

# An International Collaboration on Hepatitis C Elimination in HIV Coinfection (InCHEHC) – a cohort profile

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## Background

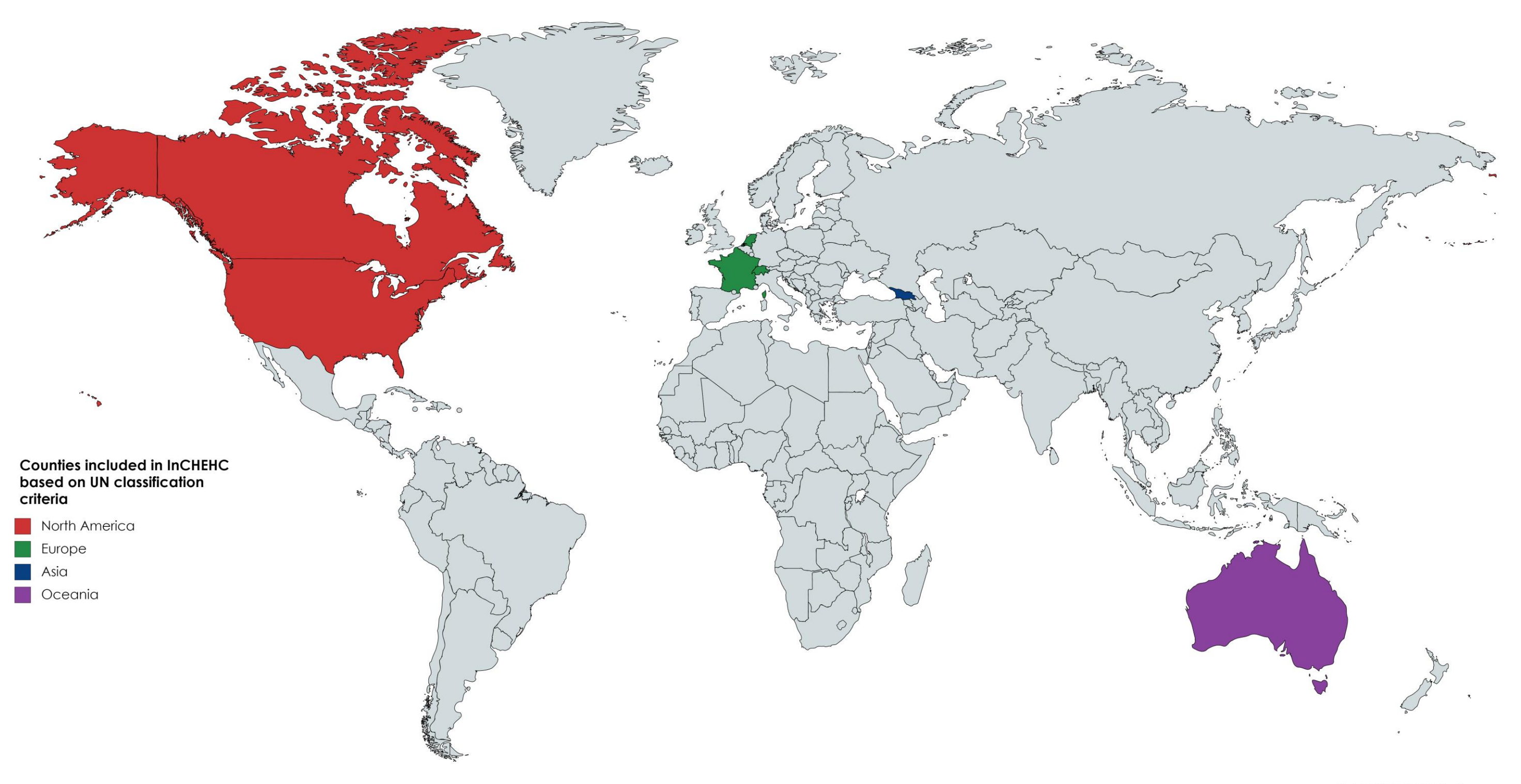
Data demonstrating the impact of direct-acting antivirals (DAA) on HCV incidence are scarce and individual studies lack the power to observe sufficient "incident events", particularly reinfection. We describe the establishment of a multinational collaboration pooling data from HIV/HCV-coinfected individuals.

The International Collaboration on Hepatitis C Elimination in HIV –Coinfection (InCHEHC) primary aims are to:

1. Measure interim progress toward the achievement of the WHO HCV elimination goals in people living with HIV;
2. Understand correlates of key outcomes that are relatively uncommon but could undermine fulfilment of the WHO goals if they disproportionately affect those at risk of onward transmission, including reinfection, treatment failure, and failure to initiate treatment

## InCHEHC cohorts

- Includes 12 cohorts across Europe, Asia, Australia and North America from seven countries known to be global leaders in HCV elimination (Figure).
- These include cohorts of people living with HIV and cohorts of people living with HIV and HCV coinfection.



## Methods

### Data merge:

- InCHEHC will pool data from ~55,000 HIV-infected individuals with or without HCV co-infection
- Around 50,000 HIV-infected participants are at risk for primary HCV infection and ~5,000 participants at risk for HCV re-infection
- First data merge expected to be complete by the last quarter of 2019

**Table: Numbers of HIV infected participants at risk of primary infection and post-treatment reinfection by 31<sup>st</sup> of December 2018**

Cohort (location)	At risk of primary infection	At risk of post-treatment reinfection <sup>#</sup>	Patient characteristics* %	Detailed longitudinal drug and sex risk behavior
Owen Clinic (USA) <sup>~</sup>	2259	226 <sup>#</sup>	11% PWID, 74% MSM	✓ (limited)
ACCESS (Australia)	9,170	259 <sup>§</sup>	10% PWID, 73% MSM	~ (subset of participants)
co-EC (Australia) <sup>^</sup>	0	153	65% PWID, 92% MSM	✓
CEASE (Australia)	0	345	81% PWID, 80% MSM	✓
CCC (Canada)	0	822 <sup>#</sup>	83% PWID, 24% MSM	✓
Aquitaine (France)	3,836	453 <sup>#</sup>	11% PWID, 43% MSM	✗
SAIDCC (France) <sup>~</sup>	3575	583 <sup>#</sup>	4% PWID, 54% MSM	✗
HEPAVIH (France)	0	726 <sup>#</sup>	65% PWID, 14% MSM	✗
ATHENA (the Netherlands)	21,075	1224 <sup>#</sup>	61% MSM, 3% PWID	✗
MOSAIC (the Netherlands) <sup>^</sup>	195	211 <sup>#</sup>	6% PWID, 100% MSM	✓
AIDS HIS (Georgia)	2933	480 <sup>#</sup>	35% PWID, 19% MSM	✗
SHCS (Switzerland)	7,949	n/a	10% PWID, 47% MSM	✓
<b>Total</b>	<b>50,797</b>	<b>5,407</b>		

Abbreviations: PWID: people who inject drugs, MSM: men who have sex with men, ACCESS: Australian Collaboration for Coordinated Enhanced Sentinel Surveillance; co-EC: Eliminating hepatitis C transmission by enhancing care and treatment among HIV co-infected individuals; CEASE: Control and Elimination within Australia of Hepatitis C from people living with HIV; CCC: Canadian Co-infection Cohort study; MOSAIC: MSM Observational Study of Acute Infection with hepatitis C; HEPAVIH: Clinical Centres Collaborations of Subjects Co-infected with HIV and HCV; AIDS HIS: National AIDS Health Information System; SHCS: Swiss HIV cohort study; ATHENA: AIDS Therapy Evaluation in the Netherlands; SAIDCC: Saint-Antoine Infectious Disease Clinical Cohort. \* PWID and MSM groups can overlap. <sup>#</sup> Includes those treated with interferon-based and DAA therapies; <sup>^</sup> participants from MOSAIC and 75 participants from co-EC are nested within the ATHENA and CEASE cohorts, respectively; <sup>§</sup> with evidence of DAA treatment script; <sup>~</sup> Based on data from the end of 2017.

## Significance

- The InCHEHC Collaboration will be one of the largest, well-characterized studies of HIV-infected populations with detailed HCV data worldwide.
- The availability of a large international dataset will allow identification of predictors of rare outcomes (e.g. treatment failures, re-infection, etc.) within the first seven years of the WHO HCV elimination strategy, allowing for refinement of policy and practice within the target (14-year) period.