

The Consequences of Addiction: Associated Infectious Diseases

Bost Forum 2018

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Source of Infection

- Nonsterile equipment
- Unsterile injection practices
 - Water, skin prep, licking needles, etc.
- Narcotic solutions themselves
- Washing drugs out of the syringe with own blood
- Broken needle tips- some use 20-30x
- Own skin flora
- Malnutrition
- Poor living conditions

Kaushik, Journal of Medical Microbiology (2011), 60: 408-4022.

Infections Associated with Injection Drug Use

- Skin/Soft Tissue: cellulitis (#1), abscess(#2)
- Endocarditis-heart (life time prevalence in this group-10%)
- Thrombophlebitis/Endovascular complications
- CNS infections or strokes
- Bone and Joint Infections
- Viral Infections: Hepatitis A, B,C and HIV

Kay, Ear Nose Throat J, 1996 Oct, Vol 75(10) 670-6

Increases in Hospitalizations from Associated Infections

- Retrospective data – Nationwide Inpatient Sample (NIS) – represents 20% of all US hospitalizations
- Trends in rates of serious infection and the associated costs related opioid abuse/dependence and associated infections resulting in hospitalizations.

Ronan, Herzig, Health Affairs 35, NO. 5 (2016) 832-837.

Diagnosis of Opioid Associated Infections: 2002 versus 2012

- Increase in hospitalizations: 301,707 vs. 520,275
- Endocarditis: 1.5 fold increase
- Osteomyelitis: 2.2 fold increase
- Septic arthritis: 2.7 fold increase
- Epidural abscess: 2.6 fold increase

Ronan, Herzig, Health Affairs 35, NO. 5 (2016) 832-837.

Costs

- Medicaid was most common payer
- Costs tripled between 2002 (\$4.57 billion) and 2012(\$14.85 billion) for opioid use DO
- Opioid related infection (ORI) admissions more than tripled
 - 2002 (\$190.68 m) vs 2012 (\$700.66m)
 - 2012: Opioid abuse/hospitalization was \$28,543 vs ORI/hospitalization was \$107,217

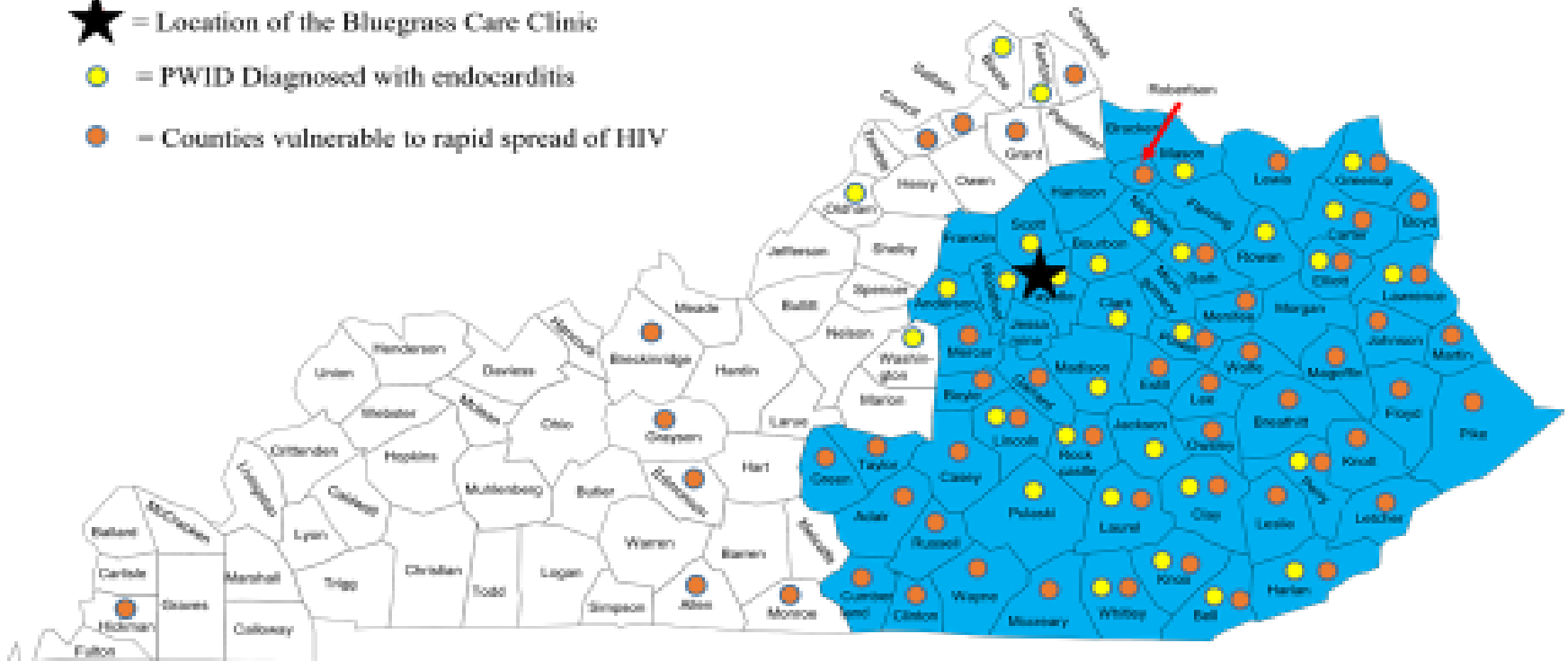
Ronan, Herzig, Health Affairs 35, NO. 5 (2016) 832-837.

UK Healthcare Impact

- 2017 patient encounters with any opioid diagnosis:
 - 1,792 inpatient, 579 ED, 136 observation bed
 - Represents 5% of the total patients admitted
 - UK ID adult inpatient services (except transplant), 50% of all ID consults are IDU related

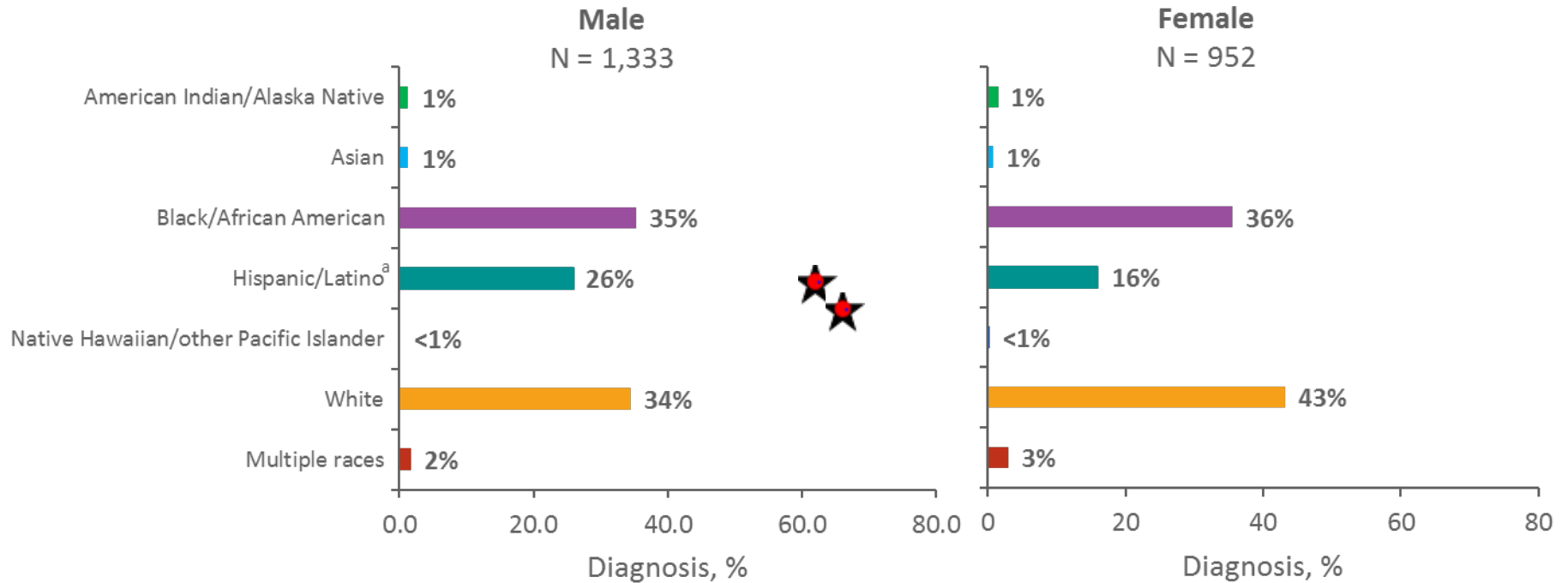
Counties at Risk for HIV Outbreak As a Result of HIV Drug Use

- = Bluegrass Care Clinic Service Area
- ★ = Location of the Bluegrass Care Clinic
- = PWID Diagnosed with endocarditis
- = Counties vulnerable to rapid spread of HIV



see blue.™

Diagnoses of HIV Infection among Persons Who Inject Drugs, by Sex and Race/Ethnicity, 2016—United States and 6 Dependent Areas

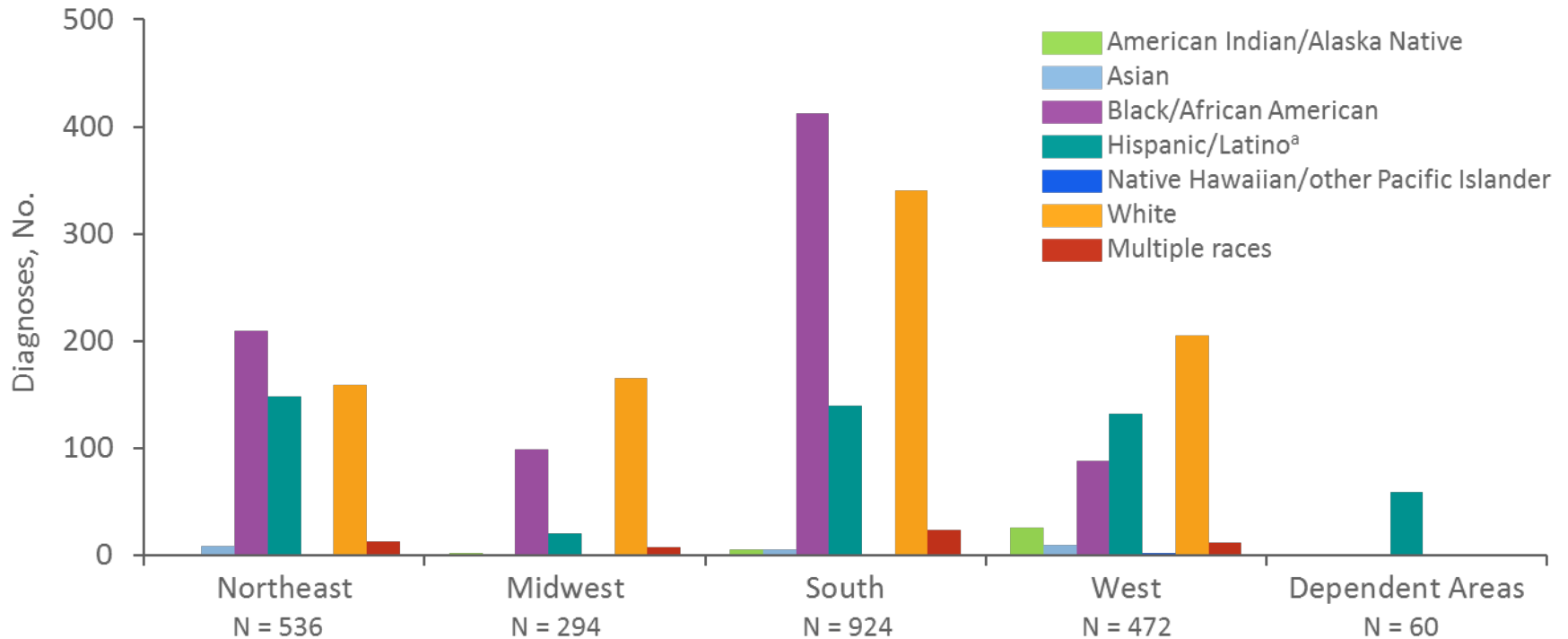


Note. Data for the year 2016 are preliminary and based on 6 months reporting delay. Data have been statistically adjusted to account for missing transmission category.

^a Hispanics/Latinos can be of any race.

CDC, 2018, <https://www.cdc.gov/hiv/group/hiv-idu.html>

HIV Diagnoses Among Persons Who Inject Drugs, by Region and Race/Ethnicity 2016—United States and 6 Dependent Areas

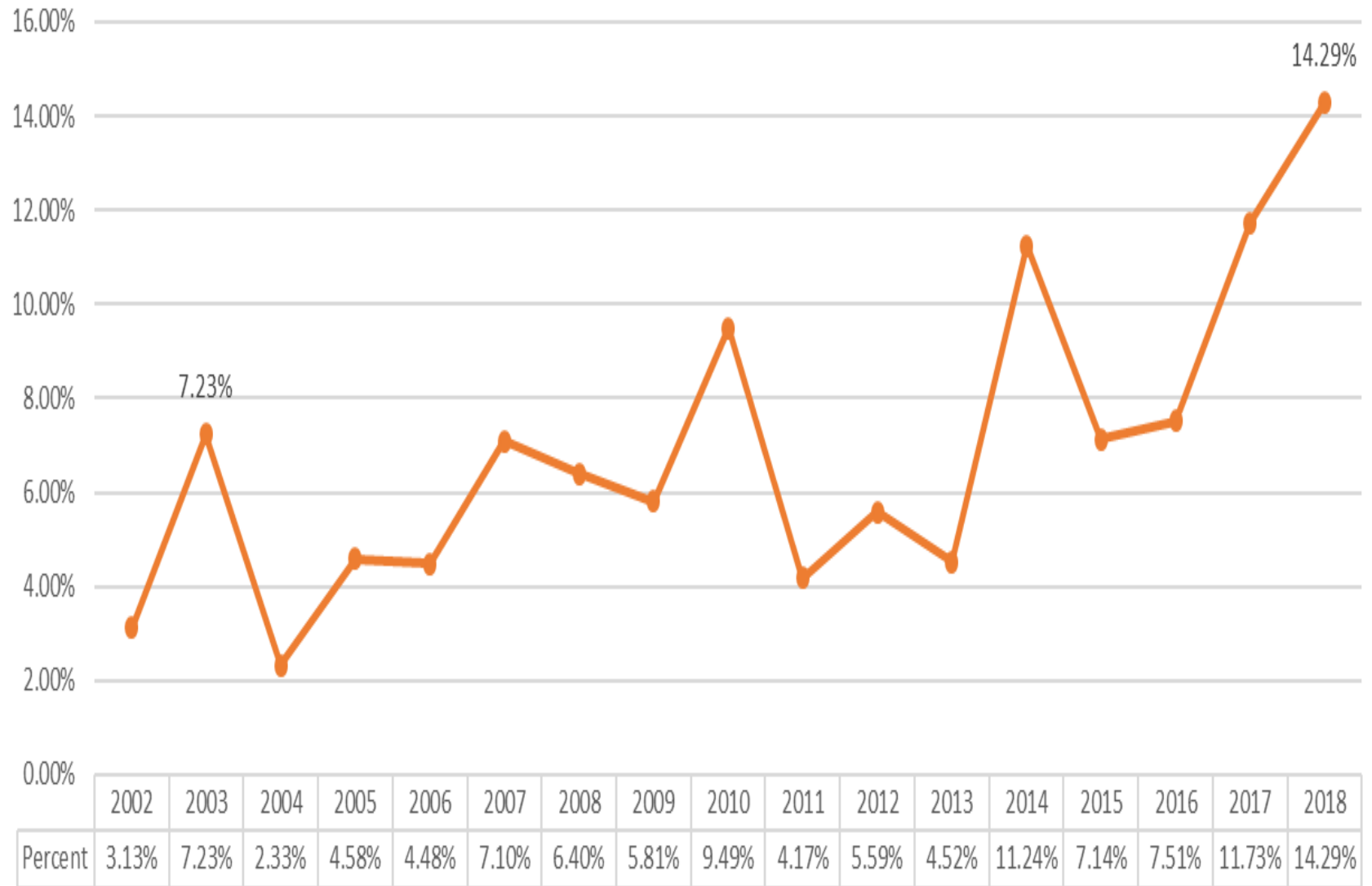


Note. Data for the year 2016 are preliminary and based on 6 months reporting delay. Data have been statistically adjusted to account for missing transmission category. Data exclude men with HIV infection attributed to male-to-male sexual contact and injection drug use.

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CDC, 2018, <https://www.cdc.gov/hiv/group/hiv-idu.html>

BCC Newly Enrolled Patients with Risk Factor: IDU



Downstream Consequences

- Costly both financially and in terms of life
- Can be lifelong: major heart surgery, stroke, loss of family, etc.
- Need innovative strategic approaches
 - Surveillance role for ID associated with OUD - no health system to monitor
 - Loan forgiveness for MAT
 - Syringe access programs
 - MAT
 - Decrease in Stigma