



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



Department of Public Health, Dublin



Health Protection Surveillance Centre
Lárionad Faire um Chosaint Sláinte



HIV outbreak among People who Inject Drugs in Dublin

Margaret Fitzgerald on behalf of outbreak control team

Club Health Conference Dublin 2017

Dublin

April 2016

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Background

- The history of heroin use in Dublin is strongly associated with poverty and deprivation
- The traditional profile of intravenous drug user has been that of young, unemployed male, leaving school at an early age and living in a socially disadvantaged area mainly in Dublin.
- In 1969, the National Advisory and Treatment Centre was established at Jervis Street Hospital. This was the first statutory outpatient treatment facility in the country.
- In the 1980s the heroin epidemic was declared in Dublin
- 20 years ago Intravenous drug users accounted for 42% HIV AIDS
- A recent study by HPSC and NTDC found that >14,000 injectors were registered 1991-2014

Background

New Psychoactive Substances (NPS)

Traditionally = “designer drugs” / “head-shop drugs” / “legal highs”

Synthetic Cannabinoids

2008-13 200-fold increase in number of seizures

Synthetic Cathinones

2008-2013 60-fold increase in number of seizures



Figure 3: Trend in HIV diagnoses by probable route of transmission, 2003 to 2015



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HIV

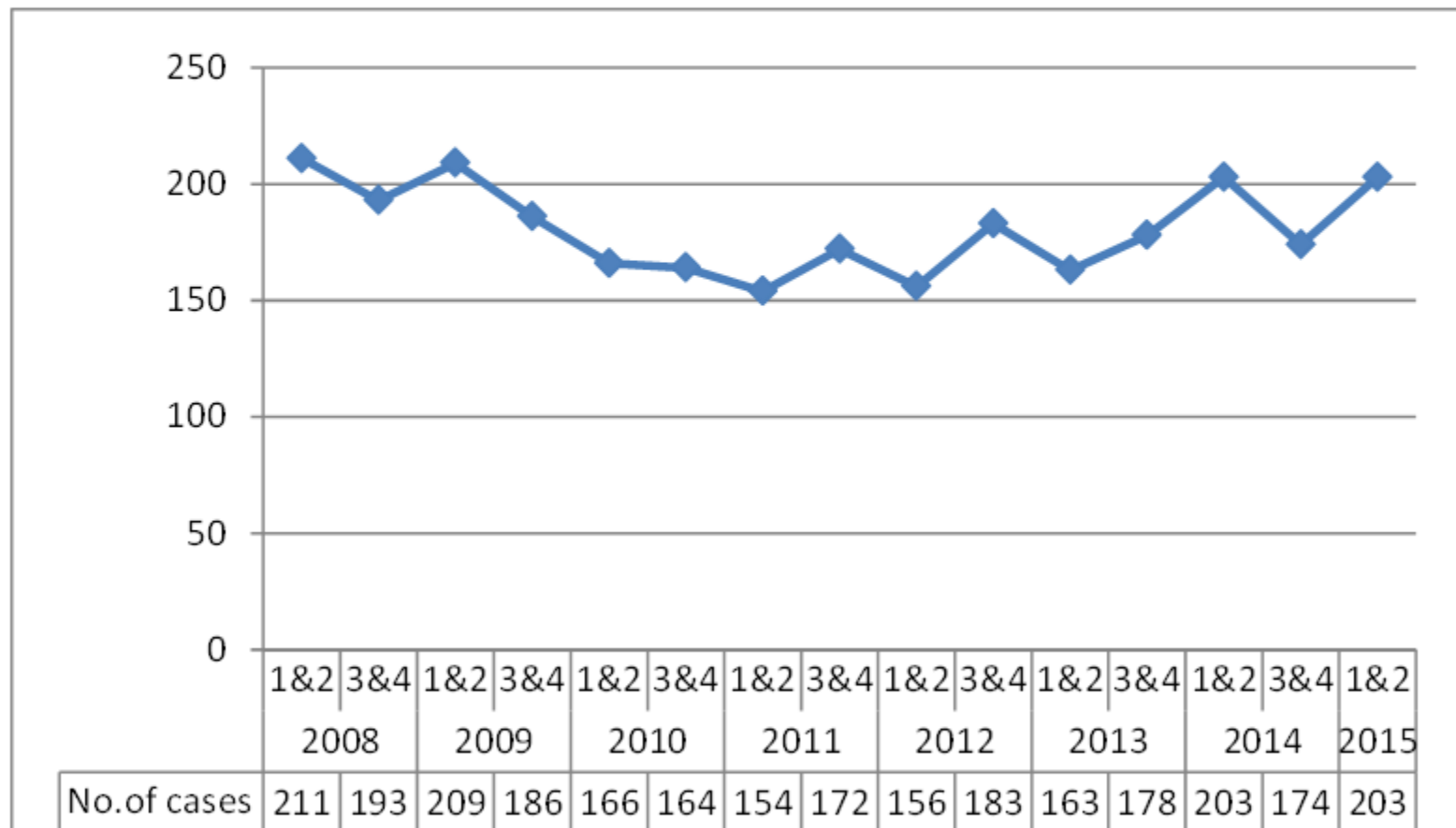
- HIV notifiable as disease in 2012
- Early diagnoses were notified
- In 2015 routine monitoring by Public Health Specialist noted an increase in number of **p24 antigen positive** cases 3 in Jan – Feb vs 2 in whole of 2014
- Was this unusual ?

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HIV notifications, Q1&2 2008 to Q 1&2 2015



Initial Response to Upsurge

1. Establishment of outbreak control team - clinicians, lab and public health
2. Descriptive study- WHO, Where and What
3. Early control measures
4. Epidemiological investigation
5. Other studies
6. Media and communications

Epidemiological investigation

1. Drug treatment clinicians –*increased use of a new psychoactive substance* (NPS) alpha-pyrrolidinovalerophenone (α -PVP), polysubstance PWID, linked to the increase ?
2. **Early hypothesis – association with Sno Blow and Chaotic Drug use**
3. **Case definition** New HIV diagnosis in PWID in Dublin, acquired since January 2014

one or more of:

- acute seroconversion illness
- p24 antigen positive
- recency assay test
- negative HIV test within 12 months of diagnosis

Confirmed recent HIV infection:



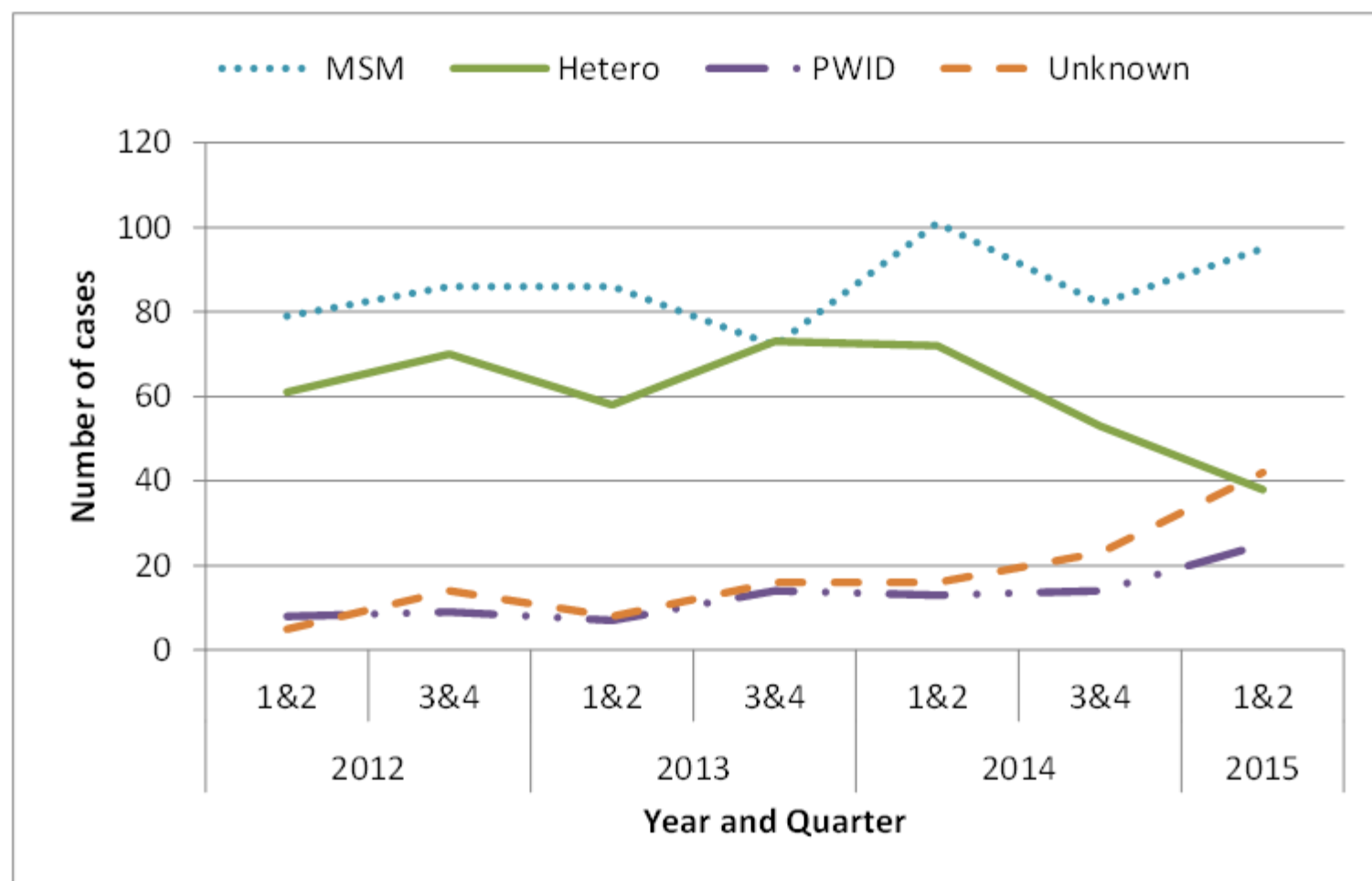
Probable recent HIV infection: unknown time of infection but epidemiological link (sexual intercourse or drug sharing) to a **confirmed** case

Investigations

- Epi- looking for cases and verifying status
- Review of all HIV cases – checking route of transmission
- Virus Reference Lab - to notify new diagnoses after 1st +
- Clinic sites/homeless hostels asked to notify Public Health of any reactive tests, as well as arranging for a follow up confirmatory testing
- Safety Net => NGO working with homeless and vulnerable groups point of care testing POCT using mobile bus
- Contact tracing
- Descriptive and analytic epidemiological investigation
- **Case control study**
- Laboratory analysis Virological and Biochemical



Trend in HIV notifications by probable route of transmission



Q1&2 2015 HIV data (provisional), 18th November 2015

Point of care testing

Find and treat mobile bus borrowed from NHS



Control Measures

- Alerts and increased awareness among clinicians, frontline staff, and Patients
- Increase engagement with methadone clinics
- HIV testing in PWID including on site POCT
- Training front line workers, hostels and staff
- Increased Needle exchange and target harm reduction at most vulnerable hostels etc
- Liaison between stakeholders
- Early treatment with anti-retrovirals

Key messages

ALERT FOR DRUG USERS PREVENT HIV

**New HIV
infections**
are increasing among
**people who
inject drugs**

ALL DRUG USERS SHOULD:



- Use safe injecting practices
- Always use clean needles & syringes
- Never share or re-use any injecting equipment



- Practice safer sex
- Always use condoms



- Injecting any drug is high risk behaviour
- This includes snowblow and other head shop drugs

DRUGS / HIV HELPLINE

For free confidential information and support related to HIV, sexual health, drug and alcohol use, or to find out about your nearest needle exchange, call:

1800 459 459



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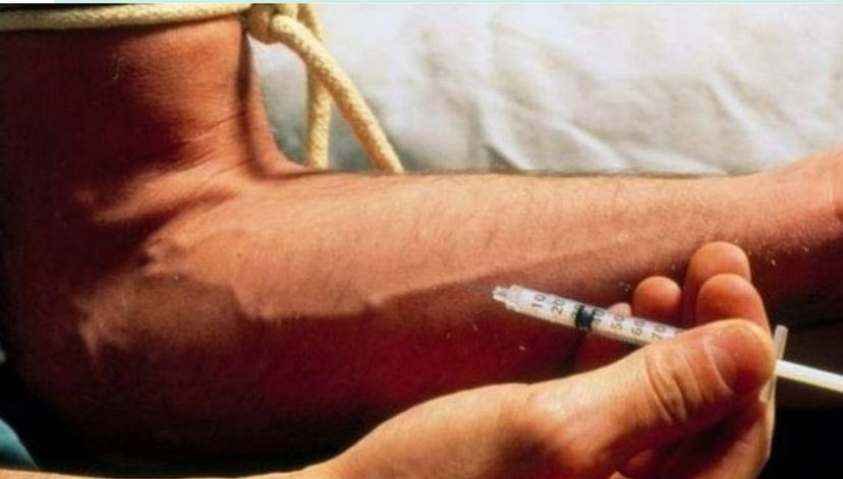
Department of Public Health, HSE-East

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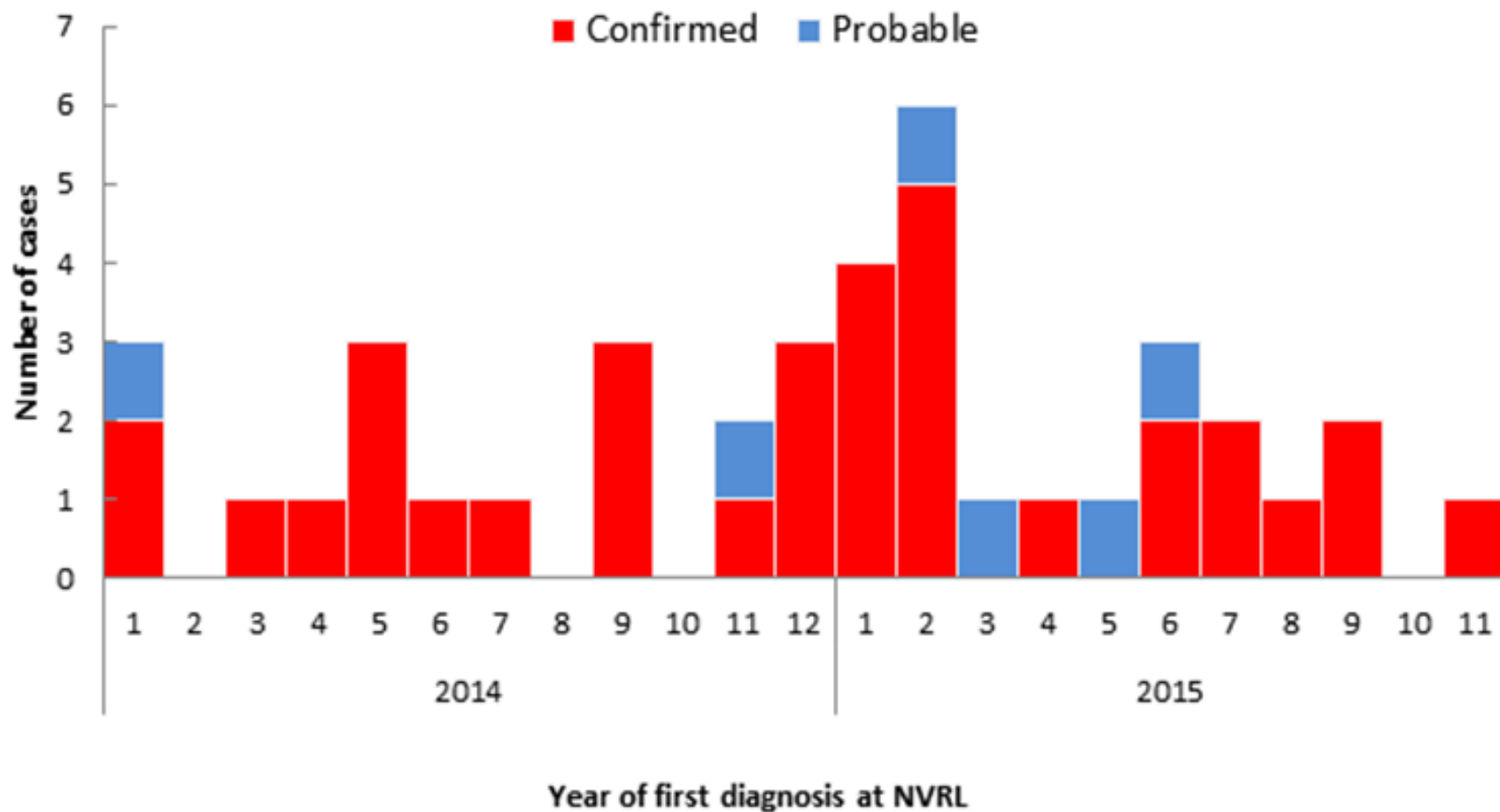
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Safe injecting

- Needle/ syringe
- Works



EPI curve



Source: HPSC



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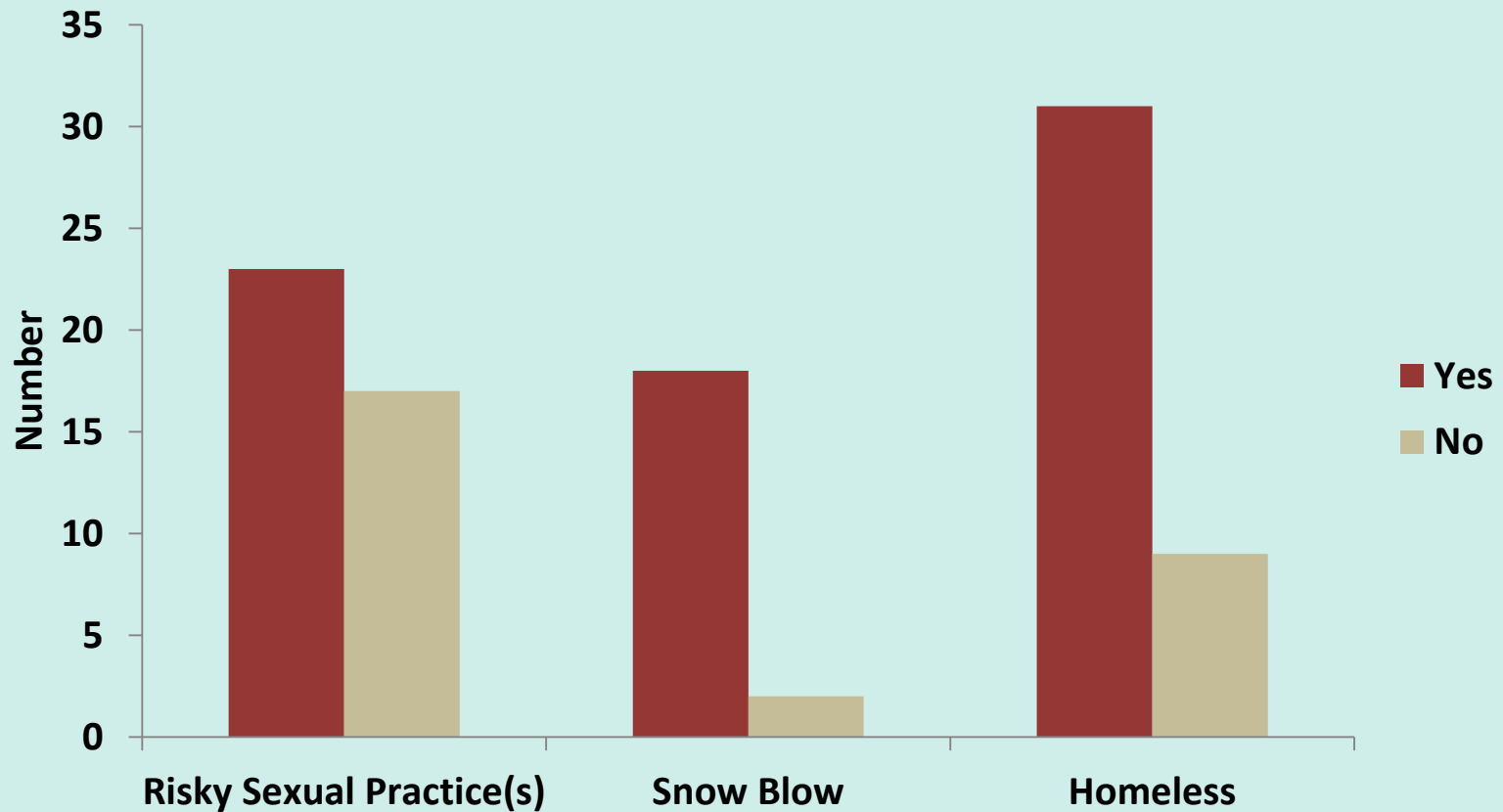
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Characteristics of confirmed and probable HIV cases in PWID in Dublin diagnosed from Jan 2014-Dec 2015

	Male		Female		Total	
Total	23		16		39	
Mean age (years)	36		34		35	
Range (years)	20-51		25-39		20-51	
Sexual Practices	No.	%	No.	%	No.	%
Sex with PWID	1	4.3	2	12.5	3	7.7
Sex with a known positive partner	1	4.3	0	0.0	1	2.6
Sex with PWID who is known positive	11	47.8	7	43.8	18	46.2
PWID only	10	43.5	7	43.8	17	43.6
Total	23	100.0	16	100.0	39	100.0
Reported Snow Blow use						
Yes	10	43.5	6	37.5	16	41.0
No	2	8.7	0	0.0	2	5.1
Unknown	11	47.8	10	62.5	21	53.8
Total	23	100.0	16	100.0	39	100.0
Homelessness						
Yes	14	60.9	15	93.8	29	74.4
No	9	39.1	1	6.3	10	25.6
Total	23	100.0	16	100	39	100.0

Descriptive study - risks

Risk Factors



Case Control Study

- Homeless chaotic PWID injecting in the previous 12 months
- Controls from National Drug Treatment Centre Trinity Court
- Questionnaire
 - *living conditions, drug use, sexual and injecting practices*

RAPID COMMUNICATIONS

Injection of new psychoactive substance snow blow associated with recently acquired HIV infections among homeless people who inject drugs in Dublin, Ireland, 2015

Eurosurveillance, 20: 40, 2015

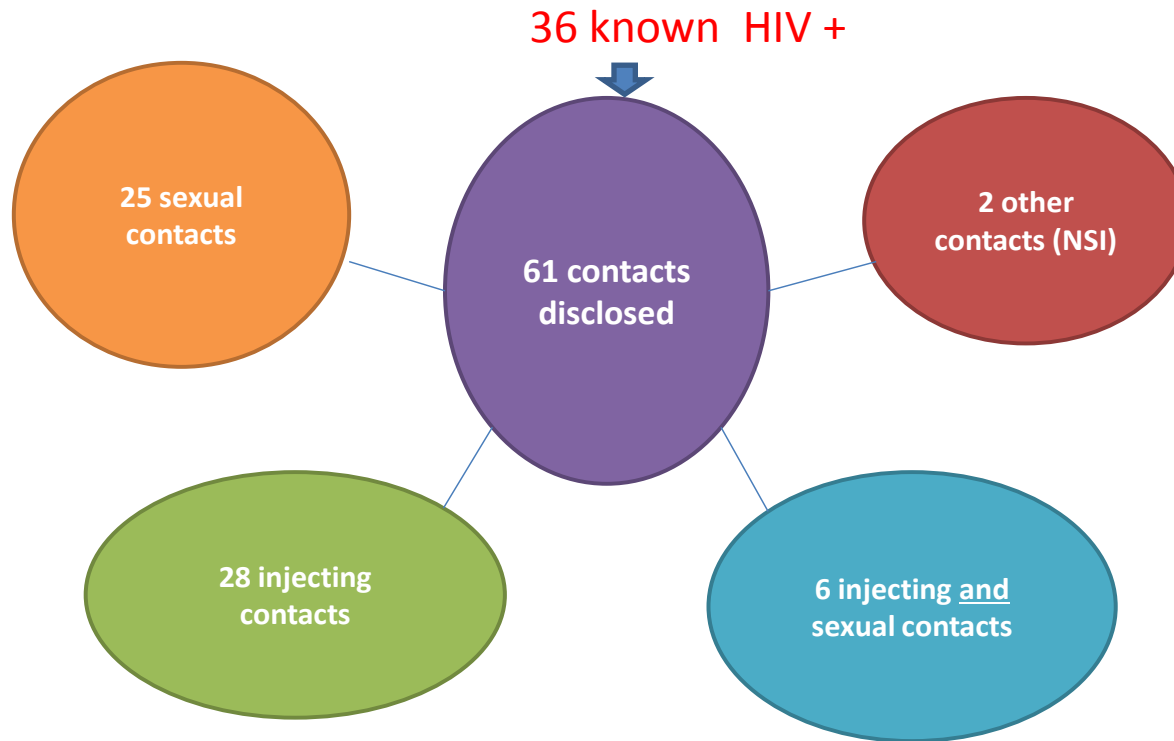
Results Case Control Study

Risk Factors	Adjusted OR	95% CI	P value
Injecting snow blow	49	3.6–669	0.003
Sexual intercourse with PWID	36	1.6–782	0.022
Reusing needles/syringes	13	1.01–177	0.049

Contact tracing

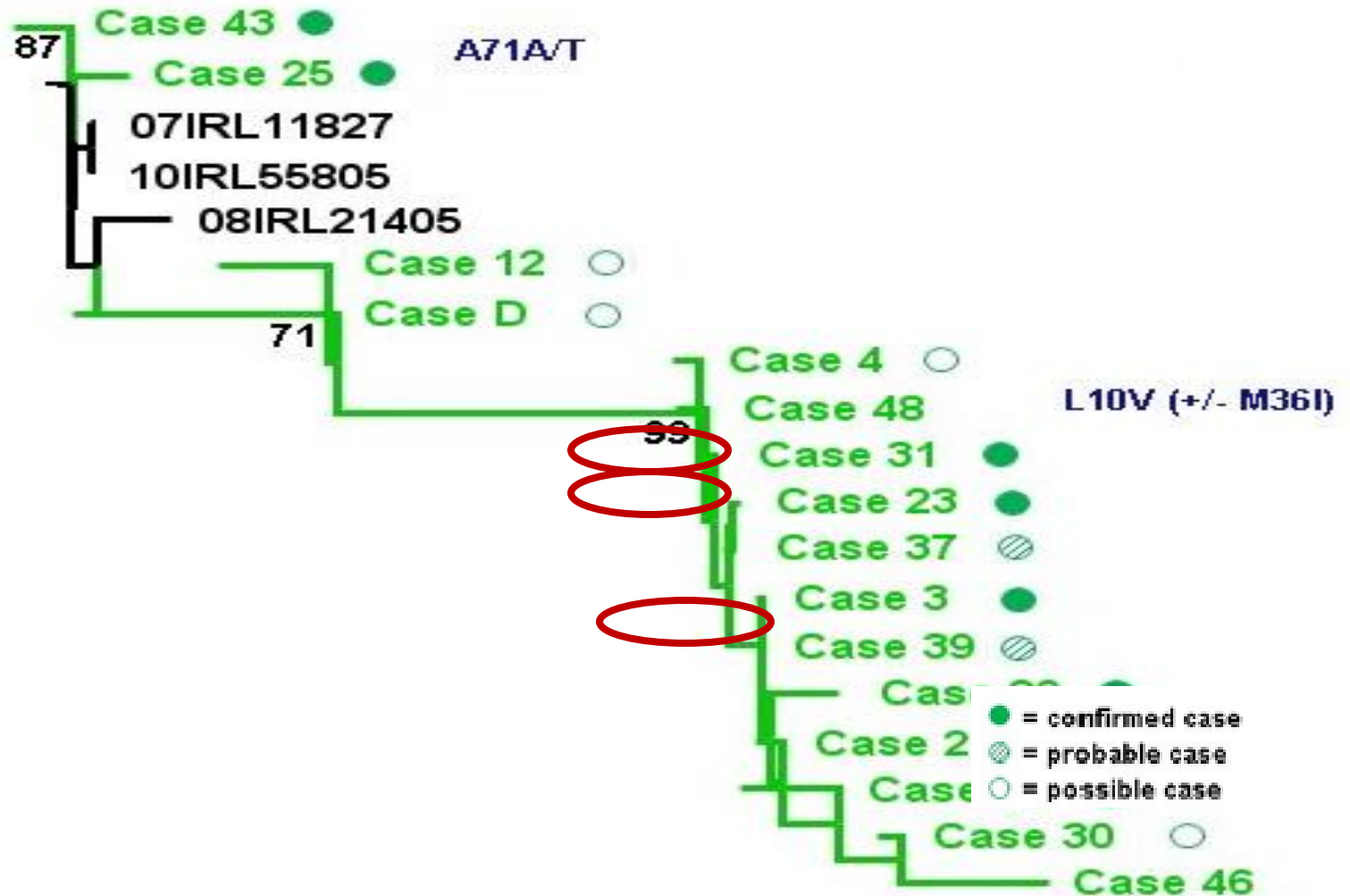
Contacts Review by Exposure

(complete information available =28 cases and partial information available =11 cases)



Cluster 2

A71A/T
L10V (+/- M36I)



Biochemical Analysis

Screening for drug use

National Drug Treatment Centre

Drug Analysis Laboratory

- Urine screening for drugs

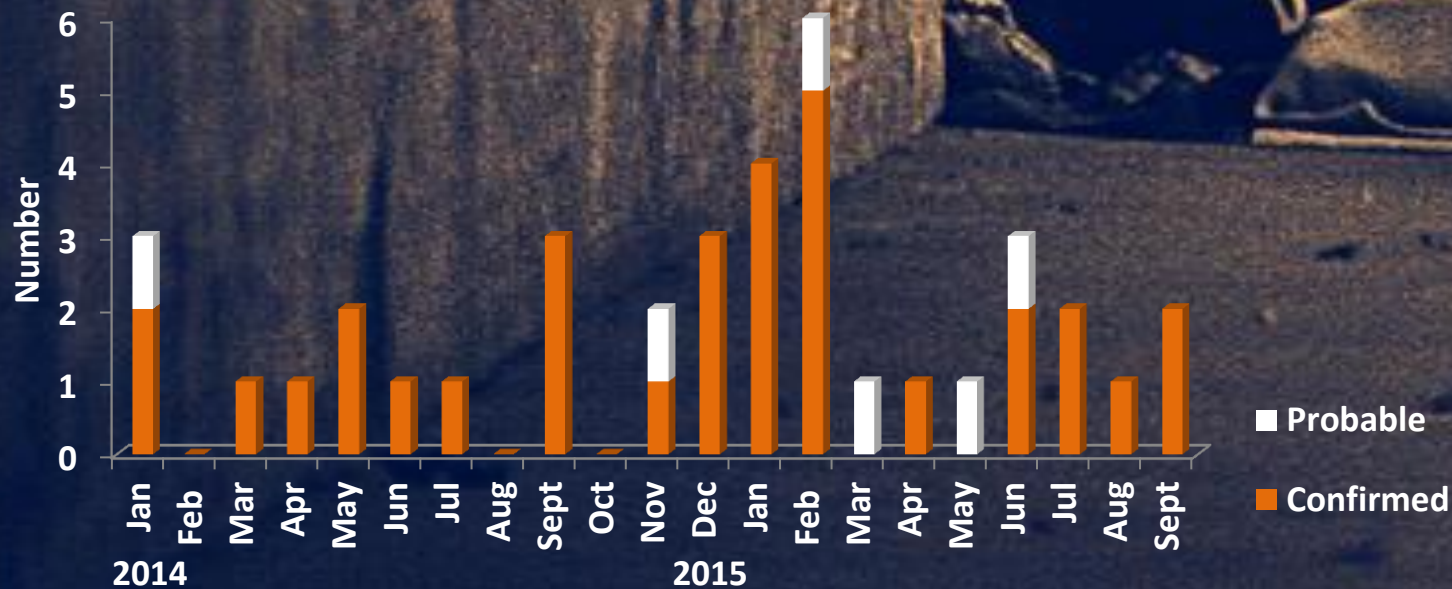
Result on 12 cases:

- 5 positive (42%):
 - α -PVP (4)
 - α -PVP and MDPBP (1)
- } New psychoactive substances

Homelessness and extreme chaotic drug use Drivers of Outbr

Of 38 cases 81% homeless

100% women are homeless

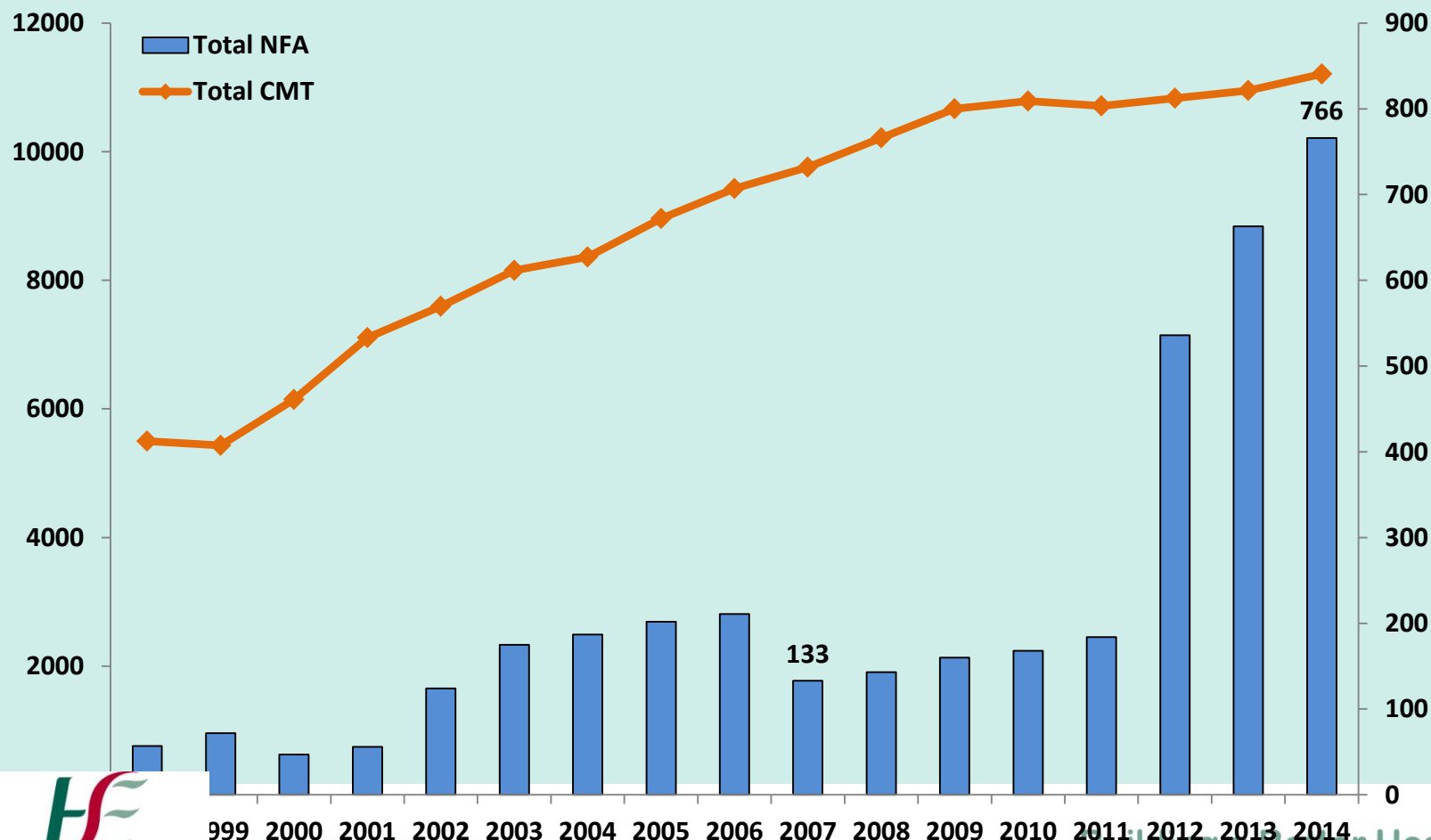


Homeless Health

What proportion of those on methadone are homeless?

>475% increase from 2007-2014

Central Methadone Treatment List



Risk reduction, needles and Sno Blow



Media interest

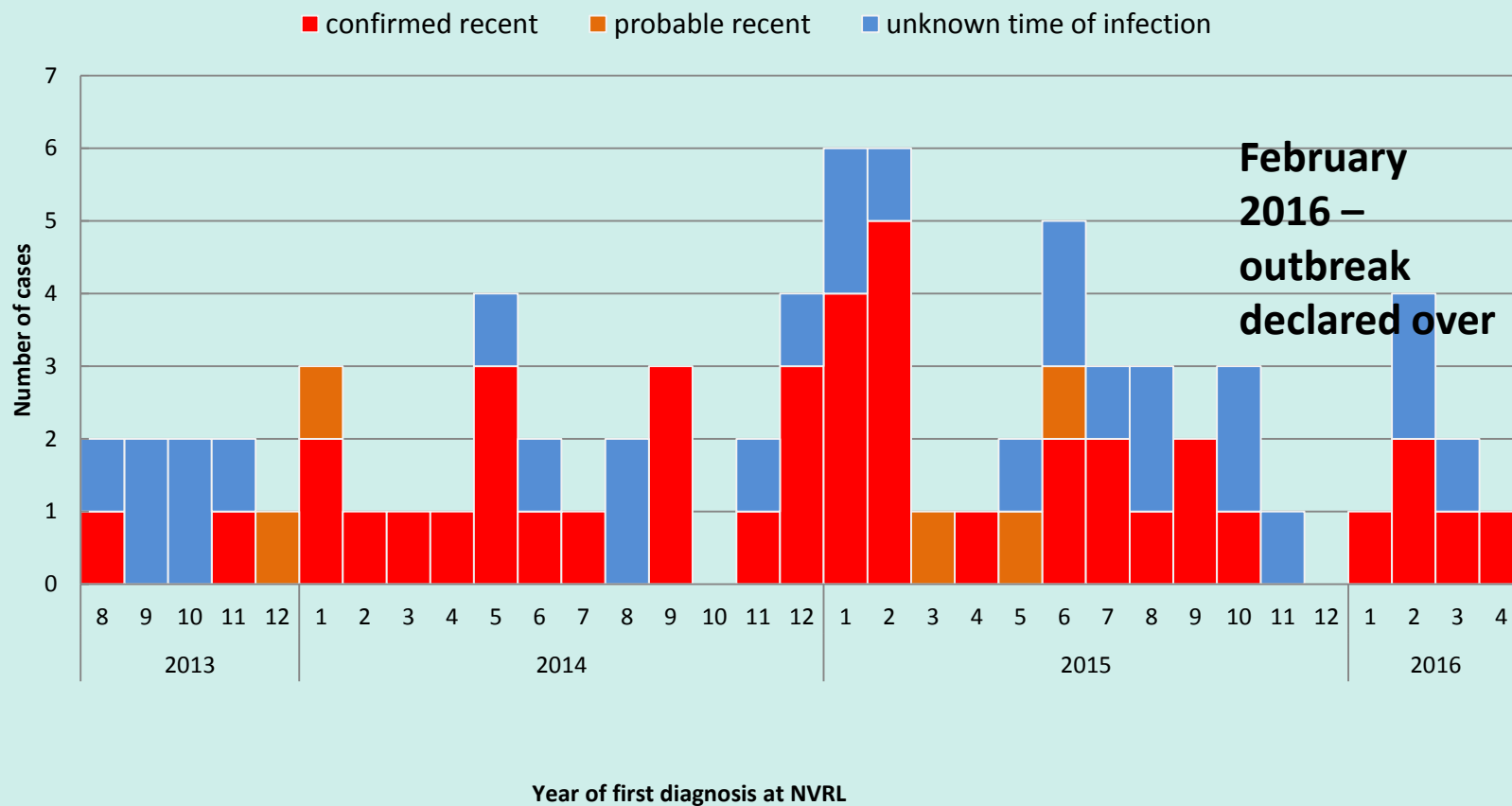
- Not huge interest mainstream press
- Formerly legal drug 'snow blow' linked to rise in HIV
Journal.ie. Examiner
- [What is Snow blow](#)
- [www.headshopworld.co.uk/A28_32_110-SnowBlow.php](#) blocked by HSE websense
- “A herbal **legal high** alternative to illegal substances. When you need a lift, have a snuff on this. Party all night long. Administer **Snow Blow** though a snuff bullet or ...”

Frontline awareness vs stigma



Progress- HIV cases 2013-16

65+ cases from beginning 2014



Exchange of information across Europe

- *“legal highs and lack of media attention may be contributing to an increase in HIV cases seen in the Glasgow area”*
- *“Legal highs a factor in more frequent high-risk injecting behaviour”*

Summary

- Major outbreak affecting most marginalised most vulnerable of PWID-
- 85% of new PWID cases are Irish-born >50% involve women, with their numbers **rising almost five-fold between 2012 and 2014.**
- Associated with homelessness and risk taking behaviour
 - chaotic injecting drug use
 - sexual risk taking
- Evolving situation
 - Homelessness worsening- challenges remain
 - New drugs in use – stimulants, steroid use
 - Need for ongoing risk awareness

Conclusion and recommendations

- Strong early measures controlled spread HIV
- Highlighted social determinants of health
- Need sustained focus on most vulnerable within our society
- Health promotion for homeless population
- Adequate resource allocation for prevention mitigation and treatment
- Need for close interagency cooperation- drug using homeless need so much more than bricks and mortar
- **Review National Drugs Strategy with emphasis on NPS**
 - **Proactive monitoring of NPS within addiction services**



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Acknowledgements

- **Colleagues in Department of Public Health HSE-East**
- **Health Protection Surveillance Centre**
- **HSE Social Inclusion HSE**
- **National Drug Treatment Centre/ Central Methadone Treatment List**
- **GUIDE Clinic, St. James's Hospital**
- **Mater Misericordiae University Hospital**
- **UCD National Virus Reference Laboratory**
- **Addiction Services, outreach workers**
- **Merchants Quay Ireland**
- **Safetynet**
- **HIV Ireland**
- **NGO's Ana Liffey, UISCE, Cross Care**
- **Irish Prison Service**
- **Dublin Region Homeless Executive**
- **Members of the Outbreak Control Team**

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