



**Addressing the Hepatitis C-Opioid
Syndemic in Rural Appalachia: The KeY
Treat Study**

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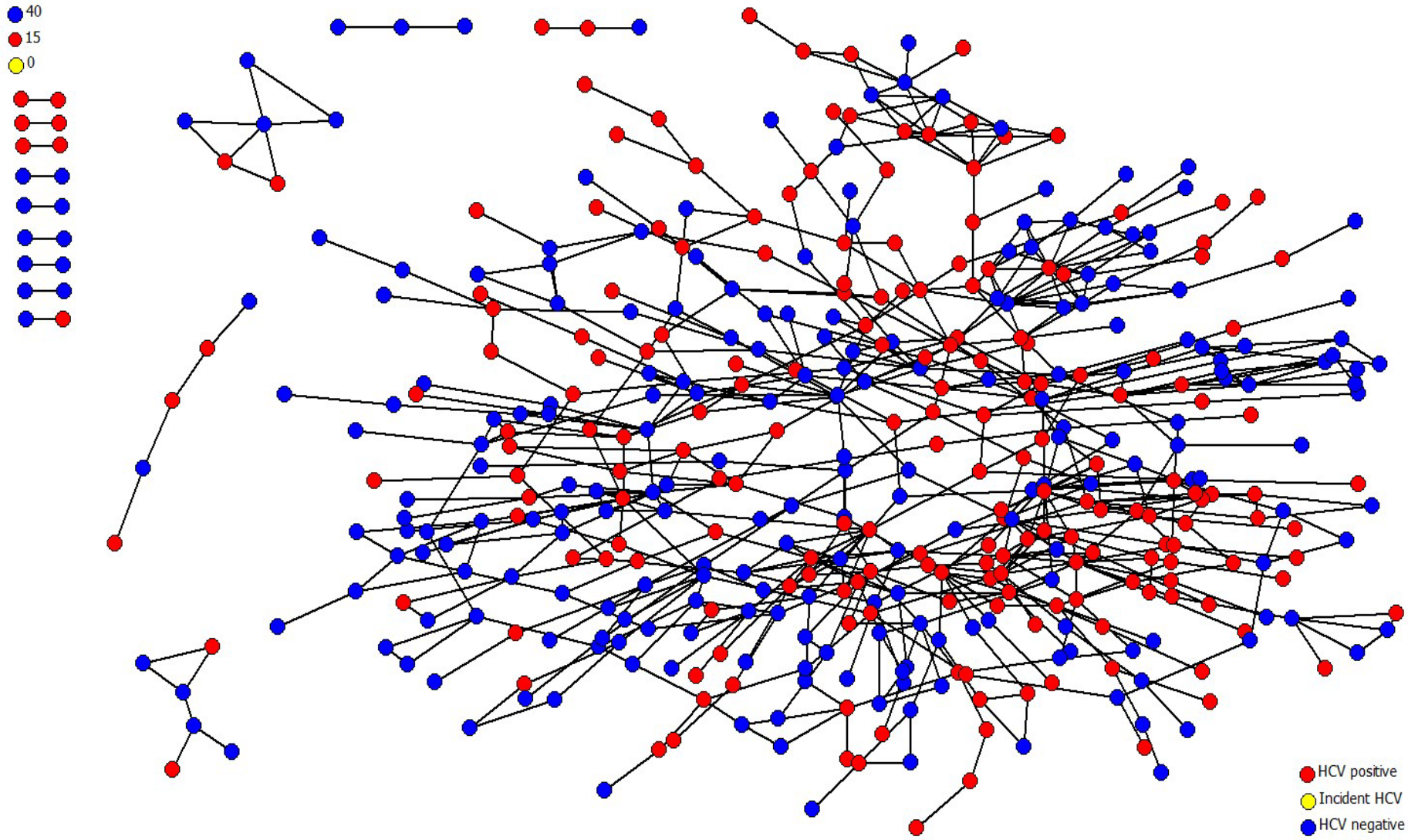


Hepatitis C

- Infection that can cause chronic disease
 - Cirrhosis
 - Hepatocellular carcinoma
- Transmissible via shared injection equipment
 - National Institute on Drug Abuse (NIDA)-funded cohort study established in 2008
 - Two-thirds of opioid users in longitudinal cohort study in Perry County were exposed to the virus
 - Of those, 75% are chronically infected and therefore treatment eligible



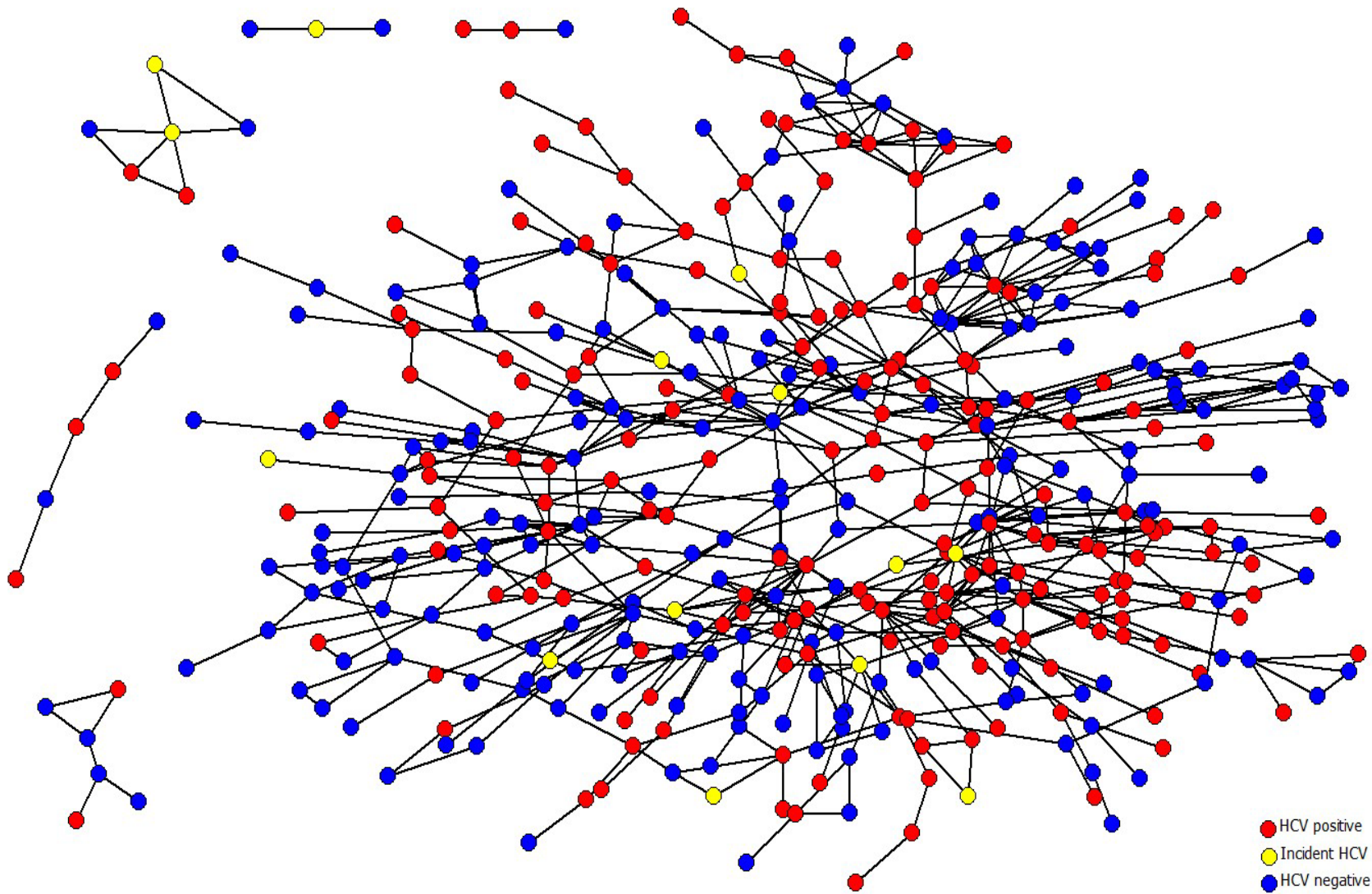
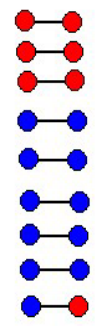
Drug Network - Baseline





Drug Network – 6 Months

● 37
● 15
● 3

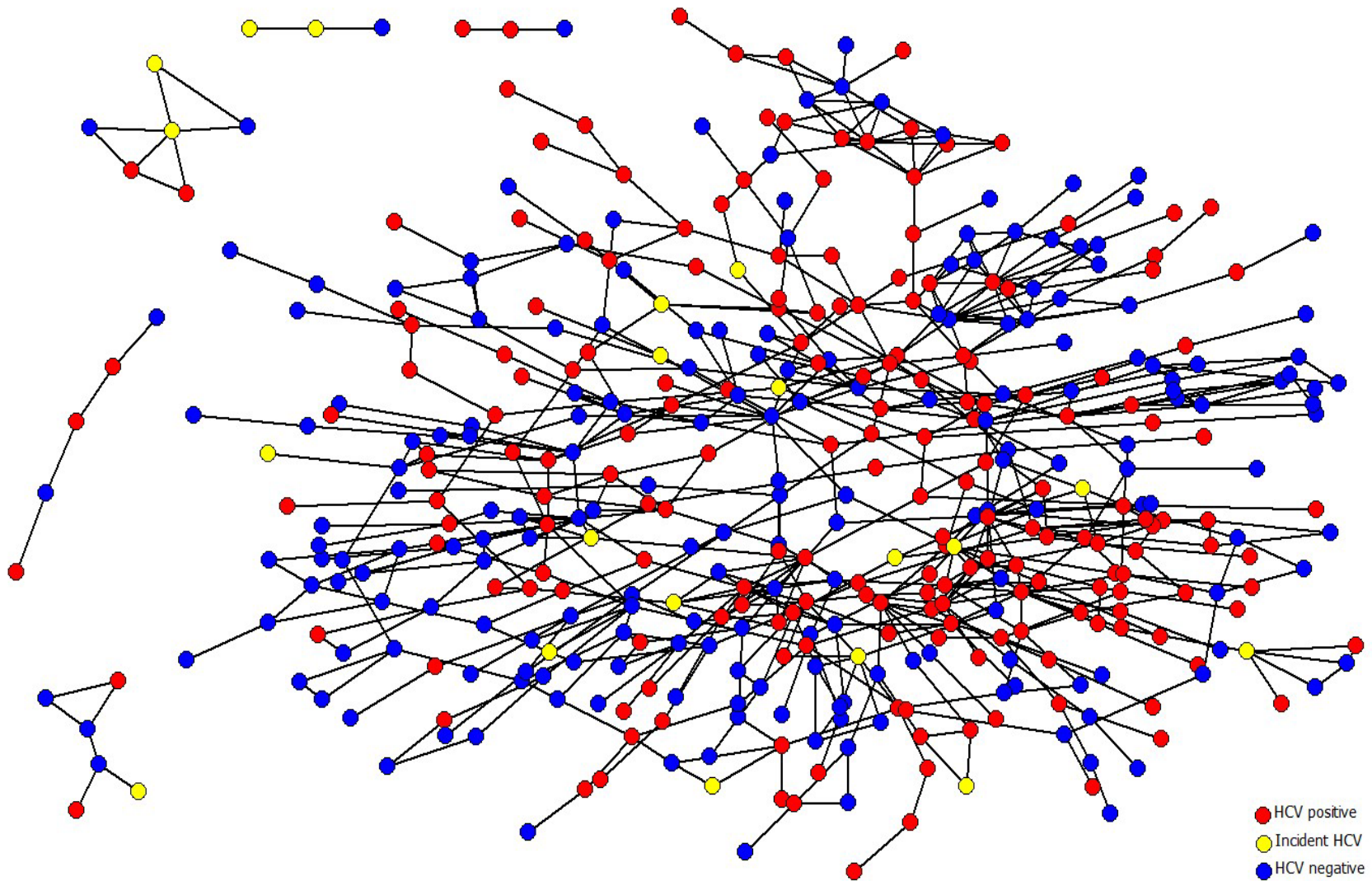
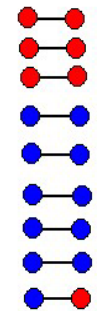


● HCV positive
● Incident HCV
● HCV negative



Drug Network – 12 Months

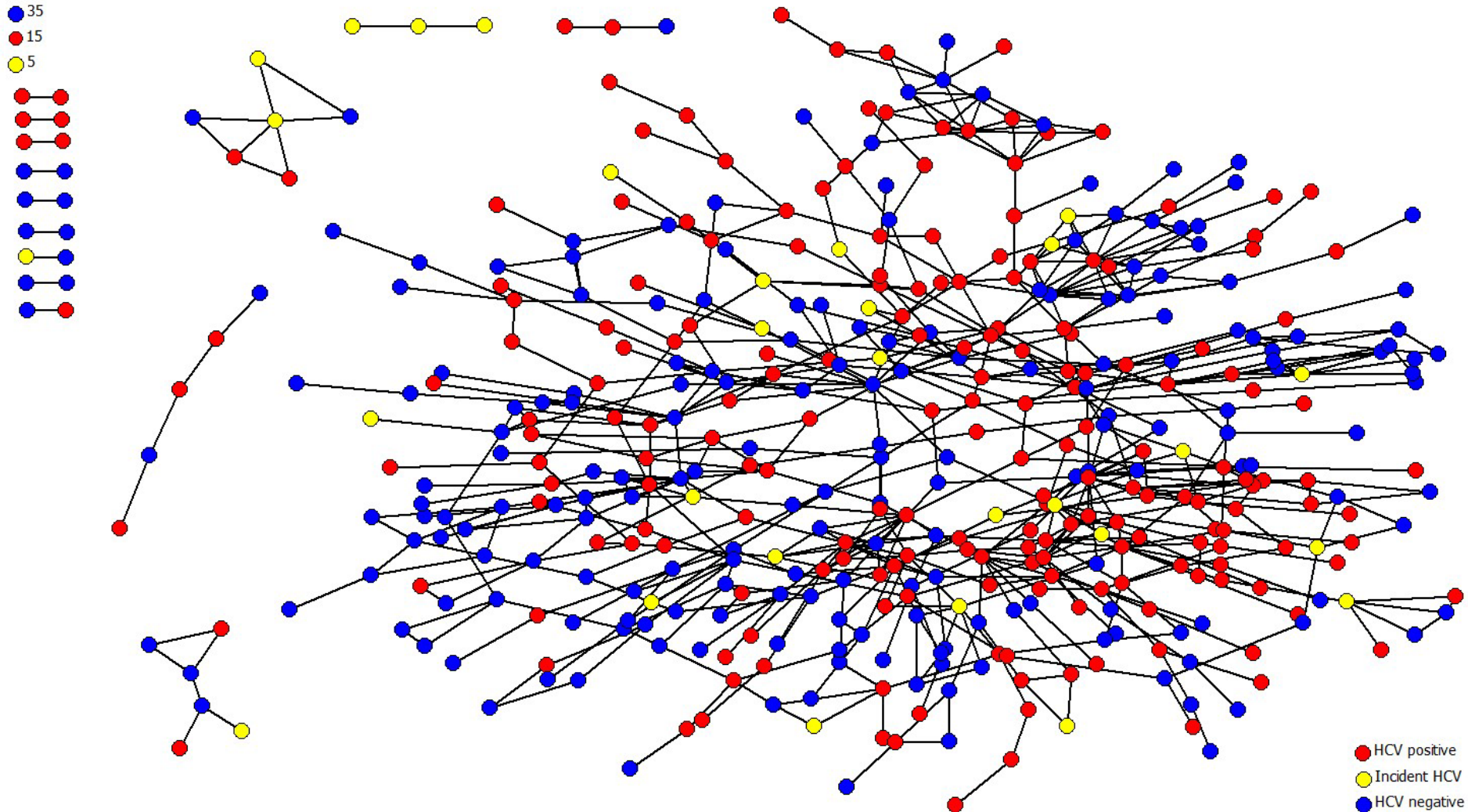
● 36
● 15
● 4



● HCV positive
● Incident HCV
● HCV negative



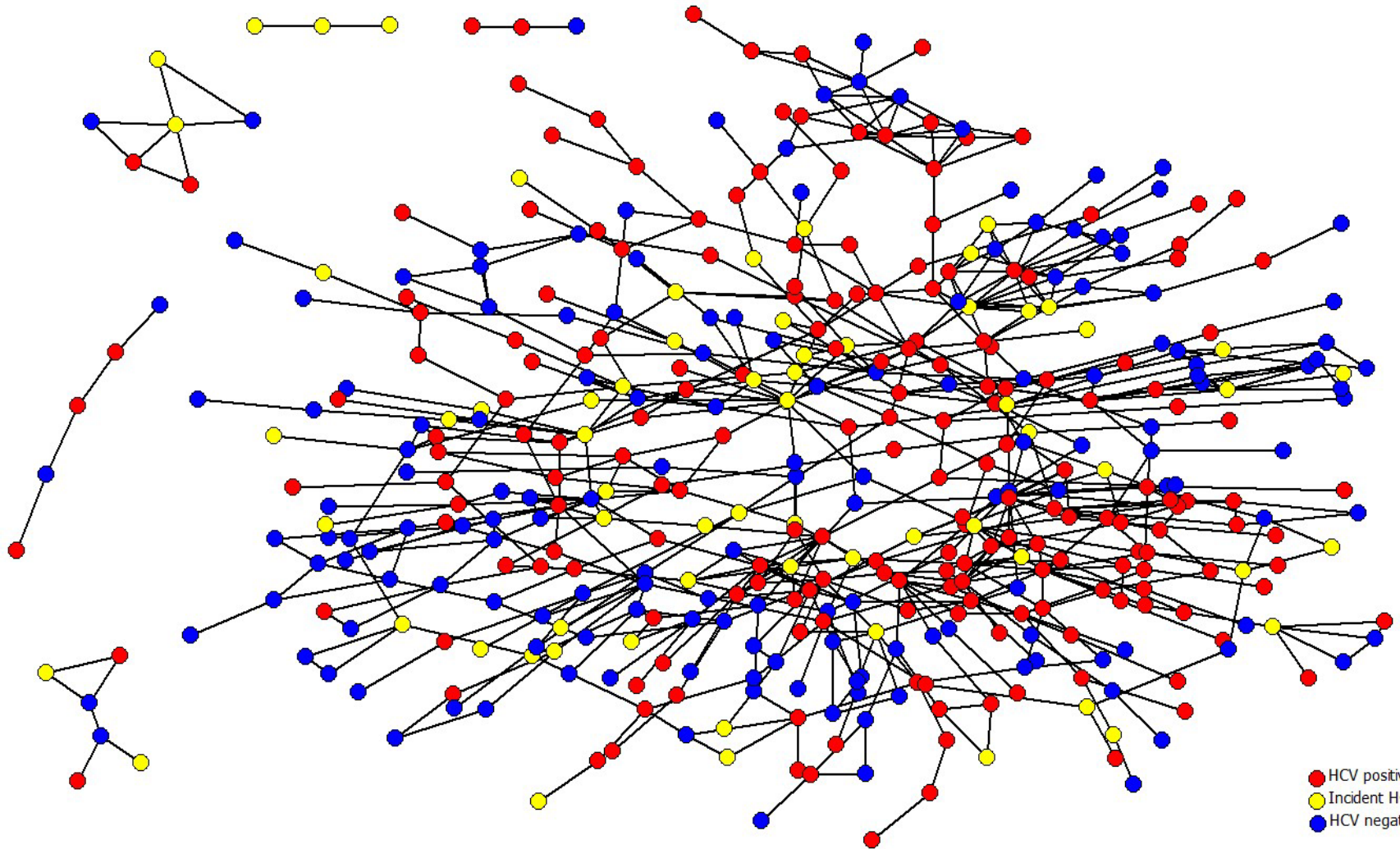
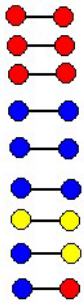
Drug Network – 18 Months





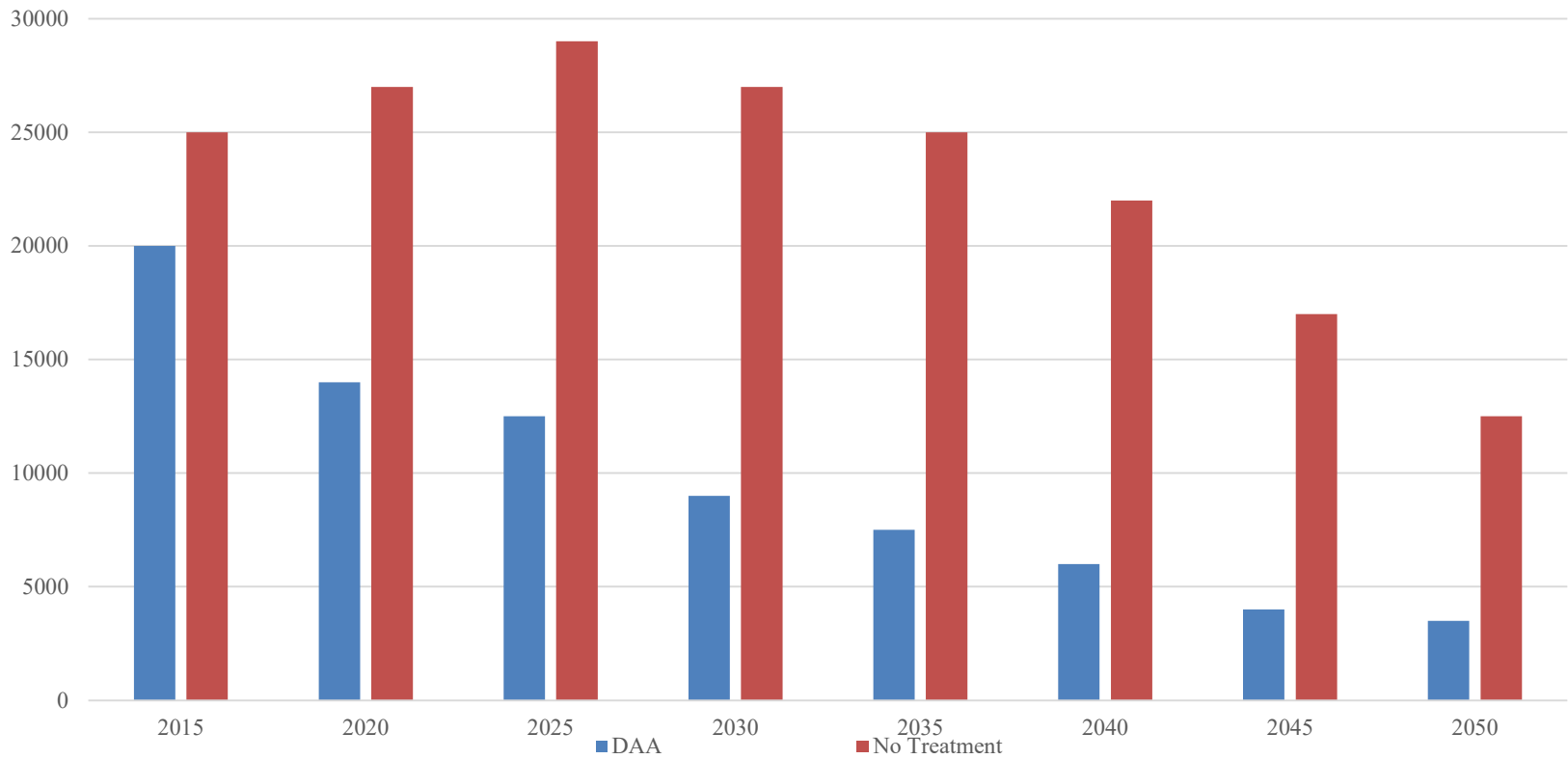
Drug Network – 24 Months

● 31
● 15
● 9





Projected Burden of Hepatocellular Carcinoma Related to HCV 2015-2050



Chhatwal et al., *Hepatology*, 2016



Treatment for Hepatitis C

- Direct Acting Antivirals (DAAs)
 - New treatments with high cure rates (90%+ even in high risk drug users)
 - One pill per day for 12 weeks
 - Few side effects
- Barriers to Care
 - Insurance restrictions
 - Abstinence
 - Physician specialist
 - Liver damage
 - Chronic infection
 - Cost (upwards of \$90,000 retail)



Advantages of Treating Hepatitis C

- Treatment as Prevention (TAP)
 - Lowers the community viral load
 - Most advantageous to treat those at highest risk
- Reduces the risk of developing advanced liver disease
- Reduces the risk of developing hepatocellular carcinoma
- Reduces the future health care burden on an area with vast health disparities



KeY Treat

The overarching goal of the Kentucky Viral Hepatitis Treatment Project (KeY Treat) is to increase access to Hepatitis C treatment in a rural Appalachian community in the midst of the opioid/Hepatitis C syndemic by removing the barriers to care (cost, abstinence, specialist, and chronicity).

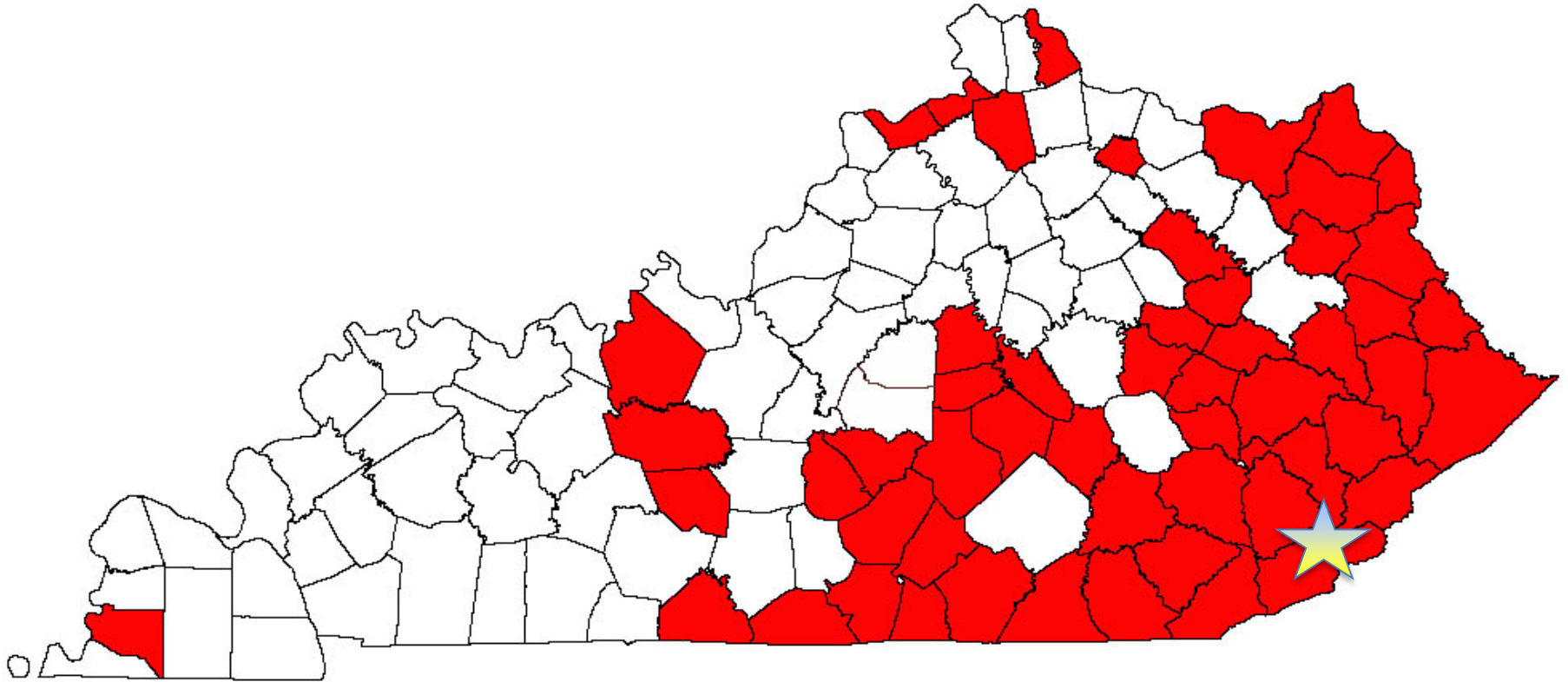


KeY Treat

- Five-year, \$15 million grant
- Jointly funded by the National Cancer Institute (NCI) and NIDA
- 900 12-week drug courses donated by Gilead Sciences, Inc. Additional drug also provided free of charge to treat relapse/reinfection (~\$50 million retail cost)



KeY Treat Site



**Perry County – 4th out of 3143 counties
assessed for HCV/HIV risk**



KeY Treat Study

- All residents of Perry County who are chronically infected with Hepatitis C
- N=900
- Mid-level provider model (Nurse Practitioners)
- Outcomes:
 - Treatment entry
 - Treatment completion
 - **CURE!** (Sustained virologic response [SVR])
 - Re-infection
 - Reductions in incidence and prevalence over time in Perry (intervention) compared to Pike County (control)



Other KeY Treat Services

- **Addiction Treatment**
 - Evidence-based approaches
 - Buprenorphine, methadone, and naltrexone
- **Syringe Services Program**
 - Funding for the syringe program in Perry County to prevent reinfection among active drug injectors
- **Case Management**
 - Additional barriers to care



KeY Treat Partners

- Kentucky River Health Department
- Behavioral Health Group (medication provider for opioid abuse disorder)
- Kentucky Department for Public Health
- Pike County Health Department