

Novel surveillance strategies for chronic hepatitis C: The Multnomah County Registry Project, 2010

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Background

- Hepatitis C virus (HCV) is the most common chronic blood-borne virus in the U.S.
- Morbidity and mortality related to HCV infection is predicted to increase dramatically in the decade 2010-2019.
- Given the heavy burden of disease and limited funding available for surveillance in most jurisdictions, novel surveillance strategies are needed to characterize persons with confirmed chronic HCV reported to local health departments.

Methods

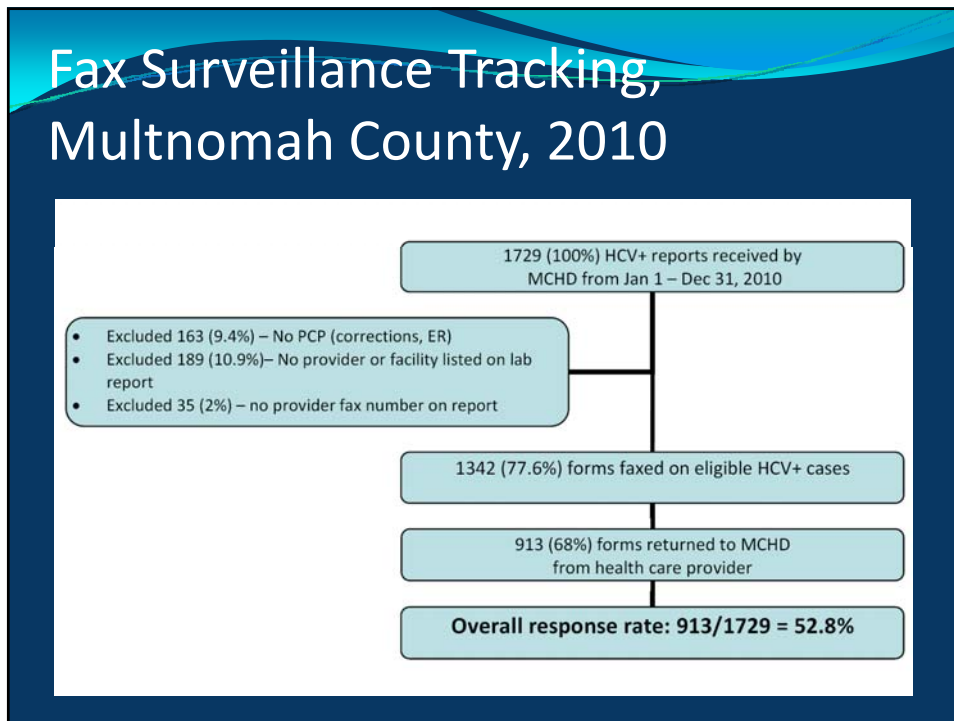
- In 2010, we faxed a data collection form to clinicians to obtain information on newly-reported persons with chronic HCV residing in Multnomah County, Oregon
- Form used to collect demographic characteristics, clinical histories and HCV risk factors

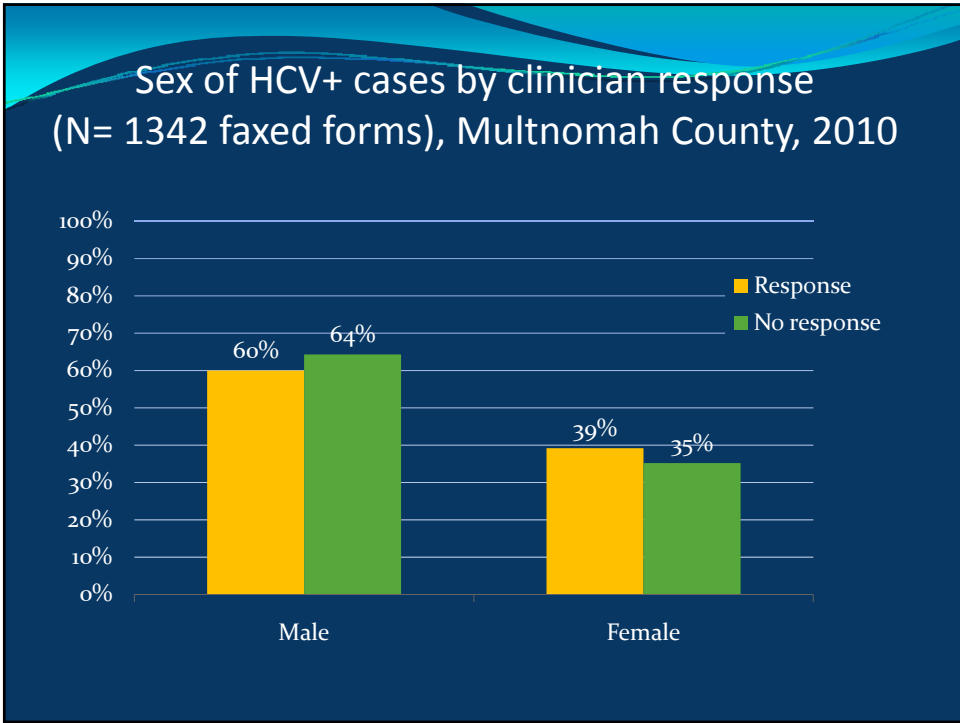
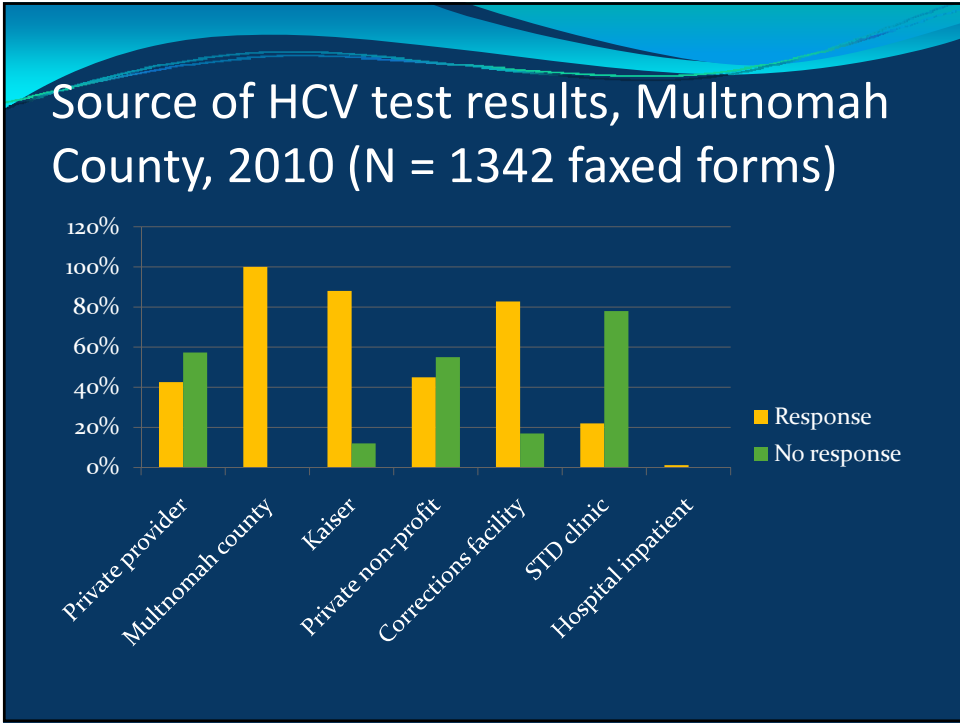
Methods

- Surveillance activity encompassed both presumptive and confirmed HCV+ cases
- Confirmed Case Definition
 - Anti-HCV+ with s/co predictive of true value, or
 - HCV RIBA+, or
 - HCV RNA+, or
 - HCV genotype results
- Presumptive Case Definition
 - Anti-HCV+ without s/co ratio available

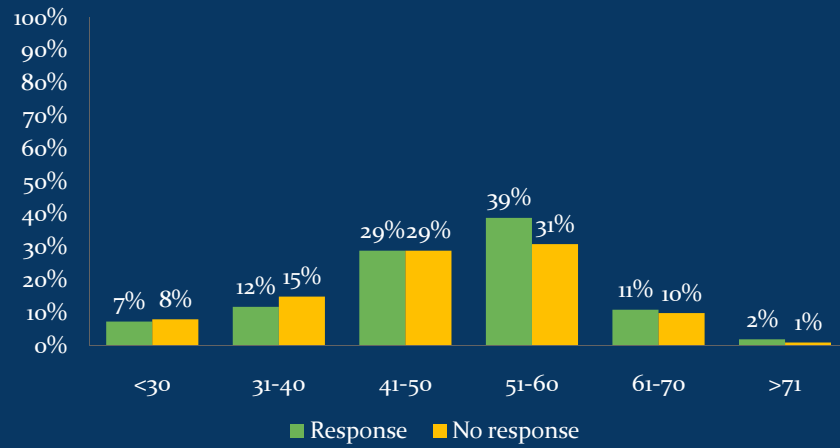
MULTNOMAH COUNTY HEALTH DEPARTMENT								
TO:		FROM:	Sharon Vance (503) 988-3663	Date:	# of pages	Request	REPLY NEEDED	URGENT
FAX #:		<input checked="" type="checkbox"/>			1		X	
RE:				Multnomah County Health Department received a report on the referenced individual regarding Hepatitis C (HCV) , as required by Oregon State Reporting laws ORS 433.006; OAR 333.018-0000 TO 333.018-015. In accordance with Communicable Disease ordinances we are requesting additional information on the referenced client. YOU ARE BEING CONTACTED AS THE ORDERING PROVIDER/FACILITY LISTED BY THE REPORTING LAB. PLEASE COMPLETE THIS FORM AS MUCH AS POSSIBLE AND RETURN TO OUR OFFICE IN A TIMELY MANNER. THANK YOU.				
DOB:				FAX #	503-988-3407			
Date of report:								
Diagnosis:	HEPATITIS C							
Patient contact information			RISK FACTORS FOR HCV INFECTION			ADDITIONAL INFORMATION		
Address: _____ Phone: _____			Did patient receive a blood transfusion prior to 1992? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Is patient seeing a provider for their chronic HCV? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
DEMOGRAPHICS			Did patient receive an organ transplant prior to 1992? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Does this client have cirrhosis? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Under evaluation <input type="checkbox"/> UNK		
Ethnicity: <input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic			Received clotting factor concentrates before 1987? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Now or ever taken medicines for HCV treatment? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
Race:			Has the patient ever been on hemodialysis? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Is the client insured? <input type="checkbox"/> Private <input type="checkbox"/> Public <input type="checkbox"/> No insurance <input type="checkbox"/> UNK		
<input type="checkbox"/> White			Ever employed in medical or dental field involving direct contact with human blood? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Has client been provided education/ literature or counseling regarding HCV? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
<input type="checkbox"/> Black			Ever a contact of a person who had hepatitis C? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Did the patient have symptoms of acute hepatitis at the time of testing (i.e., jaundice, nausea, RUQ pain, etc)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
<input type="checkbox"/> Asian/Pacific Islander			If yes, year of most recent injection drug use _____			Do you think this was a false positive result? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
<input type="checkbox"/> American Indian/Alaska Native			Has patient ever been incarcerated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Hep A and Hep B vaccination status		
<input type="checkbox"/> UNK			Was patient ever treated for an STD? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			Received Hep A vaccine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
<input type="checkbox"/> Other: _____			Is the patient a man who has had sex with other men? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK			If yes, date 1: _____ date 2: _____		
Country of Origin: <input type="checkbox"/> US <input type="checkbox"/> Other: _____ <input type="checkbox"/> Unknown			Other Risk Factors? _____			Received Hep B vaccine? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UNK		
Language: <input type="checkbox"/> ENG <input type="checkbox"/> Other: _____			No risk factor identified? (Check if yes) <input type="checkbox"/>			If yes, date 1 _____ date 2 _____ date 3 _____		
Occupation: _____ <input type="checkbox"/> Unknown								
REASONS FOR TESTING								
<input type="checkbox"/> Screening of asymptomatic patient w/reported risk factors								
<input type="checkbox"/> Screening of asymptomatic patient with no reported risk factors (e.g., patient requested)?								
<input type="checkbox"/> Prenatal screening?								
<input type="checkbox"/> Evaluation of elevated liver enzymes?								
<input type="checkbox"/> Blood/organ donor screening?								
<input type="checkbox"/> Follow up testing for previous marker of viral hepatitis?								

PLEASE NOTE THAT REPORTING LAWS CHANGED IN JULY OF 2005 TO REFLECT MANDATORY REPORTING OF ALL HCV CLIENTS. ORS 433.006; OAR 333-018-0000 TO 333-018-015

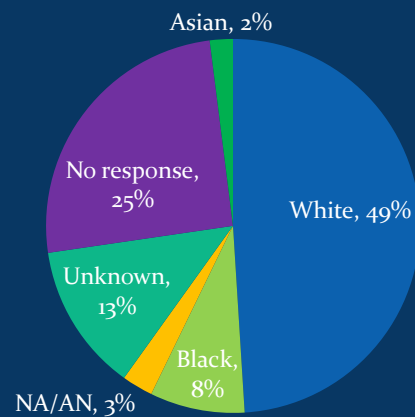




Age of HCV+ cases by clinician response (N= 1342 faxed forms), Multnomah County, 2010



Race of HCV+ Cases Multnomah County, 2010, (N = 913)



Reasons for HCV Testing,¹ Multnomah County, 2010 (N = 913)

Reason	Number (%)
Follow up on previous HCV markers	389 (42.6)
Asymptomatic screening with risk factors	243 (26.6)
Asymptomatic screening without risk factors	41 (4.5)
Prenatal screening	8 (0.9)
Abnormal liver function tests	173 (19.2)
Acute hepatitis symptoms	23 (2.5)
Donor screening	1 (0.1)
Unknown reason	34 (3.7)
No response	39 (4.3)

¹Number and proportion, not mutually exclusive

Clinician-reported risk factors¹ of HCV+ cases, Multnomah County, 2010 (N = 913)

Risk Factor	Number (%)
History of injection drug use	389 (42.6)
Incarceration	243 (26.6)
Treated for sexually transmitted disease	41 (4.5)
Transfusion/Transplant prior to 1992	8 (0.9)
Received clotting factors prior to 1987	173 (19.2)
Medical or dental employee	123 (2.5)
History of dialysis	1 (0.1)
Men who have sex with men	34 (3.7)
Sexual contact with HCV+ partner	39 (4.3)
Household contact with HCV+ individual	25 (2.7)
No reason/No risk factor identified	241 (26.4)
Other ²	46 (5.0)

¹Number and proportion, not mutually exclusive

²Tattoos, perinatal exposure, intranasal drug use

Access to Care and Preventive Services among HCV + cases, Multnomah County, 2010

Health indicator	Number (%)
Cirrhosis	51 (5.6%)
Referred to specialist	390 (42.7%)
Received HCV treatment	70 (7.7%)
Provided HCV education/literature/counseling	541 (59.3%)
Health insurance	506 (55.6%)
Received hepatitis A vaccine	231 (25.3%)
Received hepatitis B vaccine	249 (27.3)

¹Number and proportion, not mutually exclusive

²Tattoos, perinatal exposure, intranasal drug use

³includes public and private insurance

Conclusions

- Given a relatively modest investment in resources (FTE = 1.25), MCHD was successful in capturing valuable risk factors and demographic information on newly-reported chronic HCV cases and describing their clients' ability to access medical care and preventative services such as vaccination.
- Although this surveillance strategy needs validation and is limited in its ability to describe individuals without identifiable primary care providers, use of faxes to clinicians is worth further investigation as a surveillance tool when individual case investigation is not feasible.