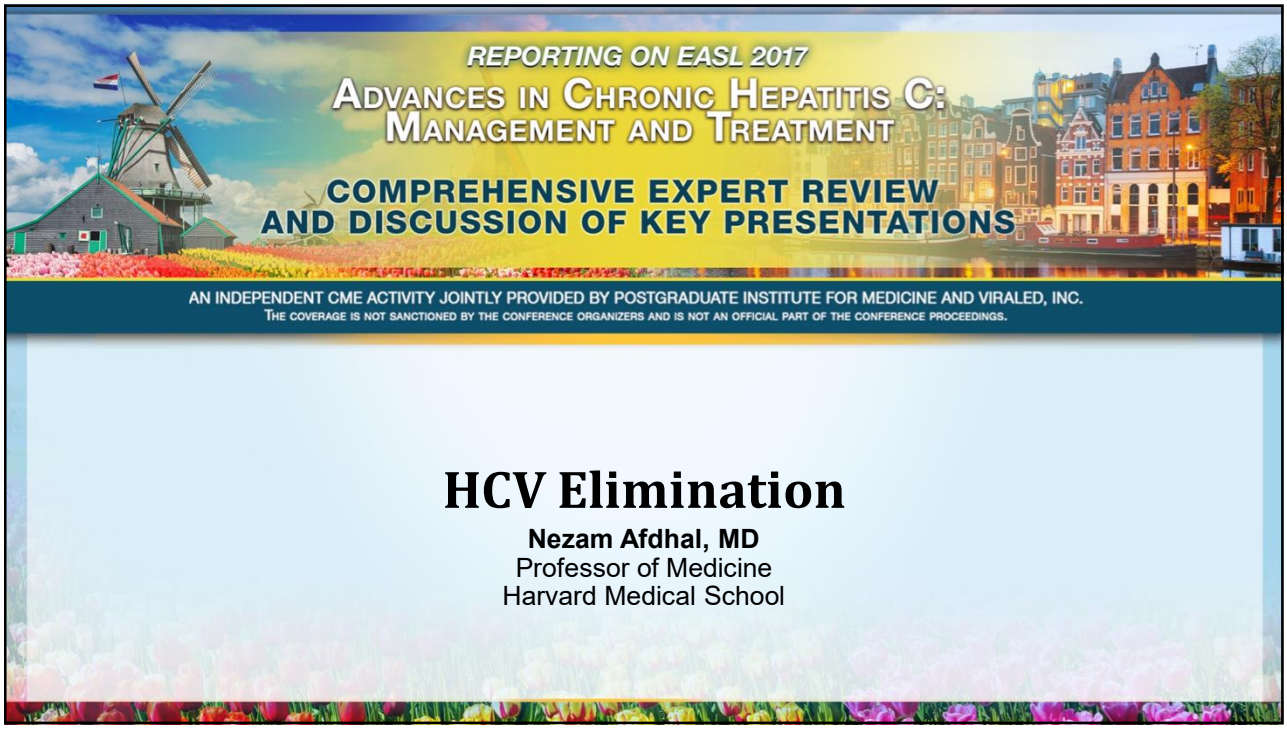

HCV Elimination

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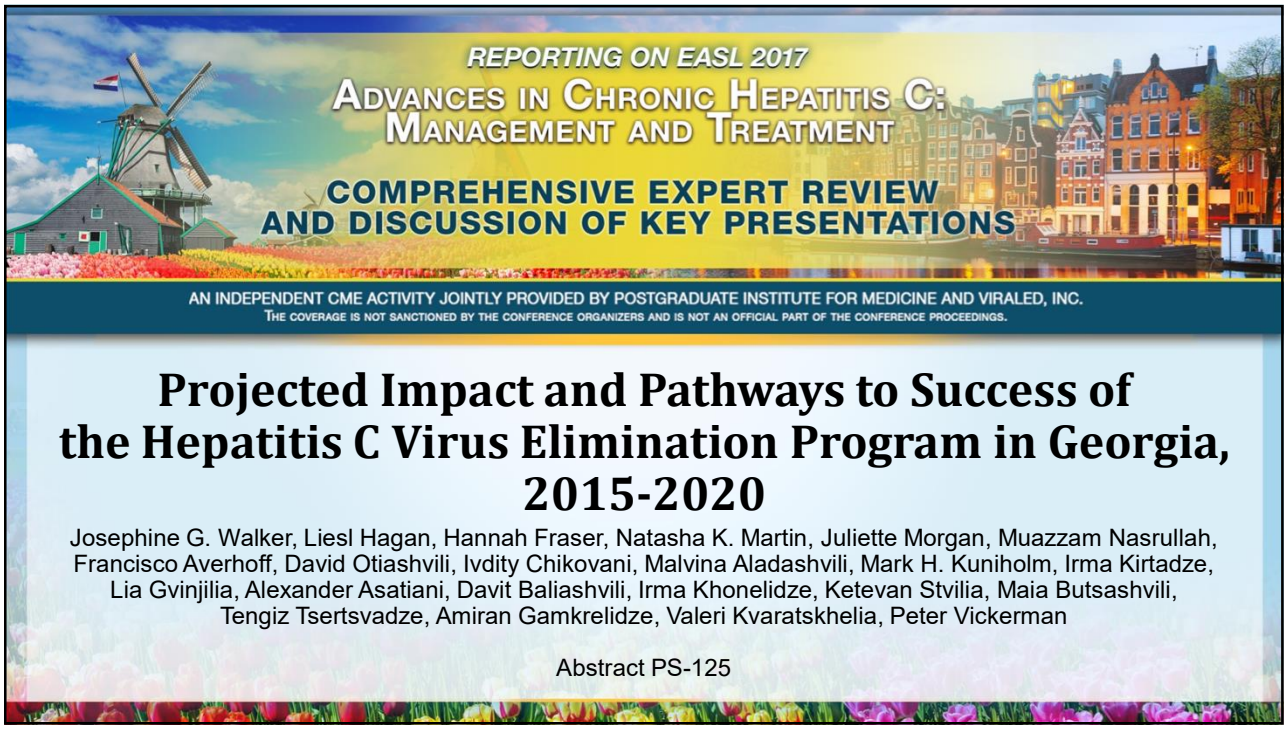

Projected Impact and Pathways to Success of the Hepatitis C Virus Elimination Program in Georgia, 2015-2020

Josephine G. Walker, Liesl Hagan, Hannah Fraser, Natasha K. Martin, Juliette Morgan, Muazzam Nasrullah, Francisco Averhoff, David Otiashvili, Ivdity Chikovani, Malvina Aladashvili, Mark H. Kuniholm, Irma Kirtadze, Lia Gvinjilia, Alexander Asatiani, Davit Baliashvili, Irma Khonelidze, Ketevan Stvilia, Maia Butsashvili, Tengiz Tsertsvadze, Amiran Gamkrelidze, Valeri Kvaratskhelia, Peter Vickerman

Abstract PS-125

HCV Elimination in Georgia Study: Background

- Georgia is a country in the Caucasus
  - Population ~3.7 million
- Very high Hepatitis C prevalence[1]
  - 7.7% antibody (exposed)
  - 5.4% PCR+ (150,300 chronic infections)
- Launched HCV elimination plan in 2015
  - First in world, example for other countries to reach WHO elimination target[2]
  - Aim to treat 20-30,000 per year

1. National HCV Serosurvey (2015)
2. WHO Global Health Sector Strategy (2016)

University of Bristol
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HCV Elimination in Georgia Study: Impact of Interventions Projection

- Dynamic model stratified by age, PWID status infection and liver disease status
- Incorporated scale-up of harm reduction interventions
- Model calibrated to 2015 HCV prevalence data
- Model current scale-up of treatment for 2015 to 2017 (total of 27,595 treatments) with targeting to more advanced liver disease
- Project different levels of treatment from 1 Jan 2017
  - Rate as of December 2016 is 2,100 per month or 25,200 per year
  - Lower and higher treatment rate and further targeting of cirrhotic patients

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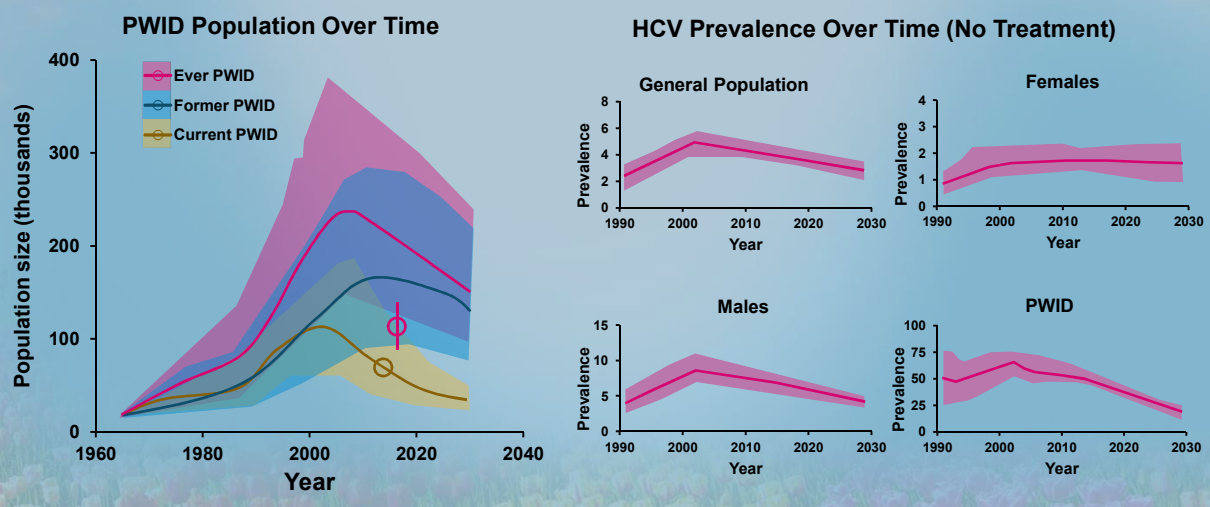
HCV Elimination in Georgia Study: HCV Epidemic in Flux



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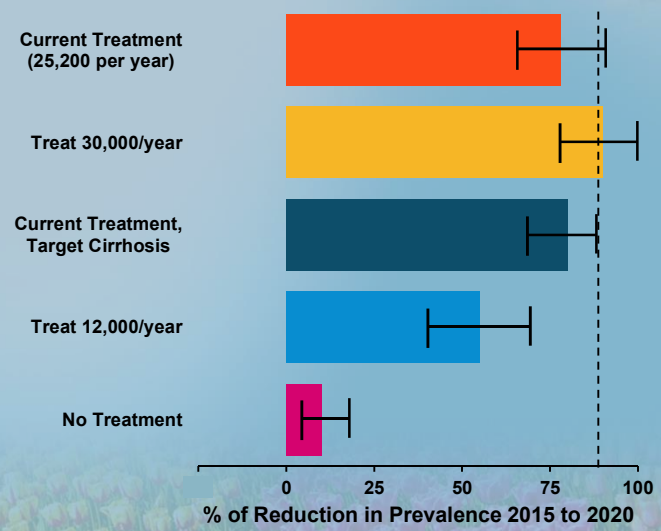
HCV Elimination in Georgia Study: Impact on Prevalence

- Prevalence declining slightly without intervention
- Current treatment rate (25,200 per year) will lead to 87.1% (73.4 – 93%) reduction in prevalence by the end of 2020
- If treatment numbers decline target will not be reached



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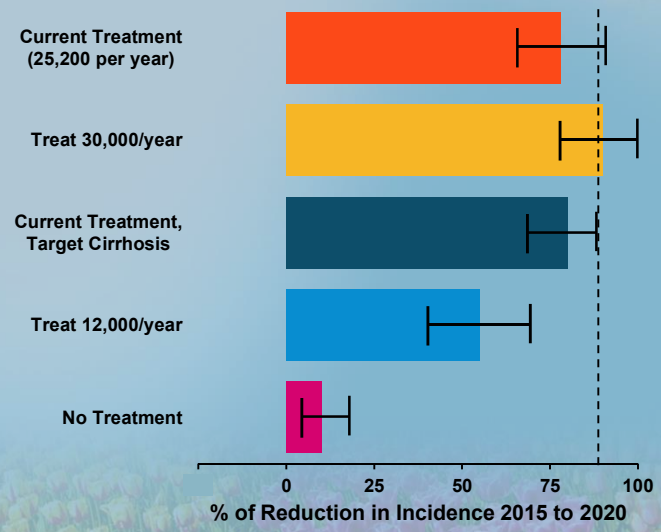
HCV Elimination in Georgia Study: Impact on Incidence

- Incidence declining already due to harm reduction
- As with prevalence, approach 90% reduction by 2020
- If PWID are not treated, reduced impact on incidence
- 11,000 (4,800-24,000) new infections averted by 2030 due to treatments given so far



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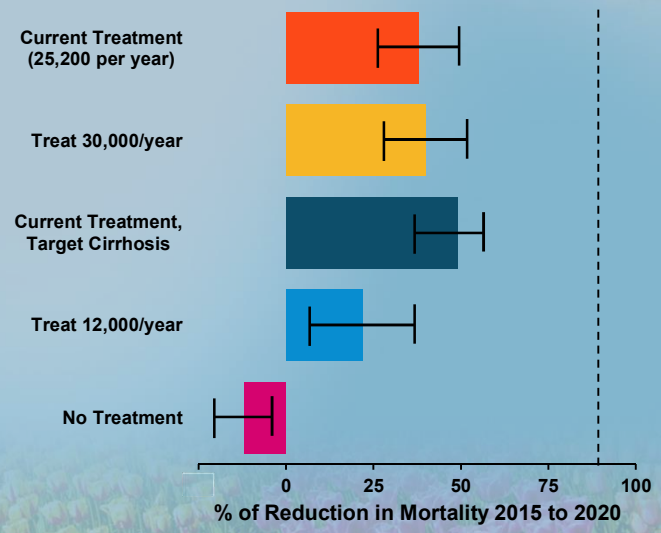
HCV Elimination in Georgia Study: Impact on Morality

- Morality is still increasing due to aging infected population and most infections acquired in 1990s
- Unlikely to reach WHO target by 2020 (65% reduction in morality)
  - 35% (18-48%) decrease if don't target cirrhosis
  - 45% (31-54%) decrease if do target cirrhosis
- Targeting patients with cirrhosis increases impact on mortality
- 2200 (136-3,269) HCV-related deaths averted by 2030 due to treatments so far



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HCV Elimination in Georgia Study: Conclusions

- Georgia is on pathway to achieving nearly 90% reduction in prevalence and incidence by 2020, but 65% reduction in mortality not achievable until 2025
- Success requires maintaining high rate of screening, linkage to care, and treatment, even as prevalence decreases and cases left in harder to reach populations
- As other countries target elimination by 2030 they can learn from the experience in Georgia
- Important to understand individual context and drivers of epidemic
- Can't assume the epidemic is stable
- High level of political will and commitment from government is crucial to the success of any elimination program

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