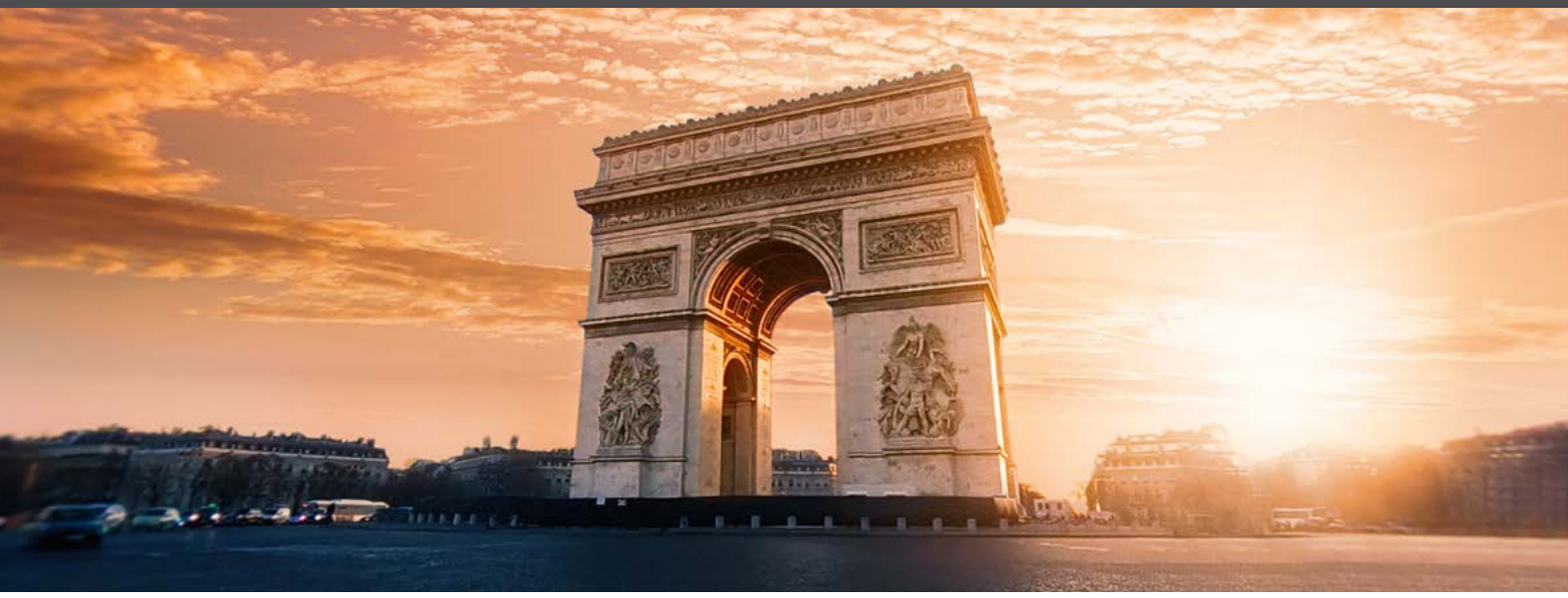
Evaluation of the Hepatitis C in Primary Care and Drug and Alcohol Settings Education Program: France, 2018-2019



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The *Hepatitis C in Primary Care and Drug and Alcohol Settings Education Program* (the Program) was developed by the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) and the Kirby Institute, University of New South Wales, Australia; and adapted for delivery internationally in collaboration with the International Network on Hepatitis in Substance Users (INHSU).

Commencing in 2017, the Program was tailored for delivery in France by a local expert steering committee comprised of prominent health professionals working in Hepatitis C (HCV) and the drug and alcohol sector. Development began in November 2017, and face-to-face workshops were conducted between November 2018 and March 2019. The Program is endorsed by Fédération Addiction and Fédération Française d'Addictologie.

A preliminary evaluation of the Program was conducted and showed promising outcomes. Since then, participants have completed a follow-up survey 6 months after the workshops. The purpose of this evaluation is to build on that report and explore whether participation in the Program has led to the desired outcomes of increased knowledge and confidence in the care of HCV; and translated into changes in practice for the participants of the 2018-2019 France workshops.

Program Background

HCV-related morbidity and mortality is on the rise. It is estimated that 71.1 million people are living with chronic HCV infection globally[1], including an estimated 6.1 million people with recent injecting drug use, representing 8.6% of all viremic infections[2]. The prevalence of anti-HCV antibody (HCV-Ab) in people who inject drugs (PWID) in most European studies is above 40%. In France, the estimated HCV-Ab prevalence rates in PWID is approximately 65%. PWID are also considered the primary source of HCV transmission in France[3].

The Program generally targets addiction specialists, general practitioners, nurses and other clinical staff working in drug and alcohol and primary care settings. These venues are logical avenues for expanding HCV care, given the large burden of HCV infection and an existing framework of service to people who inject drugs.

At the time of the workshops, the prescription of Direct Acting Antiviral (DAA) treatment for HCV was restricted to specialist settings in France. In March 2018, the Association Française pour l'Étude du Foie released updated recommendations calling for broader prescription of DAA therapy, and as of the 20th of May, 2019, it was announced that all physicians are able to prescribe two pangenotypic regimens (sofosbuvir/ velpatasvir and glecaprevir/ pibrentasvir) under a simplified treatment pathway. Therefore, the aim of the Program is to improve the capacity of these professionals to effectively screen, test and educate patients, as well as provide ongoing management once on treatment. The Program is also designed to provide practitioners with the confidence to treat HCV infection in their practice, placing the Program well to support physicians as prescribing eligibility is changing.

A set of 5 learning objectives and 7 core competencies were developed for the Program with the aim to improve the capacity of these health professionals to effectively test for, treat and manage HCV infection in their current practices.

1. The Polaris Observatory. http://cdafound.org/polaris/
2. Degenhardt L, Peacock A, Colledge S, Leung J, Grebely J, Vickerman P, Stone J, et al. (2017). Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: a multistage systematic review, Lancet Global Health, 5 (12), e1192-e1207.
3. Delile, J. M., et al. (2018), 'Hepatitis C virus prevention and care for drug injectors: the French approach', Hepatology, Medicine and Policy 3, 7, doi:10.1186/s41124-018-0033-8.

Program Learning Objectives

1. Describe the risk factors for HCV infection enabling effective screening and prevention education.
2. Demonstrate competence conducting and interpreting tests to diagnose HCV.
3. Recognise risk factors, clinical signs, symptoms and complications of liver disease.
4. Demonstrate understanding of Direct Acting Antiviral (DAA) therapy for the treatment of HCV and competence in selecting appropriate therapy.
5. Describe recommended on-treatment monitoring and post-treatment follow up protocols.

Core Competencies

After completing both the online learning modules and face-to-face workshop, it is expected participants will feel confident in the following competencies:

1. Ability to educate patients about risk factors and prevention of HCV.
2. Ability to ensure people at risk of HCV are regularly screened.
3. Ability to interpret test results and diagnose HCV.
4. Ability to advise patients about new therapies for HCV.
5. Ability to assess or recognise severity of liver disease in patients with HCV.
6. Ability to treat HCV patients and manage side effects.
7. Ability to educate clinic staff about HCV and to serve as a contact point for questions and issues.

The Program is delivered in three parts: an online eLearning component introducing participants to topics related to the assessment, management and treatment of HCV; an interactive, one-day workshop to build on the online modules; and a capacity strengthening toolkit tailored to the local context.

It is anticipated that after completing all of the Program components, participants will have increased confidence and skills to manage HCV in their own practice. Ultimately, it is predicted this will translate into increased testing and treatment in primary care and drug and alcohol settings.

Methods

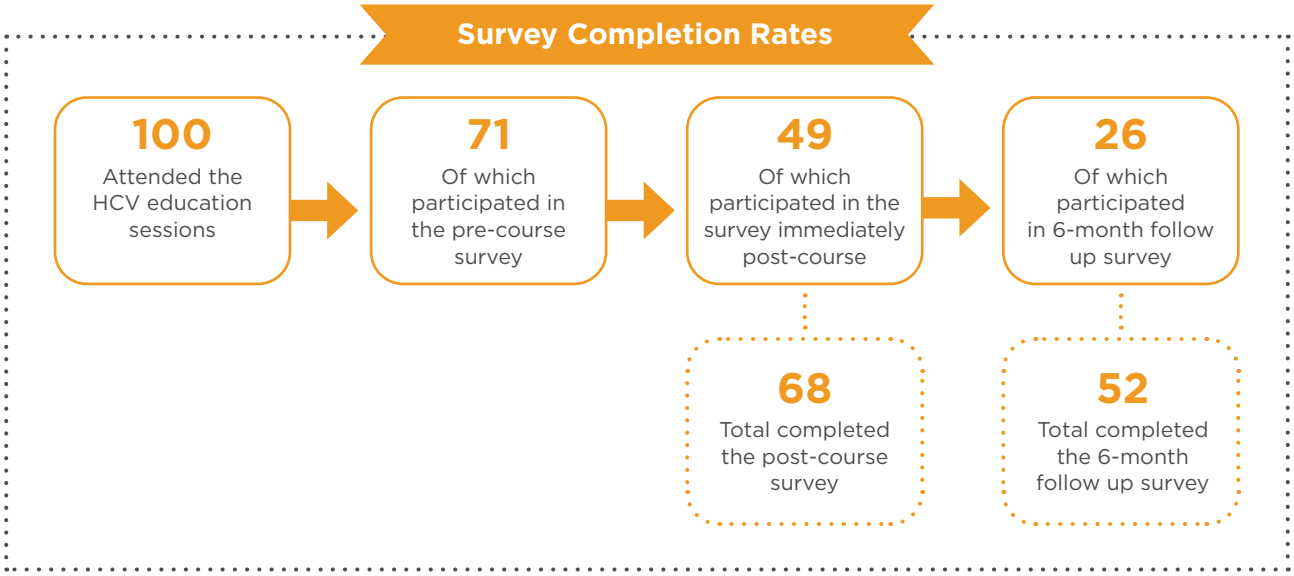
Participants were assessed pre-course, immediately post-course and 6-months post-course through a self-reported, online questionnaire on knowledge of, attitudes towards, and confidence to test for, manage and treat HCV. In addition, participants provided clinical practice data regarding HCV testing and prescribing practices. The post-course evaluation survey provided participants the opportunity to provide feedback on whether the Program met their learning needs. Completion of surveys was not mandatory.

Confidence in the 7 core competencies of the Program were measured on a 5-point Likert scale, with 1 being not at all confident, and 5 being very confident and competent. The proportion of respondents reporting confidence at each level of the scale at the three-time points was compared to determine the overall increase in confidence across the competencies. These scores were then recategorized into binomial 0/1 responses, where 0 indicates little or no competency and includes (1) Not at all confident, (2) slight knowledge, skills, or confidence, and (3) Average competence amongst peers; and 1 indicates confidence and competence and includes responses (4) Confident and competent, and (5) Very confident and competent. McNemar's test for binomial paired data was used to test for significance of change in self-reported confidence for each competency from pre- to post-course.

The intention was to also assess change in clinical practice and retention of confidence by considering clinical experience from pre- and 6-months following the training. However, there were inadequate numbers of participants who completed all three surveys to analyse this time point with any level of rigour.

Survey Completion Rates

Of the 100 health professionals who attended the workshops, 26 completed all three surveys: pre-course, post-course, and 6-month follow up. The flowchart of completion rates for each survey is outlined below. It will be stated throughout this report which cohort is considered in each result.



Program Progress

A total of six face-to-face workshops were conducted across France; three workshops took place in November-December 2018 and another three workshops took place in March 2019. Locations were chosen in collaboration with the expert steering committee to reflect an appropriate geographic spread, burden of disease, prevalence of injecting drug use and concentration of drug and alcohol services.

A total of 100 health professionals attended the six face-to-face trainings. Most of the participants who attended were nurses (28%, n=28) and unspecified doctors (28%, n=28); as well as addiction physicians (14%, n=14) and general practitioners (11%, n=11). Six percent who participated were psychiatrists, with half specialising in addiction psychiatry. The majority of participants worked specifically in drug and alcohol services (69%) (Figure 1).

Location of Workshop	Number of Participants
Bordeaux	26
Lyon	21
Paris	18
Strasbourg	8
Montpellier	15
Marseille	12
Total	100

Table 1: Number of participants attended by location

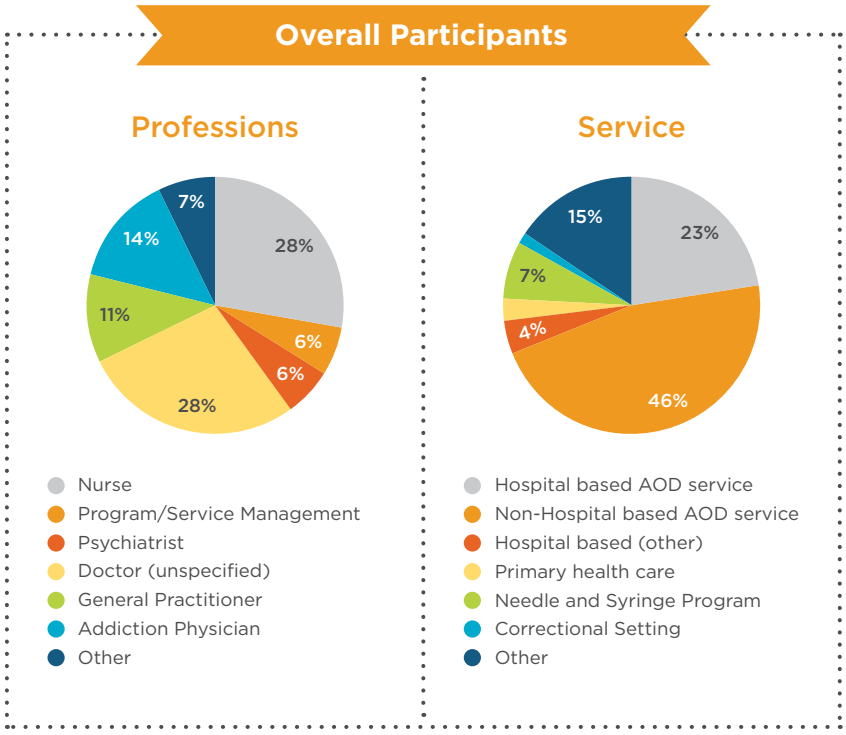


Figure 1: Composition of participants by profession and service type

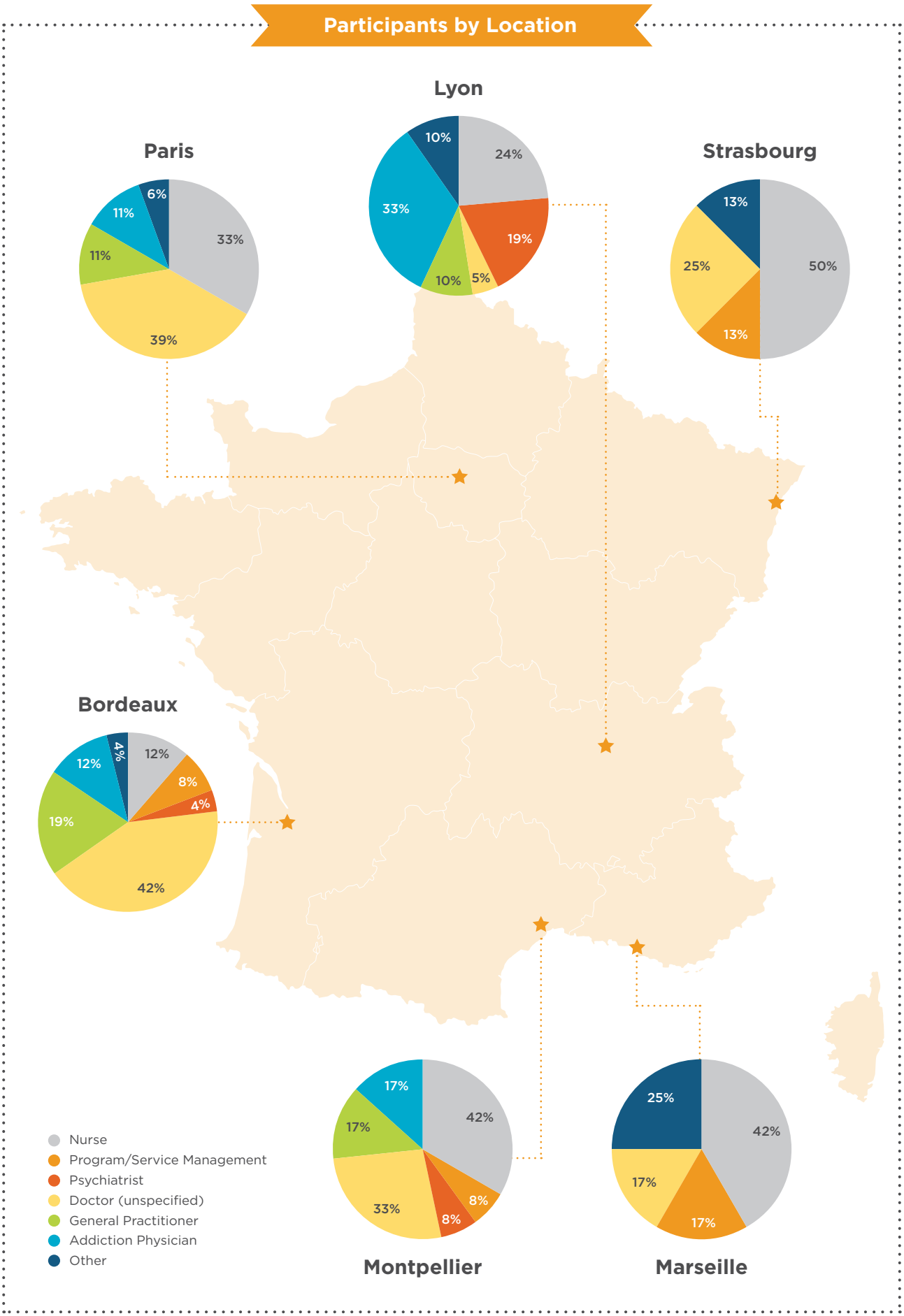


Figure 2: Composition of participants by profession for each workshop.

Knowledge and Attitudes

As part of the self-reported surveys completed by participants, there is a subset of 10 multiple choice questions included to measure knowledge in HCV transmission, testing, treatment and care. The same set of questions are asked before, after, and 6-months following the workshop to see if there is an improvement in participant scores (Figure 3).

In examining scores for each question, it is evident that most participants had a high level of knowledge post-workshop, with the average score of 8.2 out of 10 across all questions. Average scores were then maintained above pre-workshop levels at 7.6 out of 10 in the 6-month follow-up, suggesting some retention of knowledge. Pre-workshop scores indicated a base knowledge of HCV with an average score of 7.4 out of 10.

Certain questions seemed to pose a challenge to participants both pre and post training, specifically those on HCV transmission and factors increasing development of cirrhosis. These questions consist of more than one correct response, so while participants selected several correct responses many were unable to select all correct responses, thus bringing the average score down. Questions regarding treatment and HCV natural history scored highly.

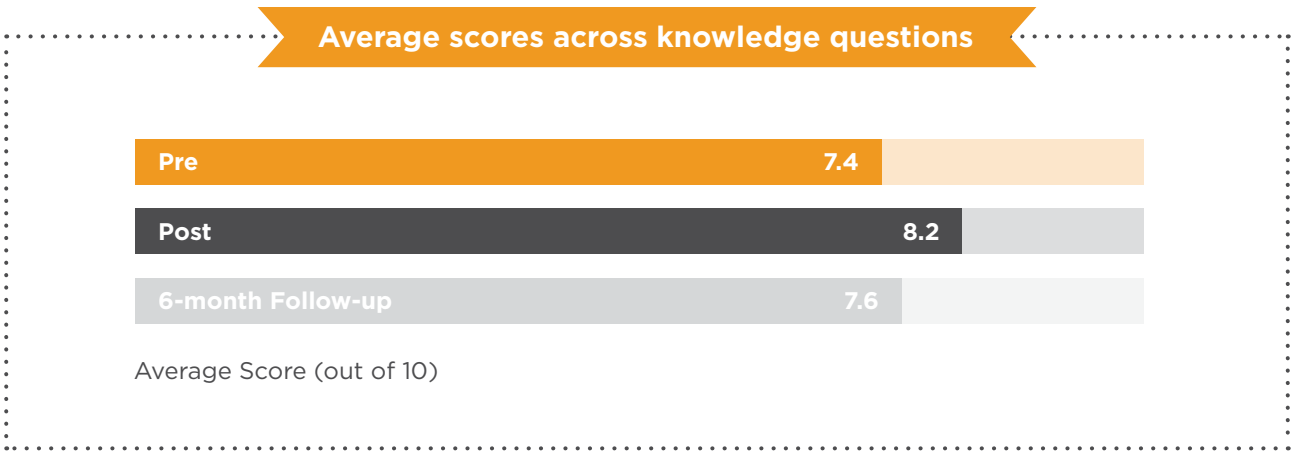


Figure 3: Average scores across knowledge-based questions, pre- (n=71), post- (n=68), and 6-months (n=48) following workshops

Two additional questions were included to gauge attitudes of participants towards HCV (Figure 4). When asked if they would provide treatment to a person with ongoing injection drug use, 98% indicated they would after the training, compared to 86% before the training. This was maintained at 96% in the 6-month follow-up. When asked whether they would re-treat a patient who becomes reinfected with HCV after successful DAA therapy, 92% indicated they would 6-months following the workshops, compared to 72% before the training. Prior to the training 27% of participants indicated they did not know; this dropped to only 6% at 6-months following training.

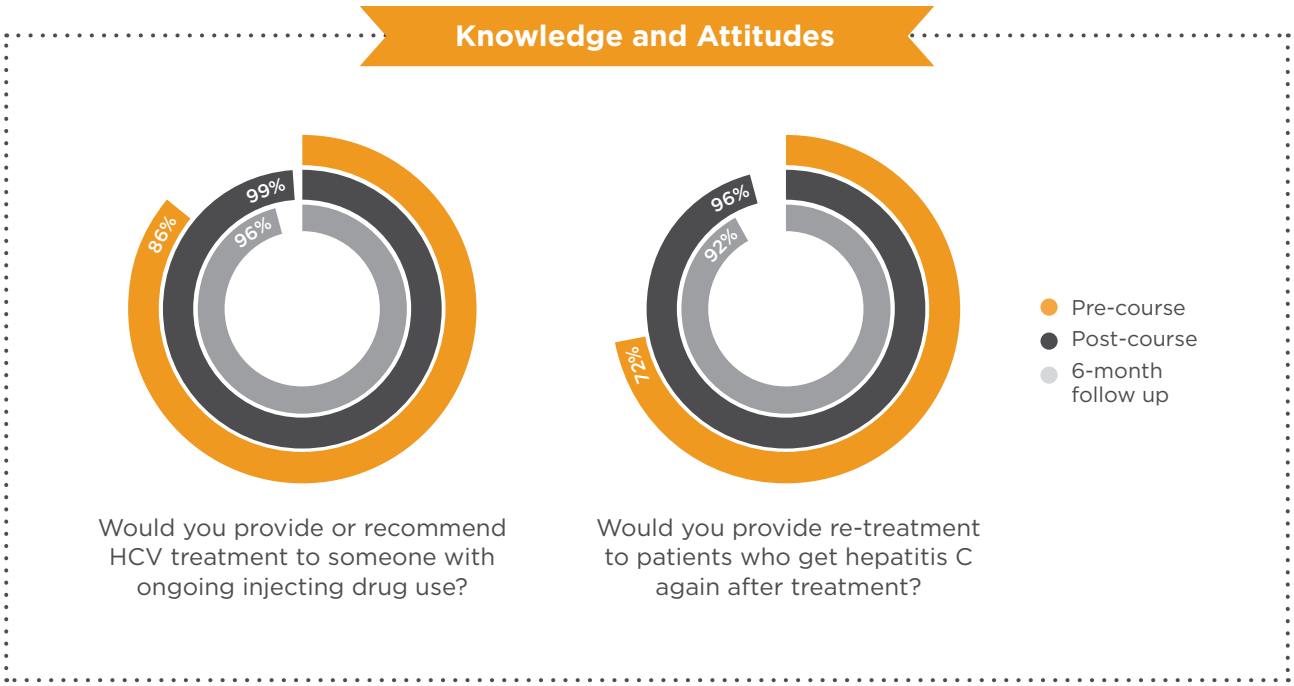


Figure 4: Proportion of participants responding Yes to attitude-based questions, pre- (n=71), post- (n=68), and 6-months (n=48) following workshops

Confidence

Participants were asked to rate their confidence against the 7 core competencies of the Program before attending the workshop, immediately post-workshop, and again 6 months following the workshop. This was measured on a 5-point Likert scale, with 1 being not at all confident and 5 very confident and competent.

The proportion of participants reporting to be confident or very confident increased significantly across 5 core competencies from pre- to post-workshop ($p \leq 0.022$). The 2 competencies where the increase in confidence was found to be not significant were those that also had the highest reported confidence at starting point; confidence in ensuring adequate screening for HCV and educating patients on HCV risk and prevention. Reported confidence did decrease in the 6-month follow-up surveys, however remained higher than pre-workshop levels.

Levels of confidence post-workshop were very high across most of the core competencies. Participants reported notably high levels of confidence in ability to educate patients about risk factors (90%) and in ability to adequately screen at-risk populations (98%). Although there was a decrease in reported confidence 6-months post workshop (69% and 80%) compared to the immediate post survey, these figures remained higher than reported confidence levels pre workshop (62% and 76%).

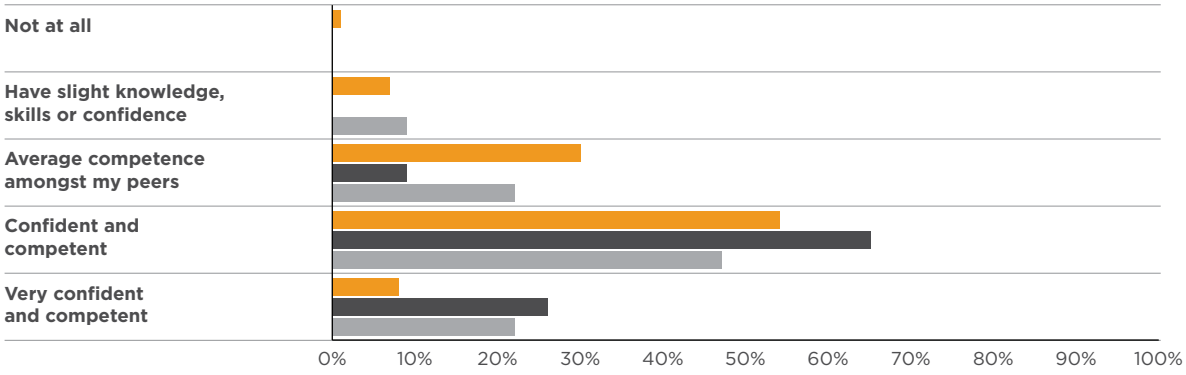
The largest increase in confidence from pre-workshop to post-workshop was in the ability to advise patients about new therapies for HCV. Pre-workshop only 29% reported feeling confident or very confident, compared to 88% post-workshop and 63% 6-months post workshop.

Contrarily, confidence in the ability to educate clinic staff about HCV and serve as a point of reference was lowest both post-training (49%) and 6-months later (34%). This was still an improvement from pre-training confidence (21%).

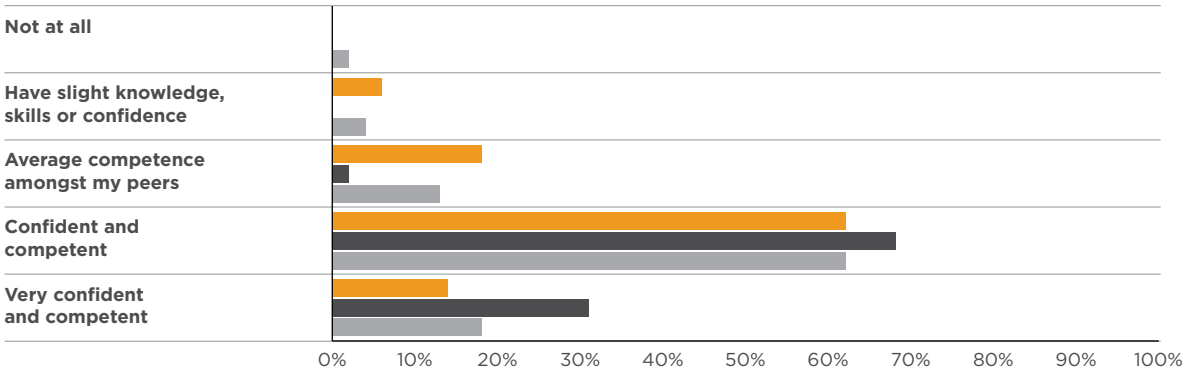
Changes in reported confidence against each of the 7 competencies are outlined in Figure 5 overleaf.

Self-reported confidence against competencies

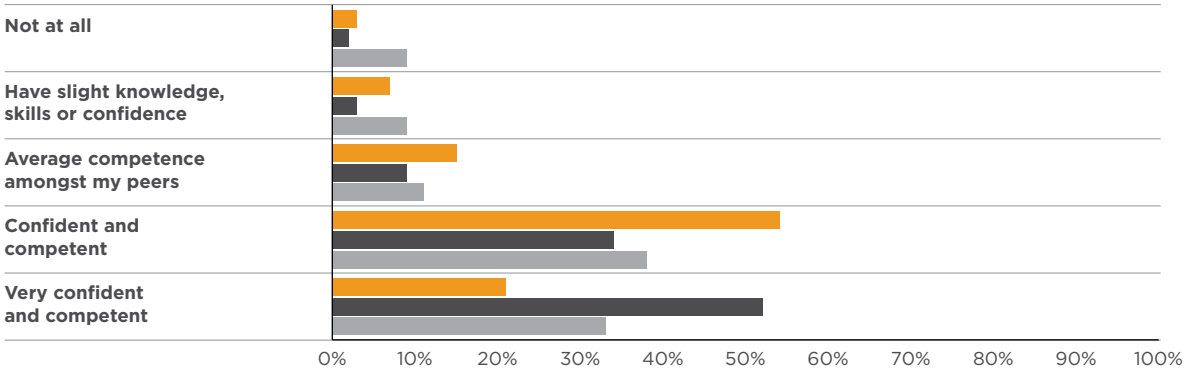
1. How confident are you in your ability to educate patients about risk factors and prevention of HCV?



2. How confident are you in your ability to ensure people at risk of HCV infection are regularly screened?



3. How confident are you in your ability to interpret test results and diagnose HCV?

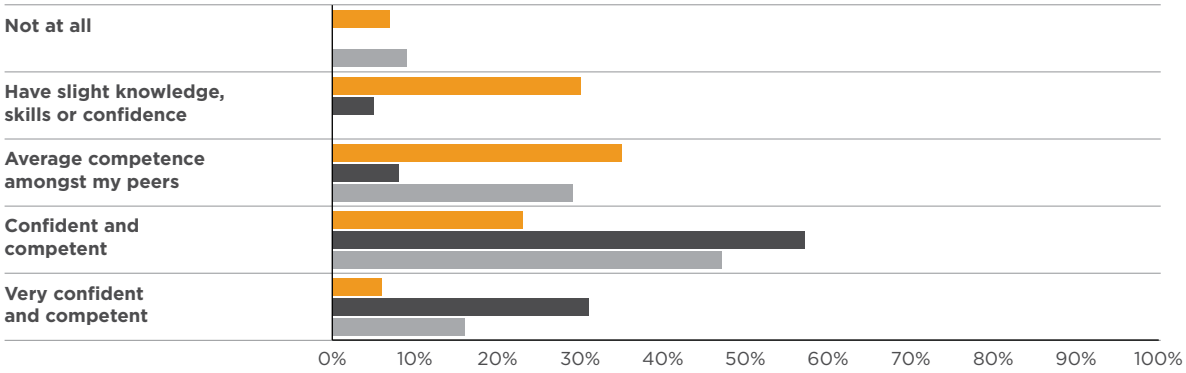


Pre-course Post-course 6-month follow up

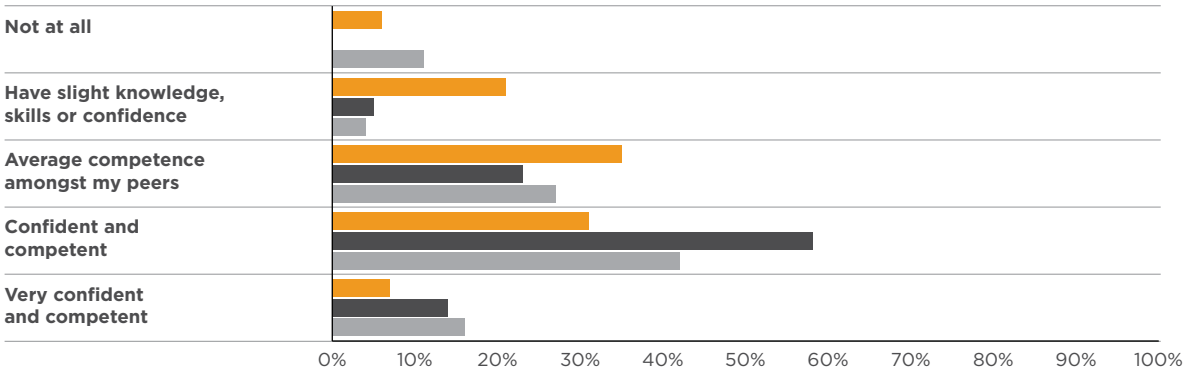
Figure 5: Measuring changes in participants confidence pre- (n=71), post- (n=68), and 6-months (n=48) following workshops (continued next page)

Self-reported confidence against competencies

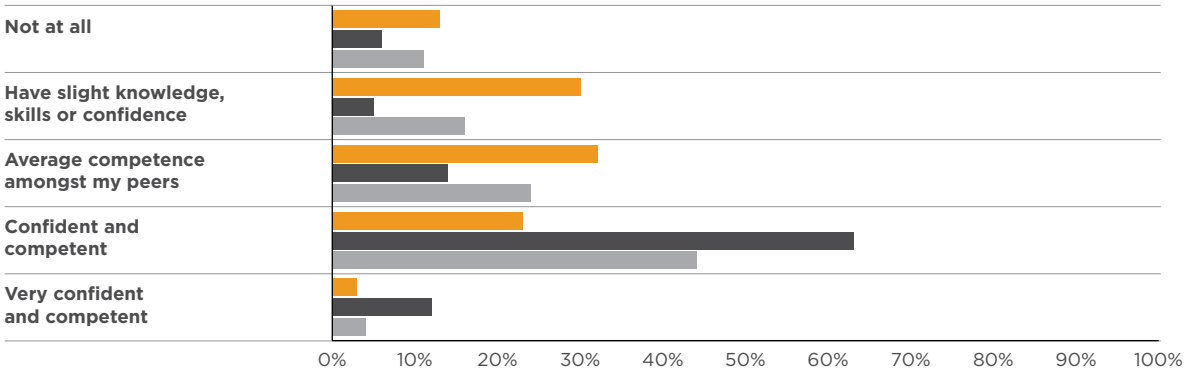
4. How confident are you in your ability to advise patients about new therapies for HCV?



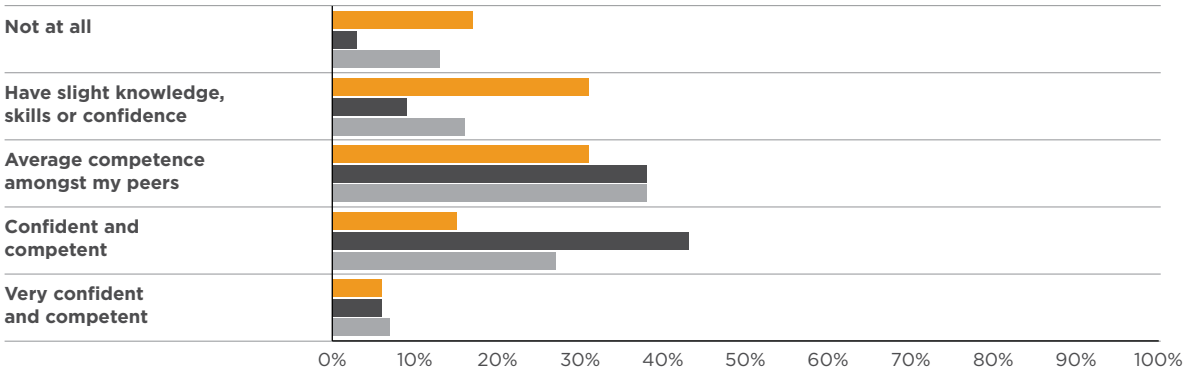
5. How confident are you about your ability to assess severity of liver disease in patients with HCV?



6. How confident are you in your ability to treat HCV patients and manage side effects?



7. How confident are you in your ability to educate clinic staff about HCV and to serve as a contact point for questions/issues?



Learning Objectives and Feedback

As presented in the interim results, participants were asked in the post-course survey to rate the extent to which each of the 5 Program learning objectives were met, comment on if and how the Program will change their clinical practice and provide any additional feedback. Over 87% of participants felt 4 of the 5 objectives were entirely met. For the objective of understanding DAA therapy and being competent to prescribe appropriate therapy, 79% reported this objective was entirely met, with 19% indicating it was partially met.

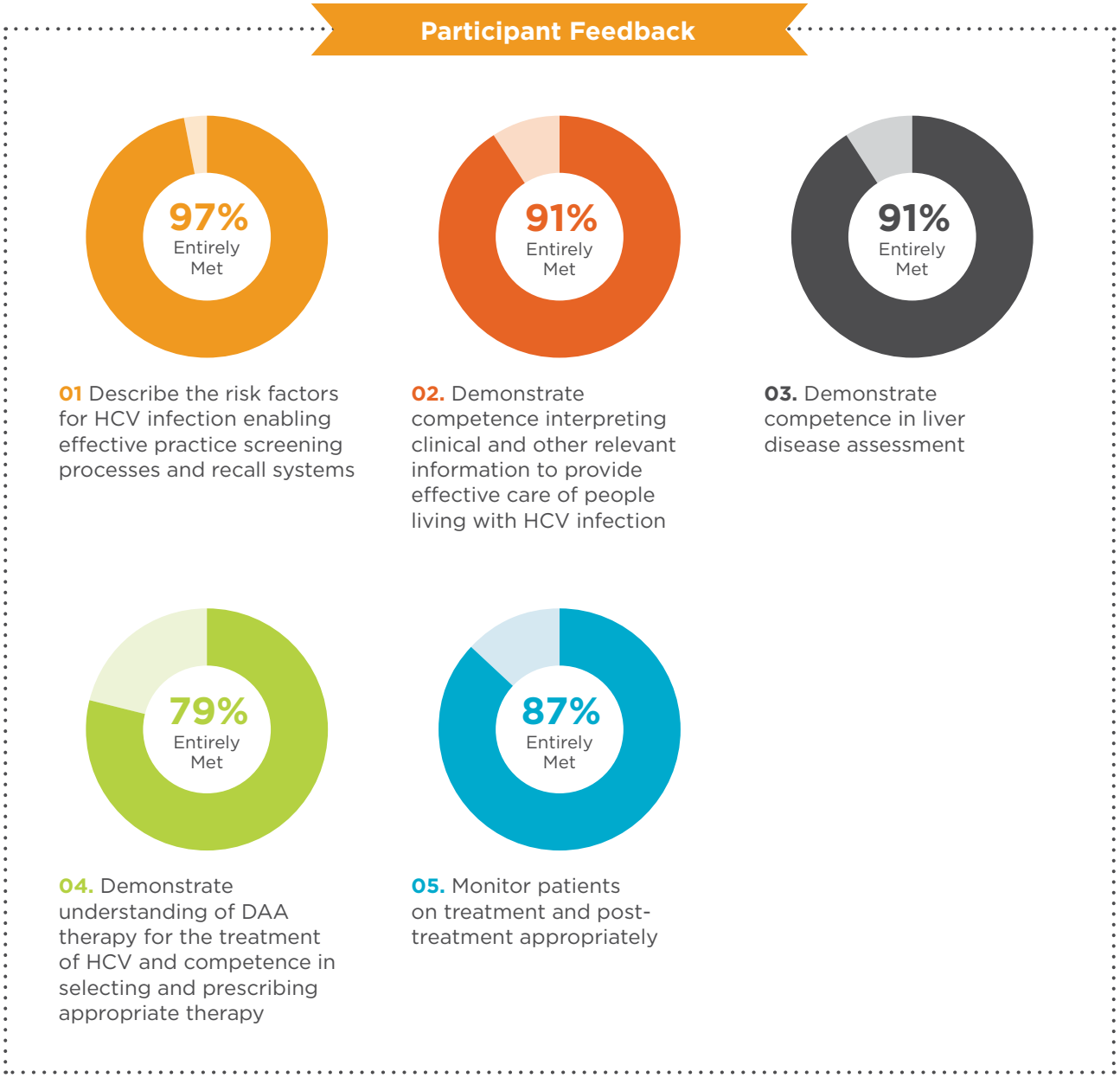


Figure 6: Participant feedback on Program learning objectives

Changing Practices

When asked how this training would change their practice, many of the participants indicated they had an increased confidence to encourage or personally conduct HCV testing following the workshops. Additionally, many expressed an interest in now being involved in HCV treatment.

Quotes from Participants

"This training will allow me to directly treat patients who would otherwise not have access to HCV treatment."

"I will be more comfortable to independently start to manage HCV cases myself. I no longer feel obligated to talk to a hepatologist about simple cases."

"The training has encouraged me to increase the screening of our patients."

"I will be comfortable and competent to screen and keep track of patients with HCV."

Lessons Learnt

When exploring methods for improving the Program and evaluation processes for future workshops, the following limitations and key lessons learnt in the 2018-2019 implementation will be addressed:

- It was found a minimum of 2 months should be allocated for promotion of upcoming events, therefore with adequate lead time provided to promoting workshops, it is predicted future events will be well attended. Workshop facilitators and participants expressed the increasing difficulty for medical professionals to attend trainings during ordinary work hours. Running the training as an evening session could be considered for future workshops, and in fact, worked well for the Paris workshop. It is predicted that this modification will accommodate alternate schedules and result in increased attendance by physicians who will be able to participate outside of clinic hours.
- The 6-month follow-up survey is intended to measure longer term outcomes of the Program, whether confidence levels have been maintained following the workshop, and whether participants have made any changes to their practices, including the number of people screened and tested, and treatments prescribed. As the response rates to this survey were low, conclusions cannot be made from the data received. Innovative strategies to increase response rates, or refined methods to evaluate outcomes at this later time point will be considered.

Conclusions and Future Directions

Positive survey results and participant feedback for the 2018-2019 workshops demonstrate successful outcomes for the Program in France. Overall, the workshops were well attended from the target setting of drug and alcohol services (69%), with strong interest from doctors and nurses excited for the changes in prescribing legislation, suggesting a need for continued HCV education for this sector.

An increase in confidence across all Program competencies demonstrates success in the Program to provide professionals with the ability to manage HCV in their setting. Although reported confidence was lower for ability to educate clinic staff about HCV, this could potentially be due to their lack of direct experience in treating HCV in their practice. Now that all doctors in France can prescribe HCV DAA treatment following the simplified treatment pathway, we can hope to see workshop participants beginning to prescribe in their practices and expect a subsequent increase in levels of confidence and competence. While overall confidence appeared to decrease at the 6-month follow-up, it remained higher than pre-workshop levels.

Feedback showed a high degree of participant satisfaction with the Program and that learning objectives were met. While expressing satisfaction, both participants and facilitators highlighted the need and importance of continued training for attendees to maintain high levels of knowledge and confidence following these workshops. The decrease in knowledge and confidence from post-workshop to 6-month workshop is understandable given that prescribing was still restricted to specialist settings at the time of the 2018-2019 workshops. Given that doctors can now prescribe and put their knowledge into practice following the workshops, we expect to see increased interest in the Program and hope to see increased retention of knowledge and confidence following future workshops.

Continued efforts to engage local partners, alongside innovative promotional strategies, will be used in order to appeal to the increased pool of prescribers. With the change in prescribing practices in France, there is further opportunity for the Program to guide and enable prescribing professionals to screen and treat HCV.

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- **Prof. Victor De-Lédinghen** – Hepatologist, CHU Bordeaux
- **Dr. Jean-Michel Delile** – Psychiatrist, Director CEID, President, Federation Addiction
- **Dr. Perrine Roux** – Researcher, French Institute of Health and Medical Research
- **Ms. Camille Pesava** – ASHM
- **Ms. Laina Runk** – ASHM

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