

Hepatitis C Elimination in the Netherlands (CELINE): a nationwide study retrieving lost to follow-up chronic hepatitis C patients

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Background

- Hepatitis C virus (HCV) infection prevalence in the Netherlands is estimated at 0.16% (~23.000 ever infected individuals).¹
- Unfortunately, up to 30% of the diagnosed population has been lost to follow-up (LTFU).
- Retrieval of these patients is beneficial and was shown to be feasible in a pilot project.²

Aims

- Retrieve and re-evaluate LTFU chronic HCV patients.
- Contribute to HCV elimination in the Netherlands.

Methods

- CELINE is a nationwide retrieval project that aims to include all 47 Dutch hepatitis treatment centres.
- LTFU HCV patients are identified based on laboratory records and patient files.
- The Municipal Personal Records Database is consulted to obtain current addresses.
- Subsequently, patients eligible for retrieval are invited for a screening visit at their local hospital.

Primary endpoint

- Number of LTFU patients who have been successfully linked to care.

Secondary endpoints

- Number of patients already cured.
- Total number of LTFU patients.
- Reasons for being LTFU.
- HCV transmission route.
- Degree of liver fibrosis of the LTFU population, assessed with Fibroscan®.

Results

Figure 1. Progress of the CELINE project in the Netherlands

Grey: CELINE not yet started
Light green: retrieval ongoing
Dark green: retrieval finished

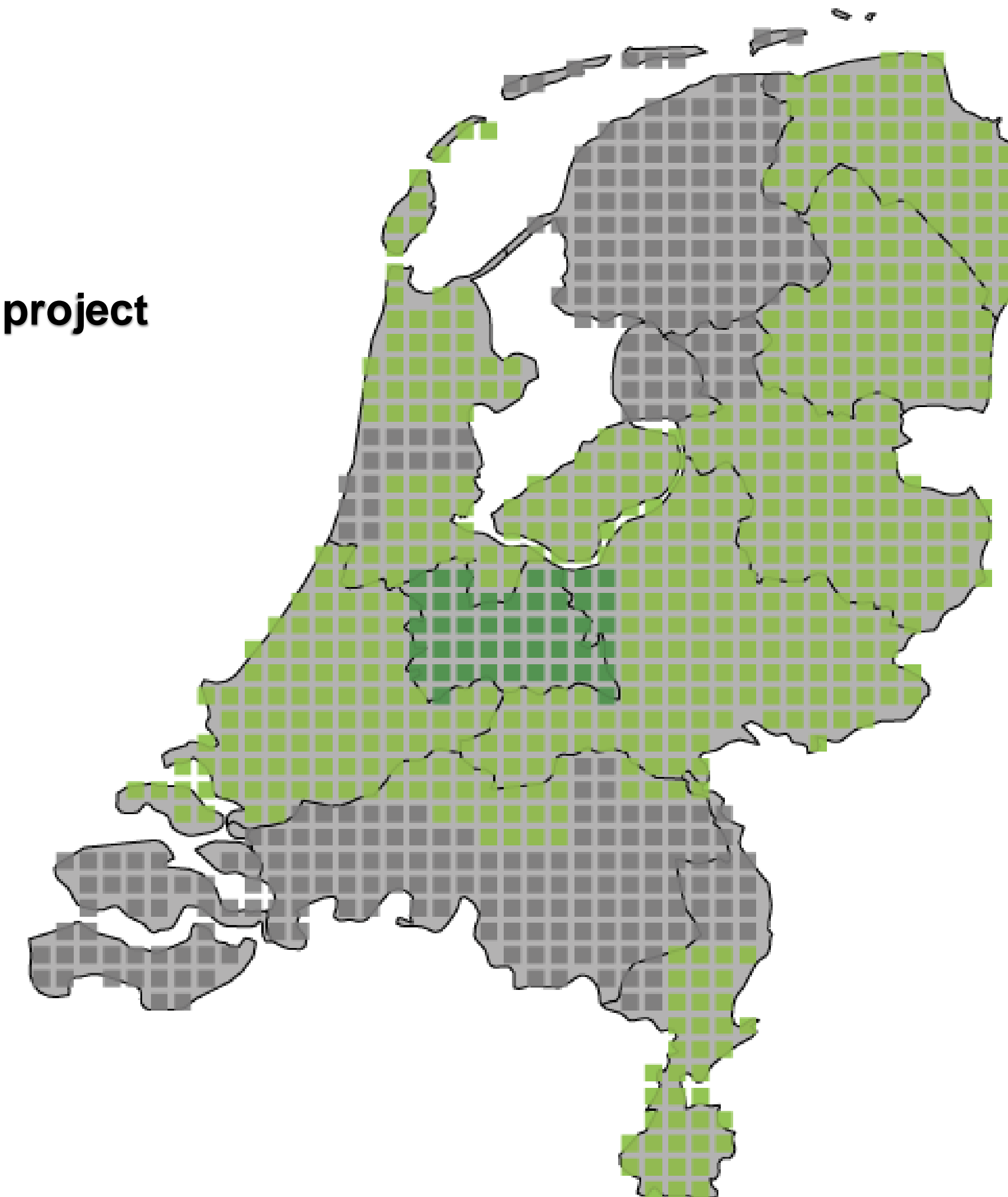
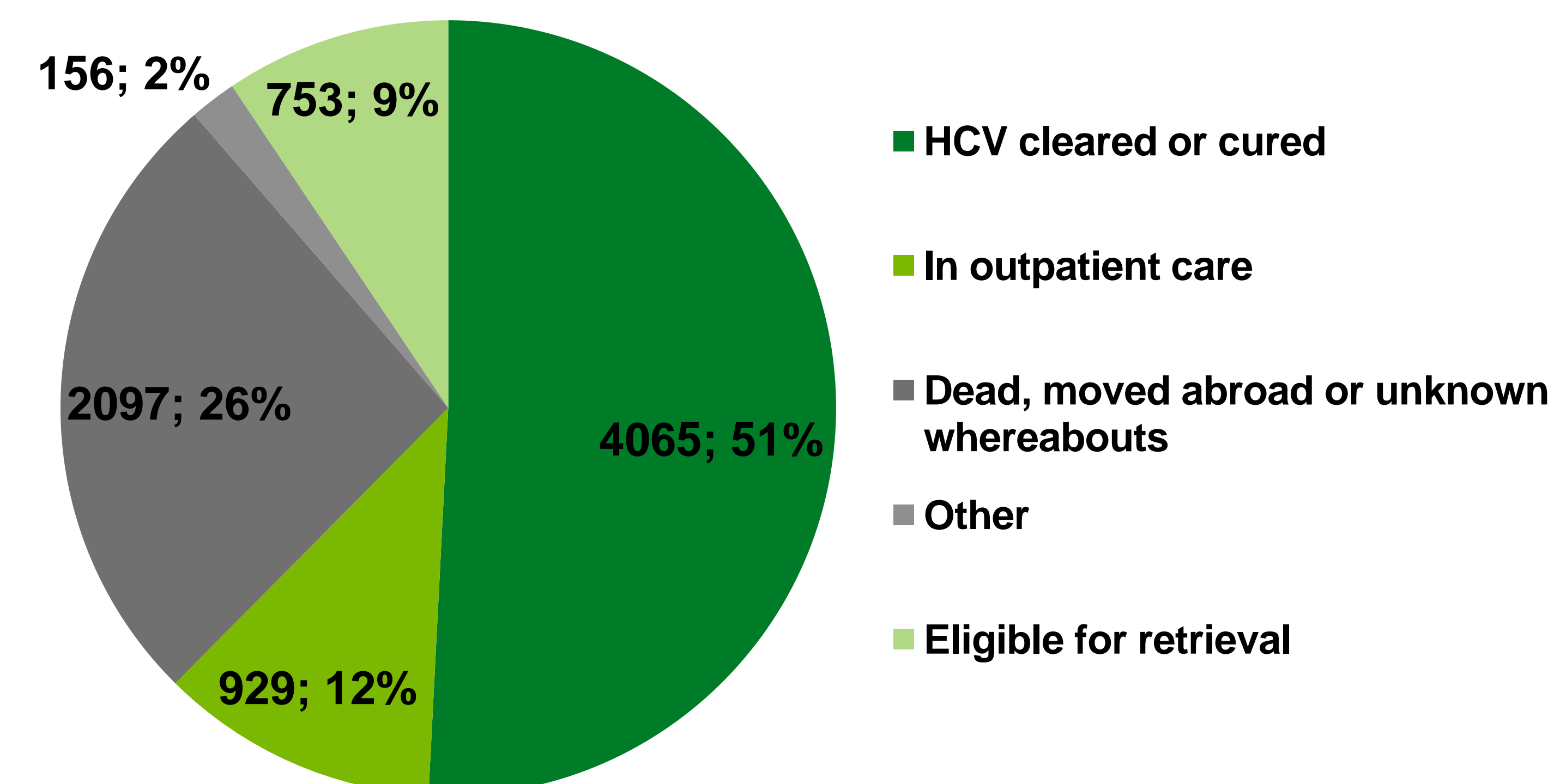


Figure 2. Outcome of 8000 ever anti-HCV positive patients identified in 13 treatment centres as of 08/10/2019



Conclusion

- These interim results show the first step in reaching HCV elimination in the Netherlands.
- Many LTFU patients are either already cured (51%) or linked to care (12%). Only 9% is eligible for retrieval.
- Of 534 invited LTFU patients, 24% is already cured/in care elsewhere and 22% is successfully linked to care again.
- Of 82 patients re-linked to care, 81% was RNA-positive, of whom 31% had evidence of advanced fibrosis/cirrhosis.

Figure 3. Progress of retrieval for the 534/753 patients invited as of 08/10/2019

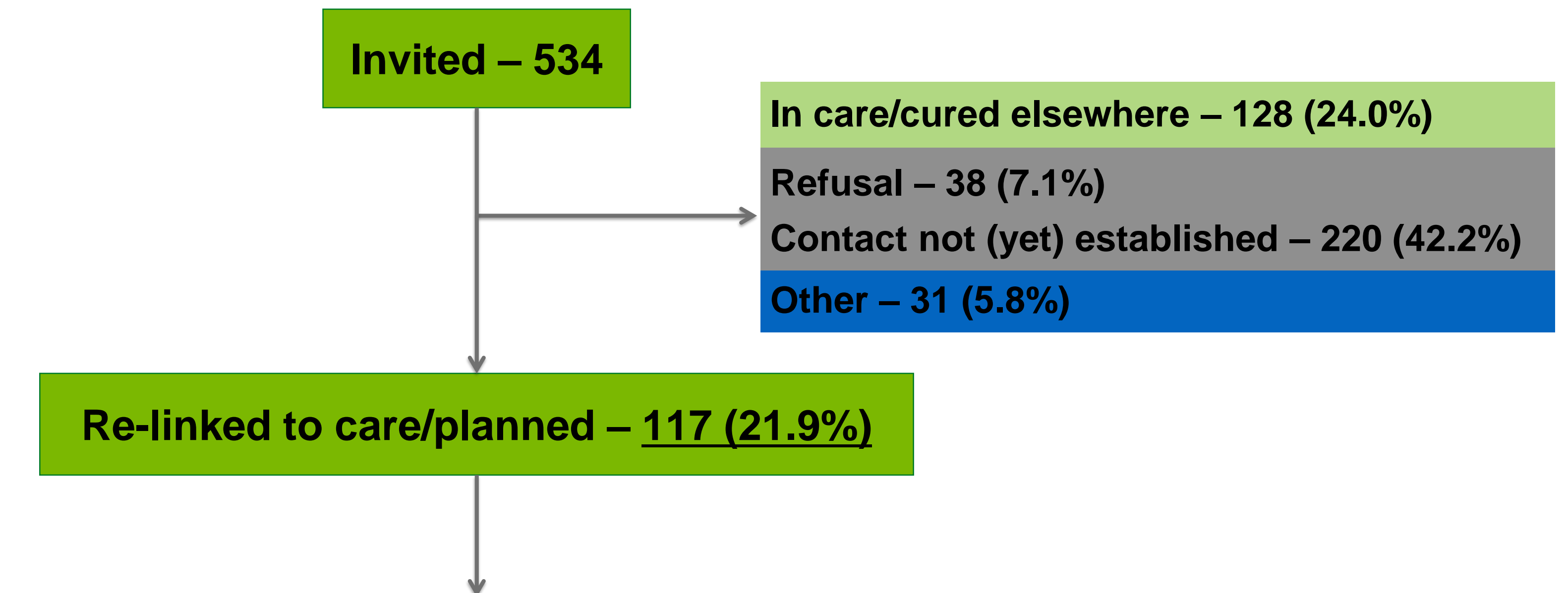


Table 1. Characteristics of 84/117 patients re-linked to care as of 08/10/2019

Patient characteristics (n=82*)	
Age at time of re-linkage to care (median, IQR)	60 (54–64)
Gender (male)	55 (67)
Probable mode of transmission	
• Intravenous drug use	53 (64)
• Blood transfusion	13 (16)
• Other	8 (10)
• Unknown	8 (10)
Years since last contact (median, range)	8 (1–20)
Reasons for LTFU	
• Patient-related (therapy refusal, contra-indication or no show)	28 (34)
• Therapy-related (no indication or options for therapy)	28 (34)
• Care-related (no adequate follow-up)	17 (21)
• Other/unknown	9 (11)
Treatment experienced	26 (32)
RNA-positive at re-evaluation	64 (81)
RNA-positive patients with LSM ≥9.5 kPa	20 (31)
DAA treatment initiated	44 (69)

Data are presented as number (percentage), unless otherwise noted. IQR: interquartile range, LTFU: lost to follow-up, DAA: direct-acting antiviral, LSM: liver stiffness measurement.
* Two patients did not sign informed consent for data collection.

CELINE can serve as a blueprint for retrieval projects in other countries.