Kitsap . Pierce*
Snohomish . Spokane . Yakima

* Two staff interviewed separately



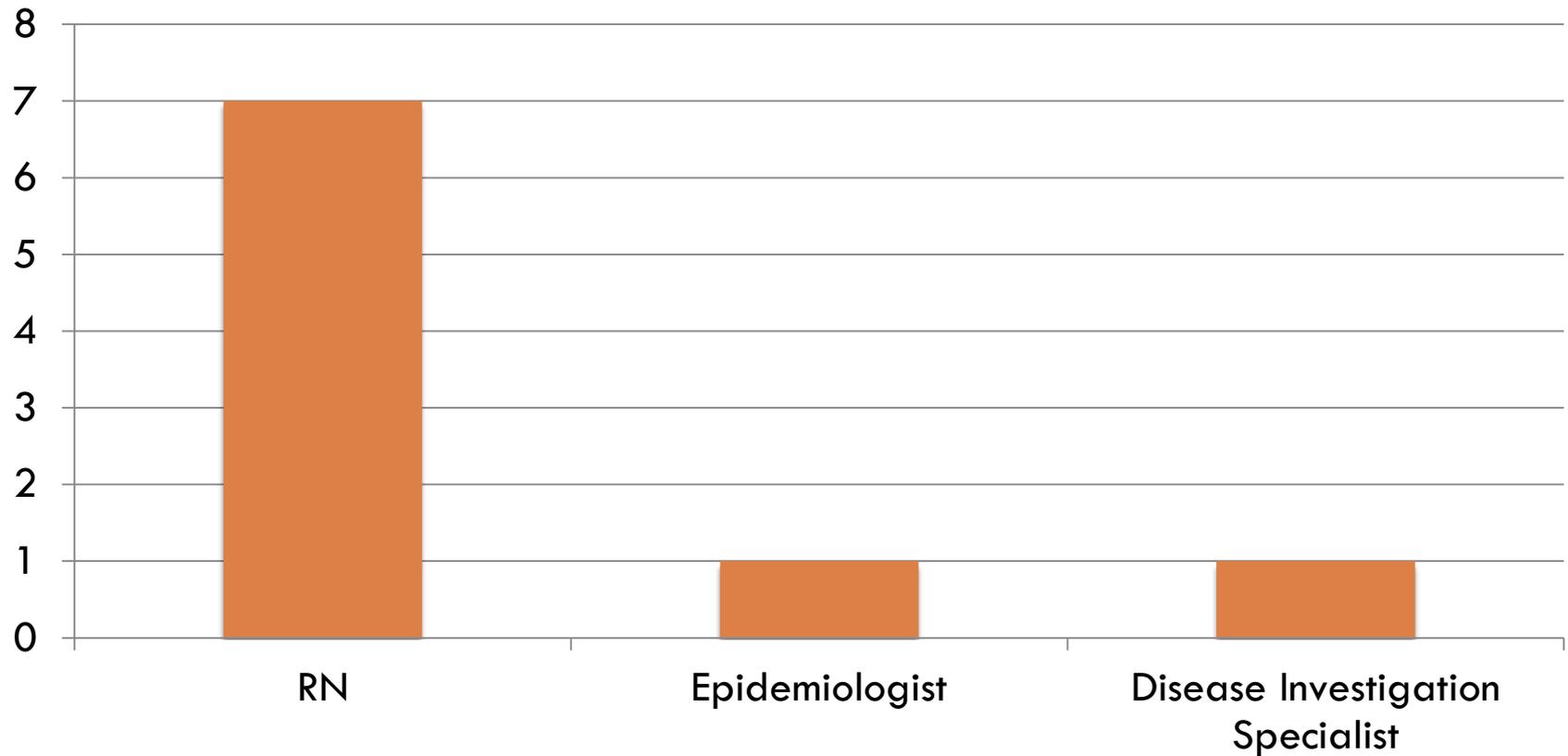
Results: Non-Washington Sample

- Seven key informants selected from three states, one city, and one Canadian province
 - California
 - Minnesota (two key informants)
 - Michigan
 - New York City
 - Canada British Columbia (two key informants)



Results: LHJ Sample

Professional Training





Results: Non-Washington Sample

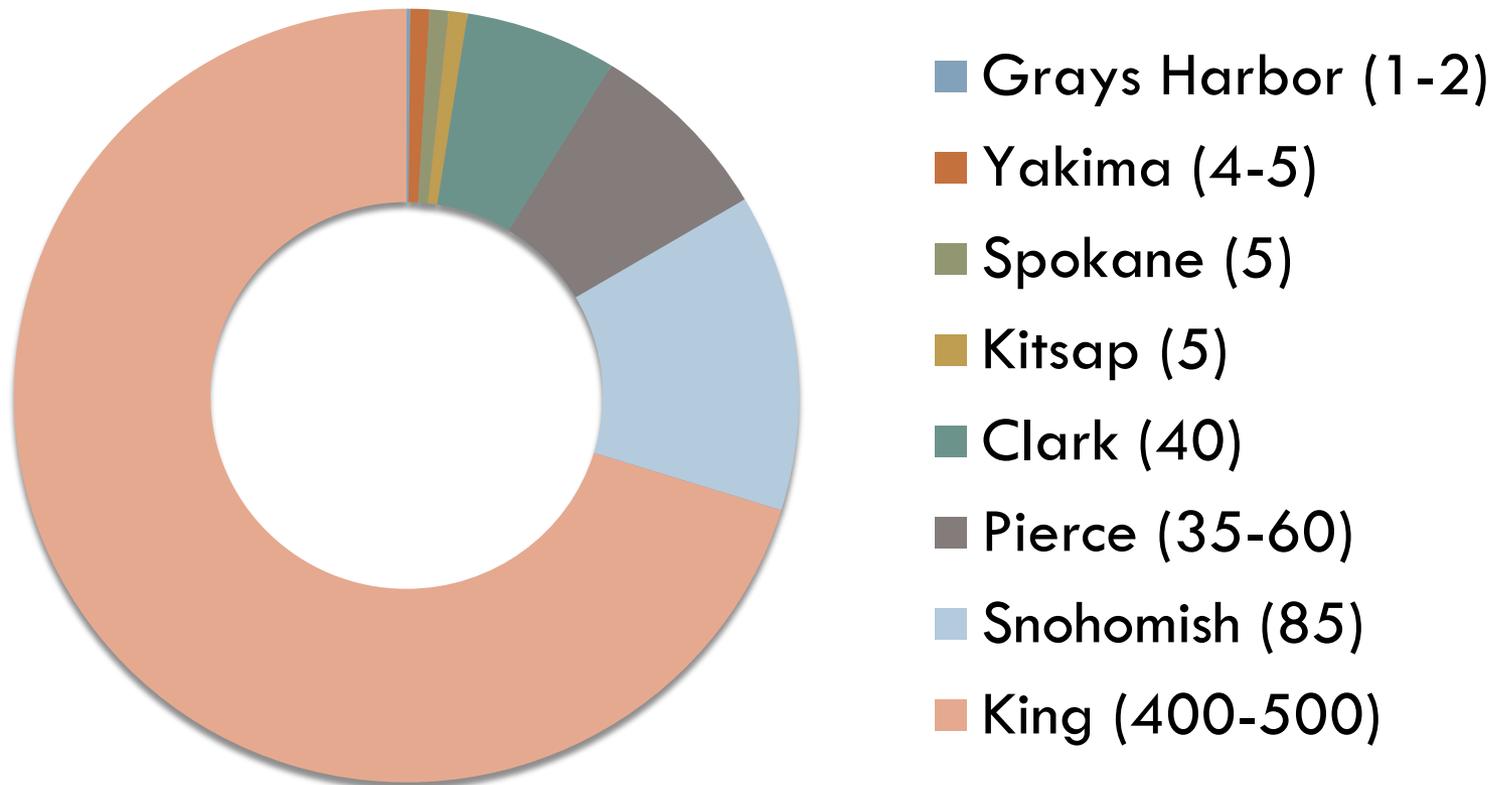
Professional Backgrounds

- Medical Record Administration
- Family Life Education
- Public Health in Epidemiology
- Public Health Administration and Policy
- Nursing



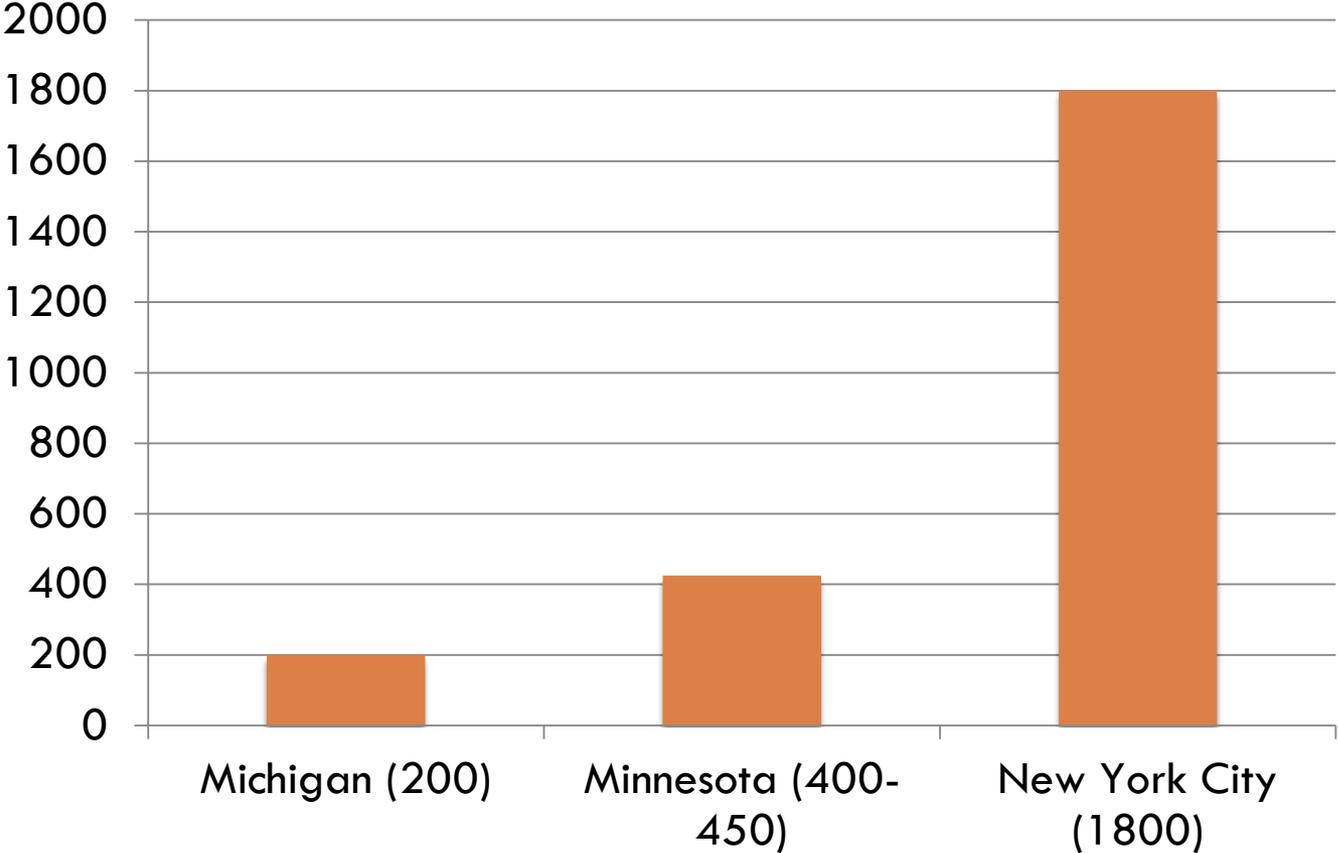
Results: LHJ Sample

Caseloads



Results: Non-Washington Sample

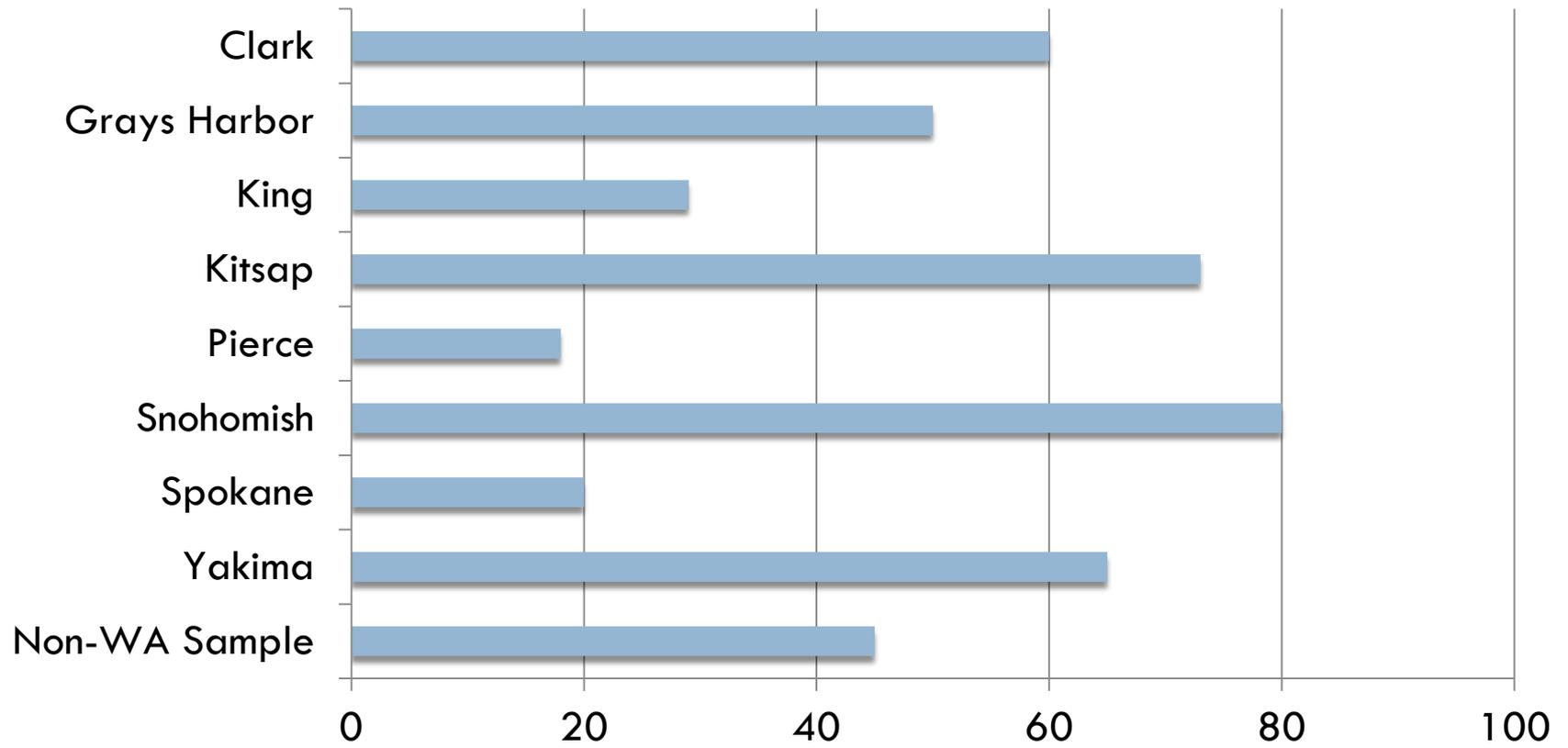
Caseloads





Results: LHJ & Non-Washington Sample

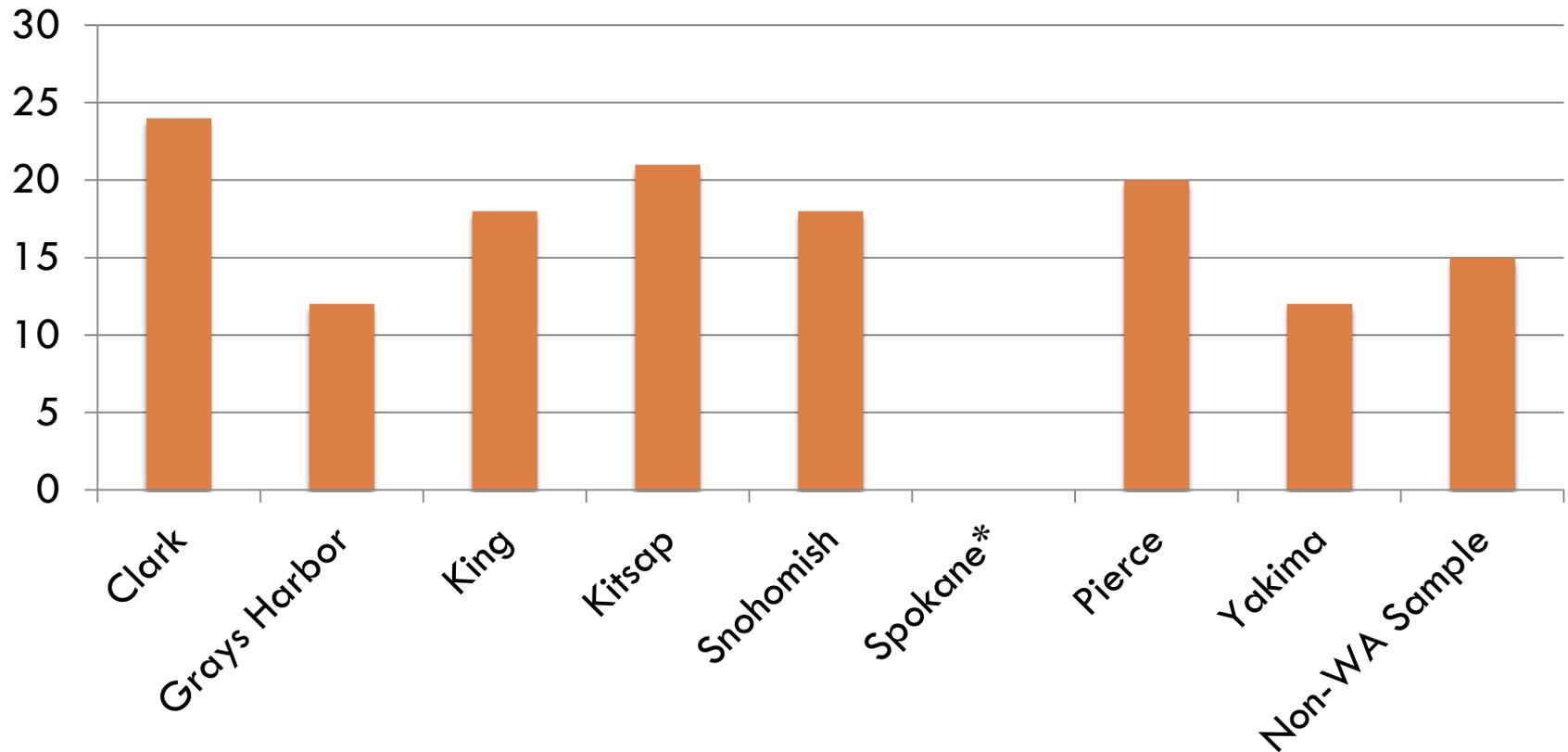
English Not Primary Language of Family (%)





Results: LHJ & Non-Washington Sample

Average Time to Manage Case (months)

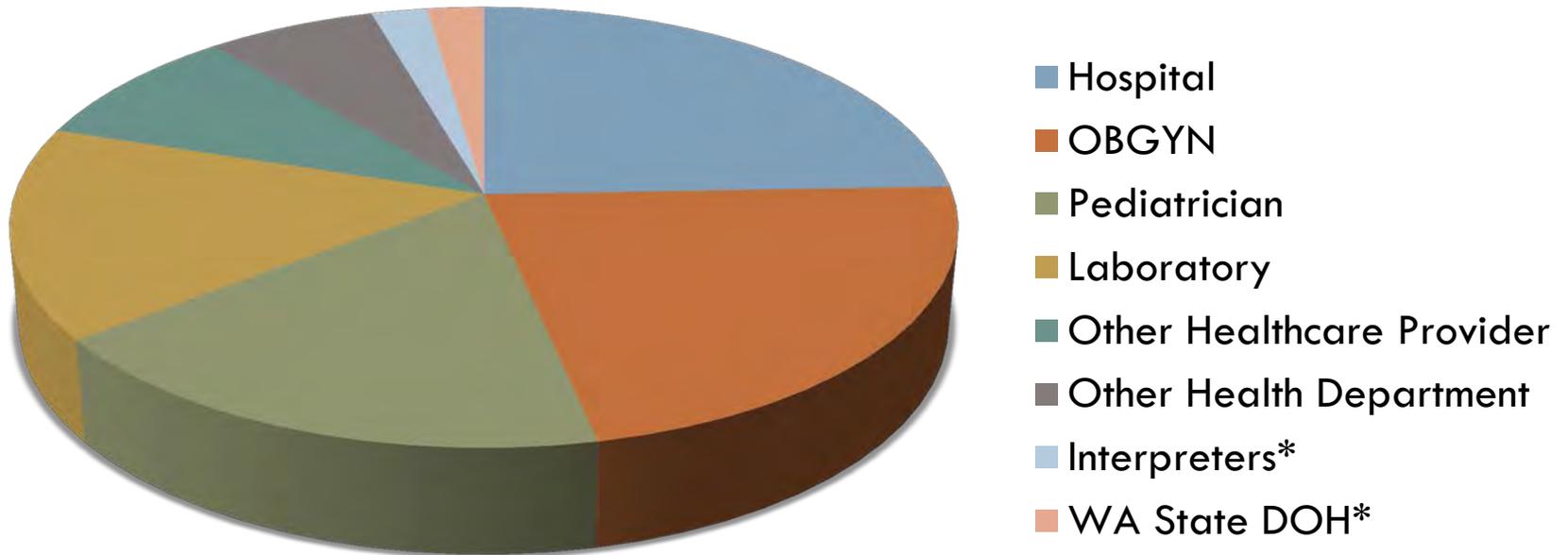


*Data not available



Results: LHJ & Non-Washington Sample

Agencies Involved with Case Manager to Complete Case



*Specific to WA State



Results: Complex Cases

WA State LHJs

- Family moved without notification
- Non-compliance by parent(s)
- Language barriers
- Transient families
- Non-compliance by providers/parent(s)
- Language barriers
- Cultural beliefs
- Prematurity
- New cases
- Discrepant lab results
- Infants without immunity after HB series
- Women whose HB status changed during pregnancy

Non-WA Sample



Results: LHJ Sample

PHB Case Management Model

What Works Well

- Electronic capability
- Clear guidelines
- Flexibility
- Close provider and family involvement

Challenges

- Other work obligations
- Lack of provider education
- Difficulty tracking families
- Time consuming
- Lack of face-to-face contact
- System unsustainable if increased caseload
- Uncontrollable factors



Results: Non-Washington Sample PHB Case Management Model

What Works Well

- Electronic case management systems
- Centralized systems
- Extra surveillance activities

Challenges

- Transient clients
- Lack of reporting
- Lack of electronic systems
- Lack of incentives
- Redundant steps



Results: LHJ Sample

Areas for Improvement

- Increased provider and/or hospital staff education
- Pregnancy status reported from laboratories
- Dedicated PHB forms
- Checklist system
- Written materials in other languages
- Education on cultural norms
- Resources for home visits



Results: Non-Washington Sample Areas for Improvement

- Entirely online and electronic case management system
- Earlier contact with state coordinators by LHJ
- Outreach to those involved with pregnant women
- Self-contained system
- Balancing responsibilities between Public Health Nurses



Results: LHJ Sample

Barriers to Care

- Lack of provider knowledge and education
- Lack of time
- Poor communication
- Lack of finances
- Lack of resources
- Cultural and language barriers



Results: Non-Washington Sample Barriers to Care

- Lack of provider and hospital staff knowledge and education
- Cultural and language barriers
- High hospital staff turnover
- Vaccine resistant families
- Inconsistent reporting methods by hospitals
- CDC behind in current practice guidelines



Results: Reimbursement of Case Management Services

- Increasing funding with grants
- Code case management under different programs
 - Children with Special Health Care Needs (CSHCN)
- Billing insurance for case management services
- Relying on CDC for reimbursement solution



Results: LHJ Sample PHB Module

What Works Well

- Adding multiple pregnancies
- Simple, intuitive, flows well
- Search field function
- Data entered automatically reported to DOH

Challenges

- Lack of real-times lists and reminder system
- Lack of space for multiple lab results
- Poor flow
- Unreliable
- Not intuitive



Results: Non-Washington Sample Information Systems

Minnesota and New York City

- Maven

- ▣ Electronic surveillance and case management system

California

- Access Database

Michigan

- Access Database and Contact Plus

Canada BC

- No specific PHB system



Results: Non-Washington Sample Information Systems

What Works Well

- Supportive IT staff
- Ability to make changes
- Tickler system
- Electronic reporting for providers
- Initial set-up/training
- More manual steps
- Lack of integration with immunization registry
- Lack of workflows
- Lack of interfacing of electronic systems for vaccine administration

Challenges



Discussion

What Works Well

- Case management guidelines
- DOH supportive, available
- Open communication between state and local level
- High (95%) screening rates



Discussion

Challenges

- Need more comprehensive electronic systems
 - ▣ Integrated system between PHB module, Washington Disease Reporting System, and Washington Electronic Laboratory Reporting System
 - ▣ Re-build PHB module for improved functionality
 - ▣ New York City's Maven surveillance system
 - ▣ Health Information Technology support from CDC



Discussion

Challenges

- Lack of provider education, knowledge, and compliance
 - ▣ Reporting and PVST
 - New York City laboratory reporting law
 - Changes to Washington Administrative Code (WAC)
 - Sustained educational efforts around PVST



Discussion

Challenges

- Funding sources for case management services
 - ▣ Bill for PHB case management
 - ▣ Review billable clinical services
 - ▣ Develop template for billing codes and/or provider guide
- Support and technical assistance needed from CDC



Implications

Provider level

- Stay current with PHB recommendations
- Identify high risk populations
- Educate support staff

System level

- Incorporating electronic systems
- Annual reference materials and summaries
- Use every opportunity to educate



Conclusion

- Provider and system level issues
- Education for providers
- Electronic systems

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References

1. Corrarino JE. Perinatal hepatitis B: update & recommendations. *MCN Am J Matern Child Nurs.* 1998;23(5):246-252.
2. Libbus MK, Phillips LM. Public health management of perinatal hepatitis B virus. *Public Health Nurs.* 2009;26:353–361. doi:10.1111/j.1525-1446.2009.00790.x.
3. Barbosa C, Smith E a, Hoerger TJ, et al. Cost-effectiveness Analysis of the National Perinatal Hepatitis B Prevention Program. *Pediatrics.* 2014;133:1–11. doi:10.1542/peds.2013-0718.
4. Washington State Department of Health. 2012 evaluation of birthing hospitals on perinatal hepatitis B prevention practices. <http://www.doh.wa.gov/Portals/1/Documents/Pubs/348-432-HospitalTechRpt.pdf> Accessed August 6, 2014.
5. Centers for Disease Control and Prevention. 2009 annual assessment of progress toward goals to prevent perinatal HBV transmission. Accessed June 3, 2014.

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DOH Publication Number 348-513