

HEPATITIS C TREATMENT UPTAKE AMONG PATIENTS RECEIVING OPIOID SUBSTITUTION TREATMENT: A POPULATION BASED STUDY

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Background

- Hepatitis C (HCV) treatment uptake among people who inject drugs (PWID) is low
 - 1-2% per year in community based cohorts¹
- Opioid substitution treatment (OST) settings could provide a platform for linkage to HCV assessment and treatment within existing infrastructure of addiction care²
- OST could also play a key role in HCV prevention
 - In combination with other interventions³
 - By reducing injecting risk behaviours⁴
- HCV treatment uptake in the OST setting has not yet been documented at the population level

1. Alavi M et al. Liver Int 2014
2. Bruggmann P Clin Infect Dis 2013
3. Martin NK et al. Clin Infect Dis 2013
4. MacArthur GJ et al. Int J Drug Policy 2014

Background epidemiology in Norway

- Total population: 5.1 mill. inhabitants
- PWID population: 13-16 000 individuals¹
- OST coverage among PWID: 40-50%²
- Prevalence of HCV RNA among PWID: 50-60%³

1. Amundsen EJ et al. Nordic Studies on Alcohol and Drugs 2010
2. Waal H et al. SERAF, University of Oslo 2014
3. Dalgard O. et al. Tidsskr Nor Laegeforen 2009

Aim of the study

To document HCV treatment uptake and associated factors among OST patients at the population level

Materials and methods

Observational study based on linked registry data

The Norwegian Prescription Database

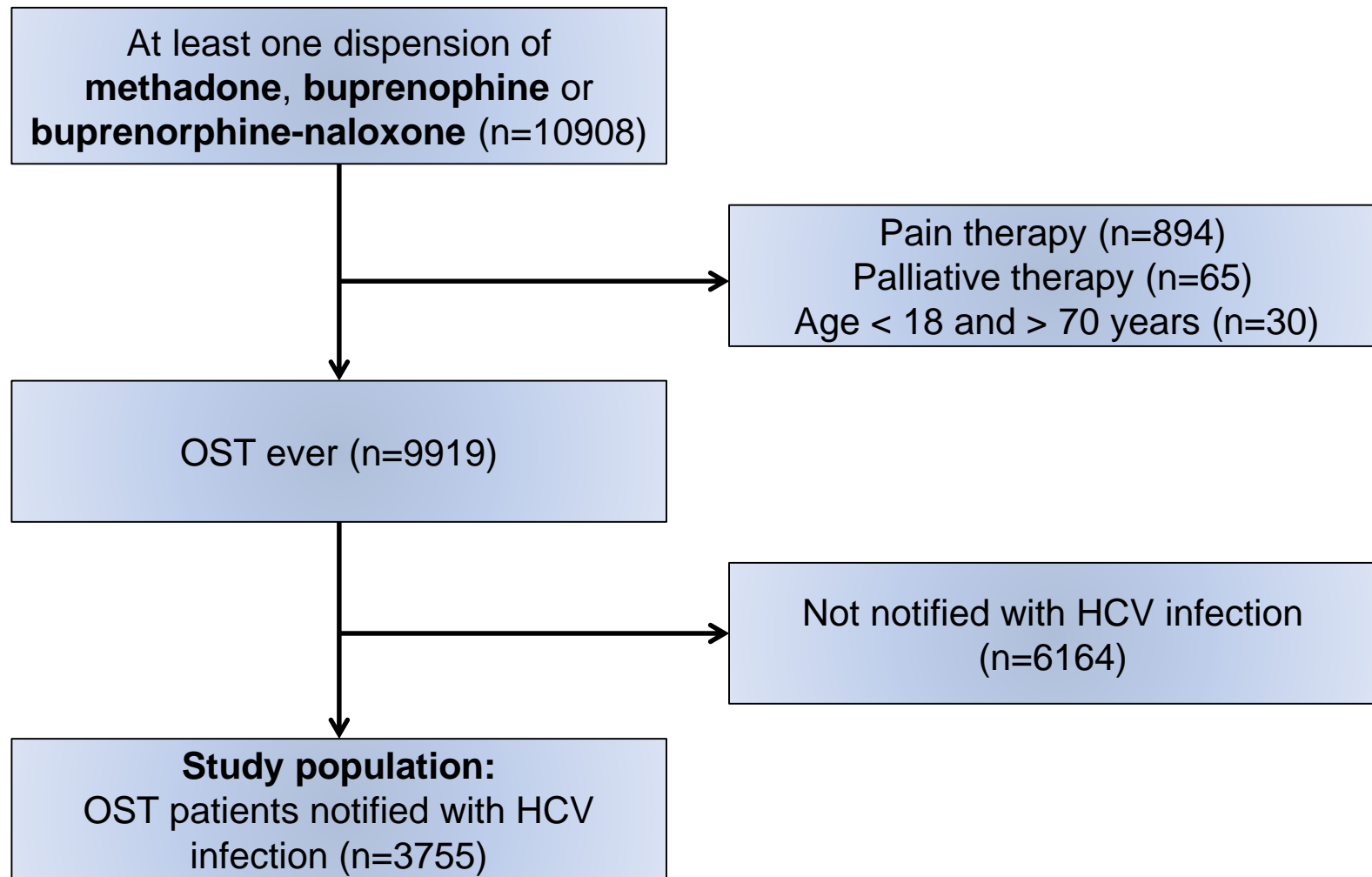
- Covers the entire population
- All dispersions registered since 2004

The Norwegian Surveillance System for Communicable Diseases

- All HCV infection subject to mandatory notification since 2008
- Method of detection (anti-HCV or HCV RNA) not well discriminated

Study period: 1st January 2004 to 31st December 2013

Study population



Study definitions

HCV treatment: Dispensed ribavirin + pegylated interferon alpha at least once during the study period

Time of HCV treatment: First dispensation of ribavirin

Duration of active OST: Time with actual dispensations of OST drugs

OST continuity ("adherence"): Time with actual dispensations/time between first and last dispensation

Patient characteristics (n=3755)

Male gender, n (%)	2622 (70)
Age at initiation of OST (years), mean (SD)	36 (9)
Norwegian origin, n (%)	3520 (95)
Duration of active OST (years), mean (SD)	3.8 (2.7)
OST continuity, mean % (SD)	76 (25)
OST continuity	
< 50% continuity	631 (17)
50-80% continuity	1002 (27)
> 80% continuity	2122 (57)

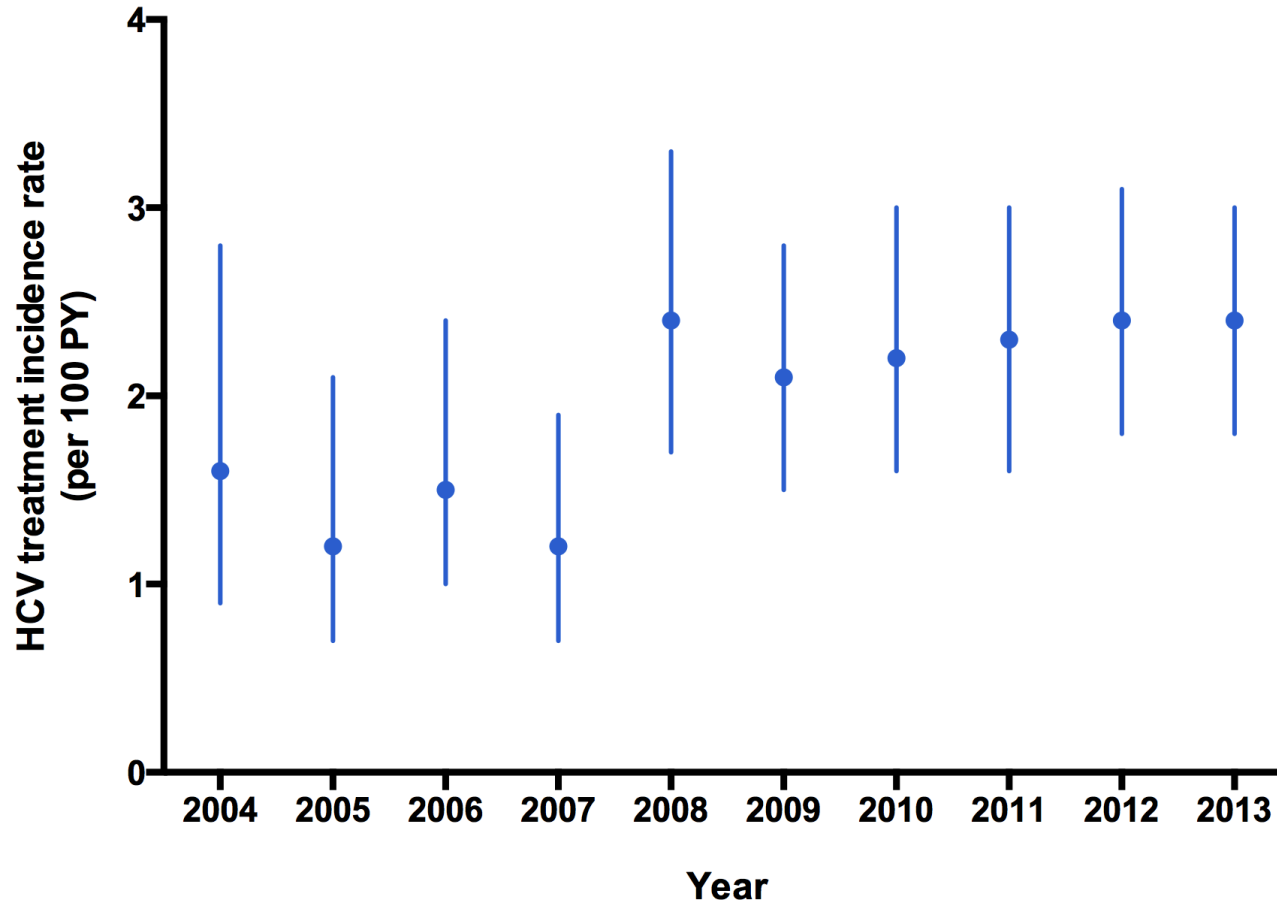
Drug dispersions (n=3755)

Buprenorphine based OST, n (%)	2904 (77)
Antipsychotics, n (%)	2062 (55)
Antidepressants (SSRIs), n (%)	1390 (37)
Benzodiazepines, n (%)	
No dispersions	574 (15)
Moderate use (< mean DDD/year)	2068 (55)
Heavy use (> mean DDD/year)	1113 (30)

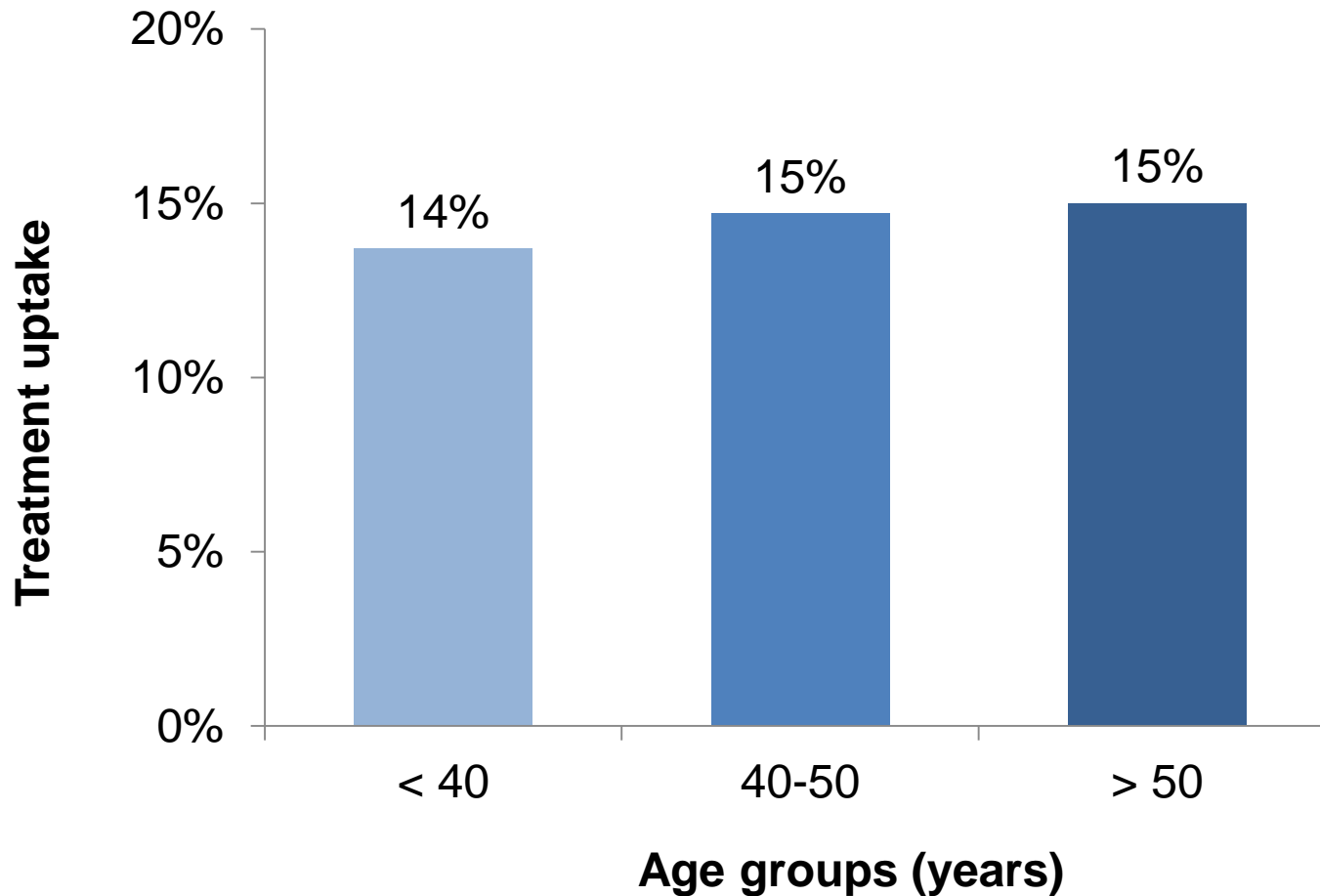
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HCV treatment, n (%)	539 (14)

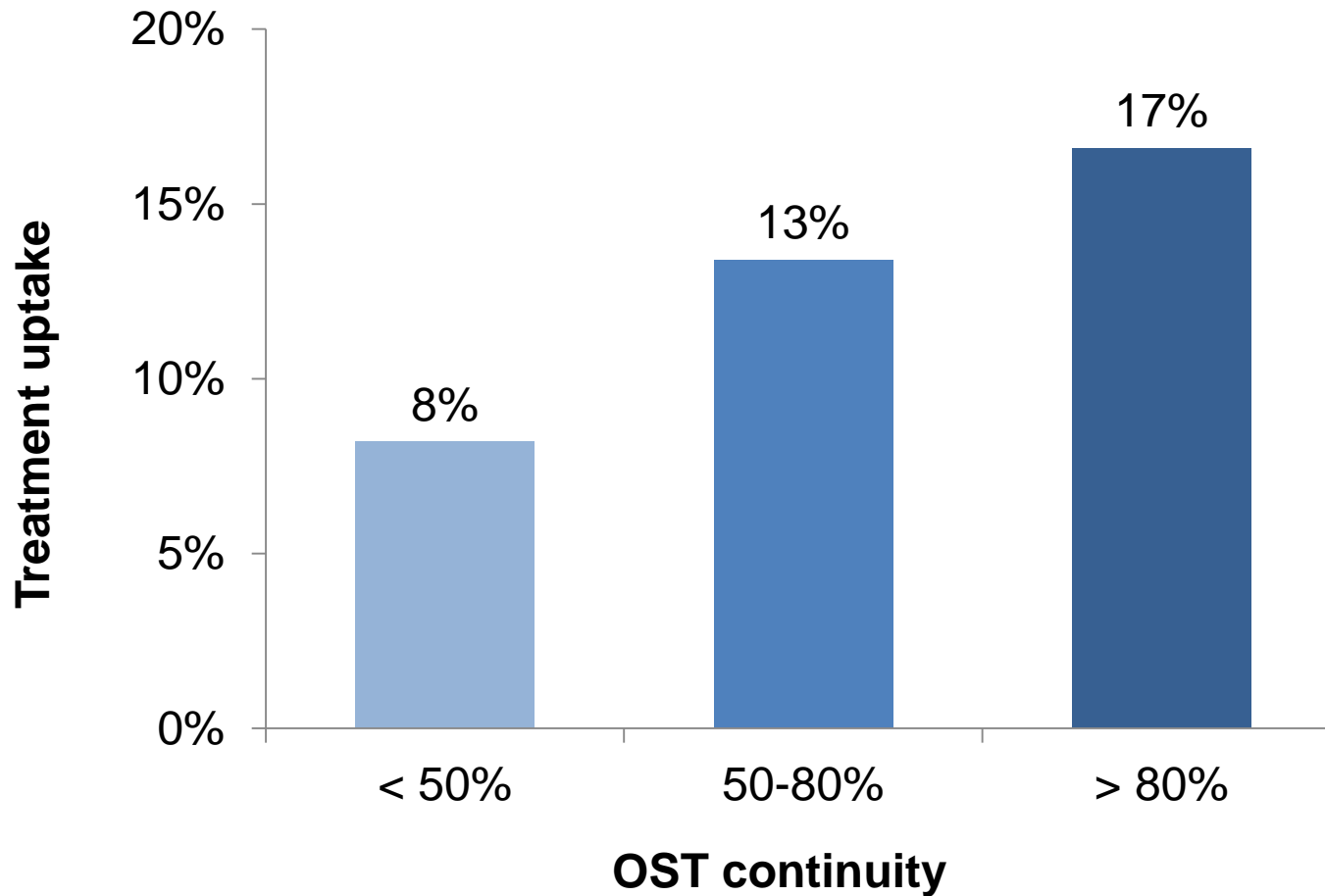
Incidence of HCV treatment uptake



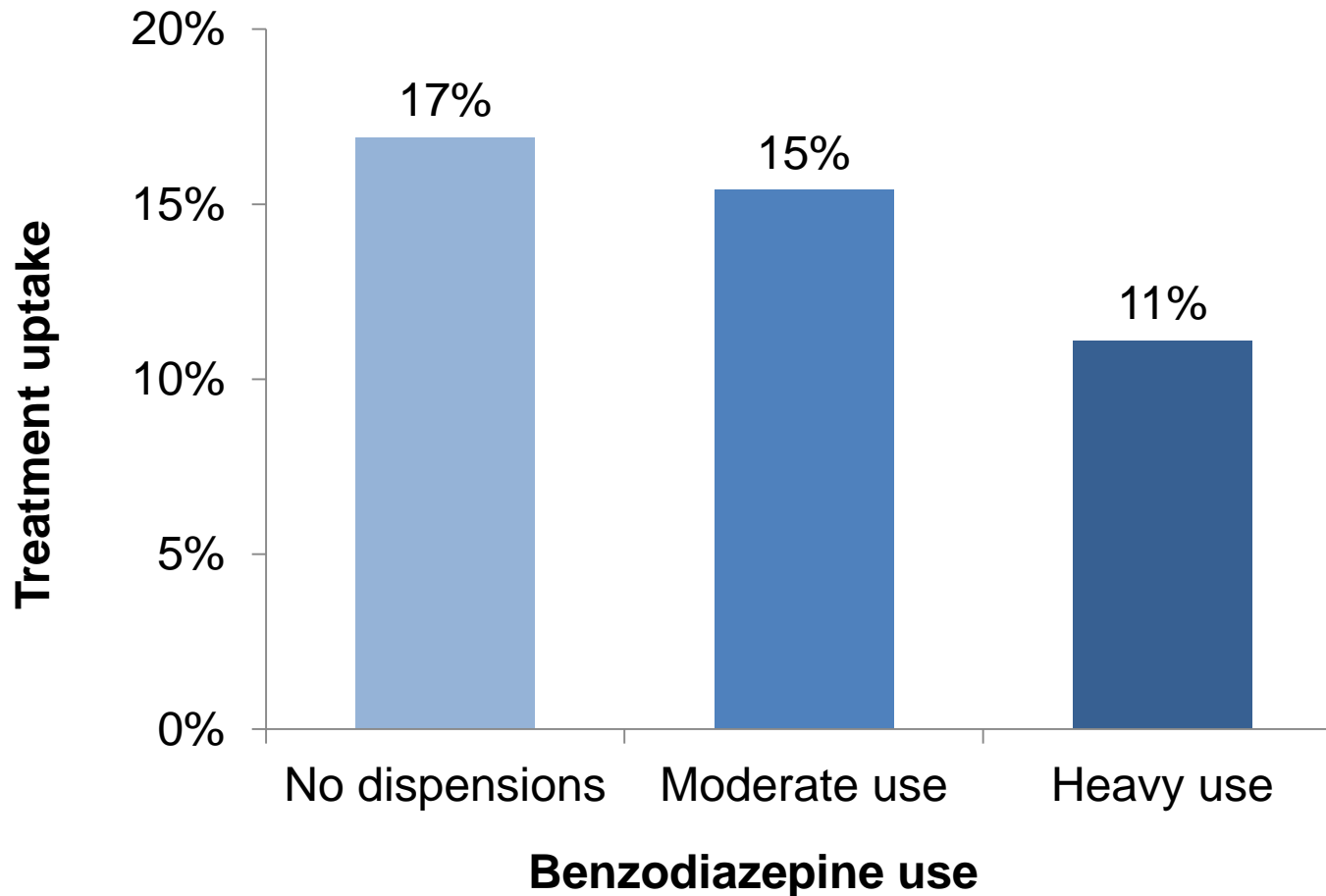
Cumulative HCV treatment uptake by age at end of observation



Cumulative HCV treatment uptake by OST continuity



Cumulative HCV treatment uptake by benzodiazepine use



Factors associated with HCV treatment

Variable	Adjusted OR (95% CI)	p value
Male gender (vs. female)	1.10 (0.90-1.35)	.370
Age at initiation of OST (years)	0.99 (0.98-1.01)	.312
Duration of active OST (years)	1.11 (1.07-1.15)	<.001
OST continuity (vs. < 50%)		
50-80% continuity	1.38 (0.98-1.95)	.069
> 80% continuity	1.64 (1.18-2.28)	.003
Benzodiazepine use (vs. no dispersions)		
Moderate use (< mean DDD/year)	0.96 (0.74-1.23)	.724
Heavy use (> mean DDD/year)	0.65 (0.49-0.87)	.004

Conclusions

- 14% of OST patients notified with HCV infection had received HCV treatment during the last decade
- The incidence of HCV treatment uptake remained low (~2% per year) during the study period
- HCV treatment uptake was associated with
 - Duration of active OST
 - High OST continuity
 - Absence of heavy benzodiazepine use
- HCV treatment uptake was not associated with age

Implications and future research needs

- HCV treatment was associated with markers of patient stability and may not have been prioritized for older patients with higher prevalence of advanced liver disease
- Need for increased awareness for HCV among OST patients in the emerging interferon-free era
- Will HCV treatment uptake in this population improve with increasing use of DAA based therapy?
- Can long-term stability in OST facilitate HCV treatment?

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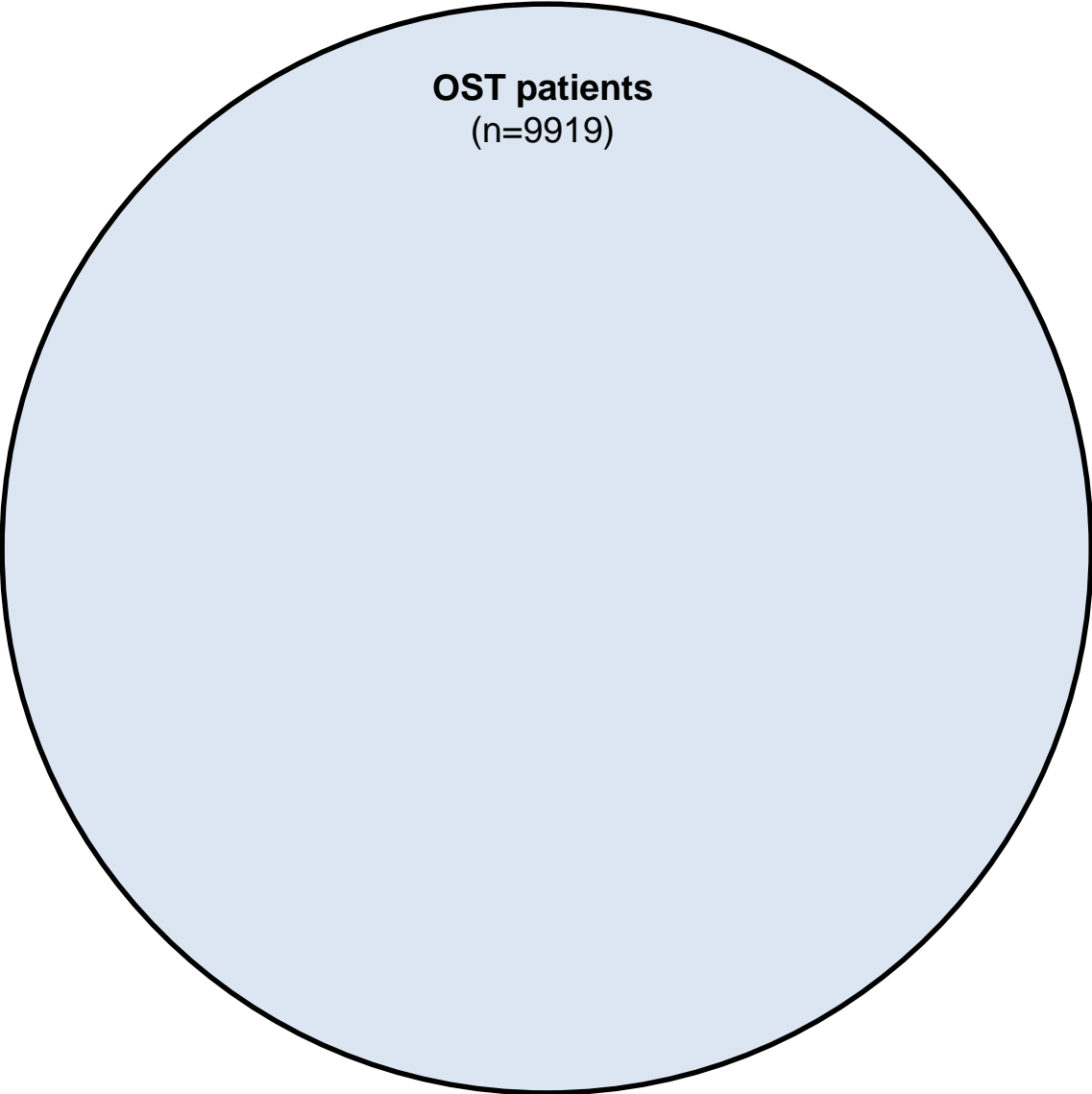
Astrid L Løvlie

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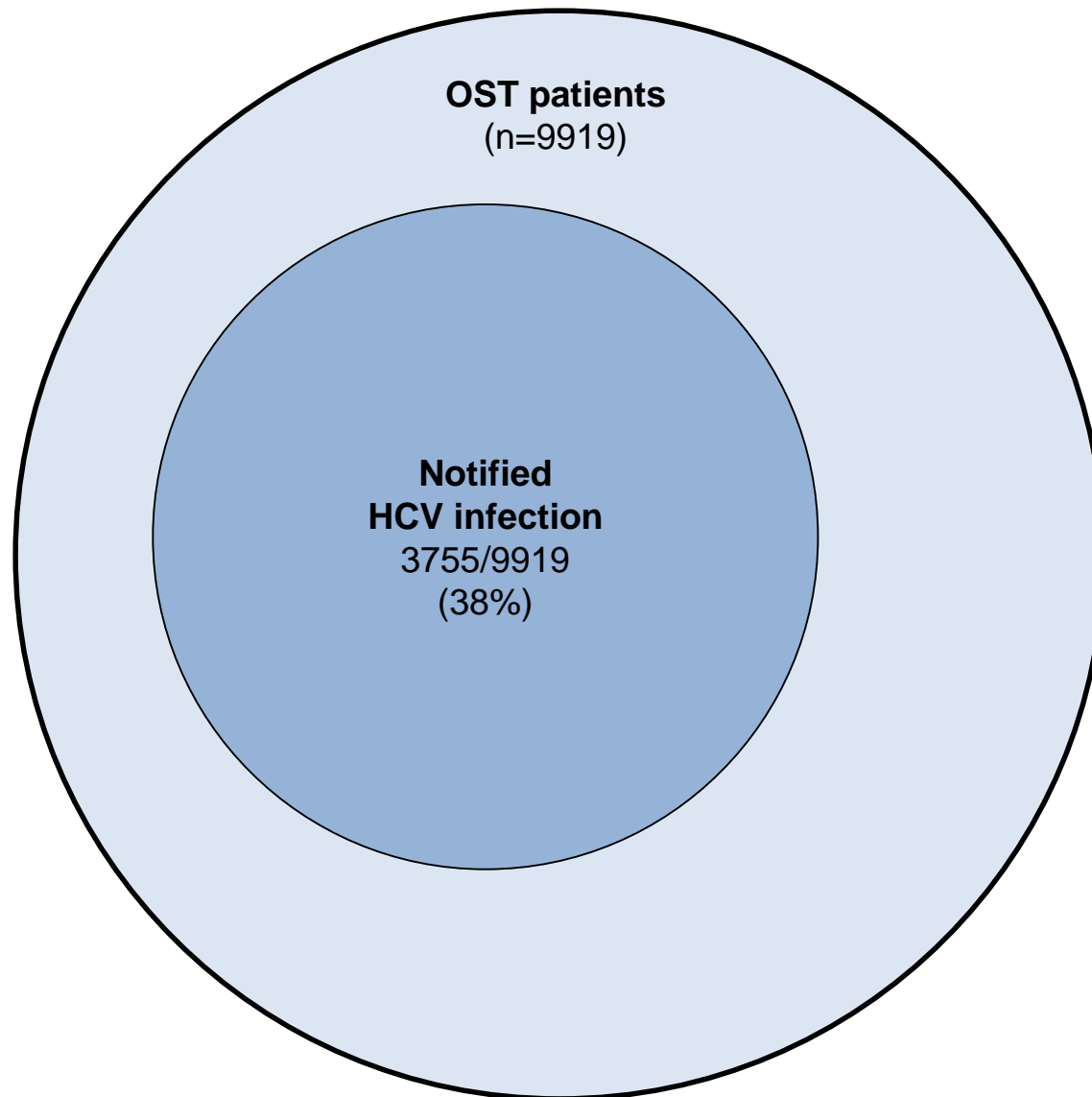
Norwegian ExtraFoundation for Health and
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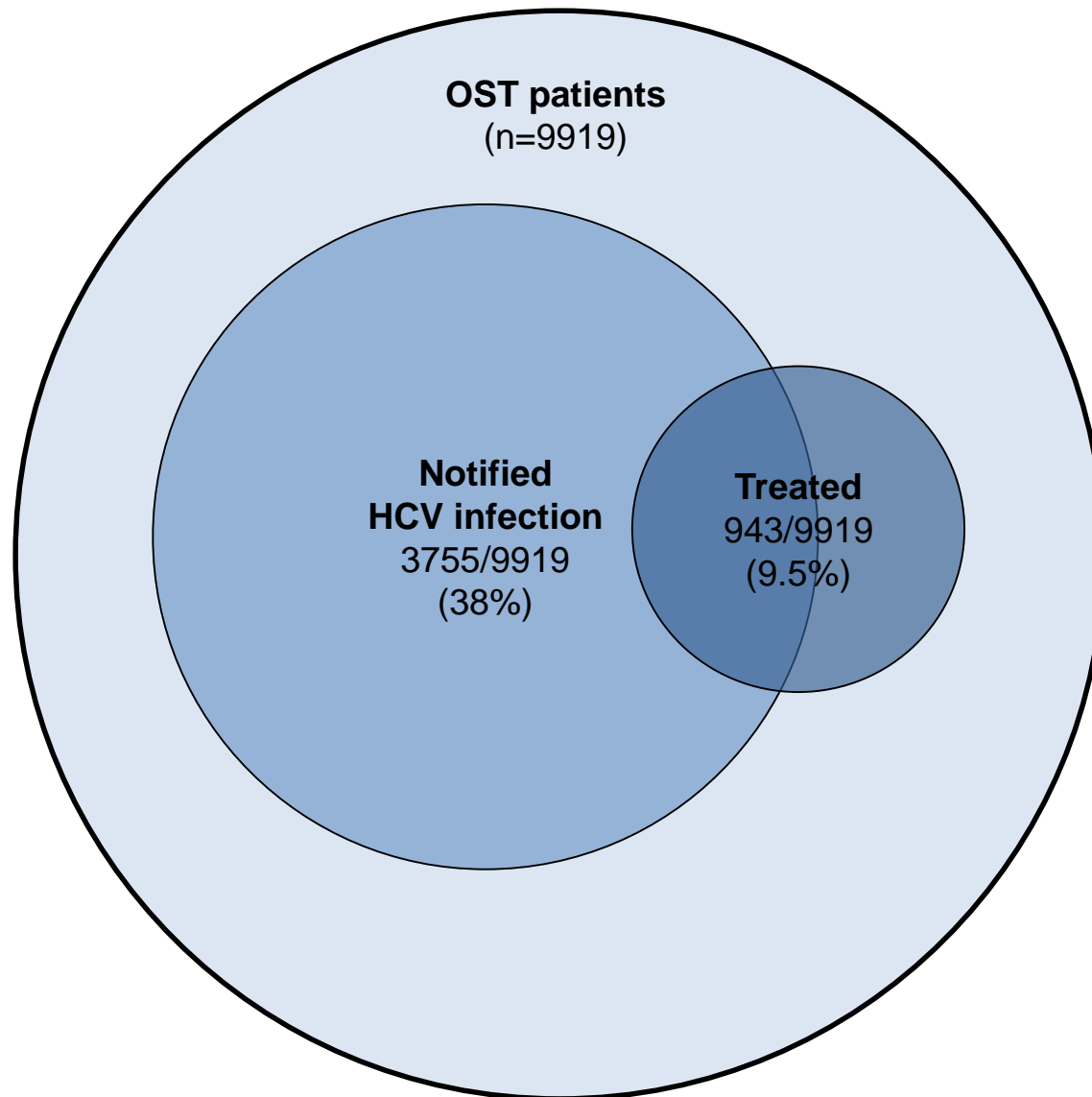


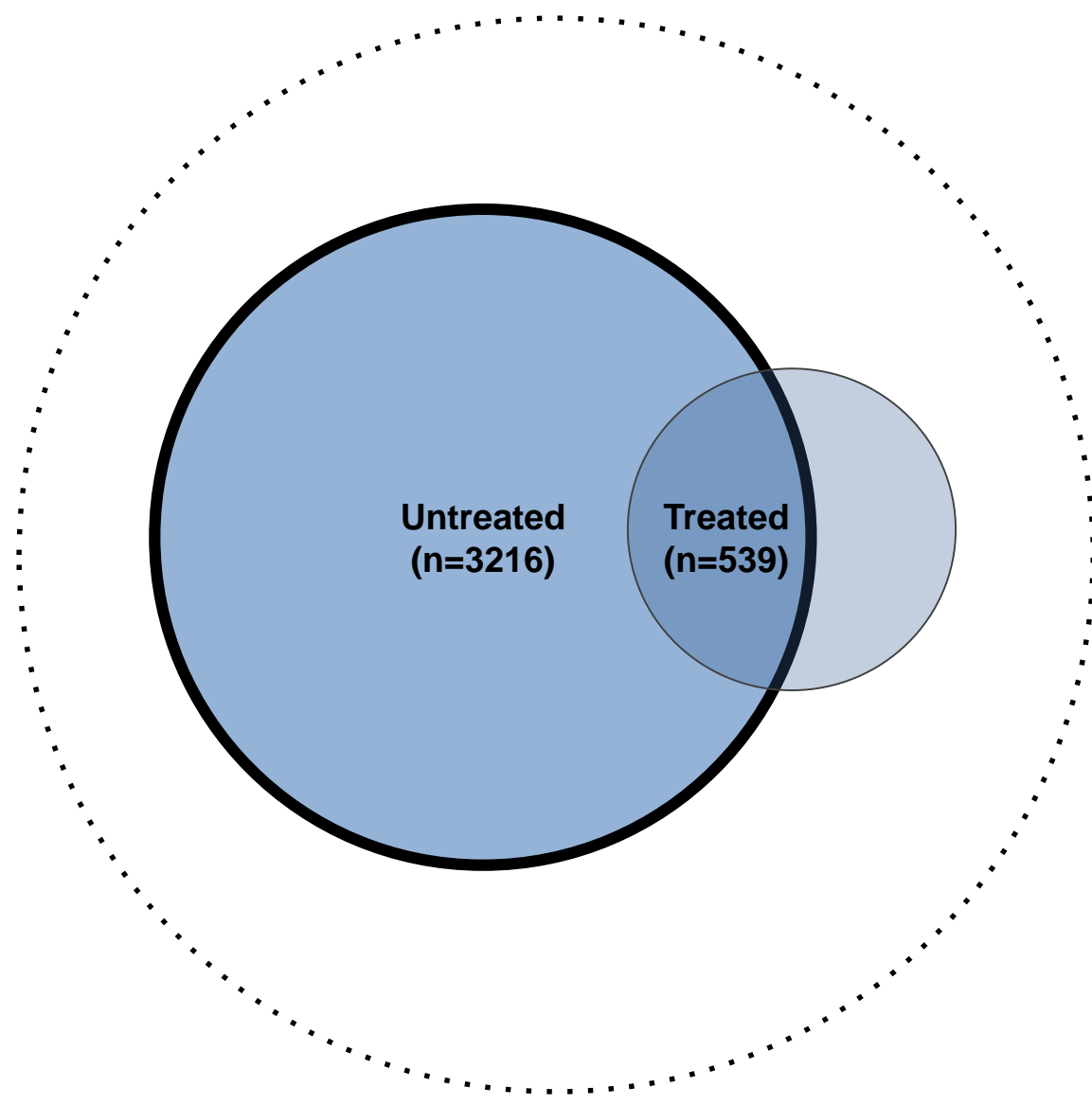
Backup slides



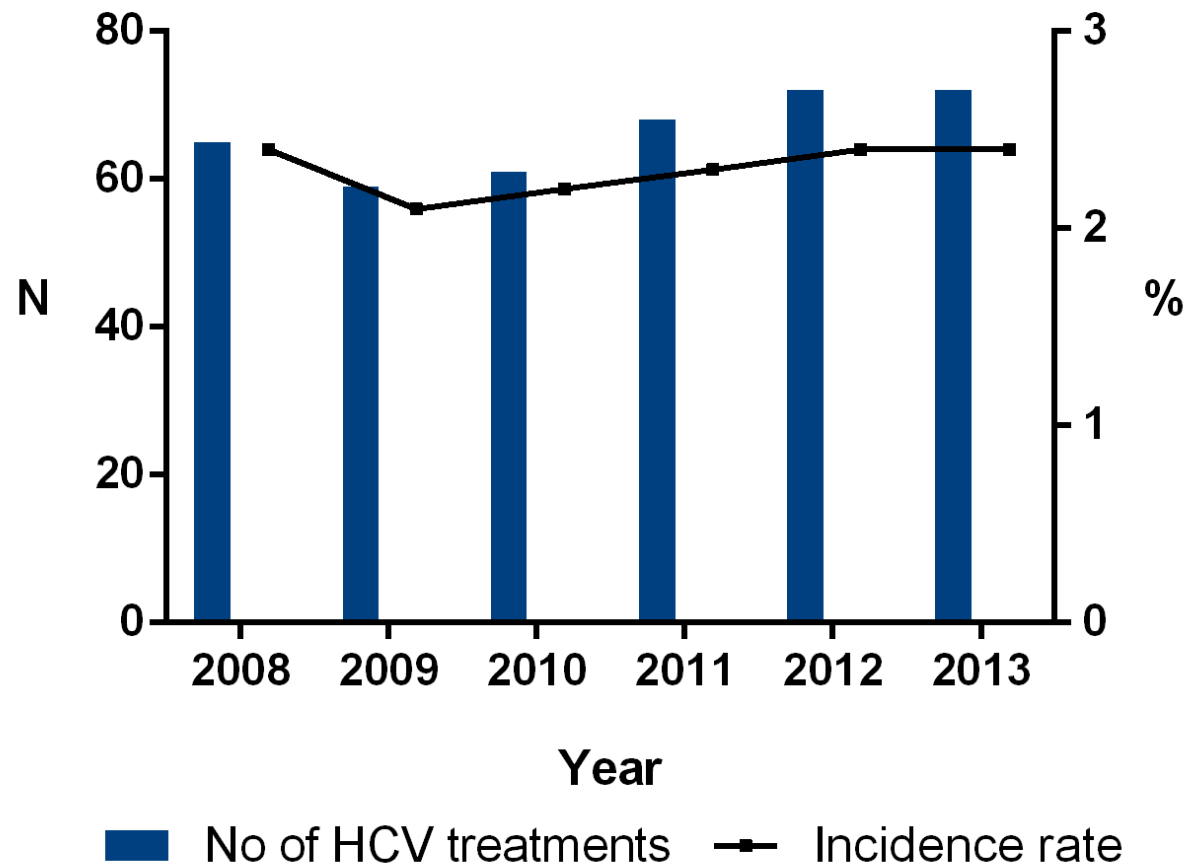
OST patients
(n=9919)







HCV treatment uptake among patients who received OST 2008-2013



Incidence of HCV treatment (2008-2013)

