

Targeting late diagnosis of HIV in Kent, Medway and Picardy:

Evaluation of interventions in the Anglo-French IMPRESS Health 2
(Interreg IVA Channel Programme) Project 4282.



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MAY 2015

IMPRESS Health 2 was selected under the European Cross-Border Cooperation Programme
INTERREG IVA France (Channel) – England, co-funded by the ERDF



Acknowledgements

The authors of the report would like to express their gratitude to the following people for their valued input into the project and/or the closing conference held in Canterbury on the 25th March 2015, and for the many who provided background support in relation to essential administration or research governance aspects of the work:

Xanthia Ash	Nathalie Landgraf
Agatha Benyera-Mararike	Tony Lavender
Susan Bird	Myriam Lombard
Valérie Boismartel	Marie Madeleine Theatre Company
Alice Chapman-Hatchett	Brenda Mann
Francois Cordier	Anne Martin
Valerie Costenoble	Francesca Masson
Astrid Debuyscher	Janet Merza
Carmela Di Somma	Tom Molloy
Andrew Evans	Anthony Nardone
Maura Flynn	Annabelle van Nieuwenhuysse
Graham Gibbens	Jean Jacques Pik
Raphael Grossot,	Karen Pilgrim
Ruta Halter	Royal Destiny Singers
Matt Hart	Annmarie Ruston
Rob Hawkins	Heather Scott
Ruth Herron	Olivia Son
Jacqueline Holland	Debra Teasdale
David Hornsby	Fiona Tudor
Rita Joseph	Barbara Vonau
Sarah Keeling-Smith	Marika Wiebe-Williams
Pierre-Olivier Le Clanche	Jenny Witherden
Christof Kreutz	Samantha Wood

We would also like to acknowledge the invaluable assistance of the following organisations which provided invaluable support and assistance during the project:



In particular, the authors would like to give special thanks to the many patients, service users and healthcare professionals interviewed on both sides of the Channel who, of necessity, remain anonymous, but without whom the project would not have been accomplished at all.

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1.0 Introduction to the study: The threat to public health posed by HIV/AIDS

According to the World Health Organisation and the European Community, approximately 2.3 million people were living with HIV in the European region at the end of 2010 with more than 131,000 new infections occurring in Europe and central Asia in 2012, including 29,000 diagnosed within the European Union itself (EC Europa, 2014; WHO, 2011). HIV has therefore been identified as a particularly serious threat to the health and wellbeing of Europe's citizens (European Communities, Major and Chronic Diseases Report, 2008). Those affected may experience numerous and potentially life-threatening health problems whilst partners, family members and close members of their social circle may also share the social and emotional costs of diagnosis. If untreated, HIV can lead to the development of acquired immune deficiency syndrome or AIDS (Chadborn, 2006; Castilla et al., 2002). Given that there is no cure for either condition, prevention, screening and early diagnosis is vital to control transmission to others and provide treatment with antiretroviral drugs. However, in spite of the availability of modern and effective treatments, the number of people infected with HIV continues to rise across Europe, particularly within certain sub-populations such as men who have sex with men (MSM), migrants from countries with a high prevalence of the virus, and injecting drug users. The prevalence of HIV in non-traditional 'risk-groups' including older heterosexuals and other groups is also increasing (Mignone et al., 2014; Camoni et al., 2013; Almasi-Nokiani, 2010), due in part to poor knowledge and understanding about the risks of infection, particularly in older people from low prevalence groups such as older heterosexual women and heterosexuals of all ages engaging in unprotected sexual intercourse with multiple partners as demonstrated by multiple north-American and European studies (O'Connor et al., 2014a; 2014b; Ross et al., 2013; Zoufaly et al., 2012; Ndiaye et al., 2011; Albarracin and Durantini, 2010; Kivelä et al., 2010). These results argue in favour of increased awareness raising and the promotion of targeted HIV testing in hard to reach groups rather than the 'opt-out screening' programmes recommended by groups such as the US Centers for Disease Control and Prevention, especially amongst sexually active elders and migrants who are more likely in addition to present late for testing and may have smaller caregiving and social networks in place to cope with the condition and its impact (Mignone et al., 2014; Almasi-Nokiani, 2010).

HIV is spread primarily through contact with blood, semen, vaginal and cervical secretions, rectal secretions, and less commonly in breast milk, although comparative transmission risks vary between each of these body fluids (Milligan and Overbaugh, 2015; Paz-Bailey et al., 2014; Cu-Uvin et al., 2006; Kim et al., 2006; Rousseau et al., 2003; Levy 1993; Ilaria et al., 1992; Pudney et al., 1992). Whilst HIV can be detected in saliva, it has been demonstrated that at least 10 components within this body fluid inhibit the ability of HIV to infect new cells unless blood is also present, as may be the case in periodontal disease or those with severe gingival inflammation, thus there remains some degree of risk from this as well (Luizzi et al., 1996; Shugars et al., 1998). Other body fluids thought to pose a risk include amniotic fluid, cerebrospinal fluid, exudate from burns or skin lesions, pericardial fluid, peritoneal fluid, pleural fluid, synovial fluid and unfixed human tissues or organs; although contact with these is extremely unlikely and the risk of infection from these is far greater for healthcare professionals than the general public (Department of Health Chief Medical Officers' Expert Advisory Group on AIDS, 2008). As a consequence, the main routes of HIV transmission are generally regarded to be unprotected rectal or vaginal intercourse, the use of contaminated needles, accidental transfusion with infected blood or blood products, breast feeding when HIV positive, and perinatal transmission from an HIV positive mother to her baby at birth. HIV/AIDS is often accompanied by the appearance of any number of opportunistic infections or conditions indicative of the presence of the virus, including tuberculosis, mycobacterium avium complex (MAC), hepatitis C, cytomegalovirus (CMV), coccidioidomycosis, salmonella, histoplasmosis, cryptosporidiosis, herpes zoster, herpes simplex, toxoplasmosis, candidiasis, cryptococcal meningitis, pneumocystis carinii pneumonia (PCP) and molluscum contagiosum. It may also result in HIV related encephalopathy, Kaposi's sarcoma, invasive cervical cancer and various kinds of lymphoma in those infected with the virus according to the United States Centers for Disease Control and Prevention (2015).

1.1 The situation in France and the UK in respect of HIV prevalence and testing

The number of people living with HIV in the UK had risen to an estimated 98,400 by the end of 2012 (Public Health England, 2013) and in the following year, 4,477 men and 1,522 women were newly diagnosed with HIV, the majority being diagnosed in London and the south-east of England (Public Health England, 2014). However, it is estimated that nationally, at least 20% of those infected with the virus do not know their seropositive status and are therefore likely to infect others. Late diagnosis is an additional problem, with 65% of heterosexual men and 57% of heterosexual women testing positive for the virus being diagnosed late (defined as having a CD4 count <350 cells/mm³ within three months of diagnosis). Similarly, 66% of black African men, 61% of black African women, 66% of black Caribbean women and 47% of black Caribbean men are also diagnosed late, far higher than the figure of 44% for White British women and 47% for white British men (O'Connor et al., 2014a; 2014b; Public Health England, 2013). The UK continues to have one of the fastest growth rates for HIV infection in Europe with an ever increasing number of people accessing NHS services for antiretroviral therapy and significant numbers of individuals seeking an HIV test long after the point of infection every year. Individuals diagnosed late incur significantly higher medical costs during the course of their lives than those diagnosed and subsequently treated early (Krentz et al., 2004). These were estimated to cost the NHS over £758 million in 2013, and the costs rise significantly to over £1 billion when social care costs were also added into the equation (Mandalia et al., 2010). The report's authors, conclude that HIV infections will continue to drive up population costs for HIV services unless something is done about the number of people currently being infected with the virus.

France has the highest number of people diagnosed with AIDS in Western Europe, with an estimated 40,000 people living with AIDS in 2012 and an additional 800 cases diagnosed per year (Institute of Health Surveillance, 2012). It also has one of Europe's highest death rates for AIDS, although the number has fallen by approximately half since the late 1990s. In 2011, the number of reported AIDS deaths totalled 381 although this may be something of an underestimate. The number of HIV diagnoses was estimated to be 6,220 in 2013, relatively stable since 2008 with annual figures fluctuating between 6,100 and 6,300 diagnoses per year, although some have raised concerns that HIV transmission may be increasing (Lert and Pialoux, 2010). Heterosexual sex is the main cause of infection (55%) with women born outside France accounting for 23% of new diagnoses. Heterosexual males born outside France account for 15% of this number and 10% of new diagnoses occur in French-born heterosexual men. Men who have sex with men (MSM) represent 42% of all new infections with intravenous drug users accounting for an additional 1% of those diagnosed (Institute of Health Surveillance, 2014). Screening activity in France increased in 2011 following a national campaign to promote wider use of population screening. This has led to some 5.0-5.2 million serology HIV tests being performed (Institute of Health Surveillance, 2014) making 'medecins generalistes' (General Practitioners) 'key players' in the fight against HIV in France (Souville, 2002). As in the UK, MSMs are likely to be diagnosed earlier than heterosexuals due to their requesting more frequent and regular testing (32% versus 18%) meaning that 62% of MSMs were diagnosed with a CD4 count >351 cells/mm³ - often before any signs or symptoms of infection became apparent whilst 56% of those infected through heterosexual intercourse over 50 years are diagnosed late (Institute of Health Surveillance, 2012). However, unlike the UK, where sexual health clinics are often regarded as the first line of defence against HIV, responsibility for HIV prevention and testing in France is primarily the responsibility of 'medecins generalistes' (General Practitioners) who initiate 76% of HIV tests in France, a much higher percentage than those initiated by GPs in the UK. Concerns have been expressed in France however, about the capability and willingness of GPs to engage in this task, especially in those populations not deemed to be at high risk for fear of giving offence or seeming impertinent, particularly when talking to older, married, heterosexual patients (O'Connor et al., 2014a,b) in spite of official expectations that an HIV test should be routinely offered to all patients between 15 and 70 years of age irrespective of their risk of exposure to HIV (Ministry of Health and Sports, 2010).

1.2 The situation in Kent and Medway

Over 1,000 people are currently affected by HIV in Kent and Medway (Kent County Council, 2015). One recent study examining patient clinical data for a five year period from January 2008 to December 2013 showed that 242 patients were diagnosed with HIV in 3 NHS trusts: Maidstone and Tunbridge Wells NHS Trust, Medway NHS Foundation Trust and Kent Community Health Foundation Trust (including East Kent Hospitals University Foundation Trust hospitals in Canterbury, Thanet and Ashford). This figure is not exhaustive however, and excludes those diagnosed and/or treated elsewhere such as London to the north or the neighbouring counties of Surrey and Sussex, qualitative data from the study indicating that some people affected by HIV prefer to be diagnosed and/or treated by sexual health services in the capital where they may work or spend large parts of their social time, particularly in the gay community (O'Connor et al., 2014a). The mean age of those diagnosed in the study was 40 (range 19-81 years) with a bi-modal peak at 38 and 43 years. Those diagnosed late (n=145) were approximately 4 years older than those diagnosed early. Men were twice as likely to be diagnosed with HIV as women (162 versus 79) although the latter were more likely to be diagnosed late. Over 55% of those diagnosed came from the majority white British population with the rest born overseas, and it was clear that this had a bearing on late diagnosis with 70.2% of non-British born patients having CD4 counts of 350 or less at diagnosis compared with 53.0% for those born in the country.

Men who have sex with men (MSM) had the lowest proportion of late diagnoses with exactly half of the 88 MSMs diagnosed in the period being diagnosed late compared to 64.4% of the 135 heterosexuals, 80% of the 5 intravenous drug users, and 87.5% of the remaining 8 patients refusing to identify their sexuality in the region. The difference between early/late infection rates in MSMs and other groups was statistically significant. Levels of late diagnosis amongst heterosexuals, older heterosexuals, and older heterosexual women in particular were higher than the national average for the UK. In East Kent alone (incorporating the districts of Ashford, Canterbury, Swale, Thanet, Dover and Shepway), late diagnoses account for 58% of all new diagnoses in the area compared to a national average of 48% although other areas such as Brighton and London have higher prevalences of HIV as indicated in the following table. An audit conducted in West Kent by Kent County Council in 2009 showed that late diagnosis accounted for 59.4% of new diagnoses in contrast to regional average of 52.4% for South East England and a national average overall of 51.3%. The same audit showed that 28% of diagnoses occurred in in GUM clinics, 27% in inpatient care settings in acute hospitals, 20% in hospital outpatient units, 15% in general practice, with antenatal testing accounting for a further 9%.

Table 1: Diagnosed HIV prevalence by Strategic Health Authority and Local Authority in 2012/10*		
County	Strategic Health or	Diagnosed HIV Prevalence
London	Lambeth	13.85/1,000
Sussex	Brighton	7.59/1,000
West Kent	Dartford	1.62/1,000
West Kent	Gravesham	1.23/1,000
West Kent	Maidstone	0.92/1,000
West Kent	Sevenoaks	0.64/1,000
West Kent	Tunbridge Wells	0.90/1,000
East Kent	Ashford	1.42/1,000
East Kent	Canterbury	0.99/1,000

Map of Kent and Medway showing district boundaries

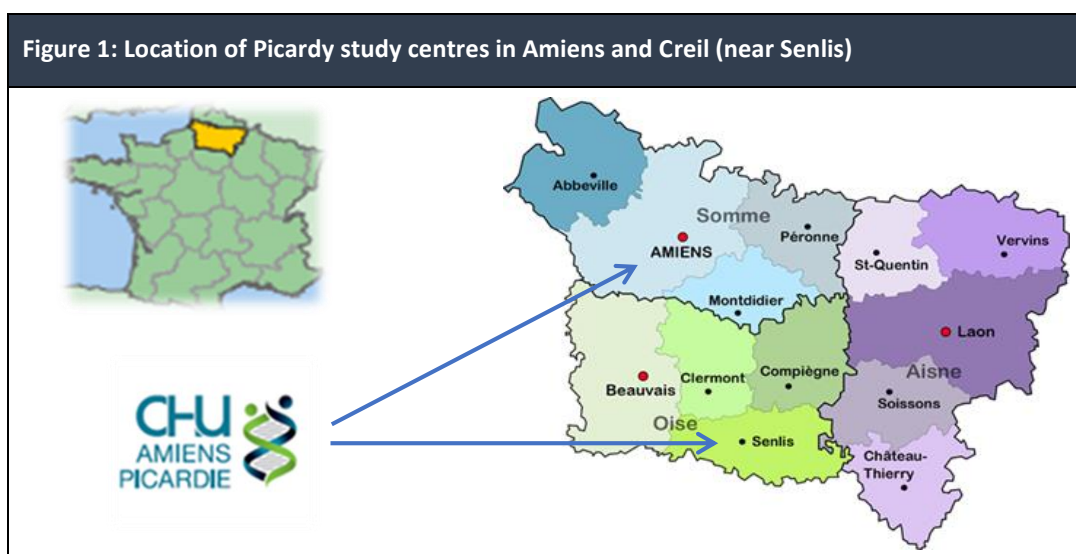
* Dartford, Gravesham, Sevenoaks & Tunbridge Wells figures from 2010 Kent County Council audit. Others Public Health England 2013.

1.3 The situation in Picardy

In 2013, the Institute of Health Surveillance/l'institut de veille sanitaire (2014) estimated that there were 96 new cases of HIV in Picardy. Males and those born overseas were particularly affected accounting for 69% and 46% of those cases respectively (l'agence régionale de santé de Picardie et du conseil régional de Picardie, 2014), a situation which is very similar to the UK region of Kent and Medway. In 2013 however, 108,300 serology tests were performed, considerably more than the number done in Kent and Medway that year. Whilst impressive, this number is actually lower than the national average, and is amongst the lowest in all French regions (56 versus 79 tests per 1,000 of the population).

Tests are performed in public laboratories or commercial medical testing centres which offer free and anonymous screening consultations since the introduction of the population screening strategy discussed above. Young people aged between 15-24 years of age accounted for over 10% of all new diagnoses and 20% occurred in those aged 50 years or older. The data show that heterosexual intercourse is estimated to be responsible for 60.8% of infections in the region with 21.7% occurring amongst homosexuals, much lower than the proportion represented by this group in the UK. The remaining cases were accounted for by injecting drug users (6.9%) and bisexual males (2.6%).

As in the UK, those born outside the country represent a disproportionately large sample of those diagnosed, particularly heterosexual men. More than half of new infections were contracted via heterosexual sex with less than one third occurring in MSMs (homosexual and bisexual), a lower proportion than Kent and Medway and less than the national French average. The total number of people known to be HIV positive was 1,302 of which 57.6% were males and 42.4% females. Those aged 40 to 49 years represent the most likely group to be affected (32.0%), with 11.3% occurring in those over the age of 60. More than a third of all new diagnoses are made at a very late stage with a CD4 count <200cells/mm³ - indicative of an AIDS diagnosis, although the situation has improved slightly in recent years. Between 2009 and 2011, approximately 8 residents of Picardy died on average each year from AIDS although this number is slightly more than half the number (17 versus 8) which occurred in previous years, meaning that Picardy has the eighth lowest standardised mortality rate for AIDS in France. Figure 1 below shows the location of the two centres in Picardy involved in the study, namely Amiens in the Somme area of Picardy, and Creil, not far from Senlis in the Oise area of Picardy to the north-east of Paris and the Île-de-France region.



1.4 Aims and objectives of the IMPRESS Health 2 study

The IMPRESS Health 2 project was developed with partner organisations from the regions of Kent and Medway in the UK, and Amiens and Creil in the Picardy region of France since they had all identified similar trends in late HIV diagnosis for their respective local populations. Even more striking were the similarities in patient demographics in each region, with the majority of new diagnoses in Kent, Medway and Picardy occurring in migrants of black African descent, or MSMs. In line with the literature, the project partners had also identified similar rates of late diagnosis for older, white heterosexual people in their regions prior to the study, and it was clear that earlier attempts to increase the number of early diagnoses in their respective populations had not been as successful as wished. The IMPRESS Health 2 project was therefore set up in order to:

- conduct a comprehensive literature review of previous work undertaken in the field of late HIV diagnosis so the project actions can add value to existing studies
- contribute to an increase in earlier diagnosis of HIV
- understand why individuals in both regions typically test 'late' for HIV
- conduct an intervention to support a change of behaviour in relation to late diagnosis,
- increase in the number of earlier diagnoses of HIV (in Kent and Medway in the UK together with Amiens and Creil in Picardy, France).

(Project application form/grant request, March 2012)

In order to achieve these aims, it was decided that the study would include the following components:

- completion of a comprehensive literature review about the reasons for late HIV diagnoses to inform the conduct of the study
- conduct of a retrospective analysis of clinical data for patients diagnosed with HIV in both regions in order to identify possible correlations with a wide number of variables affecting the likelihood of individuals seeking an HIV test early or late
- conduct of semi-structured interviews with patients and health and social care professionals to gain better insight and understanding of the reasons why individuals continue to test 'late' for HIV in both regions (Kent and Medway in the UK together with Amiens and Creil in Picardy, France)
- recommendations for the development and implementation of interventions designed to support changes in individual behaviour in relation to the timing of an HIV test targeted at both patients and health and social care professionals

(Adapted from project application form/grant request, March 2012)

The next section outlines how the first of these objectives, namely the literature review, was carried out. The results of the literature review will then be discussed, and the way in which these informed the development of the phase 1 (research phase) activities of the study will be described. Further sections will then outline the recommendations arising from the phase 1 data for the development of a series of interventions including public health, a mobile HIV testing campaign, social media and political/awareness raising activities in the run up to World AIDS Day in December 2014, and the development of bespoke information and education campaigns for both healthcare professionals and members of the BME community on both sides of the Channel in the phase 2 (intervention phase) of the study. The final sections will outline and evaluate the success of these interventions, including, in the penultimate section, a review of project partner and stakeholder evaluations about process, societal impact and the long-term benefits of the study.

2.0 Literature review

The initial literature review was undertaken to inform the development of the mixed methods study which subsequently took place and provide guidance for clinicians and public health providers in both France and the UK on how current trends in late diagnosis might be reversed. This section summarises the conduct and results of the literature review conducted in line with the first aim of the study, namely: *'to conduct a comprehensive literature review about the reasons for late HIV diagnoses'*, the primary purpose being to identify current knowledge and understanding about the factors which determine individual decision making when seeking an HIV test and the possible barriers (intrinsic or extrinsic) which individuals might encounter when making such a decision. Findings from the review guided the subsequent development of study interventions, including the schedules used to interview patients and healthcare professionals during the first 'research' phase of the study which took place between October 2013 and March 2014, and the content of the clinical data extraction sheet for a five year retrospective review of HIV patient data by clinical partners from Kent, Medway, Amiens and Creil which took place in parallel with this process during the same time period.

2.1 Databases and search terms used for the literature review

A number of databases were searched to source relevant literature. These included the PubMed Central, CINAHL, PsychInfo and Applied Social Sciences Index and Abstracts (ASSIA) databases as well as the commercial SAGE Journals, ScienceDirect and Wiley Online Library databases. The search was conducted using the search terms 'HIV' and/or AIDS narrowed with the additional terms: 'late presentation', 'late diagnosis', 'screening', 'late testing' and 'early testing'. Further criteria used to ascertain whether the papers sourced were suitable for inclusion in the literature review included those that described healthcare professional and/or patient/service user viewpoints, primary research, opinion papers and literature reviews covering both national (British or French) and international (other areas) studies. Papers were then reviewed to identify key themes which would aid the formulation of topic lists and interview schedules for both healthcare professionals and patients/service users, and the data extraction sheet for quantitative clinical data contained in patients' notes.

2.2 Selection criteria and papers selected for review

The papers sourced for the literature review covered a wide geographical area. A small number of papers looked at the issue of late testing and diagnosis internationally. Four opinion papers were also reviewed as these were often cited by other authors. These were the papers by Branson et al. (2006), Johnson et al. (2010), Schrantz et al. (2011) and the a much cited paper by Yazdanpanah et al. (2010). The majority of papers described epidemiological studies attempting to correlate different demographic features with a greater or lesser propensity to seek an HIV test quickly, and a smaller number included information on patient perspectives about the barriers (internal and external) encountered when considering whether or not to have an HIV test. Most of the studies were conducted in single countries or more disparate regions (such as Catalonia in Spain or Belgium and Northern France).

The most numerous group of papers came from the USA (Schwarcz et al., 2011; Schrantz et al., 2011; Yang et al., 2010; Branson et al., 2006; Casau, 2005). Three papers described research conducted in the UK (Dowson et al., 2012; Sudarshi et al., 2008; Sullivan et al., 2005) and a fourth described the results of a Scottish study (Wohlgemut et al., 2012), but only one paper (Delpierre et al., 2007) referred to work carried out in mainland France, although another had been conducted in the French overseas territory (Département d'outre-mer) of French Guiana by Hanf et al. (2011). Three papers were available for studies conducted in Spain (or the self-governing Spanish region of Catalonia). These were papers by Vives et al. (2012), de Olalla et al. (2011), and Castilla et al. (2002). Single papers from each of the following countries were then reviewed: Brazil (Pereira et al., 2011), Canada (Krentz et al., 2004), Italy (Camoni et al., 2013), Mexico (Carrizosa et al., 2010), Taiwan (Lo et al., 2011), and Venezuela (Bonjour et al., 2008). Four papers provided multinational perspectives; namely Antorini et al's (2010) and Johnson et al's (2010) epidemiological studies looking at factors correlated with early and late

presentation in Europe, Girardi et al's (2007) global epidemiology paper, and Yazdanpanah et al's (2010) paper which discussed how late presentation could be prevented from a variety of European perspectives.

Primary research papers tended to describe epidemiological studies or those focused on patient perspectives (although smaller in number), and none specifically elicited the views of professional health carers other than those expressed in the opinion papers themselves. Most of the quantitative studies therefore described large, non-homogenous samples including a sample of 30,788 in Castilla et al's (2002) retrospective analysis of surveillance data for HIV/AIDS cases reported from 1994 through 2000 in Spain; 7,300 patients in Camoni et al's (2013) review of data on new HIV diagnoses reported within the Italian HIV surveillance system in 2010 and 2011; 2,507 patients in De-Olalla et al's study of the epidemiological characteristics and predictors of late presentation with HIV in Barcelona (Spain) from 2001-2009; and 4,651 in Vives et al's (2012) analysis of the prevalence, trends and factors associated with late diagnosis of HIV infection in Catalonia (Spain) between 2001 and 2008. In-depth qualitative studies had smaller samples which generally encompassed participants from both high and low-risk populations although Dowson et al's (2012) semi-structured interview study was only carried out on MSMs with an AIDS defining illness or presenting late with a CD4 cell count of <200 cells/mm³ and likewise, Schwarcz et al's (2011) mixed methods interview study of 41 patients who developed AIDS within 12 months of their HIV diagnosis in San Francisco, USA.

Three literature reviews were also analysed as these provided both global and European perspectives on the issue of HIV testing for the study. These were by Mukolo et al. (2013), Adler et al. (2010), and a slightly older paper by Savasta (2004). Delpierre et al's (2007) French paper, whilst citing existing literature is primarily a discussion about French policy in relation to HIV testing. Tables 2 and 3 overleaf provide a broad overview of the papers reviewed including further analysis and explanation of the aims of each paper. It is acknowledged that many more papers could have been reviewed, but given the very broad nature of the themes elicited, the convergence of opinion displayed by each, and the similarity in recommendations between studies undertaken using very different methodologies and samples in a variety of regions; it seemed likely that nothing new would be elicited by further reading of the literature at that stage, and the findings were deemed adequate for the purposes of formulating themes and topics for further inquiry in the first 'research' phase of the project.

2.3 Main findings from the literature review

As intimated in section 1 of this report, the key issues of note for the study highlighted from the literature review consisted of the following:

- the number of people living with HIV globally is increasing due to improvements in therapy and an increase in transmission from those unaware of their seropositive status
- the number and proportion of people being diagnosed late is also increasing in high risk groups such as men who have sex with men and migrants from areas of high prevalence
- however; the proportion of people presenting late for HIV testing in subpopulations normally considered to be at 'low' risk of contracting HIV such as white heterosexual women is also increasing
- the reasons underpinning the high number of late presentations and HIV diagnoses in all groups are still largely unexplored, but are likely to be multifactorial
- further research into the reasons for late presentation and diagnosis of HIV is required, including exploration of the reasons why people continue to present late for testing.

Table 2: Summary of the empirical and opinion papers reviewed

Author	Country or region	Patients	Health carers	Sample size	Demographic factors	Individual risk appraisal	Fear, anxiety and emotional barriers to testing	Concerns about stigma or stereotyping	Knowledge about benefits of early diagnosis	Specific issues for migrant populations	Structural and systemic barriers to testing
Antorini et al (2010)	Europe	no	no	no	yes	no	no	no	no	no	yes
Bonjour et al (2008)	Venezuela	yes	no	225	yes	yes	yes	yes	no	no	yes
Branson et al (2006)	USA	n/a	n/a	n/a	yes	no	no	no	no	no	yes
Camoni et al (2013)	Italy	yes	no	7,300	yes	no	no	no	no	yes	no
Carrizosa et al (2010)	Mexico	yes	no	362	no	no	yes	yes	no	no	no
Casau (2005)	USA	yes	no	unstated	yes	no	no	no	no	no	no
Castilla et al (2002)	Spain	yes	no	30,788	yes	no	no	no	no	no	no
De Olalla et al (2011)	Spain	yes	no	2,507	yes	no	no	no	no	yes	yes
Delpierre et al (2007)	France	no	no	n/a	no	no	no	no	no	no	yes
Dowson et al (2012)	UK	yes	no	17	yes	yes	yes	yes	no	no	yes
Girardi et al (2007)	Global (various)	yes	no	unstated	yes	yes	no	no	no	no	yes
Hanf et al (2011)	French Guiana	yes	no	398	no	yes	yes	no	no	yes	yes
Johnson et al (2010)	Europe (various)	n/a	n/a	n/a	yes	no	no	no	no	no	yes
Krentz et al (2004)	Canada	yes	no	241	yes	no	no	no	no	no	
Lo et al (2011)	Taiwan	yes	no	227	yes	yes	no	yes	no	no	yes
Pereira et al (2011)	Brazil	yes	no	492	yes	no	no	no	no	no	no
Schrantz et al (2011)	USA	n/a	n/a	n/a	no	no	no	no	no	no	yes
Schwarcz et al (2011)	USA	yes	no	41	no	yes	yes	no	yes	no	no
Sudarshi et al (2008)	UK	yes	no	108	no	no	no	no	no	no	yes
Sullivan et al (2005)	UK and Ireland	yes	no	977	yes	no	no	no	no	no	yes
Vives et al (2012)	Spain	yes	no	4,651	yes	no	no	no	no	yes	no
Wohlgemut et al (2012)	Scotland	yes	no	165	yes	no	no	no	no	no	yes
Yang et al (2010)	USA	yes	no	unstated	yes	no	no	no	no	yes	no
Yazdanpanah et al (2010)	Europe (various)	n/a	n/a	no	yes	no	yes	no	no	yes	yes

Table 3: Summary of literature reviews included in the analysis

Table 3: Summary of literature reviews included in the analysis										
<i>Sample details</i>			<i>Themes elicited</i>							
Author	Country or region	Number of papers reviewed in article	Demographic factors	Individual risk appraisal	Fear, anxiety and emotional barriers to testing	Concerns about stigma or stereotyping if testing positive	Lack of knowledge about the benefits of early diagnosis and treatment	Specific issues for migrant populations	Structural and systemic barriers to testing	
Adler et al (2010)	Europe (various - specified)*	63 articles sourced 22 countries surveyed	yes	no	yes	no	no	yes	no	
Mukolo et al (2013)	Global (various - unspecified)	36 articles	yes	yes	yes	yes	yes	no	yes	
Savasta (2004)	Global (various - unspecified)	67 articles	yes	yes	yes	yes	no	no	yes	

*Adler et al. actually surveyed 33 countries but only received responses from 22 namely: Austria, Bulgaria, Belarus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Italy, Malta, Moldova, the Netherlands, Poland, Portugal, the Russian Federation, Slovakia, Slovenia, Spain, Switzerland, and the United Kingdom. Malta and the Russian Federation did not report any information on late diagnoses whilst Belgium, Cyprus, Finland, the Republic of Ireland, Latvia, Lithuania, Luxemburg, Romania, and Sweden did not respond to their survey at all.

While evidence is still scant, it would appear on the basis of the research reviewed that reasons for late testing and diagnosis of HIV can be identified under seven main themes which will be addressed separately in the rest of this section. The themes were deemed broad enough to capture the likely reasons for delay in seeking a test and adequate to inform the development of interview schedules for patients and healthcare professionals about the reasons why late presentation continues to be so common. The themes are:

- demographic factors
- individual risk appraisal
- fear, anxiety and emotional barriers to testing
- lack of knowledge about the benefits of early diagnosis and treatment
- concerns about stigma or stereotyping as the result of a positive test
- specific issues for migrant populations
- structural and systemic barriers to testing

Where appropriate in the discussion, comparisons will be drawn between the literature reviewed and findings from the research phase (phase 1) of the IMPRESS Health 2 study which have already been published in report form and placed into the public domain in accordance with the University's 'open access' policy for publicly funded studies (O'Connor et al., 2014a; 2014b).

2.3.1 Demographic factors

Age was consistently correlated with a tendency to present early or late for testing. Each of the 36 studies reviewed by Mukolo et al. (2013) associated older age with late presentation. This concurs with the primary research papers reviewed which showed that older individuals generally do not perceive themselves to be at risk, and consequently are less likely to be tested for HIV than young people (Casau, 2005; Savasta, 2004). These results were also borne out by the research undertaken in both Kent and Medway and Picardy in phase 1 of the IMPRESS Health 2 study as reported in O'Connor et al. (2014a; 2014b). Within the literature, low socio-economic status as indicated by employment/occupational status or level of education was also widely correlated with late presentation although this result was not as strongly present in the phase 1 IMPRESS Health 2 data. The literature does show that socio-economic status often overlaps with racial, ethnic and immigration status which, together with language barriers or lack of knowledge about the services available in any locality can make it harder for those wanting a test to access HIV testing services because of language difficulties, lack of information, or fears about cost.

Although men who have sex with men are at the highest risk for HIV infection both nationally and locally, they are often not the patients most likely to present late for an HIV test (Johnson et al., 2010). Mukolo et al. (2013) and Adler et al's (2010) literature reviews show that males (particularly heterosexual males), are consistently at greater risk of being diagnosed late in most countries, a finding also borne out in the first phase of the IMPRESS Health 2 study, although the reasons for this are still unclear. This could be due to women's greater propensity to access health services in general, but specifically during pregnancy when an HIV test may be offered or routinely undertaken – as in the UK for instance (de Olalla et al., 2011). Opportunities such as these are less likely to present themselves to men unless they become symptomatic with an HIV or AIDS related illness, and on the basis of findings from phase 1 of the IMPRESS study, perhaps not even then. Many respondents described having signs and symptoms which were clearly indicative of such an illness which were not properly diagnosed as such, often leading to significant delays in subsequent diagnosis and treatment of the problems they had presented with, although this problem was not unique to males alone. Living in a region with low prevalence of HIV clearly increases the risk of late HIV diagnosis as expectations and anxieties about HIV risk may be that much lower in both patients and healthcare professionals (Adler et al., 2010). This is certainly true in the UK where areas such as Kent and Medway have higher than the national average percentage of people

diagnosed late, in spite of the regions proximity to London, the area with the highest national prevalence rates (O'Connor et al, 2014a). Similar patterns have been found in other countries however, including France, where late presentations may also be higher outside Paris and the Île-de-France region due to lower rates of 'suspicion' or active surveillance for the HIV virus when health problems first occur. Adler et al's (2010) review of the literature clearly demonstrates from a large number of studies that less risk is perceived in areas with low prevalence. Often, by their very nature, these areas may be more rural or suburban with lower expectations of transmission as indicated by one GP described in phase 1 of the IMPRESS Health 2 study who said that *'No one living in Tunbridge Wells [widely regarded as a pleasant and genteel London dormitory town in West Kent] is likely to be HIV positive'*. No wonder then that fear and stigma related to having a positive HIV test may be real and very prescient concern in these areas. It may also explain anecdotal evidence from interviews that some patients prefer to go for an HIV test in nearby metropolitan areas such as London or Paris rather than confront professionals with such outmoded and inaccurate beliefs.

A variety of primary studies have identified additional variables associated with late HIV testing or delayed diagnosis, including lower levels of educational attainment - in Venezuela for example (Bonjour et al., 2008), although educational and health systems vary widely between South America and northern Europe and this link was less apparent in data from the phase 1 IMPRESS Health 2 study. Likewise, occupational status appeared to have little correlation, although it was difficult to draw comparisons between the French and UK data because of differences in understanding about the nature of full-time and part-time employment, unemployment, and full-time education. Delpierre et al's (2005) French study found that HIV infection was more common among women, and in those identified as being at higher risk of infection, such as MSMS, intravenous drug users, younger sexually active people or those with multiple sexual partners. Conversely, those who were detected late tended to be older, heterosexual males with stable partnerships and children – circumstances which were assumed by some healthcare professionals on both sides of the Channel to indicate a low or zero risk of HIV infection – even when the patient's sexual history within (and possibly outside) a long-term relationship had not been discussed with them. Similarly, other studies in both Italy and the USA conclude that older people, non-nationals and heterosexuals are at higher risk of being diagnosed late (Camoni et al., 2013; Yang et al., 2010), findings replicated in the data from the phase 1 IMPRESS Health 2 study. In spite of decades of research highlighting these factors, many still regard age as a limiting factor for HIV infection, for example even when embarking on sexual relationships with new or multiple partners as may happen after a divorce or bereavement in later life (Davis et al., 2013).

2.3.2 Individual risk appraisal

Denial of risk factors was a common reason for not being tested in studies carried out in the UK, French Guiana and a number of European countries (Dowson et al., 2012; Hanf et al., 2011; Yazdanpanah et al., 2010). Yazdanpanah et al's (2010) study also showed a positive correlation between those who had never had an HIV test and their perceptions about the perceived efficacy of medical treatments for the illness. Johnson et al. (2010) point out that being a member of a group perceived to be at low risk (i.e. anyone other than MSMs or sub-Saharan African) is itself a risk factor for late testing since HIV is not at the forefront of the minds of those individuals. Vives et al. (2012) also recognised barriers related to lack of awareness by health professionals about the sexual history of their patients in Catalonia (Spain). They also attributed it to a lack of time to properly assess risk and to offer or perform the test, although their study spans a long period between 2001 and 2008 and it is not clear if time pressure on services was the same throughout this period. The importance of perception is also borne out, however, by the studies reviewed by Mukolo et al. (2013) which indicate that cognitive appraisal of actual or potential risk can influence the timeliness of presentation. It also shows that adolescents who consider themselves to be at high risk of infection are more likely to seek HIV testing than older adults with comparable risk factors, although the review does not draw uniquely on data from the UK or France so may be confounded by differences in health or sex education in different countries or a corresponding lack of information for those outside formal or further educational systems.

2.3.3 Fear, anxiety and emotional barriers to testing

One study in Mexico found that those who ‘preferred not to know’ their status had more than double the risk of testing late with HIV than those who were prepared to know the results of their test as quickly as possible (Carrizosa et al., 2010). Fear of the consequences of a positive test, including unfounded associations of HIV with pain, death, stigma, discrimination, feeling socially devalued or isolated, and diminished economic capacity can all contribute to late presentation by deterring individuals from seeking confirmation of what they fear may be the case (Mukolo et al., 2013; Dowson et al., 2012; Hanf et al., 2011). Fear of HIV as a barrier to testing was also highlighted in the qualitative phase 1 research data for the IMPRESS Health 2 project on both sides of the English Channel (O’Connor et al., 2014a; 2014b) although it may have been marginally worse in France which had a higher percentage of sub-Saharan Africans in their sample for whom HIV is positively correlated with poor health, higher mortality and fear of stigma – factors which may lead individual patients to put off the inevitable for as long as possible.

2.3.4 Perceptions about the benefits of early diagnosis and treatment efficacy

DeMarco et al. (2012) point out that the US Centers for Diseases Control and Prevention (CDC) released recommendations calling for routine HIV testing to be offered to those ages 13 to 64 as a standard of general health care some years ago, including the recommendation to conduct HIV testing as part of the general consent procedure for any medical test in the United States. They are not alone in this, and others too have advocated similar strategies to improve the uptake of early HIV testing such as Girardi et al. (2007). The rationale for this is that knowledge of one’s HIV status will invariably help infected individuals to adopt risk-reduction behaviours and access to life-prolonging treatment; although there is some evidence that this may not be the case. All of the papers reviewed accepted the premise that early diagnosis has significant health benefits for individual patients and whilst we know the undoubted benefits of this for both individual and population health and cost effectiveness (Davis et al., 2013; Dilernia et al., 2013), we could find little actual research focused specifically on what individuals know and understand about the benefits of early testing during the review process. Respondents interviewed during phase 1 of the study were often surprised to learn that treatment efficacy does in some part rely on the timeliness of diagnosis and treatment, and there is an assumption that treatments are so effective these days that the point of diagnosis does not matter. Likewise, other respondents had no idea that over 500 people still die of HIV related illnesses or AIDS each year, so it is important that accurate messages about the positive benefits of treatment are balanced against better information about the importance of having timely diagnosis.

Even when respondents knew the benefits of early testing and diagnosis, some still demonstrated significant levels of cognitive dissonance in relation to their actual behaviours and whether or not to seek an HIV test when they first feared they might have contracted the virus. This was more likely to occur in those groups not traditionally thought to be ‘at special risk’ in comparison to the better informed MSM subgroup whose lower rate of late presentation indicates that there may be some correlation between knowledge of the benefits of early testing and actual health behaviours, although this group also have much greater access to sexual health services within, as well as outside official state sector health services. When questioned, almost all of the respondents agreed with the concept that HIV testing should be more routinised so that issues of stigma and uncertainty could be addressed more easily; but they also expressed the perception that healthcare professionals as well either failed to ask appropriate questions or were unable to articulate the reasons why an HIV test might be appropriate, in certain circumstances, and failed to relate these to anticipated improvements in treatment outcome, morbidity and mortality. More information about this can be found in the original phase 1 reports of both the UK and French interview data (O’Connor et al., 2014a; 2014b) and there is no need to say more about this here except to say that changing perceptions was identified as a major requirement for the intervention phase which followed and is subsequently evaluated later in this report.

2.3.5 Concerns about stigma and stereotyping

Wohlgemut et al. (2012) warn against the danger of healthcare professionals stereotyping 'at risk' patients since one fifth of diagnoses in their study occurred in those without recognisable transmission risks. Fear of disclosure, and subsequent social or legal stigma was a common reason for migrants to avoid testing according to Yazdanpanah et al. (2010). This may be a well-founded conclusion however, since Mukolo et al's (2013) review suggests that decisions about testing are often made within social contexts characterised by hostility towards people living with HIV and AIDS due to deficits in knowledge about HIV transmission, prevention and treatment; and prevailing social norms and values which may stigmatise the individual. Improvements in treatment efficacy may result in some de-stigmatisation of HIV/AIDS by rendering it less threatening or disabling in key domains of life (Mukolo et al., 2013), although this area is not well researched and more evidence is needed, particularly in relation to testing. It is clear however from the data from phase 1 of the IMPRESS Health 2 study that fear of stigma were potential reasons for people to put off having an HIV test on both sides of the Channel, particularly among migrants to both countries from sub-Saharan Africa and the Caribbean. This was also mentioned by respondents from sub-Saharan Africa in the phase 1 IMPRESS Health 2 study, one UK respondent attributing her late diagnosis to prevarication and concerns about what others within the cultural confines of her strict charismatic/Pentecostal church might think of her if the test proved positive. Such fears are by no means culturally determined however, an older white woman also experiencing the ignominy of being asked by her vicar not to receive wine from the chalice during the Eucharist at her local Anglican church because of her HIV status (in contravention of church guidelines about such issues and in spite of receiving a letter from her Consultant about the almost negligible risk of transmission from saliva as noted in Section 1 of this report).

2.3.6 Specific issues for migrant populations

As previously described, Yazdanpanah et al. (2010) suggest that specific barriers exist for migrants, including stigmatisation within some sub-Saharan African and Caribbean communities in the UK and France. The study showed that many still considered HIV to be a deadly disease in these communities which, aligned with the belief that HIV tests may not remain confidential, could reduce an individual's chance of gaining permanent residence in either country. Others feared that it would bring them to the attention of immigration services or impact negatively on their ability to obtain adequate housing, childcare or employment in their new home (Yazdanpanah et al., 2010). These fears were certainly expressed by at least some of the respondents from both the UK and France in the phase 1 IMPRESS Health 2 interview data; and it is clear that many migrants still feel anxious about accessing generic health services unless significant investment is made building trust and confidence in these communities. Language barriers can also distort health messages and prevent migrants from knowing what healthcare services are available and their entitlement to them (Yazdanpanah et al., 2010). Studies have also shown a lack of advocacy for HIV infected migrants living in the UK; combined with much negative publicity about UK taxpayers having to support so called 'health tourists' (Adler et al. 2010), a process which sadly has become more than apparent during the recent General Election campaign in the UK. As a consequence of these fears, the National Institute for Health and Clinical Excellence (NICE) published guidance in 2011 to promote cultural awareness of these fears among men who have sex with men and black African communities in the UK. Similar guidance has also been issued at the European level (European Centre for Disease Prevention and Control, 2010).

2.3.7 Structural and systemic barriers to testing

In many countries, patient-initiated approaches continue to be the primary model for providing HIV testing and counselling. However, health facilities represent a key point of contact for people with HIV who are unaware of their HIV status (Yazdanpanah et al., 2010). Other evidence suggests that many opportunities to diagnose and counsel individuals at health facilities are being missed (Sudarshi et al., 2008; Sullivan et al., 2005). Barriers highlighted in these studies include the obtaining of consent and

how this should be gained, the necessity (or not) for pre-test counselling, logistical barriers such as competing priorities and policy objectives, language barriers; and lack of knowledge, education and training for healthcare professionals who may be unaware of various factors indicative of HIV infection. These include non-typical risk groups such as heterosexual men or women, older people of both sexes, and non-specific signs which might be indicative of HIV infection including recurrent opportunistic infections, malaise, lethargy, anorexia, nausea, myalgia, arthralgia, diarrhoea, generalised lymphadenopathy or other health problems (Sudarshi et al., 2008; Sullivan et al., 2005). Current policies in the UK incorporate targeting those at 'high risk' of infection, and therefore provision and funding is aimed at certain groups. For example, the Terrence Higgins Trust (THT) is only funded to offer postal HIV testing kits to African people and gay or bisexual men who live in England (THT, 2013). Similarly, in the literature reviewed by Mukolo et al. (2013) it was found that the majority of targeted HIV prevention was not aimed at heterosexual males, meaning that they had fewer opportunities for early HIV diagnosis than injecting drug users, men who have sex with men, or women attending antenatal care. Indeed most studies show that injecting drug users have lower rates of late diagnosis than heterosexuals (Adler et al. 2010) and in the UK these make up only 2% of new diagnoses (Public Health England, 2013). A perceived failure by primary care practitioners to address HIV-related topics with their patients can also exacerbate the issue of late presentation (Dowson et al., 2012), the former being a specific issue identified from the phase 1 IMPRESS Health 2 interview data (O'Connor et al., 2014a; 2014b).

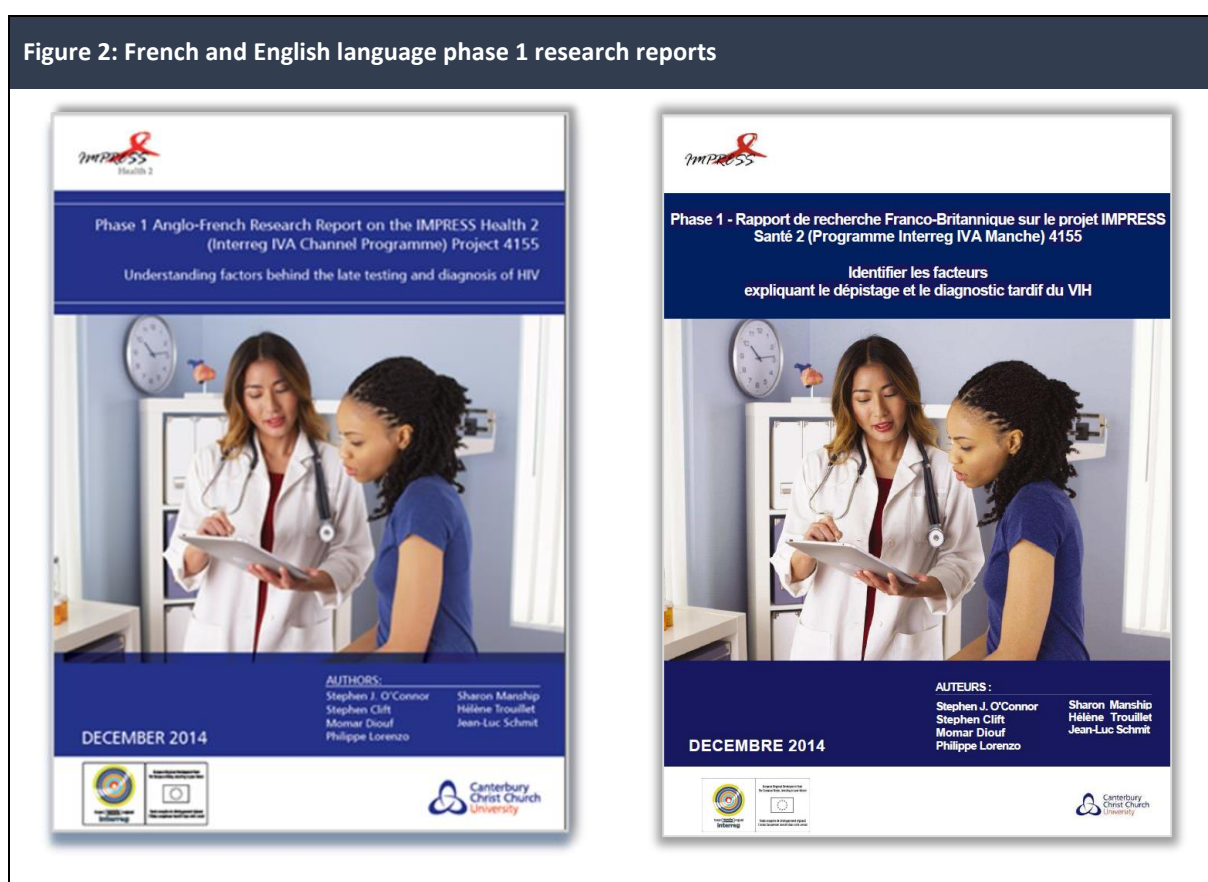
In response to these much publicised deficits, guidance from the World Health Organisation (2007) recommends the greater routinisation of HIV testing with an 'opt-out' option for those not wishing to be tested. Such approaches would incorporate the use of simplified pre-test information sheets and increased provision of HIV testing and counselling facilities. In this model, individuals seeking healthcare would be offered an HIV test routinely but would have the right to decline. This model is being implemented in many places, but many still argue that targeted interventions are more likely to encourage people to come forward earlier, rather than waiting for a symptom or health problem to occur (Camoni et al., 2013; Garcia de Olalla et al., 2011; Yazdanpanah et al., 2010; Girardi et al., 2007). Branson et al's (2006) US study suggests that it might be feasible to include HIV testing as a routine part of healthcare practices for all adults and adolescents aged 13-64 years, as proposed by the US Centers for Disease Control and Prevention with one another US study showing that it is feasible and effective to implement routine HIV testing in emergency departments, leading to an increase in new diagnosed patients and earlier access to specialist services (Schrantz et al., 2011). In line with the WHO recommendations, current guidelines in the UK recommend that HIV testing should be offered routinely to everyone admitted to hospital and people registering with a GP in areas of the country with an HIV prevalence greater than 2 per 1000 people and greater availability of home testing kits which are currently being implemented (Public Health England, 2013).

A number of studies looking at healthcare professionals' perspectives stress the need to increase awareness and identify populations which are at risk (Vives et al., 2012). These often support the use of mass media campaigns to raise awareness and the uptake of HIV testing by signposting services through the internet and social media. These technologies undoubtedly have appeal for certain target populations including the young (Rashbrook, 2013), but the use of traditional media may also be necessary for other groups including publicising campaigns such as National HIV Testing Week in the UK in the run up to World AIDS Day or common signs indicative of a possible HIV infection similar to those currently being used to alert people to the signs of bowel cancer on television in the UK for example (Yazdanpanah et al., 2010). Financial incentives and continuing professional development opportunities for healthcare professionals are also suggested (Dowson et al., 2012; Lo et al., 2011) whilst Pereira et al. (2011) specifically identify nurses as key actors in respect of raising awareness and increasing current capacity for counselling and health education initiatives to increase the frequency of earlier diagnosis in line with Dowson et al's (2012) conclusions for greater GP engagement. Schwarz et al. (2011) in the meantime, assert that public health campaigns to increase testing should emphasise the effectiveness, tolerability and low cost of modern treatments, together with the benefits of early diagnosis and reassurance that test results will remain confidential.

3.0 Recommendations made following the phase 1 study

Findings from the phase 1 research study broadly supported conclusions drawn from the literature review described above. These were used to develop recommendations for a variety of public health, health promotion, health education and social media campaigns for those populations identified as being at most risk of HIV infection as well as an educational intervention for healthcare professionals (mainly GPs) in both countries since these were identified as being the people most likely to affect the number and timeliness of HIV tests performed. The full recommendations can be found in the joint Anglo-French phase 1 report which was published in both English and French, as well as separate national reports for both countries. A sample of these reports is illustrated in Figure 2 below. Full copies of the reports and the recommendations they contain can be found on <http://create.canterbury.ac.uk/12830/> (for the UK report published in October 2014) and <http://www.impresshealth2.eu/phase-1-anglo-french-research-report/> (for the joint Anglo-French report published in December 2014), but these will also be summarised briefly below.

Figure 2: French and English language phase 1 research reports



3.1 Key areas for action identified in the EU Commission document SWD(2014)106

Recommendations for interventions suggested in the phase 1 report were structured around relevant priorities identified in an EU Commission staff working document which was designed to support the implementation of the new action plan on HIV/AIDS in the EU and neighbouring countries, primarily those east European states originating in the old Soviet Union (SWD(2014)106 final). The plan contains 50 items for action under the following headings, most of which were of relevance to the recommendations made as a result of the phase 1 data analysis:

- 1) politics, policies, and involvement of civil society, wider society and stakeholders
- 2) HIV prevention
- 3) priority regions for intervention
- 4) priority groups for intervention

- 5) improving knowledge
- 6) better monitoring and evaluation

Chief amongst the healthcare outcomes identified in the ‘improving knowledge’ section of the action plan is the need to, *‘improve the capacities and knowledge of medical staff and community based organisations with regard to HIV infection/co-infection (such as viral hepatitis and vital tuberculosis), prevention, testing, treatment and care, including the dissemination of best clinical practice’*. In relation to priority groups, the action plan stresses the need to intensify the promotion of safer sex between MSMs, improve information on HIV prevention, and better integrate sexual and reproductive health services in member states. It is also envisaged that the encouragement of ‘innovative testing strategies’ such as outreach and use of peer groups would increase the number of earlier diagnoses, whilst HIV reduction strategies include risk and harm reduction measures aimed at injecting drug users such as needle exchange programmes. Efforts to improve the health of migrant populations include targeted health promotion measures and improved access and treatment to services. However, the action plan includes little mention as to how burgeoning rates of HIV infection in heterosexual patients who make up over half of the HIV positive population (both male and female) in Kent, Medway, Amiens and Creil as identified in the phase 1 study (O’Connor, 2014a; 2014b) are to be addressed – and it is this group to which a significant number of interventions were targeted in the phase 2 intervention stage of the study.

3.2 Politics, policies, involvement of civil society, wider society and stakeholders

Recommendations for interventions by project partners in these areas included the need to raise awareness of the social and economic costs of late HIV diagnoses amongst key policy makers and service commissioners as well as the general public. Likewise it was felt important to extend a positive message about the benefits of early HIV testing to all those responsible for healthcare delivery and commissioning. It was acknowledged that political action would also include the need to obtain ‘buy in’ or greater commitment from general practitioners (or *médecins généralistes* in France) to increase their involvement in screening programmes, including where necessary a review of local policies and procedures for recommending or conducting HIV testing for individual patients or referring them onwards if necessary. Few recommendations were made in the French report in respect of this thematic area as it was felt that primary healthcare services were already working well with a number of HIV charities to improve recognition of HIV as a major health problem. Nevertheless, it was thought important to consider interventions which made better use of local LGBTQi and other community organisations (such as those for black minority ethnic groups, churches and other faith groups, as well as workplaces, universities, schools and colleges etc.) for the purposes of health promotion and awareness raising about the benefits of early HIV testing. It was noted that unfounded assumptions and a general unwillingness to engage in discussions about peoples’ sexual histories and risk factors were demonstrated in the data from both countries, and in spite of the French public health authorities recommending population testing of all adults aged between 15 and 70 years of age irrespective of their perceived exposure risk (Ministry of Health and Sports, 2010), there was little evidence that this was taking place. Hence, the need to implement and reinforce the importance of such policy statements was also considered necessary.

3.3 HIV prevention

In the UK, responsibility for public health is now the specific responsibility of local authorities under the guidance of Public Health England, whereas in France it remains a primary health (and specifically, a GP’s) area of responsibility. It was suggested in the phase 1 data from Picardy that *médecins généralistes* work far more closely with voluntary agencies than is often the case in the UK, partly because of the charities semi-formal role in HIV prevention, screening and testing, but it was agreed that there needed to be greater involvement and collegiate working with the charity sector in the UK, as already takes place in France, in any local intervention subsequently developed in Kent and Medway. It was also suggested that renewed efforts should be made by partners in both countries to raise the importance of preventative medicine and HIV prevention strategies such as condom use, ideally, though not

exclusively, in the period leading up to World AIDS Day at the beginning of December (coinciding in the UK at least, with National HIV Testing Week at the end of November). It was also recommended that this should be a major focus of any public health or media campaign in that period. Closely aligned to, but separate from this, was the suggestion that pilot outreach projects be developed in both countries targeted at identified target groups locally, providing free condoms, lubrication etc. as well as information about safer sex and HIV testing to such groups. The researchers had been impressed by the activities of one such project (the blue bus campaign) in the November of 2013 by Maidstone and Tunbridge Wells NHS Trust and Kent Community Health NHS Foundation Trust, and recommended that a similar strategy be used in Picardy as well in the same period – including if possible, locations and times targeted at people during the ‘night-time economies’ of major towns and cities where HIV risk behaviours may be more likely to occur. It was also suggested that this could include a media and social marketing campaign to stimulate discussion and interest about HIV prevention, screening and testing in the run up to World AIDS Day.

3.4 Priority groups for intervention

It was clear from both the UK and French data that different respondents had different preferences as to where, how and when they would like to be tested, many older people for example, saying that they would rather access HIV testing in their GP surgery than a sexual health clinic. Interestingly, in France, where people are counselled and tested for HIV through their GPs, there was still a sense of stigma associated with the process including perceptions of judgementalism on the part of certain GPs. Concerns about privacy and confidentiality were higher in the UK, particularly in smaller GP surgeries or rural areas where patients might be overheard by people they know or who live in close proximity to them. Given the high proportion of BME or sub-Saharan Africans in the samples from both countries, and the higher than expected number of older heterosexual people in their 50s, 60s, 70s and even their 80s being diagnosed with HIV, it was suggested that interventions making use of voluntary agencies, church or other faith groups, social groups and peer support groups would be useful areas in which to locate or target interventions particularly for those older people engaging in new sexual relationships following divorce or the death of a lifelong sexual partner.

3.5 Improving knowledge

In addition to the public health and social media strategies recommended above, it was suggested that primary healthcare staff, and specifically GPs or *médecins généralistes* in both countries would benefit from formal updates on their knowledge and awareness of HIV, the indicators for recommending a test, the benefits of early diagnosis and treatment, and how to refer on to specialist services if necessary. This was reinforced by data from the French GP interviews where significant numbers said when asked that they had inadequate knowledge about risk factors, conditions which might be indicative of the virus, and recent developments in HIV treatment. Respondents in the UK and France said that they would like training in counselling and communication skills to better equip them when assessing risk, performing a test, or informing a patient about its outcome. French partners thought that the task of getting *médecins généralistes* to attend training sessions would be challenging, and any strategies there would need to be undertaken in consultation with professional bodies/agencies and with remuneration for any time spent accessing such training clearly identified.

4.0 Rationale for interventions implemented in phase 2 of the study

A partner meeting was held in Amiens in June 2014 to discuss the findings and implications of the phase 1 research report for the next phase of the study, during which a variety of possible interventions based on the data from phase 1 were discussed. These included the development of information technology systems which would automatically flag up patients who had more than one HIV related illness, other risk factors or clinical indicators on the patient's computerised medical record during consultations. However, approaches such as these are costly and time-consuming to develop and it was also noted that hospitals and primary health providers in the UK were using a variety of very different IT systems which would make such a wholesale approach difficult to develop and it was thought that those least likely to implement or use such a scheme would be those already performing less well than other colleagues. Other suggestions on the part of French partners included the development and use of 'flash-mobs' to raise awareness of the general public in a seemingly spontaneous and light hearted way. However, with so short an intervention period, interventions needed to be targeted and so far as possible, meet SMART criteria for project interventions or goals so that they could be completed and evaluated in the spring of 2015. They needed therefore to be:

- Specific
- Measurable
- Attainable
- Relevant, and
- Time-bound.

It was decided therefore that a public health, social media and awareness raising campaign should be targeted at members of the general public on both sides of the Channel in the run-up to World AIDS Day on December 1st 2014. Key to this strategy would be the placing of high profile posters and leaflets in key vantage points, particularly those associated with public transport or high footfall areas such as train and bus stations, supermarkets, shopping areas and high streets, including the use of mobile clinics with highly visible staff members and good written materials. It was also decided that a bespoke programme of continuing professional development sessions should be offered to GPs, hospital doctors and other relevant healthcare professionals on both side of the Channel since knowledge deficits, inertia and a lack of understanding had clearly been identified from both French and British interviews conducted in the first research phase (phase 1) of the project, together with embarrassment or reluctance to engage patients in conversations about sexual risk factors and behaviour. These would contain the same content on both sides of the Channel, but would be delivered in a way which was both professionally and culturally acceptable to professionals in each setting.

A high profile media campaign using all available media including print, radio and where possible, local television would also be launched to coincide with the public health and social media campaigns incorporating awareness raising amongst key stakeholders including politicians, commissioners of healthcare, and professional associations. Finally, it was agreed that the specific needs of migrant groups from high prevalence countries would also be addressed in Kent, Medway, Amiens and Creil by means of targeted interventions drawing upon traditional and/or socially or culturally relevant forms of health education, particularly those likely to encourage the attendance and participation of women in non-traditional 'healthcare' settings. For the reasons set out in section 4.1 below, it was decided that these need not be exactly the same in both countries, but should meet the specific needs of those in whom HIV is most prevalent on both sides of the Channel and clearly identifiable as an INTERREG IMPRESS Health 2 intervention, making use of all relevant partner logos, funding acknowledgements and other components of the programme together with a uniform approach to their implementation in line with the second 'SMART' goal namely, amenable to objective measurement and evaluation.

4.1 Reasons for local variation in the interventions

Whilst general demographic data and many of the results obtained in phase 1 of the study on both sides of the Channel were broadly similar, there were subtle but very important differences between the two countries. For example, whilst the number of people born outside the UK diagnosed late with HIV in Kent and Medway were almost the same as those born in the country (74 versus 71 patients), a far higher number of patients diagnosed late in Amiens and Creil were not born in France (50 versus 33 patients). Overall, slightly more British-born people were diagnosed with HIV in Kent and Medway, whereas in France the situation was reversed, with HIV being diagnosed in slightly more non-French born patients. Hence, 55.65% of the patients in the UK sample diagnosed with HIV during the five year period were born in the UK whereas the comparable figure in France was 48.5% as demonstrated in Table 4 below. There were also differences between the samples from each country in relation to likely routes of transmission. In France for example, only 35 patients or 21.2% of the sample identified themselves as men who have sex with men (MSM) compared to 88 patients or 37.2% of the sample in the UK. Transmission through heterosexual sexual contact was far higher in France at 119 patients or 72.1% of the sample versus 135 patients or 57.2% of the sample in the UK (O'Connor et al., 2014b). This was attributed to better health promotion and risk prevention work amongst MSMs and the larger numbers of people born outside France in the French sample, which contained many more people from areas of high prevalence such as sub-Saharan Africa in comparison to the UK sample. It was agreed therefore, that slight variation in the scope and delivery of interventions was essential due to demographic, cultural and semantic differences on both sides of the Channel which meant that there would be a lack of cultural or semantic equivalence when translating information from English to French for certain populations or vice versa.

Early discussions about the style of posters submitted by professional agencies to Kent County Council as part of a competitive tender to undertake the public health and social media campaign in Kent and Medway suggested that red or white text on a black background gave a strong and imposing message when conveying the importance of early HIV testing. Partners from AIDES in France however, felt that these reinforced stereotypically morbid or negative impressions of HIV in the minds of most French people so it was agreed that whilst the core message and wording should be as identical as semantically possible, the colours used on posters and publicity materials would be different on both sides of the Channel so long as the central message was clear and unambiguous, and relevant logos were included to demonstrate the uniform aims, objectives and funding of the project with French partners opting for light blue and green as demonstrated in Figure 3 below. This shows posters in situ in train stations on both sides of the Channel during the social media and public health campaign in November and December 2014. The same rationale was applied to other interventions including the design and colour of leaflets and information sheets for the public health campaign (Figure 4), and for the approach taken in relation to the health education activities targeted at BME groups in each country which, whilst being predominantly African in France, contained a sizeable minority of people with Caribbean heritage in the UK, together with others from Somalia, Pakistan and other parts of the Indian subcontinent which was less well represented in the French BME population. It also applied to the educational intervention for healthcare professionals where role expectations and cultures differed between the two countries.

Table 4: Place of birth of patients with an early/late diagnosis in France and the UK*

			CD4 count $\leq 350\text{mm}^3$	CD4 count $>350\text{mm}^3$	Number and percent
Kent and Medway	UK born	Number	71	62	133 (55.65%)
		Percentage	53.4%	46.6%	100.00%
	Rest of world	Number	74	32	106 (44.35%)
		Percentage	69.8%	30.2%	100.0%
	UK Totals	Number	145	94	239
Percentage		60.7%	39.3%	100.0%	
Amiens and Creil	French born	Number	33	47	80 (48.5%)
		Percentage	41.3%	58.7%	100.0%
	Rest of world	Number	50	35	85 (51.5%)
		Percentage	58.8%	41.2%	100.0%
	France Totals	Number	83	82	165
Percentage		50.3%	49.7%	100.0%	

*Whilst both place of birth and ethnicity data were collected in the UK arm of the study, it is illegal to identify people on the grounds of ethnicity alone in France, so data on the place of birth was used as a proxy in this case.

Figure 3: Posters for the social media and public health campaign in France and the UK



Figure 4: Public health and testing information in France and the UK



5.0 The mobile HIV testing roadshow campaign in Kent and Medway

In Kent and Medway, the conduct of the social media and public health campaign was led by Wendy Jeffreys, Public Health Specialist and Head of Sexual Health Commissioning at the Public Health Department of Kent County Council with the assistance of Dr Faiza Khan, Consultant in Public Health at West Kent Primary Care Trust. Formerly part of the National Health Service (NHS), responsibility for the delivery of public health services passed to local authority governments (such as Kent County Council and Medway Council) in April 2013 following implementation of the 2012 *NHS Health and Social Care Act*. The work was undertaken by 'METRO' which is a leading equality and diversity charity, providing health, community and youth services across London and the south-east of England and is also engaged in a number of national and international projects. They have a proven track record of reaching 'service-phobic' people including men who would otherwise not access mainstream health services, and therefore act as an important 'gateway' service provider, signposting and promoting such services and referring visitors to them where necessary. Under the terms of a contract won under competitive tendering to deliver the service, METRO provided 12 days of rapid HIV testing in 12 different locations across Kent and Medway during November 2014 as indicated in Table 5.

Working in areas of high 'footfall' (such as high streets or supermarket car parks), their staff talked to members of the general public about HIV risk and transmission, encouraging them to consider taking a test, and attempted to dispel many of the common myths about HIV and its treatment. They also distributed free condoms and literature promoting safer sexual health behaviour as well as referring people to mainstream health services (including contraception services) where necessary. In total, they conducted 198 rapid tests on members of the general public between the 4th and 28th November 2014, 65% of whom were male and 35% female. None of the tests proved positive, although many could be considered to be at high risk of infection as demonstrated in Table 6. Unsurprisingly, the majority of people seen by the METRO teams were white British (139 people or 70.20%), followed by other Caucasians, mainly from Europe (26 people or 13.13%). Only 17 black Africans (8.59% of the 198 people tested) came forward for a test with much smaller numbers from other ethnic groups as indicated in Table 7. The majority of people asking for a test were heterosexual (82.32%) followed by bisexuals (8.59%) and gay men (6.57%) as indicated in Table 8.

Within Kent and Medway, METRO have established working relationships with the Health Action Charity Organisation (HACO), which provides an extensive array of services to people of African origin infected with or otherwise affected by HIV in Kent and Medway. Both organisations make extensive use of culturally appropriate, peer-led activities which provide opportunity to be tested for HIV outside mainstream health or social services for those fearful of discrimination or who think themselves ineligible for free healthcare such as economic migrants who do not have leave to stay in the UK and are therefore afraid of deportation if coming to the attention of the authorities. On average, they conducted 23 tests per day, although the number and frequency of testing varied depending upon the setting. The highest number, 68 tests, were performed in Maidstone, the administrative centre of Kent within close range of London; although it should be noted that they visited the town on two separate occasions. Of this number, 38 people had never had an HIV test before, 6 were MSMs with a much higher proportion of people visiting the clinic coming from areas of high HIV prevalence, including Africa. Maidstone also had the highest number of people indicating that they had paid for sex in the past, including 1 male who claimed that he regularly had sex with HIV positive African women for payment in an effort for them to become pregnant so that they might stay in the UK. Another indicated that he frequently engaged in unprotected sexual intercourse with an HIV positive partner who had been admitted to hospital at the time of the test and was now concerned about his own level of risk.

Figure 5: Photos of project partners Brenda Mann, Steve O'Connor and Kent Community Health Foundation Trust staff at the 'Blue Bus' mobile HIV testing clinic in Canterbury leading up to World AIDS Day



Table 5: Locations and numbers of rapid tests conducted in November 2014

Area	Date	Venue	Number of tests
Kent	04/11/14	Dartford (High Street)	7
	07/11/14	Folkestone (Sandgate Road shopping precinct)	17
	08/11/14	Dover (Market Square)	12
	14/11/14	Ashford (various)	24
	15/11/14	Canterbury (Hypermarket near army barracks and also a train station)	7
	19/11/14	Sevenoaks (Sainsbury's supermarket, Otford Road)	1
	21/11/14	Maidstone (various)	46
	24/11/14	Maidstone (various)	22
	25/11/14	Margate (Cecil Square)	18
Medway	28/11/14	Chatham (Military Road)	44
Total			198

Table 6: HIV risk factors for those seeking an HIV test ranked from commonest to least common (n=198)

Risk Factor	Number	Percentage
2 or more partners in the last 12 months	80	40%
New partner in the last 3 months	61	31%
Sexual partner from outside the UK	57	29%
Gay or bisexual	34	17%
Has a partner with a known HIV risk factor on this list	22	11%
Received medical treatment outside the UK	22	11%
Intravenous drug user or the partner of an intravenous drug user	15	8%
Has bought or sold sex	13	6.5%
Known HIV positive partner	10	5%
Received blood transfusion	8	4%

Table 7: Ethnicity of those seeking an HIV test (n=198)

Ethnicity	Number	Percentage
White British	139	70.20%
White other	26	13.13%
Black African	17	8.59%
Asian (excluding Pakistan)	4	2.02%
Pakistani	3	1.52%
Caribbean	3	1.52%
Others - including 1 Traveller community or undisclosed.	6	3.03%
	198	100%

Table 8: Sexuality of those seeking an HIV test (n=198)

Sexuality	Number	Percentage
Heterosexual	163	82.32%
Bisexual	17	8.58%
Gay	13	6.57%
Remainder: 2 lesbian, 2 'other' and 1 non-disclosed.	5	2.53%
	198	100

5.1 Results of the two visits to Maidstone (Kent)

It was noted by staff in the mobile clinic that a large proportion of men over the age of 30 seen in Maidstone came to them after they had been drinking or could have alcohol smelt on them. Six intravenous drug users including two females also came forward for testing, the commonest cause of shared needle use being for steroid injections. One young female asked for testing because she thought her mother may be HIV positive and feared she may have contracted HIV from her, so she was provided with health information and offered a referral for follow up after the rapid test although she refused further medical intervention. A substantial number of Romanian, Polish, Afghan and Pakistani men with limited English skills also presented at the mobile clinic for testing in Maidstone. All had low levels of knowledge about where to get tested, and whether HIV testing services were free. This could be attributed to poor levels of English, but it was also implied that some were in the UK illegally which also posed barriers to accessing mainstream health services. These men often had different attitudes toward HIV testing than the UK born men spoken to, and in particular, they did not necessarily correlate HIV with being gay or otherwise engaged in sex with other men. Some initially refused to identify whether they were gay or bisexual although finally admitting to have had sex with other men previously although preferring to describe themselves as heterosexual on the documentation associated with the test. All of those visiting the mobile clinic in Maidstone were referred for a full STI screen with one person refusing this although asking to be screened specifically for chlamydia.

5.2 Results of the visit to Chatham (Medway)

The second highest number of tests (44) was performed in Chatham, the only town visited in Medway. On the basis of data collected in each site, visitors to the mobile testing clinic here presented with potentially lower risks and anecdotally at least, seemed to have better knowledge about HIV risk factors and the benefits of early testing than those seen elsewhere. In spite of this, 19 had never requested an HIV test before, 7 were MSMs, and one was a member of the traveller community. Four of those tested had engaged in unprotected sexual intercourse in recent weeks so were also referred for a later retest due to the seroconversion window and the danger that antibodies would not yet be identified by the rapid test conducted. One male was worried about the presence of blood in his semen so was referred back to his GP for further investigation. In addition, all of the clients visiting the mobile clinic in the area were referred for a full STI screen due to known risks for other sexually transmitted conditions.

5.3 Results of the visit to Ashford (Kent)

Ashford provided the next highest number (24) of requests for a rapid HIV test, 19 of which had not been tested for HIV previously and another 4 not knowing whether they had been tested before or within the last 5 years. One of the males tested said that he shared needles with others for the purpose of injecting steroids, one bisexual male appeared to have poor knowledge of HIV risk factors although on further questioning, he was deemed to be at low risk of infection, and one MSM presented with moderate risk factors but a satisfactory knowledge base and ensured that he was tested regularly. This was followed by Margate, a seaside resort town in East Kent, in which 18 tests were performed at the mobile clinic. Six identified themselves as coming from the LGBT community, and 12 of those coming to the mobile clinic had never been tested before. This included 1 high risk MSM who said that he had been engaging in frequent unprotected sex for over 10 years without seeking an HIV test. Another MSM had been involved in unprotected anal intercourse with several partners known to be HIV positive, but none of those tested on the day were diagnosed as being HIV positive. As with Maidstone, it was noted that some of those attending the clinic had been drinking on the day of their test, and general health screening indicated that there was a high prevalence of drug and mental health issues which may be contributing factors to HIV risk. Margate, like some other seaside towns in east Kent, has a reputation for being a repository town for a higher than average number of young, unemployed benefit claimants coming to the town to take advantage of the relatively plentiful and cheap hostel or hotel

accommodation in the resort, and as with all other centres, visitors to the clinic were all referred as well for a general STI screen.

5.4 Results of the visits to Folkestone and Dover (Kent)

Folkestone and Dover, two other towns in east Kent, had the next highest number of tests with 17 and 12 tests respectively. In Folkestone, 12 visitors had not been tested previously whilst the number in Dover was 8. In Folkestone, 8 people said that they had sexual partners from overseas, mostly from countries of high HIV prevalence. Two said that they already knew that they were HIV positive but were pleased to see that opportunities for rapid testing were being made available locally. The team encountered some negative and stigmatising reactions from passers-by in the town, including some questioning why they might feel themselves in need of an HIV test and why it might be of relevance in the town which is interesting given its fairly recent history (like Dover) as an important seaport on the east Kent coast. In addition, one group of young men approached the mobile clinic for testing but were visibly under the influence of narcotics and were therefore not competent to make an informed decision about consenting for a test. They were instead provided with free condoms and referred for a full sexual health screen at a later date when more capable to do so, although it is impossible to know whether they attended for these or not. Likewise, 8 people in the busy port of Dover had not tested for HIV before, and 4 of them had sexual partners from abroad.

Three of the visitors to the mobile clinic were living in assisted accommodation, one of whom had recently ended a relationship with a partner and was seeking reassurance from the test whilst another came to the mobile clinic with a carer although he was deemed to be at low risk for infection. One person asking for the test said that he was an intravenous drug user but gratifyingly, he knew where he could obtain free clean needles. Overall, the team felt that the people visiting the clinic had satisfactory knowledge about HIV risk and the benefits of early testing although many appeared to be on low incomes and were appreciative of free resources such as condoms.

5.5 Results of the visit to Dartford (Kent)

A visit to Dartford in Gravesham elicited 7 people coming forward for HIV testing, many of whom in common with other areas, had not had an HIV test before. Whilst the majority were low risk, the low levels of knowledge and understanding about HIV risk were a concern, 2 younger white British males demonstrating very low levels of knowledge about sexual health, the location of sexual health clinics, or the advantages of early testing. In addition, 1 African MSM at extremely high risk of becoming infected displayed very little sexual health knowledge at all. This was commensurate with the rather lower levels of educational attainment in all of the young males visiting the mobile clinic and one female intravenous drug user who was known to have hepatitis C but exhibited extremely low levels of knowledge or understanding about the condition and its management as well as a poor knowledge of HIV risk and the benefits of testing regularly. All were referred for full sexual health screening after their HIV test. A planned visit to another area of Gravesham had to be cancelled on the 13th November due to a mechanical failure with the bus used for the mobile clinic which is regrettable.

5.6 Results of the visit to Canterbury (Kent)

Canterbury also provided opportunity for 7 HIV tests, 4 during the visit to a busy Asda hypermarket close to an army barracks on the edge of the city, and 3 whilst it was parked outside the main train station in Canterbury in a similar area of high footfall. None of them, including 2 very young low risk females had been tested for HIV before, and compared to most other areas, those presenting for testing tended to be low or very low risk. One of the females was an intravenous drug user. She was in addition to the HIV test referred for a full STI screen along with all of the others and also offered counselling as to her extremely high level of hepatitis C risk. Three MSMs including one high risk bisexual man did visit the clinic, but all three were already being tested on a regular basis in line with current guidance which was

encouraging. Overall, visitors to the two site visits on the same day in Canterbury presented a low risk, but it is regrettable that the City council would not allow the clinic to be stationed in the centre of the city itself which has a much higher level of footfall including many hundreds of students and international visitors each day as this would undoubtedly have elicited many other tests and may have brought the team into contact with members of the public who were at higher levels of risk. It was encouraging though that at least one of those visiting the clinic (a regular blood donor) had sought out the testing opportunity locally because of hearing about the project and the HIV testing roadshow on the radio.

5.7 Results of the visit to Sevenoaks (Kent)

As with the patient and healthcare professional interview data reported in phase 1 of the study (O'Connor et al., 2014a), it was apparent that most of the people who spoke to the team in Sevenoaks, a prosperous commuter town in the west of Kent, did not consider HIV to be a problem for them or their town. This was strangely reminiscent of the quote provided by one Sevenoaks GP during one of the phase 1 interviews who confidently asserted that, *'there is no HIV in Sevenoaks'* when interviewed earlier in the project. Likewise, METRO staff working in the mobile clinic noted that visitors in the town tended to imply that HIV was not an 'issue for them' and thought this 'naïve', particularly given the town's proximity and good transport links to London, which has one of the highest prevalences of HIV in the UK. HIV prevalence in the town is indeed lower than many other areas at 0.64/1,000 according to the 2009 West Kent audit, but still not negligible. Only 1 low risk MSM came forward for testing during the visit but he was already on a regular testing regime so had no need of a test. Most of those visiting the clinic believed it was there to collect money for HIV patients in other countries, many offering to make donations to the METRO team when visiting.

5.8 Reasons for people attending the mobile HIV testing clinic

The HIV testing 'roadshow' conducted by METRO was supported by a public health and social media HIV awareness campaign organised by the Wendy Jeffreys at Kent County Council and delivered by the social marketing company the Big Plan Group. The campaign activities consisted primarily of a designated campaign website hosted on Kent County Council's public health webpages, a campaign Facebook page, a Twitter account, hashtag, and direct mailing strategy, together with the distribution of posters and flyers in multiple sites throughout the region. Local radio and television channels were also approached and these provided considerable airtime to the campaign in the month leading to World AIDS Day on the 1st December 2014. The campaign was predicated around the simple question 'are you at risk?', and in order to evaluate the success of this strategy, METRO staff collected data from each of the visitors to the clinic about the reasons for coming to the clinic. At least 10 had accessed the campaign webpages to identify where they could obtain a test, and 7 visited as a result of hearing one of the many radio broadcasts featuring the campaign including 2 BME clients (1 Chinese and 1 Black African). At least 5 people came as a result of seeing one of the many posters advertising the campaign in the region, including two more BME clients. Others could not recall hearing about the campaign, but may have been influenced subliminally by posters, radio interviews, advertisements, or other social media they had seen or heard. Moreover, 41 people came to the mobile clinic at the suggestion of friends, colleagues, family members or 'others' who likewise, may have been influenced by some of the many campaign messages during this period.

Figure 6: Photos of project team members Tom Molloy and Mun-Yee Tung undertaking a 'mystery shopper' quality assurance exercise on another of the campaign's 'Blue Buses' in Cecil Square, Margate (Kent) on the 25th November 2014



5.9 Evaluating the success of the mobile HIV testing campaign in Kent and Medway

METRO’s claim that they are capable of reaching ‘service-phobic’ people including young males who would not otherwise access mainstream services for screening or preventative healthcare is borne out by the data, 65% of those attending the clinic being males, 34% females and 1% transsexual or ‘other’ (1 person each), many of whom had never asked for an HIV test before in spite of having low to moderate, and sometimes high risk factors. METRO’s own outreach staff undoubtedly played a significant role in the success of the campaign with at least 123 people visiting the mobile clinic (still known as the ‘Blue Bus’ although in fact, the latest is white in colour), as a result of being spoken to by one of their own outreach workers in the vicinity of the mobile clinic. Many came as a result of being given one of the special invitation cards printed for the campaign (as illustrated in Figure 4 above). The vast majority, 163 (82.3%) of all those tested were white British, heterosexual and single but sexually active (140 or 70.7%). Eighty (30%) had 2 or more sexual partners in the last 12 months. Sixteen (8.1%) were worried about the HIV status of a former partner or partners, 10 (5.0%) were worried about a specific risk they had recently taken, and the same number knew their partners were HIV positive.

A surprisingly high number (57 or 29%) of those visiting the clinic had a current or former partner born overseas, whilst 13 (11%) had bought or sold sex in the past. In terms of representativeness, it was unfortunate that another of the Medway towns could not be visited due to mechanical failure as Medway accounts for only 22% of the tests undertaken during the campaign (Figure 7), but this was beyond their control. Likewise, in relation to age, the campaign attracted many more young than old people, 74% of visitors being less than 40. This is less representative of the ‘at risk’ population indicated by clinical data collected for phase 1 of the study in which 40 was the mean age (range 19-81) of diagnosis in the clinical data during in the five year period reviewed (O’Connor et al., 2014a), or centrally obtained figures for Picardy in which the 40 to 49 year old cohort are most likely to be diagnosed with HIV (32.0% of all diagnoses). Moreover, UK clinical data from the phase 1 study showed a distinctive bi-modal pattern with peaks for the first HIV test at 38 and again, 43 years of age, a pattern very different from that in the METRO data in Figure 8 below. Hence, whilst the mobile clinic succeeded in attracting younger people for a rapid test and additional sexual health needs or concerns, it does not appear to have been as successful with older people for whom high visibility approaches such as this may be less appropriate.

Figure 7: Percentage of people tested in each centre during the mobile HIV testing campaign (n=198)

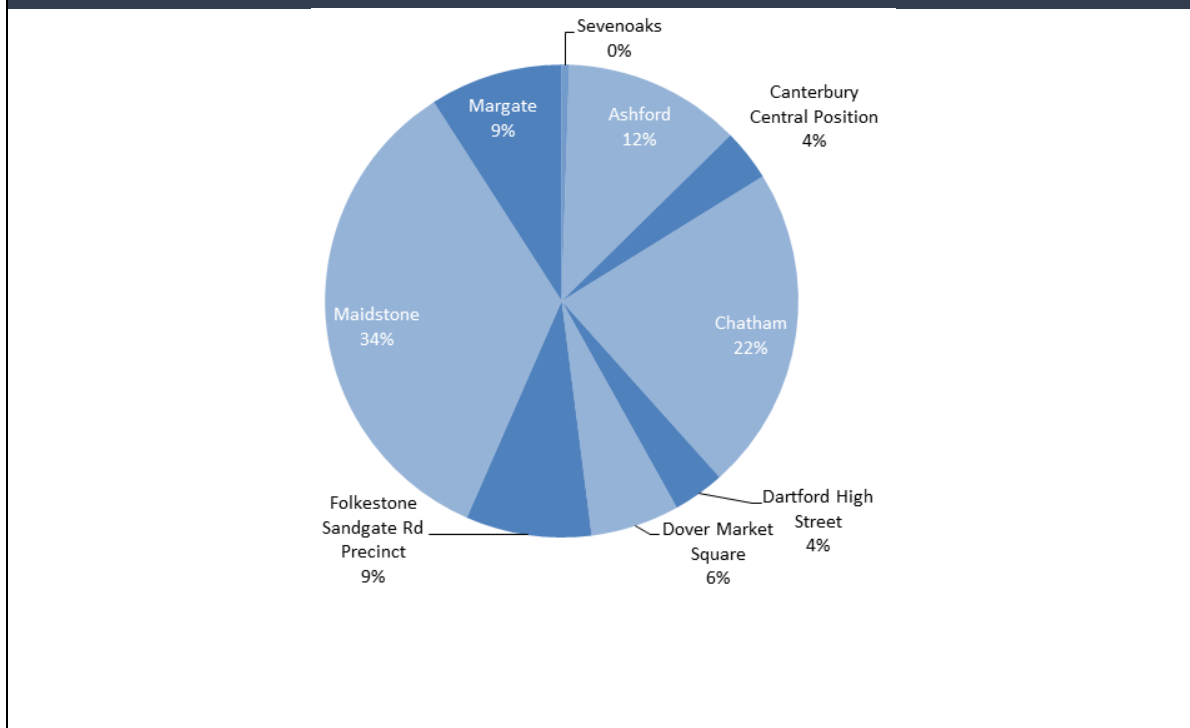
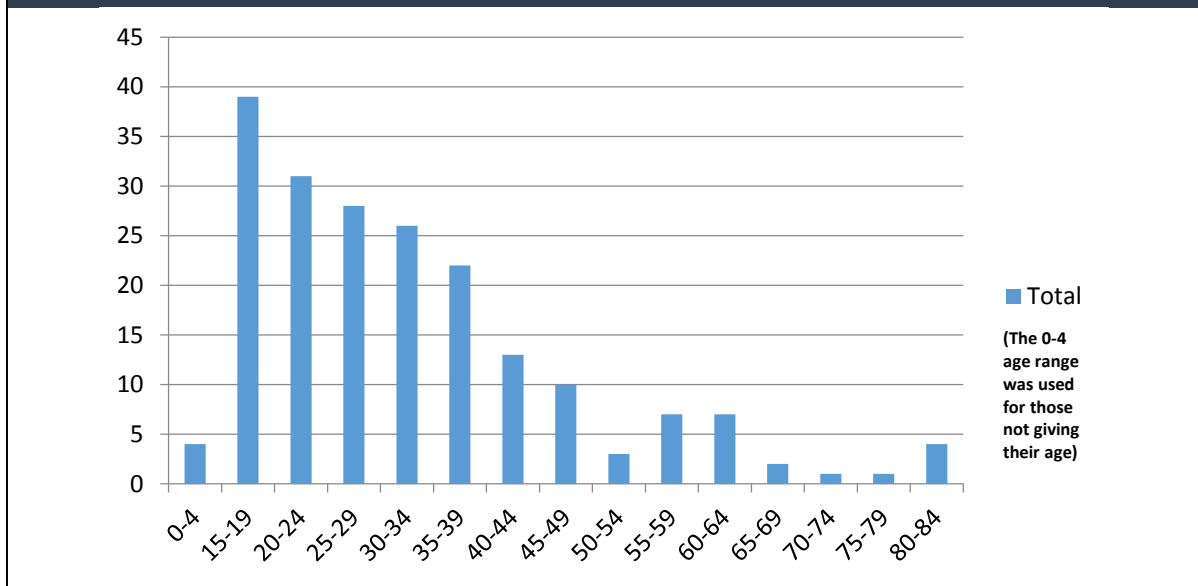


Figure 8: Age distribution of those tested during the METRO mobile HIV testing campaign (n=198)



5.10 Impact of a local outreach campaign by Maidstone and Tunbridge Wells NHS Trust

The ‘Blue Bus’ had been used as a mobile sexual health and mobile HIV testing clinic in areas of high footfall during National HIV testing week in the run-up to World AIDS Day previously, particularly in Maidstone and Tunbridge Wells and areas covered by Kent Community Health NHS Foundation Trust. In addition to the roadshow conducted by METRO as part of the project, Maidstone and Tunbridge Wells NHS Trust’s own outreach campaign resulted in a significantly higher number of tests in 2014 than the previous year, benefitting perhaps from some of the interest and publicity generated by the high profile social media and public health campaign organised for the project as a whole. For example, the number of point of care tests carried out by the outreach team from the GUM clinic at Maidstone and Tunbridge Wells NHS Trust during National HIV Testing Week from the 24th to the 29th November 2014 was double that for the same period in 2013 (249 point of care tests versus 121) whilst the number of HIV serology tests increased from 92 to 116 in the same period. These tests are in addition to those undertaken in the Maidstone area by the METRO team.

5.11 The mobile HIV testing campaign in Picardy

It was initially intended to organise a similar HIV testing roadshow in Picardy (Amiens and Creil), but this did not prove possible due to a lack of medically trained staff available to undertake the tests in an outreach setting and lack of a suitable vehicle. The decision was made by the French team therefore, to focus on promoting HIV testing, particularly amongst ethnic and sexual minorities in the region, with staff from AIDES conducting some of the pre-test counselling and rapid tests at their centre in Amiens, and IREPS Picardie (Instance Régionale d’Education et de Promotion de la Santé Picardie) taking responsibility for translating the materials used in the UK public health and social media campaign, designing and distributing posters and leaflets in areas of high footfall (such as bus and railway stations) as well as on a number of buses. At least 346 people contacted AIDES as a result of seeing a poster, and others were also directed from a designated site ‘www.faitesletest.hiv’ to the AIDES centre in Amiens, the Centre de Prévention des Maladies Transmissibles in Amiens, and the Groupe Hospitalier Public du Sud de l’Oise in Creil, as well as sites in Compiègne, Abbeville and Beauvais (although outside the confines of the more narrowly defined study area), with links to the AIDES Facebook and Twitter pages.

Figure 9: Photos of bus and bus-stop displaying the HIV testing poster in the Amiens and Creil areas of Picardy (France)



6.0 The social media campaign

As intimated above, the HIV testing campaigns during the autumn of 2014 were supported by a social media campaign in both countries to raise awareness of the project, its outcomes, and to encourage those who might be at risk of having contracted HIV to take a test. In France, this consisted of a designated Facebook page (www.faitesletest.hiv) led by AIDES Nord Pas de Calais/Picardie, and a designated webpage developed in conjunction with another HIV charity Séronet. This had links to AIDES Twitter and Facebook pages, in addition to publications in the health and local print media. In the UK, the 'Are you at risk?' website campaign was managed by the Big Plan Group under the direction of Wendy Jeffreys at Kent County Council and similarly consisted of designated webpages, Facebook and Twitter accounts. The Big Plan Group also developed a media strategy to raise the profile of the project in general and the HIV testing campaign in particular in the print, radio and TV media.

6.1 IMPRESS partner webpages

Google analytics installed for the campaign webpages developed for Kent County Council by the Big Plan Group during the public health and social media campaign prior to World AIDS Day (1st November to 30th November) 2014, demonstrate that there were 4,012 page views in 1,676 individual sessions accessed by visitors to the site. Of these, 809 (48.27%) were from a mobile telephone, 659 (39.32%) were from a desktop PC, and 208 (12.41%) were from a tablet device. Almost three-quarters of these visits, namely 1,238 or 73.87%, were from people who had not accessed information from Kent County Council's website before. These users browsed on average, 2.39 pages per session with an average duration time of 2 minutes per visit with 189 (11.28%) clicking on the 'Get tested' button for more information about testing services and following links from there to completion of the search. UK ISP addresses accounted for 1,538 (91.77%) of the visits to the site and inexplicably, 42 (2.51%) came from India, 35 (2.51%) from the USA and 18 (1.07%) came from Spain. There were also a small number of visitors from France, Australia, Ireland, the Netherlands, and Sweden, although it is not known how or why these users came to access the site; although publication of the phase 1 report did make both national and international headlines, particularly in respect of the online gay community website 'Pink News' (<http://www.pinknews.co.uk/home>) which is read internationally, together with local radio and the local prime-time BBC television news programme 'BBC South East Today' which led to the report also being mentioned in a relatively obscure part of the main BBC website.

Of the 347 people accessing the site from other internet sites, 247 (71.18%) came via KentOnline (<http://www.kentonline.co.uk>), 43 (12.3%) came from KMFM (Kent and Medway radio) which gave the campaign a great deal of airtime in the form of live phone in discussions and pre-recorded interviews with project members (<http://www.kmfm.co.uk>); 41 (11.82%) came from other parts of Kent County Council's own website, 10 (2.88%) from their media hub (<http://www.kccmediahub.net>), and 5 (1.44%) from the website of the regional newspaper Canterbury Times (<http://www.canterburytimes.co.uk>). Of the pages most accessed by clicking a new button, those designated 'Your Clinic' (525 clicks or 16.15% of the 4,012 page views), 'Blue Bus' (332 clicks or 10%) and 'HIV Facts' (254 or 7.48%) were the most popular, with additional downloads from those pages of further information such as maps or contact details. The details of 31 clinics and other places where an HIV test could be obtained were accessed during the month of the social media campaign; accounting for 206 individual downloads of information about these centres. These ranged from 25 downloads of details for Vicarage Lane Clinic in Ashford, 18 for The Gate clinic in Canterbury, and 15 for Dover Health Centre, right the way down to single figures for New Romney Health Centre and Sheppey Community Hospital – both of them in relatively rural areas with many others in between.

The designated webpages operated by Séronet on behalf of AIDES Nord Pas de Calais/Picardie for the IMPRESS project in France were accessed by visitors with 1,416 unique ISP addresses during the campaign although a further breakdown of these figures is not available at the time of writing the report, but this is a favourable comparison with the number of UK ISP users of the 'Are you at risk?' website which had 1,676 people access the site during the campaign.

6.2 IMPRESS partner Facebook pages

In the month leading up to World AIDS Day on 1st December 2014, the UK campaign website received 1,254 unique visitors who viewed a total of 4,012 pages. Almost three quarters (73.9%) had never accessed Kent County Council's public health pages before whilst 26.1% were returning visitors. One fifth (21.5%) arrived at the pages as a result of a direct search for the campaign using one of the keywords associated with the project and the 'Are you at risk' campaign. Slightly fewer (20.7%) arrived after being referred by another site, 23.1% were through paid searches, 16.6% were organic searches, 16.6% were accessed via other social media links such as Facebook (146 views), Twitter (44 views) or StumbleUpon (2 views). Interestingly, 209 views were the result of links from the online local news company KentOnline, 37 came from the KMFM radio station website, 26 came from other of Kent County Council's webpages, 5 from one of the region's local free newspaper websites and 8 from Kent County Council's media hub.

The 'Are you are risk?' Facebook pages set up for the project received 159 'likes'. Advertising statistics show that advertising on the site brought in 158 website links and a reach of 18,335 people. Of those 'liking' the page, 47% were women and 53% men. As might be expected, most of the 'Facebook fans' were in the UK (152) but 2 were from the USA with 1 each from Italy, Pakistan, Philippines, Jamaica and India. The mother-tongue of the 'fans' was predominantly English (148) but 3 profiles belonged to Portuguese speakers with 1 each for Russian, Romanian, Spanish, Polish, Italian, Arab and Greek. Several news items were posted each day to raise interest in the site, including the locations of the mobile testing centres, links from other NHS and Public Health England news items, and links to media mention of the campaign on the TV and radio. The Facebook pages remained quite active with regular 'Comments', 'Likes' and 'Shares' from the site. In France, 408 people viewed the AIDES Nord Pas de Calais/Picardie Facebook page as a result of finding the site from the designated website www.faitesletest.hiv or the poster campaign already discussed.

6.3 IMPRESS partner Twitter accounts

The 'Are you are risk?' Twitter account in Kent and Medway gained 248 'Followers' in response to a total of 84 'Tweets' during the campaign. Peak times for reading and 'Retweeting' comments were predictably those during peak breakfast, lunchtime and early to late evening, mainly between 6 and 8am, 11am, 2-4pm and 8-11pm in the evening. Key amongst those following the progress of the campaign were: the HIV advisory service *Bloomsbury Network*, Tunbridge Wells Council, Public Health England Kent, Sussex and Surrey, NHS Medway Clinical Commissioning Group, NHS Kent Community Health Trust, Maidstone and Tunbridge Wells Hospitals, Deutsche AIDS Life, Dublin AIDS Alliance, News on Scotland, HIVGuidelines.org, HIV Advocates, ANAC Nurses, Saving Lives UK, the BBC health correspondent Mark Norman, Opt-in for life, Beyond Positive Magazine, Better to Know, Mayfair Nurses, The Ribbon Fund, The Gay UK Magazine, Positive Life, TAG HIV Service and Metro Charity amongst others. The winning advertisements in terms of clicks and conversions were from Free HIV Check, Same Day HIV Check, Discrete HIV Check, 60 Second HIV Test, It's Better to Know, and Get Tested. The conversion rate (to the 'Get tested' information button or the Sexual Health Clinic Map and contact details was 53.49% with advertisements containing the keywords 'HIV' and 'Test' leading to most of these conversions. There was less Twitter traffic in France than the UK where it is less commonly used – certainly amongst BME communities which are the main focus of concern in relation to late testing for HIV.

Figure 10: Sample pages from the French and UK IMPRESS social media campaign designated websites

WWW.FAITESLETEST.HIV

LE DÉPISTAGE LES CENTRES LA CARTE #TESTHIV

C'EST BIEN MIEUX DE CONNAITRE SON STATUT

VIH

FAITES LE TEST

WWW.FAITESLETEST.HIV

LE DÉPISTAGE LES CENTRES LA CARTE #TESTHIV

LES CENTRES DE DÉPISTAGE

<p>AIDES</p> <p>Sans rendez-vous, le mercredi de 17h à 19h, sur rendez-vous, de lundi au vendredi.</p> <p>9 AIDES 10 rue de la Dodone 80000 AMIENS</p> <p>03 22 91 92 09 @amiensaides.org</p>	<p>Centre de Dépistage Anonyme et Gratuit</p> <p>Sans rendez-vous, le samedi de 14h à 17h.</p> <p>9 CDAG 10 rue Félix Solaime 80100 AMIENSVILLE</p> <p>03 22 25 44 90</p>	<p>Office Privé d'Hygiène Sociale</p> <p>Sans rendez-vous, lundi 12h30 - 14h15 / 16h30 - 18h30, mercredi 16h 17h30, jeudi 12h - 14h.</p> <p>9 OPHS 91 rue Saint Pierre 50000 BRAYLEZ</p> <p>03 44 06 53 52</p>
<p>Centre de Prévention des Maladies Transmissibles</p> <p>Sans rendez-vous, lundi 10h - 12h30 / 14h30 - 18h, mardi et jeudi 9h - 12h / 14h - 17h, mercredi de 17h, vendredi de 10h.</p> <p>9 CPMT 16 rue Jean Fauriol 80000 AMIENS</p> <p>03 22 66 75 10</p>	<p>Groupe Hospitalier Public du Sud de l'Oise</p> <p>Sur rendez-vous, lundi 14h - 16h15, mardi 13h30 - 15h, jeudi 13h - 15h30, vendredi 14h30 - 16h30.</p> <p>9 GHPSO Boulevard Lavoisier 60100 CREIL</p> <p>03 44 91 05 15</p>	<p>Centre Hospitalier de Compiègne</p> <p>Sans rendez-vous, mardi et mercredi 14h - 17h, mercredi 14h - 20h.</p> <p>9 CHC 3 avenue Henri Adam 60200 COMPIÈGNE</p> <p>03 44 23 03 12</p>

WWW.FAITESLETEST.HIV

LE DÉPISTAGE LES CENTRES LA CARTE #TESTHIV

Map showing testing centers across France with red location pins.

Logos: i-reps, Kent County Council, AIDES, CHU AMIENS PICARDIE, NHS

Kent County Council

Menu Search kent.gov.uk...

Home > Social care and health > Health >

HIV and AIDS

"If you put yourself at risk, you put your partners at risk too."

GO TO **AREYOUATRISK.CLINIC** TO FIND OUT HOW YOU CAN GET TESTED. #GETHIVTESTED

NHS Kent County Council

There are over 1000 people in Kent and Medway diagnosed with HIV and many other people who are undiagnosed.

People in Kent and Medway are being encouraged to get tested for HIV. The **Are You At Risk website** provides facts about HIV, information about HIV symptoms and tells you where and how you can get tested.

If you are worried you may have HIV, you should speak to your doctor.

The NHS website gives you full information about what HIV is and how it may affect you. You can also find a local sexual health clinic or Terrence Higgins Trust clinic which will test you for HIV.

More information

Make sure you read the facts and find out where to get HIV tested.

[Find out if you are at risk >](#)

AREYOUATRISK.CLINIC #GETHIVTESTED

HOME HIV FACTS YOUR SEXUAL HEALTH CLINIC NEWS PARTNERS

DO YOU KNOW YOUR HIV STATUS

GETHIVTESTED

HIV FACTS

There are over 1000 people in Kent and Medway diagnosed with HIV and many other people who are undiagnosed. Have you ever put yourself at risk either by having unprotected sex or sharing drug injecting equipment? In which case we strongly advise you #GetHIVTested. It's better to know your HIV status so you can receive treatment and gain a better quality of life.

Here we aim to give you facts about HIV, tell you about HIV symptoms, guide you where and how you can get tested too. We would like to encourage people in Kent and Medway to #GetHIVTested. Visit your local Sexual Health Clinic.

Now is the time to act and discover your HIV status!

HIV is not obvious but putting yourself at risk is

AREYOUATRISK.CLINIC #GETHIVTESTED

HOME HIV FACTS YOUR SEXUAL HEALTH CLINIC NEWS PARTNERS

FIND YOUR SEXUAL HEALTH CLINIC

It's better to know your HIV and sexual health status. Your local Contraception and Sexual Health (CASH) Clinic and Contraception and Sexual Health (CSH) Clinic offers convenient, free and confidential services. If you're worried that you might have a sexually transmitted infection (STI), then visit a Sexual Health Clinic. Our clinics will help you get the best support with a range of sexual health concerns and symptoms. Infection? We've got it all sorted!

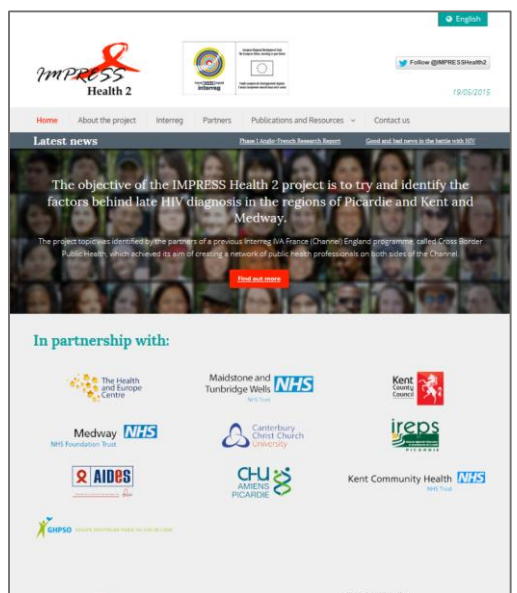
ENTER YOUR POSTCODE

SEARCH

Map showing testing centers in Kent and Medway with red location pins.

Logos: i-reps, Kent County Council, AIDES, CHU AMIENS PICARDIE, NHS

Figure 11: Sample pages from the Kent and Medway Facebook page, IREPS coverage of the IMPRESS Health 2 closing conference in Canterbury 2015, information about the project on AIDES website and the Health & Europe Centre Home Page identifying each of the project partners



6.4 Radio campaigns run by the project partners

The online social media campaign conducted by all partners during the intervention phase of the project illustrated in Figures 10 and 11 above was supported by an extensive radio, print and where possible, TV media campaign. In Kent and Medway, this was facilitated by Kent County Council with the Big Plan Group, although individual project partners were also engaged in providing information and speakers for the radio, TV and print media campaign. The Big Plan Group arranged extensive coverage of the project with KMFM (Kent and Medway local radio) including 4 one-hour 'surgery' features where guest speakers would discuss issues around HIV and respond to listener questions. A thirty-second introductory advertisement or 'jingle' for the campaign highlighting the project and promoting the benefits of early HIV testing was produced, and this was aired 18 times between the hours of 06.00 hrs and 23.45 every day from Sunday 1st November to Sunday 9th November. In the following week, 9 thirty-second promotional jingles were aired per day from 06.00 hrs to 19.00 hrs Monday to Thursday and 4 one hour programmes and an additional 9 30 second 'jingles' between 21.00 hrs and 22.00 hrs Tuesday to Friday that week, with 18 jungles played on Saturday and Sunday between 06.00 hrs and 23.45 hrs. In the week commencing 17th November in the run-up to National HIV Testing Week, additional thirty-second jingles were played 16 times per day between 06.00 hrs and 23.45 hrs on Monday and Tuesday. Each of the one-hour programmes was repeated again in a 'listen again' slot in the station's programming from 21.00 hrs to 22.00 hrs from Monday 17th to Thursday 25th November 2014. Jingles were also used on another radio station 'HeartFM' a maximum of 10 times per day and a minimum of 9 times a day between Saturday the 1st November and Wednesday 26th November 2014. They also worked with the news teams in each station to ensure that coverage of the project and the findings of the phase 1 UK and joint Anglo-French IMPRESS reports (O'Connor et al., 2014a, 2014b) were reported on the news bulletins. News of the different programmes was also tweeted to listeners/followers on the KMFM Twitter account, many of which were retweeted by users. On the basis of the known KMFM radio audience and frequency of the jingles/programmes, it is estimated that mention of the project would have been heard 3.571 million times during the promotion period.

6.5 Print media campaigns run by the project partners

In Kent and Medway, the Big Plan Group worked with local newspaper group 'KM Newsgroup' to ensure that news of the project and the HIV testing campaign were covered by all of the region's local newspapers including *The Canterbury Times*, *The Folkestone and Hythe Express*, *The Sheerness Times Guardian*, *Sittingbourne News Extra*, *Thanet Extra*, *The Kentish Gazette*, *The Kentish Express*, *The East Kent Mercury*, *The Gravesend and Dartford Messenger*, *The Kent Messenger* and *The Medway Messenger* between the 3rd of November 2014 and the 21st November 2014, including online versions of the newspapers and their associated Facebook Pages. This also included extensive coverage of the campaign on their 'KentOnline' portal (<http://www.kentonline.co.uk>). A quarter-page, full colour advert in the black, white and red colours of the 'Are you at risk?' campaign was printed in each of the papers for three weeks from November 3rd 2014 with a combined average circulation of 128,980 copies and an estimated readership of 361,144. The project also came to the attention of an online newspaper for the LGBTQi community, the *Pink News*, which resulted in coverage of the phase 1 project findings and testing campaign being seen as far afield as Canada, the United States and Australia in addition to UK; one story featuring the headline findings on the 23rd November 2014 being 'shared' many times by *Pink News* readers on their Facebook pages. Details were also picked up and covered in the online resource for healthcare professionals *MedicalXpress* (<http://medicalxpress.com>) as well as the independent television channel news programme *Meridian Tonight* on the 25th November 2015 and the BBC news programme, *South East Today* on the 20th of November 2014 with subsequent coverage on their Facebook pages (Figure 12).

In Picardy, project partners from IREPS, AIDES and the Centre Hospitalier Universitaire Amiens were involved in the production and publication of numerous print articles for a wide variety of journals and print media including papers for a lay audience in the local newspaper *La Vie en Métropole*, the health journal *Cahier Spécial Santé*, and a journal for public health specialists, *IEPS Infos*. Press releases were also sent out to other print and broadcasting media outlining the findings of the phase 1 report and publicising the HIV testing campaign and websites on which locations and sites for testing could be found (Figure 13 above).

6.6 Political action

In collaboration with the social media and public health/HIV testing campaign undertaken on both sides of the Channel, over 120 copies of the English language phase 1 report were sent by project partners at Canterbury Christ Church University to each of the 19 members of parliament (MPs) and the member of the European Parliament representing Kent and Medway, as well as to the Chairperson of each local authority, strategic health authority, and clinical (i.e. health service) commissioning groups in the region. Copies were also sent to each of the local broadcasters (print, radio and television), various government departments including the Secretary of State for Health, the Chief Nursing and Chief Medical Officers, local and national HIV charities and advocacy services such as HACO, Public Health England and professional groups such as the Royal College of Nursing, the Royal College of Surgeon's, the Royal College of GPs and others such as the General Medical Council, Public Health England, Health Education England etc. with a letter proposing that stronger actions be taken to ensure that current gaps in the education and training of healthcare professionals be addressed within prequalifying training programmes and HIV testing actively promoted, and advocating for a rolling programme of public health advertisements/campaigns in the national media. The local MEP for Kent and Medway made arrangements to visit the mobile clinic during the campaign but the meeting had to be cancelled due to a local Parliamentary bye-election in the area (Rochester and Strood) which was taking place the same week. Copies of the report were also sent to HIV charities and lobby groups locally and nationally, as well as to the participating centres themselves for distribution to patients and stakeholders such as hospital management boards, chief executives, local commissioners of health services, GP practices and educational providers. Copies were also sent to local authorities responsible for social care and public health services.

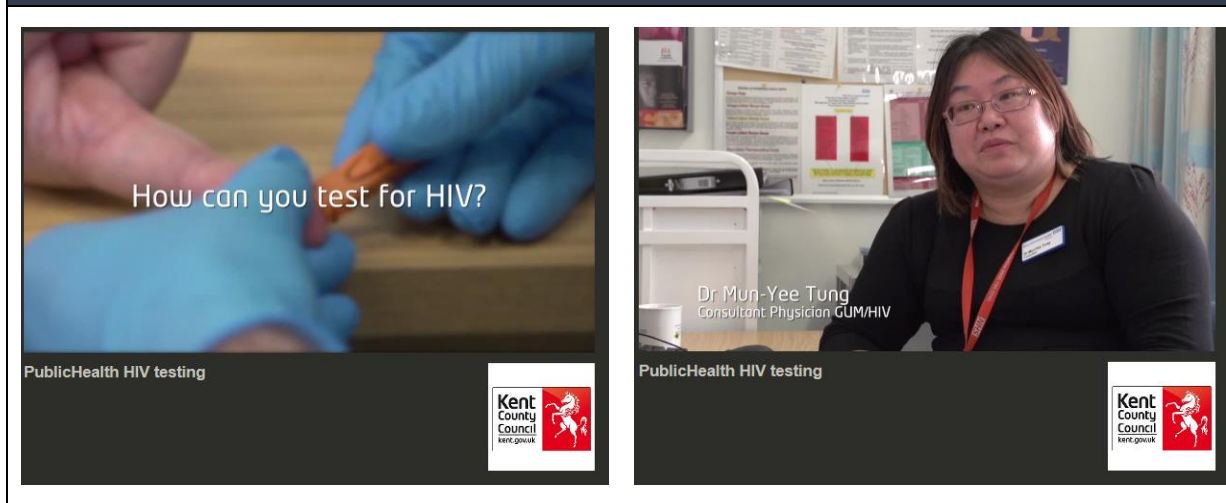
7.0 Education and awareness raising amongst healthcare professionals

One of the main factors associated with poor uptake of HIV testing and continued late presentation identified in phase 1 of the study was the lack of knowledge and/or priority given to this by GPs and other healthcare professionals including those in acute (secondary) care environments. The need for improved knowledge and sensitisation to the needs of those who might fear themselves to have been exposed to the virus was clearly identified as a priority in both the French and British data from phase 1 of the study and this was also borne out by the literature. In addition to the social media, public health and HIV testing campaigns therefore, it was agreed that lead HIV clinicians from each project partner would develop and deliver an educational update for GPs and other healthcare professionals within the remit of a continuing professional development session. In the UK, the content for these sessions was developed by Dr Mun-Yee Tung (Kent Community Health NHS Foundation Trust), Dr Lesley Navaratne (Maidstone and Tunbridge Wells NHS Trust), and Dr Rajesh Hembrom (Medway NHS Foundation Trust) who also provided the training. In Picardy these were designed by Professor Jean-Luc Schmit from the Centre Hospitalier Universitaire Amiens, and Dr Philippe Lorenzo in relation to public health content from IREPS. Sessions were developed collaboratively in order to fully address the needs of specific client groups, but all contained information on the following:

- HIV demographics, prevalence and risk factors
- Clinical indicators for HIV
- Information to help dispel some of the 'myths' around HIV/testing
- Update on the types of HIV test available
- Case study presentations of 'missed' opportunities to undertake an HIV test
- Information about onward referral and other HIV services

In the UK, a short 6 minute, 42 second video was also made for healthcare professionals. This took the form of a 'FAQs' resource with commonly asked questions about HIV testing answered by Dr Mun-Yee Tung. It was published on the video broadcasting site 'vimeo' as well as that belonging to Kent County Council's public health webpages. Figure 14 below shows two 'stills' from the video which can be seen on <http://vimeo.com/kentcountycouncil/review/111395925/235fdced18> as an ongoing resource for clinicians and others wanting to know more about HIV testing.

Figure 14: Public access video on HIV testing for healthcare professionals



Four training sessions were delivered by Dr Mun-Yee Tung and Dr Lesley Navaratne during September 2014. These were undertaken under the auspices of a Kent County Council sponsored training day on sexual health and long acting reversible contraception with HIV information being shared with attendees at the end of the four days held in Tunbridge Wells, Ashford, Gravesend and Margate. In total, 144 GPs and Practice Nurses attended the sessions. One hundred and eighteen of the 144 attendees returned evaluation forms and the comments were extremely positive. Delegates found the HIV presentations engaging and interesting, although many would have liked more time to discuss the issues around testing, some suggesting that it should be offered as a separate training day. Most found the content relevant and informative, and praised the speakers for the quality of the content with a variety of comments such as: *'A good talk on HIV. It made me aware of testing and the fact I don't do enough'*, *'Very interesting and educational'*, *'It reassured my knowledge and was informative. It was very good and widened my understanding'*; and *'It was excellent. I learned a lot'*.

A further session was delivered by Dr Tung to junior hospital doctors and core medical trainees at Queen Elizabeth the Queen Mother Hospital in Margate. This attracted 5 attendees including medical students. Of the 4 feedback forms returned for this session, all of them rated the training as 'excellent' and said that it was very useful in respect of their roles with comments such as, *'Great talk, engaging, very educational, clear – thank you!'* and another saying *'Very useful. Excellent – thank you!'* Of the 6 people who attended a similar session in Canterbury Hospital, 5 returned their evaluation forms and all of them again rated the teaching and appropriateness of the content as excellent. Two commented that the content was, *'very useful'* in their current roles. In addition, staff from the trust also conducted an additional GP training forum in the city which attracted approximately 25 GPs and Practice Nurses. Again, the talk was evaluated very highly, one of the GPs attending the session (Dr Heather Scott) speaking very highly of the quality of the training and the impact that this had subsequently had on her clinical practice at the project's closing conference in Canterbury during March, 2015. Similar sessions were delivered in West Kent by Dr Lesley Navaratne.

An additional three training sessions were delivered in Medway and Swale (a district in Kent next to Medway) by Dr Rajesh Hembrom. One, delivered as a full *Continuing Medical Education* (CME) day attracted approximately 50 GPs, and another evening class held within the remit of a broader update on sexual health issues organised by the public health authorities at Medway Council attracted a further 15 GPs. A third day was delivered to GP trainees who were just embarking on their primary health careers which is, perhaps, the optimal time at which to instil the knowledge and skills required of GPs in this role regarding HIV testing. Within the acute setting, Dr Hembrom also used HIV testing as the focus for a hospital 'Grand Round,' an established pedagogic tool in medical education consisting of a case-presentation and discussion in the presence of an invited audience consisting of doctors and other healthcare professionals including medical students. Additional teaching sessions focusing on the indications and benefits of HIV testing were also provided for junior and middle grade physicians working in critical and emergency care units at Medway Hospital, and in a separate physician's meeting which was attended by a mixture of GPs and acute care physicians from the area.

Attempts to extract pre and post intervention data from attendees at the training sessions in Kent and Medway and Picardy using a common Survey Monkey questionnaire were not very successful. Only three attendees completed the pre-intervention survey in Kent and Medway and just two completed the post-intervention survey in spite of the link being sent to attendees on several occasions by the session organisers. There were no responses from the French version of the report. These results are disappointing given the numbers of people receiving the training, but having completed one evaluation form many probably did not see the point in completing another more detailed one separately for the project. Due to the low numbers, the results are not reported as they are too few to draw any meaningful conclusions from.

Figure 15: Special issue leaflet for GPs and others as an adjunct to the educational sessions in Picardy

Le patient doit ainsi être aidé à mobiliser des ressources inscrites dans une « construction de l'espoir » (Polak, 1990). Il est indéniable de considérablement communiquer sur la précocité du test à faire après un comportement ou une pratique que la personne juge elle-même à « risque ». Sans qu'une généralisation puisse être faite, les quelques cinquante médecins interviewés montrent une faible connaissance sur ce qui a trait au VIH-Sida. Si des actions de formation (EPU par exemple) pourraient être mises en place pour renforcer les connaissances, elles sont insuffisantes ; celles proposées en Picardie n'ont eu aucun écho. Il y a donc matière à repenser les choses et, très certainement, à s'échapper de formations trop précises et thématiques pour s'avancer vers des formations plus générales, par exemple autour de l'annonce, autour du bénéfice du test, du dépistage... tout en s'assurant de l'appropriation des messages et des pratiques, peut-être avec du tutorat, de mentorat ou toute autre modalité de supervision qui serait imaginée.

Données brutes : en 2012/2013, 50 % des personnes dépistées en Picardie ont moins de 350 CD4 au moment du diagnostic, ce qui correspond à un dépistage tardif.

Union Régionale des Professionnels de Santé - Médecins Libéraux de Picardie
Valée des Vieux, 27, Avenue d'Alsace - 80014 AMIENS Cedex 3

PICARDIE infos
JANVIER 2015
NUMÉRO SPÉCIAL DÉPISTAGE

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SENSIBILISATION AU DÉPISTAGE PRÉCOCE DU VIH PROJET IMPRESS HEALTH 2

Chères Consoeurs, Chers Confrères
L'URPIS - Médecins Libéraux de Picardie aborde dans ce numéro deux actes de prévention que sont le dépistage du cancer du col utérin et celui du VIH.
Le dépistage est un acte essentiel qui s'inscrit dans la prise en charge globale du patient par son médecin.
Le premier article est une contribution à la 1^{re} semaine européenne du dépistage du cancer du col utérin qui s'est déroulée du 19 au 24 janvier 2015.
Conscient de l'implication et du rôle primordial de tous les médecins libéraux dans ce dépistage, nous vous invitons à le matérialiser, il vous suffit de :
- Coter votre acte lorsque vous le réalisez afin de formaliser votre travail*
- Continuer à le prescrire lorsque vous ne le réalisez pas.
Pour ce qui est du second article qui aborde le **dépistage question du VIH**, nous partageons les remarques du Pr Jean-Luc SCHMIT.
Il est important de dépister au plus tôt les personnes infectées par le VIH car les traitements sont efficaces et permettent de garder les personnes en bonne santé et de réduire la transmission.
Les occasions de dépistage sont nombreuses : consultations de contraception, bien avant vie en couple, grossesse mais aussi pathologies indicatrices (IST, dermatose séborrhéique récidivante, zona, VHB...) bilan « pour faire le point ».
Et surtout, il est normal de discuter sexualité avec nos patients et, lors d'une occasion favorable, de proposer un test en cas d'identification de facteurs de risque : partenaires multiples, dans le passé ou actuellement ; origine de pays à forte prévalence. Le test peut être proposé qu'une fois lorsque les facteurs de risque sont anciens pour repérer les personnes infectées qu'ignorent. Autrement, on peut proposer une fréquence annuelle pour dépister précocement les gens qui continuent à s'exposer.
Je vous salue à toutes et à tous, nos meilleurs vœux de bonne et heureuse année 2015.
Bien confraternellement
Dr José CUCHEVAL
Président de l'URPIS
Médecins Libéraux de Picardie

* Vous trouverez pour information en page 6 le nomadeur.

In Picardy, 3 two-hour training sessions were provided for GPs by Professor Jean-Luc Schmit. These took place in Aumale, Caullieres and Amiens. Each was held between 21.00 hrs and 23.00 hrs. The content of the evenings closely resembled those offered in the UK including discussion of the prevalence and testing rates in Picardy. After going through the clinical indicators for HIV, the benefits of early testing, and an update on the effects of modern treatment, participants worked in small groups to discuss specific case-studies and consider how the opportunity to conduct an early HIV test had been missed. Participants also discussed ways in which they could improve their communication skills so that sensitive conversations about patients' sexual risk factors and behaviours could be discussed more comfortably within clinical consultations. Fifteen GPs attended the session in Caullieres and 12-15 attended the session in Amiens with 8 GPs attending the first of the sessions in Aumale. In addition to these sessions, a special piece was composed and published in the local public health newsletter (see Figure 15 above). At the time of writing, no feedback data was available from the GPs accessing training in France and none of the attendees completed the more detailed Survey Monkey questionnaire either before or after the educational intervention.

8.0 Cultural activities for BME groups

In spite of the high prevalence of HIV amongst black minority ethnic groups, these were identified as having a particularly high rate of late presentation in both the literature review and phase 1 study data. Interventions to encourage earlier testing amongst ethnic minority communities therefore formed part of the strategy for the intervention phase (phase 2) of the IMPRESS Health 2 study on both sides of the Channel. Certain individuals within the community may well be 'service phobic' or have concerns about accessing mainstream healthcare for reasons already discussed in previous sections, so it was decided that something promoting the benefits of early testing outside of healthcare settings would be beneficial and more likely to attract these hard to reach individuals. Recognising the strong tradition of oral history and story-telling, music, dance and theatre to attract large audiences to community events specifically targeted at BME groups, it was decided that strategies incorporating these approaches would be taken in both Kent and Medway, and in Picardy. In the UK, this was led by Brenda Mann from Kent Community Health Foundation Trust and was predicated on a Saturday afternoon event from 14.00 hrs to 19.00 hrs at one of the local schools in Canterbury in January 2015. The team were concerned however, that if advertised as an event about HIV testing, it might not be as well attended as it might otherwise be. They therefore developed the programme along the more neutral theme of 'Healthy Living' and included HIV as one of several health issues affecting BME groups in the UK (HIV, diabetes, cardiovascular disease, obesity, stroke etc.). Information about the benefits of early HIV testing were therefore discussed within the broader remit of these 'community' issues in a way which would be less stigmatising and help to normalise discussions about HIV testing. Positive messages about the benefits of early HIV testing and the indicators for such a test were therefore given in a relaxed atmosphere which included singing, dancing, and opportunities to eat and socialise, as well as have a health check during the course of the event. Although no-one specifically took the opportunity for an HIV test the event organisers were pleased with the way in which the positive health messages were received and hopeful that anyone worried about their health would act on these messages at a later date.

In France, the Marie Madeleine theatre company were employed to present a performance of a play entitled 'La revanche de Malika' (The revenge of Malika) in Amiens in February 2015. Specifically aimed at an African audience, the performance used African actors in traditional costumes to illustrate the issues affecting those diagnosed with HIV in a small community. The play addressed important issues including fidelity, how to live with HIV, how to share news of a positive diagnosis with partners and members of the family, and how to address issues of loneliness, isolation or stigma occasioned by such a diagnosis. Importantly for this community, the play was written and presented very much from a female perspective since it is known that women are more susceptible to infection by their male partners – but also as gatekeepers to the health and wellbeing of other family members. The performance was made visually striking by the use of facial masks by some actors to portray the barriers to good communication and occasional feeling that those affected have to hide their true feelings or concerns from others in their community, including those in their closest family or community groups, factors which are known to potentiate many of the negative images and stereotypes which make some members of the community fearful of going for a test even when they suspect that there is something wrong with their health for fear of social isolation or judgement by others. Both events were well attended, 62 people attending the play in Amiens and coming in throughout the afternoon organised in Canterbury. They were both evaluated positively by attendees and members of the project group, and provide an alternative and somewhat more 'informal' and 'non-threatening' way of communicating positive health messages about HIV testing as well as how to cope with a positive diagnosis (Figures 16 and 17).

Figure 16: Poster and photographs from the BME 'Healthy Living' event held in Kent (photos courtesy of Jo Treharne)



Figure 17: Poster, information sheet and photographs from the Marie Madeleine Theatre Company production of 'La Revanche de Malika' (The Revenge of Malika) production for BME clients in Picardy



Des femmes parlent de leur santé

L'association Marie-Madeleine vous présente

'La revanche de Mayika'
 Vendredi 13 Février 20h30
 Centre Culturel Jacques Tati rue du 8 mai 1945 à Amiens
 Un verre de l'amitié vous sera offert
 à l'issue des échanges avec
 le public
Entrée libre et accessible à tous



COMMUNIQUÉ DE PRESSE 29 Janvier 2015/13 Février 2015

Ce soir, venez au théâtre... en Afrique !

L'association Marie-Madeleine a le plaisir de vous inviter à la première de sa représentation théâtrale.

"La revanche de Mayika" mettant en scène des femmes parlant de santé !

L'association Marie-Madeleine basée à Versailles a été créée en 2005 avec et pour des femmes vivant avec le VIH/Sida et leurs proches, principalement originaires d'Afrique Subsaharienne. L'association contribue à lever les tabous et la stigmatisation liés au VIH, qui rendent difficiles l'expression du vécu et qui favorisent l'isolement social et affectif.

Le théâtre, outil d'expression privilégié par la culture Africaine, permet aux femmes d'extérioriser leurs vécu et parcours de vie face à la maladie.

En lien avec la Journée Mondiale de Lutte contre le VIH/Sida du 1er Décembre (*Le 1 er Décembre étant tous les jours !*) et le projet Européen IMPRESS Health 2, nous lançons un appel au dépistage du VIH/Sida et des autres Infections Sexuellement Transmissibles. Les saynètes se dérouleront dans une atmosphère optimiste et conviviale aux couleurs d'Afrique et de solidarité au féminin. L'objectif est de faire comprendre à tous l'intérêt individuel et collectif de se faire dépister pour prendre soin de soi et de ceux que l'on aime. En Picardie, l'étude menée dans le cadre du projet IMPRESS a montré que la moitié des personnes dépistées dans les trois dernières années avaient déjà une diminution significative de l'immunité (moins de 350 CD4) ce qui veut dire que ces personnes étaient contaminées depuis déjà plusieurs années, sans le savoir, ce qui pouvait être dangereux pour leur santé, et être source de transmission sexuelle.

Cette action prend place dans le cadre d'un partenariat privilégié avec la Coordination Régionale de Lutte contre le VIH de Picardie (COREVIH Picardie), qui contribue à la lutte contre l'infection à VIH/Sida et à l'amélioration de la prise en charge des personnes vivant avec cette pathologie devenue chronique, mais qui reste mortelle si elle n'est pas dépistée.



Deux représentations de théâtre auront lieu en Picardie, l'une à Creil le 29 janvier 2015 à 14H00 à la Maison des Associations 11 rue des Hironvilles, la seconde à Amiens le vendredi 13 Février 2015 à 20H30 au Centre Culturel Jacques Tati rue du 8 mai 1945
 Entrée libre et accessible à tous

Contact Presse Association Marie-Madeleine
 La Présidente : Marie-Hélène TOKOLO
 Tél : 06-67-77-62-40
 presidente@marie-madeleine.asso.fr

Contact COREVIH Picardie
 Le Président : Pr. Jean Luc SCHMIT
 Tél : 03.22.66.76.69.



9.0 Impact of the interventions on HIV testing rates in both countries

There is no doubt from the number of HIV tests performed on both sides of the Channel that the primary goal of the project, i.e. an increase in the numbers of people having and HIV test, and the number of those being diagnosed early was achieved. Comparisons drawn between the same five month period between 1st October 2013 and the 28th February 2014, and the 1st October 2014 and the 28th of February 2015 show a significant increase in the number of HIV tests performed. The period was selected so that it would capture HIV test data in the month preceding the social media and advertising campaign in both countries, follow through this period, and then after Christmas, capture any increase in diagnoses elicited by the two BME events in France and the UK at the start of 2015. It would have been preferable to have collected data for one more month in the case of France as the play developed and performed by the Marie Madeleine Theatre Company could not be performed until the end of February, but the need to finish data collection by the end of March militated against this. Notwithstanding this, the impact of the phase 2 intervention period of the study is quite impressive on both sides of the Channel and it seems likely that there may have been some residual increase in the number of tests performed in the month of March – at least in France perhaps, given the timing of the performance and the numbers attending.

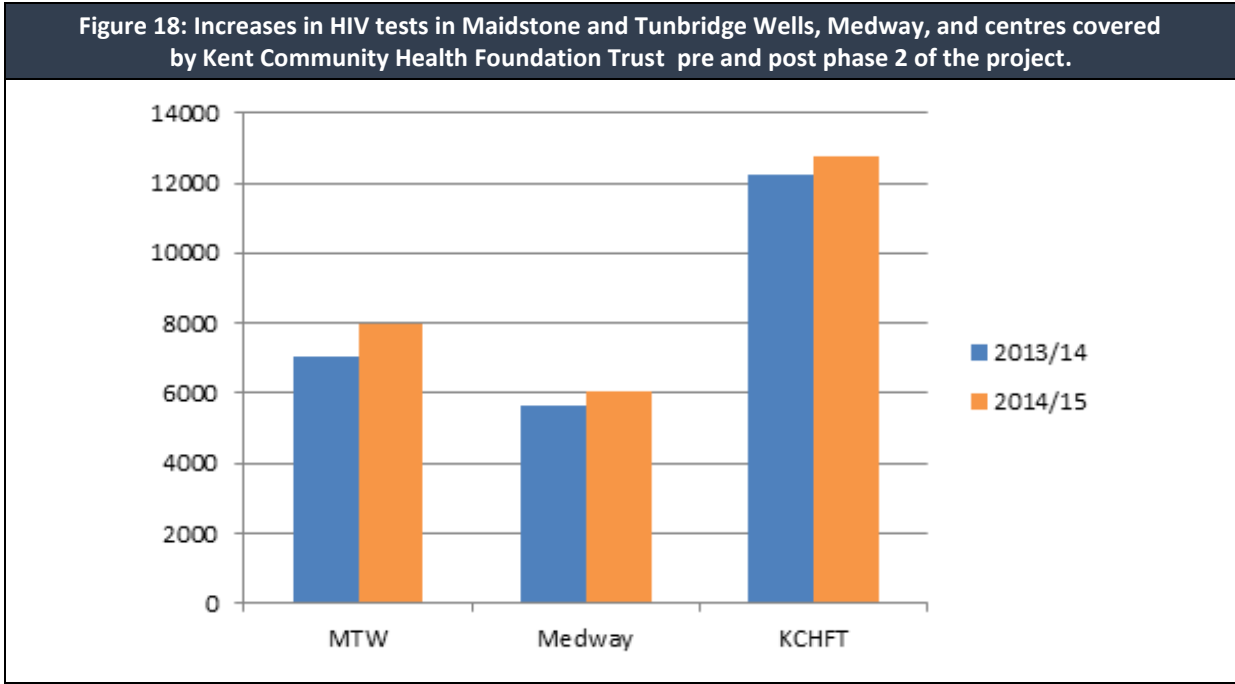
9.1 Impact of the interventions on HIV testing rates in NHS services in Kent and Medway

The number of HIV tests performed in the five month period between 1st October 2014 and the 28th February 2015 increased by 1,946 or 7.8% in Kent and Medway from 24,874 tests to 26,821 tests in the post intervention period. The increase was not consistent across the region however, Maidstone and Tunbridge Wells NHS Trust having the highest increase of 13.9% and Kent Community Health Foundation Trust having the lowest at 4.4% whilst Medway Hospitals NHS Foundation Trust had an increase of 7.6% (Table 9). The larger increase in HIV tests in the Maidstone area may be due to the ‘dual’ effect of both the METRO HIV testing roadshow and their own annual outreach programme which took place in National HIV Testing Week and visited places such as an army barracks in Maidstone, a college of further education, high street locations in Tunbridge Wells, Maidstone, Gravesham; and the accident and emergency unit at Maidstone Hospital. This resulted in 249 additional tests being undertaken over and above those conducted by the METRO campaign in the area, whilst general information and advice given about HIV testing during the campaign may have elicited further tests later in local GUM/sexual health clinics in the following days and weeks.

Country	Place	2013/14	2014/15	Increase
UK	Maidstone and Tunbridge Wells	7,025	8,004	979 (13.9%)
	Medway	5,623	6,051	428 (7.6%)
	Kent Community Health Trust	12,226	12,765	539 (4.4%)
	Total	24,874	26,820	1,946 (7.8%)

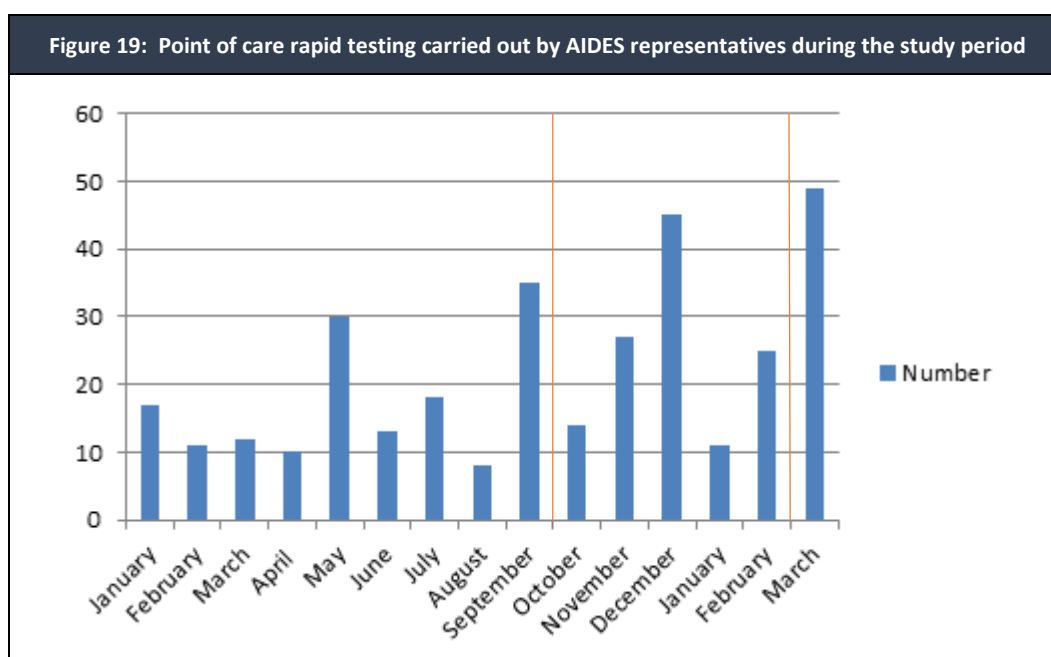
The different configuration of services in each of the hospitals means that the audit points of testing varied slightly from one UK centre to another with some recording antenatal screening separately. It is interesting to note that whilst the number of non-antenatal tests requested by GPs in Maidstone and Tunbridge Wells went up by 53% from 783 to 1,198 (data not shown) the number of tests ordered by GPs in the area covered by Kent Community Health NHS Foundation Trust (which includes clinics in East Kent Hospitals University Trust in Ashford, Canterbury and Margate) fell by 16.6% from 741 to 618 tests in the same period. Separate GP figures were not available for the Medway area, although these would

have been included in the 'others' section of their reporting system which increased only marginally from 2,648 to 2,656 referrals, an increase of only 0.3%. Non-GUM requests from acute hospital settings in Medway actually fell from 768 to 637 (17.0%) during this time, although this was more than made up for by an increase in requests from the GUM clinic from 2,207 to 2,758 (25.0%) in the same period, resulting in an aggregated increase of just 7.6% across the services offered by the Trust as a whole. The main increases in testing rates in the areas covered by Kent Community Health NHS Foundation Trust were in the inpatient and outpatient units of the three main hospitals covered by the Trusts GUM services in Kent (in Canterbury, Ashford and Margate) which saw an increase in tests from 1,038 to 1,458 (an increase of 40.5%) and the GUM/sexual health clinics themselves which increased from 6,719 to 7,486 tests, an increase of 11.4%. As in Medway, little improvement was seen in the performance of GPs during the period, the number of tests ordered directly by GPs falling from 741 to 618 (16.6%) – although a great many more may have been directing patients to the GUM/sexual health services instead which may explain the increase in these figures highlighted in Figure 18 below.



9.2 Impact of the interventions on HIV testing carried out by AIDES in France

AIDES staff in Picardy carried out 336 rapid HIV tests during the fifteen month period between the 1st of January 2014 and the 31st March 2015, 122 (36%) of these being conducted in the five month study period between 1st October 2014 and the 28th February 2015. There are peaks towards the end of the year whilst the social media and public health campaign was running in the region, particularly in December after World AIDS Day (which marked the start of the campaign in France, there being no National HIV Testing Week in November there), in which 45 tests were conducted, and again in March (49 tests). Although outside the comparison period used elsewhere it is interesting to note that this was the month immediately after the Marie Madeleine Theatre Company production of the African play 'La Ravanche de Malike' in Amiens; although it is not known how many of these might have come forward for testing as a result of this intervention. Figure 19 below provides an indication of the distribution of these tests across a 15 month period, the figure between the two red lines indicating the 5 month comparison period together with the additional month after the BME event.



9.3 Impact of the interventions carried out by the acute hospitals in Amiens and Creil

Details of the number of tests performed in the hospital and screening centres at Amiens and Creil hospitals are shown below in Table 10. During the phase 2 intervention period and the whole of the five month comparison period, the actual number of HIV tests performed in Amiens fell from 4,474 to 4,102, a decrease in the number of tests of 8.3%. Likewise in Creil, the number of tests fell from 772 to 661, a decrease of 14.4%. These figures at first seem counterintuitive, but it should be remembered that some of those who might have gone for a test at either centre might instead have been tested by AIDES personnel as a result of the media campaign which was very much focused around their media activities and opportunities for confidential testing outside the main state sector, especially for those who might be worried about their immigration status etc. It should also be noted that in France, unlike the UK, many private pathology laboratories exist. These are often found in areas of high footfall such as train stations, shopping malls and high streets and offer confidential advice and anonymous testing similar to the services offered by GUM/sexual health clinics in the UK although not part of the state sector. HIV testing data from the private laboratories in the locations of each acute centre (Somme for Amiens and l’Oise for Creil) show that the number of tests in these clinics went up by 3% in Somme and 4.1% in l’Oise, although the aggregated increase across the two areas is very small at just 103 tests or 4.7% of the total compared to the same period prior to the phase 2 interventions. It should be noted however, that the number of tests carried out in Amiens and the surrounding Somme area increased during December, the period of the media campaign and in Amiens during February – although it is hard to know whether the Marie Madeleine theatre show had any impact on these figures that month.

Country	Place	2013/14	2014/15	Increase/decrease
France	Amiens (hospital & screening centre)	4,474	4,102	-372 (-8.3%)
	Private laboratories (Somme region)	8,419	8,671	+252 (+3%)
	Creil (hospital & screening centre)	772	661	-111 (-14.4%)
	Private laboratories (l’Oise region)	8,137	8,471	+334 (+4.1%)
Total		21,802	21,905	+103 (+4.7%)

Figure 20: HIV tests carried out in Amiens Hospital in the 5 month comparison period

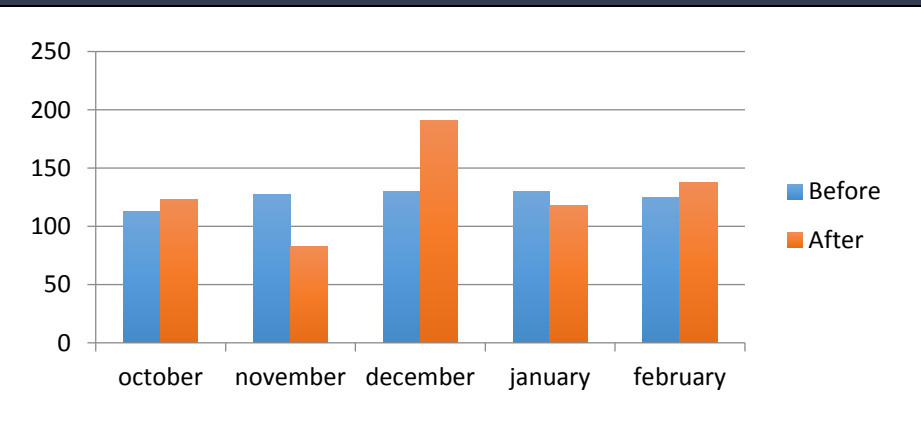


Figure 21: HIV tests carried out in Creil Hospital in the 5 month comparison period

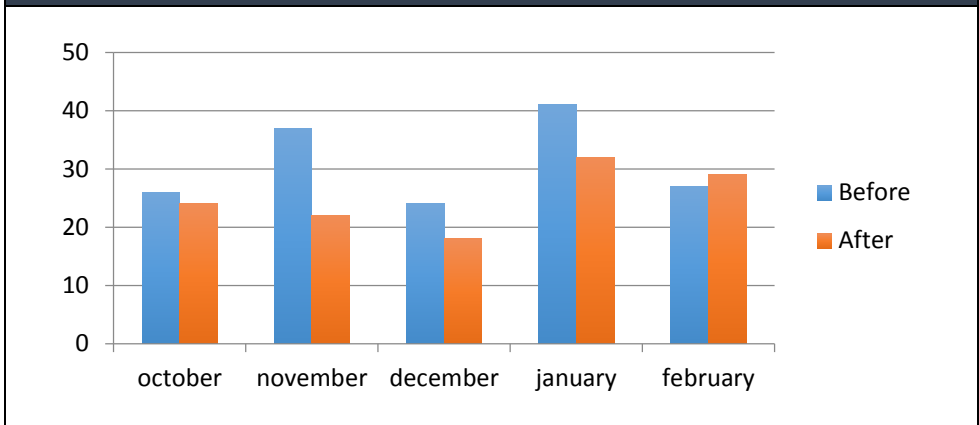


Figure 22: HIV tests carried out in commercial Somme laboratories in the same period

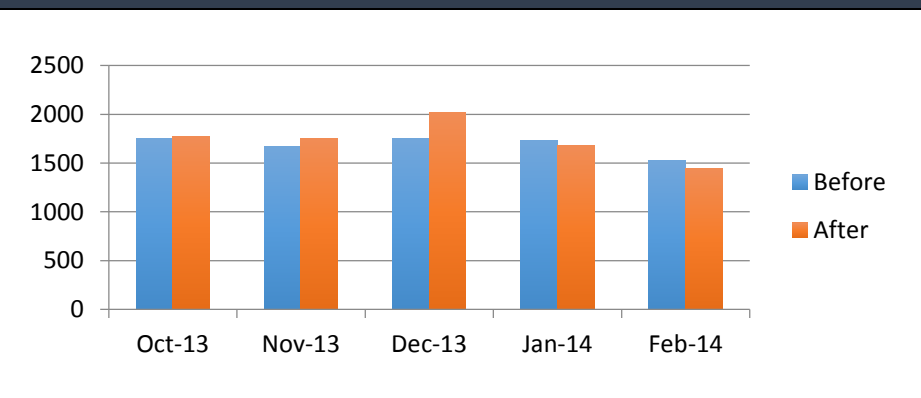
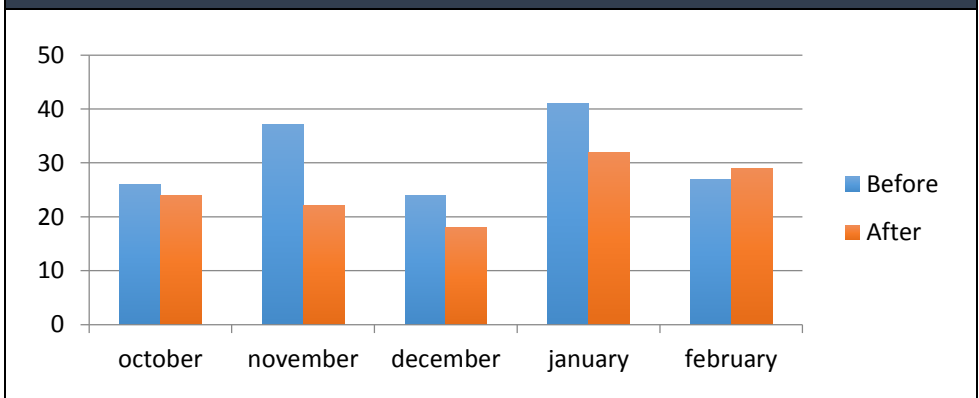


Figure 23: HIV tests carried out in commercial l'Oise laboratories in the same period



Figures 20-23 show the monthly variation in HIV testing rates in both centres and their surrounding areas. The number of tests performed in Creil is disappointing, and it would appear from partner and stakeholder feedback noted in the next section, that staff at the hospital felt that they had little involvement in the study and very little resource to do as much as colleagues in Amiens did. This may account for poorer outcomes in this centre although it is worth noting again, that both Creil and private laboratories in the surrounding l'Oise area did show moderate increases in the number of tests in February which, together with similar outcomes in March 2015 for AIDES centre tests, may indicate a delayed response to the BME event held in the middle of February. It should also be noted that there have been significant attempts to increase the number of HIV tests in recent years as a result of a drive by the French government to increase both the number and timeliness of HIV tests in the country as a whole, a targeted and very public campaign for which there is no comparison in the UK, hence the UK were starting from a slightly 'lower' base on which to build as demonstrated in comparative data in the phase 1 reports (O'Connor et al. 2014a; 2014b). Picardy is also, as has been noted elsewhere in this report, one of the regions with the lowest prevalence of HIV and the highest uptake of HIV testing compared to many others in France, so this too may explain the very modest gains made from the interventions carried out for phase 2 of the project, together with the smaller number of active partners in the project there.

Notwithstanding this, there were 17 new diagnoses of HIV between October 2014 and February 2015 (2 in October, 5 in November, 4 in December, 2 in January and 4 in February). Seven of these were in heterosexual females, 5 of whom came from sub-Saharan Africa. Only two had CD4 counts indicative of late diagnosis. Ten males were also diagnosed HIV positive in this time. Nine of them were born in France and 1 was from sub-Saharan Africa. Seven of them were MSMs and in comparison to the women, 7 of these had CD4 counts indicative of late diagnoses, two of them being so low as to classify them with an AIDS diagnosis. Two of them were tested in local screening centres, 3 were tested by sexual health/HIV specialists in the hospital screening centres, 4 were tested by their GP, 5 were tested when hospitalised for acute health problems in the ward or emergency admission setting, 1 came forward for voluntary testing, and another was diagnosed in one of the local prisons. The final person was tested and diagnosed as being HIV positive on entry to the country from sub-Saharan Africa.

10.0 Evaluation of the project by project partners and stakeholders

Telephone interviews were conducted with each of the lead clinical partners in the UK, and three of the eight French partners responded to a corresponding series of questions posed by the UK research team via email. Members of the team from Canterbury Christ Church University also undertook the same exercise. Overall, those interviewed felt that the project had been successful in achieving its original aims; namely to obtain a better understanding of the barriers to earlier testing for HIV, and improve awareness, education and confidence for both patients and healthcare professionals about discussing the need for and conduct of such a test. Findings from the initial research phase (phase 1) had confirmed many issues which clinical partners already felt to be a problem – at least anecdotally. They felt that the results of the phase 1 study had helped them to focus on aspects of care and service provision which could be improved upon, and they also gave them the evidence they needed in some cases to support changes to services or business planning for an expansion of HIV testing services. The results also gave them some ideas as to how they might engage patients more effectively in HIV screening and testing.

One finding from the phase 1 report which surprised all of the partners on both sides of the Channel, was the number of older heterosexual women found to be HIV positive in the phase 1 study. This was far higher than any had expected, and highlights an ‘at risk’ group which might otherwise be easily overlooked. Social mores are changing however, with many couples in their 50s and 60s now getting divorced and starting new relationships in their later years and given the time that HIV has been prevalent in Europe, it is not surprising that it is beginning to make its effects felt in older generations. Likewise, it was noticeable that the majority of health care professionals failed to take them into consideration when seeking to identify the cause of multiple unexplained symptoms and this became an important facet of the healthcare professional education programme.

All of the partners felt that they had made a considerable contribution to the intervention phase by providing input into the media campaign based on their expertise and experience, running the educational training sessions for healthcare professionals, dealing with enquiries from local media, taking part in radio and television news interviews, and disseminating awareness raising messages through different media including in the case of French partners, professional magazines, newspapers and websites etc. It was felt that the public awareness/social media campaign had been the most successful and effective aspect of the intervention phase on both sides of the Channel, and there is evidence that it did raise awareness of HIV in a number of ways, leading to a clear increase in the number of tests conducted and confirmed HIV diagnoses amongst some who might have been difficult to reach via other means. The campaign certainly reached a far broader range of people than traditional methods of health education or promotion, particularly in the UK where broadcast media was used effectively to reach many television and radio audiences with the results of research conducted in their own locality and of relevance to their own communities. One respondent said:

‘I think it has changed peoples’ perspectives about even saying the words... People were always frightened to raise awareness about HIV [before]’.

The educational strategy for healthcare professionals was also deemed to have been a success, many commenting on the interactive and beneficial nature of the conversations that this stimulated. One respondent said:

‘It has obviously made them [healthcare professionals] think about practice. And it is evident that more diagnoses have occurred as a result’.

All of the project partners commented on the increase in numbers of patients diagnosed in the 5 month period between 1st October 2014 and 31st March 2015 in comparison to the same period in 2013/14. In addition to absolute numbers, one respondent suggested that changes had also been noticed in the reasons that patients were presenting for a test:

'If you look at people who were late diagnoses in 2014/15, if you look at why they got the test, it was [more likely to be] because of clinical indicators rather than because of the person's sexual orientation or ethnic status which, I think, is another positive outcome within the GPs'.

In terms of sustaining the successes of the IMPRESS Health 2 project, one clinical partner in the UK had introduced universal testing in his hospital's intensive care unit although the ethical validity of this was questioned by some speakers from the conference floor. Less controversially, new protocols for the screening and testing of possible HIV positive patients were being developed for both Accident and Emergency (A&E) and acute medical wards, and plans were also in place to target Practice Nurses with further targeted training as their contribution to HIV screening and testing had been clearly recognised. It was pleasing to see that information about clinical indicators for HIV were being printed and placed on ward notice boards as an ongoing education and reference resource, and that more training for junior doctors was being planned. There was also a plan to advocate for further public health and awareness raising campaigns around the benefits of early HIV testing in future years. Options to improve information and access to testing resources (e.g. through online programmes) were being considered in order to maintain a longer term impact of the project, one UK partner saying:

'We have to take individual responsibility, that's an integral part of our work anyway... I will be making sure we keep striving towards early testing and focussing on two areas; the community and the hospital setting. Also we need to engage the public at large to come forward to get tested'.

Project partners from both sides of the Channel felt that they had benefitted a great deal from working with different people from a wide variety of backgrounds and learnt a lot from those in other countries, especially during the exchange visits in Kent, Medway and Picardie. The French partners were interested to see how differently care was organised with regard to screening and treatment in the UK, and to learn about the way in which former partners of those diagnosed with HIV are actively traced by the healthcare team which did not happen in France. Some felt that the process of managing a project with so many partners was challenging, but that having the Health and Europe Centre and Canterbury Christ Church University on board to drive the project forward had been beneficial. It was felt by at least one person that the lack of a French academic partner had been deleterious to the project as the process of obtaining data in a timely and useable manner was sometimes time consuming, some emails going unanswered completely. Moreover, face to face partner meetings were often dominated by discussions about finances and managerial processes rather than discussion about the development or evaluation of the interventions themselves which was regretted. Attempts to arrange additional cross-Channel meetings for the purposes of discussing the methodology and interventions were unsuccessful due to clinical and/or academic commitments, the two rarely coalescing easily within the confines of extremely busy schedules.

Lack of time was cited by most partners as the main constraint for not getting more involved in the project and some felt that this had been a restriction on the satisfaction derived from it. Time spent away from the office or clinical setting was rarely time which could be spared and many were aware of others having to carry an additional workload during such periods. Project meetings and site visits sometimes felt drawn out due to the need for extensive translation, but all agreed that having a regular interpreter who grew to know and understand the aims of the project was invaluable. Sadly, many project partners and delegates visiting the closing conference in Canterbury found the synchronous

translation to be substandard and detrimental to understanding what was being shared by those speaking other languages. This marred what was otherwise a very successful day for many.

In terms of administration, some had difficulties managing the significant amount of paperwork required for managing the project budget, financial procedures and claims. Many felt that the amount spent on such activities was inadequately reimbursed, and incurred significantly higher institutional contributions for some partners. From the UK side, there was some frustration that the UK partners felt that they were making a disproportionate contribution to the success of the project and requests for information could go unanswered for many weeks if they were answered at all. On the French side, one project partner felt that there was not enough consultation about the interventions developed on each side of the Channel in spite of face to face meetings – although not present at all of them. Differences in the work culture were also noted by some, and it was suggested that more thorough and collaborative planning at the outset of the project could have mitigated these issues and the loss of the project lead at so crucial a stage at the beginning of the project was regretted, likewise, the many changes of staff liaising with partners in the Health and Europe Centre. Notwithstanding this, one respondent concluded that there were many positive cross-border achievements and everyone felt that the personal experience of meeting and working with others had been hugely beneficial, one person stating:

‘Despite the language barrier and a very different work culture, we managed to deliver a common theme, strategy, and interventions; and delivered them as one project despite all the differences’.

All of the partners felt that the IMPRESS Health 2 project had been a valuable experience and had helped to develop vital research potential, particularly in the UK where clinicians found it difficult to meet the exigencies of research and clinical responsibilities at the same time. Many had gained confidence in their abilities to undertake clinical research and there was a huge sense of satisfaction at what had been achieved, some having not been involved in a large multi-site study (let alone an international one) previously. Developing links with each other, as well as new organisations such as METRO and AIDES was deemed to have been hugely beneficial and clinical partners had a fresh awareness of the contribution which such organisations could make. Inter-agency working had undoubtedly been strengthened and the intervention phase, on the UK side at least, benefitted from the clear public health leadership provided within the relatively new structures following a restructure of the health service with a significant input from Kent County Council in this process.

In terms of long term economic and social benefit, most had no doubt that the impact of the project on the number of HIV tests holds the potential to save considerable sums of money for the health services in both countries as well as mitigating the impact of the virus on patients and their families. All of them expressed an interest in undertaking future projects around sexual health and/or treatments such as antibiotic use, including new populations such as chlamydia patients. At least one partner in the UK had plans to recruit new staff to follow up on the project in relation to MSMs meeting in public outdoor places for sexual intercourse with strangers and the risks that this poses in relation to their health. She had already obtained funding for such a post and hopes to appoint someone to the role in the near future. Others wanted to do more to identify the needs of older HIV positive patients and specifically, what other forms of outreach might benefit them given the apparent lack of engagement by this cohort with the METRO ‘Blue Bus’ roadshow. Partners therefore felt that their experience with the project would help them to develop future project proposals related to HIV and other areas such as use of the HPV vaccine, chlamydia screening and further work involving MSMs or the elderly. UK partners would be very happy to work with organisations such as METRO and the Big Plan Group again which would obviously have economic benefits for this specialist, and in some cases, charitable sector.

One obvious economic benefit from the study is the funding made available to the many charitable organisations which contributed to all or part of the project. Excellent working relationships have been established between members of the project team and those working for organisations such as AIDES, HACO, METRO and IREPS on both sides of the Channel. These bode well for the building of new research collaborations and it seems likely that partners would be happy to work with these organisations again in the future either on national or international projects. The project also enabled the recruitment, selection and employment of a 0.2 FTE administrator at Canterbury Christ Church University who would not otherwise have been employed, and has developed valuable skills in the management of the project funder's accounting and governance procedures including *Presage*. She will undoubtedly be an asset to any future Interreg research project, thus the funding has added to the research skills development of both she and many clinical colleagues.

Likewise, the closing conference at Canterbury Cathedral's impressive Conference Centre represented a substantial investment into the local Kent community and benefitted this charitable organisation in addition to those engaged in the research phase of the project. The conference was well attended by many staff from the health and social care sector, researchers from at least two other Universities, and a number of PhD and Master's students already engaged in, or thinking of undertaking research on the topic of HIV and/or sexual health and wellbeing. When asked, project partners felt that the closing conference had been an appropriate celebration and conclusion of the work undertaken for the project. Some expressed disappointment about the lack of attendees who were not involved in the project and expressed regret that it had not attracted a more diverse audience although the vast majority of delegates had no prior involvement in the project at all. However, contrary to these perceptions, the vast majority of attendees had played no role in the project and came to it without prior knowledge of its conduct or findings, although it was regrettable that so few delegates attended from France. The paucity of French delegates was a disappointment and most of these had indeed been involved in the project in one way or another, but this was not the case on the UK side, some of whom spent part of the time 'tweeting' their thoughts and comments about the project findings and their experience overall to others.

For many of those questioned, the most effective and poignant aspects of the conference were hearing genuine patient voices, represented by a series of short video clips shown intermittently between the formal presentations. A short video clip from South Africa showing the impact of modern HIV drugs on someone who looked close to death at the start of the video was also deeply moving, as was a simple yet eloquent oral presentation from a British GP who had attended one of the educational training programmes in the UK. She talked very movingly about her lack of insight into the prevalence of HIV in 'non-traditional' groups and the many ways in which her practice had changed as a result of the training she had received. This was regarded by many as a powerful testimony, although it was agreed that there was still a great deal more work to do in this area. French respondents did not comment about specific presentations and one said that he did not feel that he learned anything new from the conference although he was an experienced researcher with many years of conference experience and there is no doubt that many of the early career researchers or students currently undertaking a research degree were genuinely excited about the atmosphere generated including additional media interest on the day of the conference which elicited additional requests for interviews with project members although these could not be aired due to another breaking news story that evening. Figure 24 below captures some of the images of the day which included musical contributions from the African group 'Royal Destiny' who reprised some of the pieces they had sang at the UK BME event discussed in section 8.

Figure 24: Images from the closing conference in Canterbury (25/03/15) courtesy of Jo Treharne



Delegates welcomed by 'Royal Destiny'



Joint UK/French presentation of phase 1 results



French delegates at the conference



British delegates at the conference



Delegates discuss proceedings during a break



Project leaders discuss the impact of the study

11.0 Conclusions and recommendations

Drawing final conclusions from so large and complex a project is fraught with difficulty. It would be easy in a project with so many elements to miss something vital from such a necessarily short report as this. However, in relation to the original aims of the project, it is clear from the above that the literature review undertaken to support the initial stages of the research process in phase 1 was a valuable piece of work which adds to the knowledge base of the field. It was particularly helpful in developing the data extraction sheets and interview schedules for both healthcare professionals and patients or clients in phase 1 of the project, the findings of which were instrumental in gaining an incredible amount of media interest on the UK side of the Channel which clearly paid dividends in the second, intervention phase of the study.

With regard to the second stated outcome for the project, it seems likely that on both sides of the Channel, there are signs that interventions enacted in phase 2 of the project have recently begun to bear more fruit and it is regrettable that the timing of the project precludes further long-term analysis of referral and testing trends in both the UK and France. A longer evaluation phase would have captured long-term changes in clinical practice and behaviour and whilst on first impression, it seems that GPs (in particular) referral or testing behaviours appear to have changed very little from the data presented above, it should be remembered that individual GPs are unlikely to encounter many who need an HIV test or have clear clinical indicators for such a test on a regular basis. There may therefore be a time-lag with regard to improvements in both the number of test requests made by physicians and others, and the appropriateness and timeliness of these in future. The number of healthcare professionals trained in France was quite small, but already, anecdotal evidence suggests that better awareness of the few is paying some dividends with regard to early diagnosis, although it should be remembered from the findings of phase 1 (O'Connor et al. 2014a; 2014b) that patients in France were more likely to be diagnosed early there than in the UK at the very outset of the project as a result of a highly visible campaign nationwide to alert French GPs to their responsibilities in this respect (50% versus 60.4% early diagnoses in France compared to the UK).

The numbers of medical and nursing staff trained in the UK in so short a period is truly impressive, and anecdotally, appear to be having positive results. The positive testimony of Dr Heather Scott about the GP training at the closing conference seems not to have been a single solitary incident. In reflecting on the clinical changes seen in the GUM/Sexual Health Clinic of Kent Community Health NHS Foundation Trust, Dr Mun-Yee Tung commented in May 2015 – over five months since the training – that there *‘does appear to be a trend to earlier HIV diagnosis although the numbers remain small’* – although she also notes that, *‘the increase has been through increased access to HIV testing through sexual health clinics and through the acute hospitals trust’* where significant investment was also made in training physicians in respect of the clinical indicators for testing. Other GPs may be more willing to refer patients on to the GUM/Sexual Health Clinics rather than testing them themselves. Interest from GPs overall remains quite muted, but she notes that, *‘we have seen increased interest from certain specific GPs and we hope that the interest and incentive to provide HIV testing will increase through peer-support and on-going education and training’*.

Likewise, Dr Lesley Navaratne from Maidstone and Tunbridge Wells NHS Trust also notes that, *‘in response to your questions we have seen increased GP HIV tests as shown in the table as opposed to referrals, as in our training we asked GPs to do the test themselves rather than refer them here - and were able to show this improvement in the figures’*. She also goes on to say that, *‘we have also had more referrals from GPs because of this’*. The positive benefits of this approach have also been borne out in the number of early diagnoses being made, Dr Navaratne adding that, *‘our early diagnosis has continued to be seen not only in the figures we sent in, but since then as well. This has occurred across in-patient units, GPs, and in the outreach testing services provided by Terrence Higgins Trust’*. In this respect, it

seems likely that the project is beginning to meet the next of its objectives namely, contributing to an increase in the number of earlier diagnoses – undoubtedly helped by phase 1 of the project which helped to identify some of the reasons why individuals typically test ‘late’ for HIV, another of the project’s outcomes (Project application form/grant request, March 2012).

In terms of work completed, a comprehensive literature review about the reasons for late HIV diagnoses has been conducted and this definitely informed the conduct and subsequent outcomes of the study. The retrospective analysis of clinical data for patients diagnosed with HIV on both sides of the Channel was also successful and identified some correlations with a number of demographic and clinical variables – the most surprising of these however, being evidence of a growing prevalence in older heterosexual women and men who were more likely to be diagnosed late. In retrospect, it would have been good to consider how the interventions might have been better targeted at this vulnerable group of people as the METRO HIV testing roadshow undoubtedly had tremendous success reaching younger cohorts of people, but not this particular age group. The semi-structured interviews conducted with patients in phase 1 of the study might pose some answers to how this might be achieved, and a more detailed secondary analysis of this data is now taking place although it would be good to conduct more of these in Picardy as the number of patients interviewed on this side of the Channel was smaller than in the UK.

Much may be said of the interventions themselves, the final set of outcomes from the study. The social media and public health campaigns seem to have been a tremendous success in Kent and Medway, but less so in France, although the clear and definitive lead for the public health aspects of the project provided by Kent County Council undoubtedly strengthened the impact of this. There is also evidence to suggest that engaging experts (whether from the statutory or voluntary sector) to undertake some aspects of this work paid enormous dividends both in terms of outcomes and the quality of the evaluation data provided. The suggestion from French colleagues that a theatre company be employed to reach another strategic target group, namely BME individuals, was undoubtedly an inspired one and encouraged a similar though different activity on the UK side of the channel for this group of people. Both appear to have been highly successful but again, qualitative data from the phase 1 interviews may pose additional answers as to how these groups can be accessed; many for example having strong church, family and social networks, although others remain relatively isolated and invisible to the statutory sector, especially those whose migration or residency status may be in doubt. It is essential that ways are found of reaching such people and engaging them more in regular HIV testing programmes when at risk of the virus, particularly in those groups for which condom use is less acceptable, and strategies to change perceptions about this need to be developed, particularly for male BME individuals. It is clear that specialist groups such as HACO working in tandem with statutory health services could do much to realise changes in health behaviours in this group of people and the work they are doing needs to be clearly recognised, as indeed does the work of AIDES with similar clients on the French side of the Channel. It seems clear that partnerships with the charitable sector, including those organisations working with the elderly such as Age UK may prove beneficial in the future, together with other organisations such as churches and the providers of social care, although undoubted instances of stigma, labelling and social exclusion of those with HIV needs to be challenged in some of these.

The need to raise the awareness and preparedness of GPs, practice nurses and all other healthcare staff – including those in acute areas – to assess risk, evaluate the patient’s psychological and social preparedness for testing and either test or refer on to others is an ongoing concern which is unlikely to be overcome by a short period of training. The need to raise awareness of HIV as a public health issue within the training programmes of all healthcare workers, and many social care providers too, is urgent and requires greater advocacy. The funding from Interreg allowed for an unprecedented programme of targeted training on both sides of the Channel, but with the end of the project there is no clear funding stream to allow this work to continue, or the implementation of strategies likely to engender more

important and long-lasting cultural change in the attitudes and willingness of professionals to discuss individuals' sexual health risks. Meanwhile, opportunities to promote HIV testing in National HIV Testing Week with continued funding for the social media and public health campaigns are crucial to the ongoing work of reminding each generation of the risks of HIV and encourage routine testing of those at risk of contracting the virus so that the pool of infection can be reduced in the population as a whole. The need to conduct such a high profile campaign on an annual basis is really evident however. The recent decision to make 'over the counter' rapid test kits available in the UK is a positive one, but the decision to undertake such a test should also be supported by accurate information rather than hearsay, and with the requisite level of support for those who subsequently find out that they are HIV positive by such means. The support offered by AIDES volunteers in France is commendable and the decision to contract some of the outreach services in Kent and Medway to the UK HIV charity Terence Higgins Trust may provide one such opportunity, but again, local organisational knowledge and a sense of the needs of local people exhibited by many healthcare professionals interviewed should not be lost. The impression too, especially amongst older people, that it is primarily designed to service the needs of gay men and latterly BME people should be positively addressed and it may be that its entry into mainstream health services in this way will help achieve this.

Finally, in relation to the international aspects of the project, there has undoubtedly been a strong sense of cohesion and respect for the contribution which each can make to the learning of the other notwithstanding the very different policy contents and organisational structures in place on each side of the Channel. It would be beneficial for these collaborations to continue in some way, but helpful too if a Higher Educational Institution was involved on both sides of the partnership to help drive things forward. Clinicians are incredibly busy people irrespective of where they work, and there is no doubt that each of them contributed a great deal of their own time and energy to the success of the project no matter where they came from, particularly those for whom international collaboration was a new and challenging feature of the project. Suggestions have already been forthcoming as to how the work may be taken forwards and others may also be developed in future months as the data are analysed in more detail. The needs of specific groups including older sexually active individuals, MSMs engaging in unsafe sexual practices in unprotected and oftentimes public environments, and those from BME or other migrant groups have already been identified as areas for future work, together with possible 'high-tech' solutions such as computer systems designed to identify those likely to be at risk from medical data have also been mooted.

These and other strategies could also be investigated in more detail and small pilot projects developed to further their evaluation. The power of social and broadcast media has also been powerfully demonstrated, and ways in which these may be used more effectively should also be investigated. In the meantime, the dissemination of the project findings has already begun at, for example, the British HIV Association conference in Brighton in April 2015, but finance and resources should be made available for these and other projects building upon the progress achieved to date in both Kent and Medway and Picardy. In concluding, it is perhaps relevant to hear the voice of a 63 year old female patient who expresses the benefits of getting an HIV test after many months of severe ill-health, misdiagnoses and unnecessary medical interventions when she said of her HIV test result: *'as soon as I got that medication it was miraculous...It was miraculous and I thank God for [name of clinician] and all of them out there [indicating the name of the clinic in which she was diagnosed and treated]'*. There are few truly 'miraculous' cures in medical science, but the opportunity to watch an older patient who clearly felt herself at death's door recover with such health and vigour might well be one of them.

12.0 References

- Adler, A., Mounier-Jack, S., Coker, R.J. (2010) Late diagnosis of HIV in Europe: definitional and public health challenges. *Health Sciences*, 21(3):284-293.
- Albarracin, D. and Durantini, M. (2010) Are we going to close social gaps in HIV? Likely effects of behavioral HIV-prevention interventions on health disparities. *Psychology, Health & Medicine*, 15(6):694-719.
- Almasi Nokiani, F. (2010) HIV infection in elderly patients over 65 years. *International Journal of Infectious Diseases*, 14(Supp 1):e75
- AVERT (Averting HIV and AIDS). HIV & AIDS in Western & Central Europe. Available at: <http://www.avert.org/european-hiv-aids-statistics.htm>. Accessed: 8 December 2014.
- British HIV Association (BHIVA). Audit of mortality. [Online]. Available at: <http://www.bhiva.org/files/file1001379.ppt#2> accessed: 29th August 2012.
- Bonjour, M.A., Montagne, M., Zambrano, M., Molina, G., Lippuner, C., Wadskier, F.G., Castrillo, M., Incani, R.N., Tami, A. (2008) Determinants of late disease-stage presentation at diagnosis of HIV infection in Venezuela: A case-case comparison. *AIDS Research Therapy*, 5(6).
- Branson, B.M., Handsfield, H.H., Lampe, M.A., Janssen, R.S., Taylor, A.W., Lyss, S.B., Clark, J.E. (2006) Revised recommendations for HIV testing of adults, adolescents and pregnant women in health-care settings. *MMWR Recomm Rep*, 55(RR14):1-17.
- Camoni, L., Raimondo, M., Regine, V., Salfa, M.C., Suligoi, B. (2013) Late presenters among persons with a new HIV diagnosis in Italy, 2010-2011. *BMC Public Health*, 13:281.
- Carrizosa, C.M., Blumberg, E.J., Hovell, M.F., Martinez-Donate, A.P., Garcia-Gonzalez, G., Lozada, R., Kelley, N.J., Hofstetter, C.R., Sipan, C.L. (2010) Determinants and prevalence of late HIV testing in Tijuana, Mexico. *AIDS Patient Care STDS*, 24:333-40.
- Casau, N.C. (2005) Perspective on HIV infection and aging: Emerging research on the horizon. *Clinical Infectious Diseases*, 41:855-863.
- Castilla, J., Sobrino, P., De La Fuente, L., Noguer, I., Guerra, L., Parras, F. (2002) Late diagnosis of HIV infection in the era of highly active antiretroviral therapy: Consequences for AIDS incidence. *AIDS*, 16(14):1945-1951.
- Chadborn, T.R., Delpech, V.C., Sabin, C.A., Sinka, K., Evans, B.G. (2006) Late diagnosis and consequent short term mortality. *AIDS*, 20(18):2371-9.
- Centers for Disease Control (2003) Late versus early testing of HIV – 16 sites, United States. *MMWR Morb Mortal Wkly Report*, 52:581-586.
- Cu-Uvin, S., Snyder, B., Harwell, J.I., Hogan, J., Chibwesa, C., Hanley, D., Ingersoll, J., Kurpewski, J., Mayer, K.H., Caliendo, A.M. (2006) Association between paired plasma and cervicovaginal lavage fluid HIV-1 RNA levels during 30 months. *Journal of Acquired Immune Deficiency Syndrome*, 42:584-587.
- Davis, D. H., Smith, R., Brown, A., Rice, B., Yin, Z., Delpech, V. (2013) Early diagnosis and treatment of HIV infection: magnitude of benefit on short-term mortality is greatest in older adults. *Age and Ageing*, 42(4):520-526.

Delpierre, C., Cuzin, L., Lert, F. (2007) Routine testing to reduce late HIV diagnosis in France. *British Medical Journal*, 334(7608):1354-1356.

DeMarco, R.F., Gallagher, D., Bradley-Springer, L., Jones, S.G. and Visk, J. (2012) Recommendations and reality: Perceived patient, provider, and policy barriers to implementing routine HIV screening and proposed solutions. *Nursing Outlook*, 60(2):72-80

Department of Health (2008) HIV post-exposure prophylaxis: Guidance from the UK Chief Medical Officers' Expert Advisory Group on AIDS. London: DoH.

Dilernia, D.A., Monaco, D.C., Cesar, C., Krolewiecki, A.J., Friedman, S.R., Cahn, P. and Salomon, H. (2013) Estimation of HIV-testing rates to maximize early diagnosis-derived benefits at the individual and population level. *PLoS one*, 8(1):e53193

Direction générale de la santé (2009) 'HIV infection screening in France', 2009. Haute Autorité de Santé.

Dowson, L., Kober, C., Perry, N., Fisher, M., Richardson, D. (2012) Why some MSM present late for HIV testing: a qualitative analysis. *AIDS Care*, 24(2):204-209.

EU. Action Plan on HIV/AIDS in the EU and neighbouring countries: 2014-2016. [Online]. Available at: http://ec.europa.eu/health/sti_prevention/hiv_aids/index_en.htm. Accessed 1 March 2014.

European Centre for Disease Prevention and Control (2012) HIV testing: increasing uptake and effectiveness in the European Union: Evidence synthesis for Guidance on HIV testing. *Technical Report*, Stockholm: European Centre for Disease Control

European Centre for Disease Prevention and Control (2011) HIV/AIDS surveillance in Europe 2011. Brussels: European Centre for Disease Control and World Health Organisation.

European Centre for Disease Prevention and Control (2010). HIV testing: increasing uptake and effectiveness in the European Union. Stockholm: European Centre for Disease Control.

European Communities (2008) Major and Chronic Diseases Report 2007. Luxembourg: European Commission. ISBN 92-79-08896-4.

Garcia de Olalla, P., Manzardo, C., Sambeat, M.A., Ocana, I., Knobel, H., Humet, V., Domingo, P., Ribera, E., Guelar, A., Marco, A., Belza, M.J., Miro, J.M., Cayla, J.A. (2011) Epidemiological characteristics and predictors of late presentation of HIV infection in Barcelona (Spain) during the period 2001-2009. *AIDS Research and Therapy*, 8(22).

Girardi, E., Sabin, C., d'Arminio Monforte, A. (2007) Late diagnosis of HIV infection: Epidemiological features, consequences and strategies to encourage earlier testing. *Journal of Acquired Immune Deficiency Syndrome*, 46(Supp 1):3-8.

Hanf, M., Bousser, V., Parriault, M.C., Van-melle, A., Nouvellet, M., Adriouch, L., Sebillotte, C.G., Couppie, P., Nacher, M. (2011) Knowledge of free voluntary HIV testing centres and willingness to do a test among migrants in Cayenne, French Guiana. *AIDS Care*, 23(4):476-485.

Health Protection Agency (2011) HIV in the United Kingdom: 2011 Report. London; Health Protection Services, Colindale.

Health Protection Agency (2011) United Kingdom New HIV Diagnoses to end of June 2011. London, Health Protection Agency.

Hooshyar, D., Hanson, D.L., Wolfe, M., Selik, R.M., Buskin, S.E., McNaghten, A.D. (2007) Trends in perimortal conditions and mortality rates among HIV-infected patients. *AIDS*, 21:2093- 2100.

Illaria, G., Jacobs, J.L., Polsky, B., Koll, B., Baron, P., MacLow, C., Armstrong, D. Schlegel, P.N. (1992) Detection of HIV-1 DNA sequences in pre-ejaculatory fluid. *Lancet*, 340: 1469.

Institute of Health Surveillance/L'Institut de veille sanitaire. HIV/AIDS Statistics for 2012. [Online]. Available at: <http://www.aides.org/actu/france-6-372-personnes-ont-decouvert-leur-seropositivite-au-vih-en-2012-2353>. Accessed: 4 December 2012.

Johnson, M., Sabin, C., Girardi, E. (2010) Definition and epidemiology of late presentation in Europe. *Antiviral Therapy*,15(Supp 1):3-8.

Kim, N., Lucchetti, A., Whittington, W., Zuckerman, R., Coombes, R., Corey, L., Sanchez, J., Celum, C. (2006) *Higher rectal HIV RNA levels in men who have sex with men (MSM) with concurrent rectal HSV shedding*. 44th Annual Meeting of the Infectious Diseases Society of America, Toronto, abstract 57.

Kivelä, P.S., Krol, A., Salminen, M.O., Ristola, M.A. (2010) Determinants of late HIV diagnosis among different transmission groups in Finland from 1985 to 2005. *HIV Medicine*, 11(6):360-367.

Krentz, H.B., Auld, M.C., Gill, M.J. (2004) The high cost of medical care for patients who present late (CD4 <200 cells/mm³) with HIV infection. *HIV Medicine*,5:93-8.

Levy, J.A. (1993) Pathogenesis of human immunodeficiency virus infection. *Microbiological Reviews*, 57:185–289.

Lert, F. and Pialoux, G. (2010) Numéro thématique – L'infection à VIH-sida en France en 2009 : dépistage, nouveaux diagnostics et incidence. *Bulletin Epidemiologique Hebdomadaire*, 45-46:449-476.

Lo, Y., Wu, P., Hsieh, C., Chen, M., Shen, W., Hsieh, S., Sun, H., Liu, W., Hung, C., Chang, S. (2011) Late diagnosis of Human Immunodeficiency Virus infection in the era of highly active Antiretroviral Therapy: role of socio-behavioural factors and medical encounters. *Journal of the Formosan Medical Association*, 110(5):306-315.

Liuzzi, G., Chirianni, A., Clementi, M., Bagnarelli, P., Valenza, A., Cataldo, P.T., Piazza, M. (1996) Analysis of HIV-1 load in blood, semen and saliva: evidence for different viral compartments in a cross-sectional and longitudinal study. *AIDS*, 10:F51-F56.

Mandalia, S., Mandalia, R., Lo, G., Chadborn, T., Sharott, P., Youle, M., Anderson, J., Baily, G., Brette, R., Fisher, M., Compels, M., Kinghorn, G., Johnson, M., McCarron, B., Pozniak, A., Tang, A., Walsh, J., White, D., Williams, I., Gazzard, B., Beck, E.J. (2010) Rising population cost of treating people living with HIV in the UK, 1997-2013. *PLoS One*, 5, 12: e15677.

Mignone, J., Migliardi, P., Harvey, C., Davis, J., Madariaga-Vignudo, L., Pindera, C. (2014) HIV as Chronic Illness: Caregiving and Social Networks in a Vulnerable Population. *Journal of the Association of Nurses in AIDS Care*, 26(3):235–245.

Milligan, C., and Overbaugh, J. (2015) The role of cell-associated virus in mother-to-child HIV transmission. *Journal of Infectious Diseases*, 210 (Supplement 3):S631-40.

Mukolo, A., Villegas, R., Aliyu, M., Wallston, K.A. (2013) Predictors of Late Presentation for HIV Diagnosis: A Literature Review and Suggested Way Forward. *AIDS and Behaviour*, 17(1):5-30.

Ndiaye, B., Salleron, J., Vincent, A., Bataille, P., Bonnevie, F., Choisy, P., Cochonat, K., Fontier, C., Guerroumi, H., Vandercam, B., Melliez, H., Yazdanpanah, Y. (2011) Factors associated with presentation to care with advanced HIV disease in Brussels and Northern France: 1997-2007. *BMC Infectious Diseases*, 11(1):11

O'Connor, S.J., Manship, S., Hart, M., Tudor, F., Clift, S. (2014a) Phase 1 Research Report on the IMPRESS Health 2 (Interreg IVA Channel Programme) Project 4155: Understanding factors behind the late testing and diagnosis of HIV. ISBN 978-1-909067-31-8. Available at: <http://create.canterbury.ac.uk/12830/>

O'Connor, S.J., Clift, S., Diouf, M., Lorenzo, P., Manship, S., Trouillet, H., Schmit, J. (2014b) Phase 1 Anglo-French Research Report on the IMPRESS Health 2 (Interreg IVA Channel Programme) Project 4155: Understanding factors behind the late testing and diagnosis of HIV. ISBN 978-1-909067-37-0.

Paz-Bailey, G., Raymond, H.F., Lansky, A., Mermin, J. (2014) Using the National HIV Behavioral Surveillance System to inform HIV prevention efforts in the United States. *AIDS Behaviour*, 18 (Supplement 3):S233-6.

Pereira, G., de Souza, S., Caetano, K., Martins, R., Gir, E., Minamisava, R., Gomes, J., Teles, S. (2011) Late HIV diagnosis and survival within 1 year following the first positive HIV test in a limited-resource region. *Journal of the Association of Nurses in AIDS Care*, 22(4):313-319.

Public Health England (2015) Sexual and reproductive health in England: A guide to local and national data (Revised December 2014). [Online]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/395207/PHE_Guide_to_National_Local_Sexual_Reproductive_Health_Data.pdf. Accessed 24 April 2015).

Public Health England (2013) HIV in the United Kingdom: 2013 Report. London: Public Health England.

Pudney, J., Oneta, M., Mayer, K., Seage, G., Anderson, D. (1992) Pre-ejaculatory fluid as potential vector for sexual transmission of HIV-1. *Lancet*, 340:1470.

Rashbrook, E. (2013) HIV Prevention Needs Assessment for London. London: Public Health England

Ross, P., Humble, A., Blum, I. (2013) Sexuality and HIV/AIDS: An Exploration of Older Heterosexual Women's Knowledge Levels. *Journal of Women & Aging*, 25(2):165-182.

Rousseau, C.M., Nduati, R.W., Richardson, B.A., Steele, M.S., John-Stewart, G.C., Mbori-Ngacha, D.A., Kreiss, J.K., Overbaugh, J. (2003) Longitudinal analysis of HIV type-1 RNA in breast milk and its relationship to infant infection and maternal disease. *Journal of Infectious Diseases*. 187:741-46.

Savasta, A.M. (2004) HIV: Associated transmission risks in older adults: An integrative review of the literature. *Journal of the Association of Nurses in AIDS Care*, 15:50-59.

Schrantz, S.J., Babcock, C.A., Theodosios, C., Brown, S., Mercer, S., Pillow, M.T., Watts, K., Taylor, M., Pitrak, D.L. (2011) A targeted, conventional assay, Emergency Department HIV testing program integrated with existing clinical procedures. *Annals of Emergency Medicine*, 58(1):S85-S88.

Schwarcz, S., Richards, T.A., Frank, H., Wenzel, C., Hsu, L.C., Chin, C.J., Murphy, J., Dilley, J. (2011) Identifying barriers to HIV testing: personal and contextual factors associated with late HIV testing.

AIDS Care, 7:892-900.

Shugars, D.C. and Whal, S.M. (1998) The role of the oral environment in HIV-1 transmission. *Journal of the American Dental Association*, 129:851-858.

Sudarshi, D., Pao, D., Murphy, G., Parry, J., Dean, G., Fisher, M. (2008) Missed opportunities for diagnosing primary HIV infection. *Sexually Transmitted Infections*, 84:14-16.

Sullivan, A.K., Curtis, H., Sabin, C.A., Johnson, M.A. (2005) Newly diagnosed HIV infections: review in the UK and Ireland. *British Medical Journal*, 330:1301-2.

THT. HIV postal test. [Online]. Available at: <http://www.tht.org.uk/sexual-health/HIV-STIs/HIV-AIDS/HIV-postal-test>. Accessed 12 February 2014.

UNAIDS (2012) Global Report: UNAIDS Report on the Global AIDS Epidemic 2012. [Online]. Available at: <http://www.unaids.org/en/resources/publications/2012/name,76121,en.asp>. Accessed 24 April 2015.

Vives, N., Carnicer-Pont, D., Garcia de Olalla, P., Camps, N., Esteve, A., Casabona, J. (2012) Factors associated with late presentation of HIV infection in Catalonia, Spain. *International Journal of STD & AIDS*, 23:475-480.

WHO/UNAIDS/UNICEF (2011) Global HIV/AIDS Response: Epidemic update and health sector progress towards Universal Access 2011. [Online]. Available at: http://www.who.int/hiv/pub/progress_report2011/en/. Accessed 24 April 2015.

World Health Organisation (2007) Guidance on provider-initiated HIV testing and counselling in health facilities. Geneva: World Health Organisation.

Wohlgemut, J., Lawes, T., Laing, R.B.S. (2012) Trends in missed presentations and late HIV diagnosis in a UK teaching hospital: a retrospective comparative cohort study. *BMC Infectious Disease*, 12(72).

Yang, B., Chan, S., Mohammad, N., Meyer, J., Risser, J., Chronister, K.J., Wolverton, M., Arafat, R., Hwang, L. (2010) Late HIV diagnosis in Houston/Harris County, Texas, 2000-2007. *AIDS Care*, 22(6):766-774.

Yazdanpanah, Y., Lange, J., Gerstoft, J., Cairns, G. (2010) Earlier testing for HIV – how do we prevent late presentation? *Antiviral Therapy*, Supp 1:17-24.

Zoufaly, A., an der Heiden, M., Marcus, U., Hoffmann, C., Stellbrink, H., Voss, L., van Lunzen, J., Hamouda, O. (2012) Late presentation for HIV diagnosis and care in Germany. *HIV Medicine*, 13(3): 172-181.

ISBN 978-1-909067-46-2