OptTEST
OPTIMISING TESTING AND LINKAGE TO CARE FOR HIV ACROSS EUROPE

Country Report

Evidence on linkage to care after HIV diagnosis in Europe

Greece

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Background

Published data on linkage to HIV care from the European Union are lacking and few countries routinely monitor HIV quality of care measures locally or nationally. With successful expansion of HIV testing into a variety of settings (including hospital admissions, community testing and self-testing or self-sampling), prompt access to medical care must be ensured as linkage to care impacts subsequent treatment uptake and is essential for optimal patient outcomes. OptTEST is a three-year project, (2014-2017) co-funded by the European Commission and led by HIV in Europe, that aims to optimise HIV testing and linkage to care in Europe. Work package (WP4) of OptTEST looks to explore and document linkage to HIV care and access to therapy across Europe. Pilot countries involved in WP4 include: UK, France, Estonia, Spain, Poland, Portugal, Greece and Czech Republic.

In June 2015, a literature review carried out by WP4 found that a number of definitions of linkage to care following HIV diagnosis had been applied in the literature from Europe. The variety of settings, time periods, populations and definitions made it difficult to compare measurements between countries and studies, highlighting the necessity for a standardised definition to ensure consistent assessment of quality of HIV care and clinical outcomes.

The OptTEST project, in collaboration with the European Centre for Disease Prevention and Control (ECDC), hosted a workshop at an expert meeting in Stockholm in September 2015 at which such a standard definition for defining and measuring linkage to care for surveillance and monitoring purposes was developed. Linkage to care was defined as: the proportion of patients seen for HIV care after diagnosis (measured by first CD4 count and/or viral load and/or clinic attendance date and/or treatment start date), with prompt linkage defined as linkage within 3 months.

To pilot the agreed surveillance definition and explore current linkage to care at national-level, WP4 has undertaken analyses of the 2015 European HIV case-based dataset held at the ECDC. The aim of these analyses was to determine the feasibility of using these data to routinely monitor linkage to care. This report also presents data from an OptTEST WP4 survey of national HIV surveillance contact points to better understand what structural factors influence linkage to care and monitoring linkage to care in countries across Europe.

Methodology

Assessing linkage to care using routinely collected EU/EEA surveillance data

These analyses used case-based European HIV surveillance data held at the ECDC and reported in 2015. Laboratory-confirmed cases of HIV are submitted annually by the 53 countries in the WHO European Region to a joint database using The European Surveillance System (TESSy) portal.

People were included if they were newly diagnosed with HIV between 2010 and 2014 and were reported to the ECDC/WHO in 2015 using the revised TESSy data template. Completeness of key variables over time was calculated to determine the appropriateness of using TESSy to monitor linkage to care.

Individuals were excluded if they had been previously diagnosed with HIV (HIVstatus variable=PREVPOS), previously been in HIV care (CD4 more than 14 days prior to diagnosis date) or died within three months of diagnosis. People were also excluded if they had no CD4 data reported, only the year of diagnosis/CD4 count reported or a CD4 count reported with no date. All partial dates, where the only month/quarter and year were provided, were defaulted to the middle of the month/quarter.

Linkage to care was calculated as the time between the HIV diagnosis date and first CD4 count date. Linkage was considered prompt if the first CD4 count was taken up to three months (91 days) after diagnosis. In a sensitivity analysis, to assess the worst case scenario, those with no CD4 count reported after diagnosis were considered not linked to care.

Due to changes in the national surveillance database and updates to the data in Greece, there may be differences between the data described here, reported in 2015, and the data uploaded to TESSy by Greece in 2017.

Understanding the linkage to care context: a survey of national HIV surveillance focal points

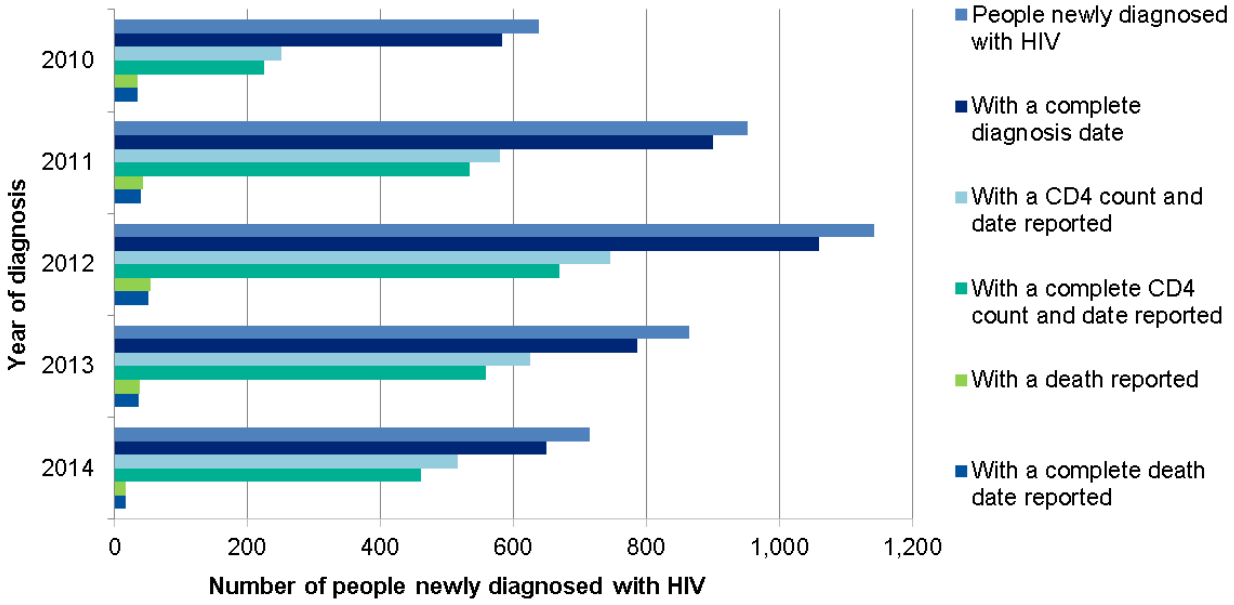
In September 2016, a short survey was sent to the 30 EU/EEA national contact points to better understand what structural factors influence linkage to care and monitoring linkage to care in countries across Europe. In the EU/EEA, competent bodies for surveillance in each Member State nominate a national contact point for HIV/AIDS. These contact points work with the ECDC and WHO Regional Office for Europe on the reporting of new HIV cases to TESSy. The questionnaire was developed in collaboration with international experts, including: the ECDC, the WHO Regional Office for Europe, OptTEST partner organisations, the HIV/AIDS Civil Society Forum, the EURO HIV EDAT project, AIDS Fondet in Denmark and the European AIDS Treatment Group (EATG). Topics covered included: where people can be tested for HIV, HIV care structure, data collection mechanisms, linkage definitions and data caveats. In section two of the survey, respondents were asked to provide data on CD4, viral load, care attendance and treatment initiation after diagnosis to better understand the sensitivity of the linkage to care definition.

Results

Assessing linkage to care using routinely collected surveillance data

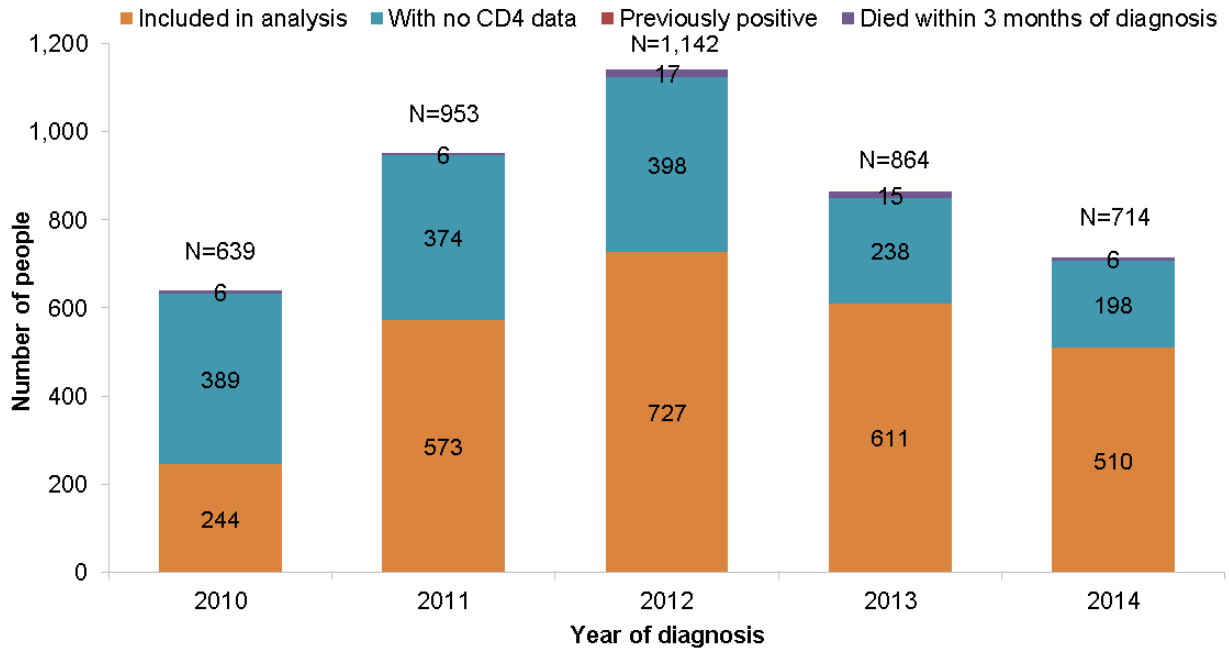
There were 4,312 new diagnoses of HIV between 2010 and 2014 in Greece reported to TESSy. Of these, 92% had a complete diagnosis date reported and 63% had a CD4 count and CD4 date reported. For those diagnoses with CD4 data reported, 90% had complete information provided. 100% of people diagnosed over the five years that died had a complete death date. Trends in the completeness of these key fields over time can be seen in the graph below (Figure 1).

Figure 1: Trends in completeness of key fields used to calculate linkage to care in TESSy, 2010-2014



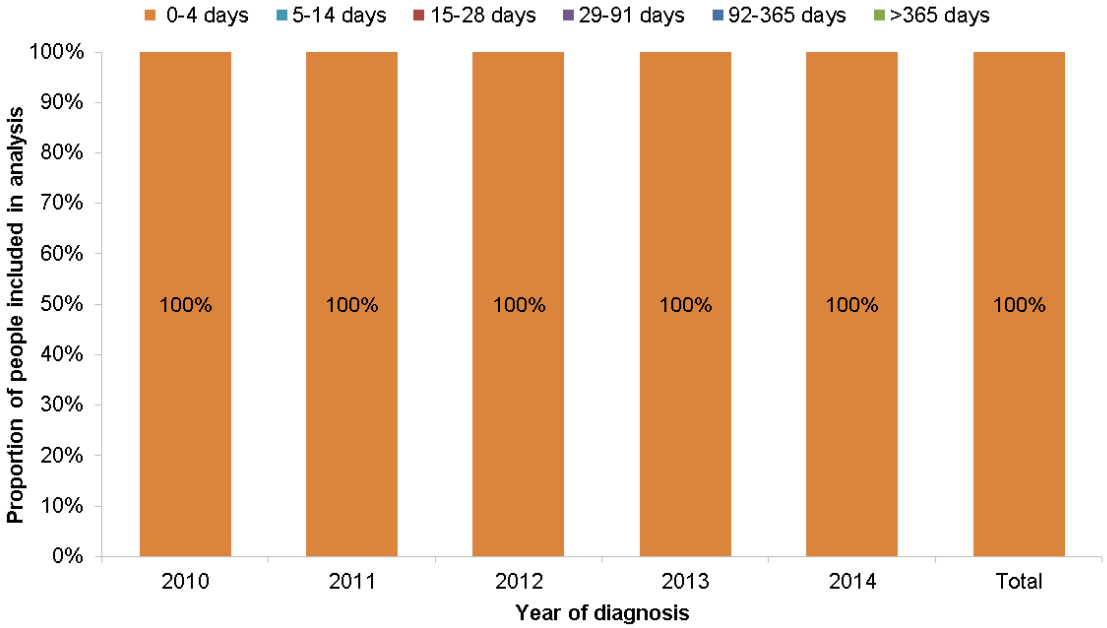
Of the 4,312 new diagnoses in Greece from 2010-2014, 0 people were reported previously positive, 0 had evidence of previously being in care, 50 people died within 3 months of diagnosis and 1,597 people had missing CD4 information. The distribution by year can be seen in Figure 2.

Figure 2: Linkage to care calculation exclusions, 2010-2014



Of the 2,665 people included in analysis, 100% (2,665) people had a CD4 count taken within 0-4 days of diagnosis, 0% (0) people had a CD4 count within 5-14 days, 0% (0) people had a CD4 count within 15-28 days, 0% (0) people had a CD4 count within 29-91 days, 0% (0) people had a CD4 count within 92-365 days and 0% (0) people had a CD4 count over a year after diagnosis (Figure 3).

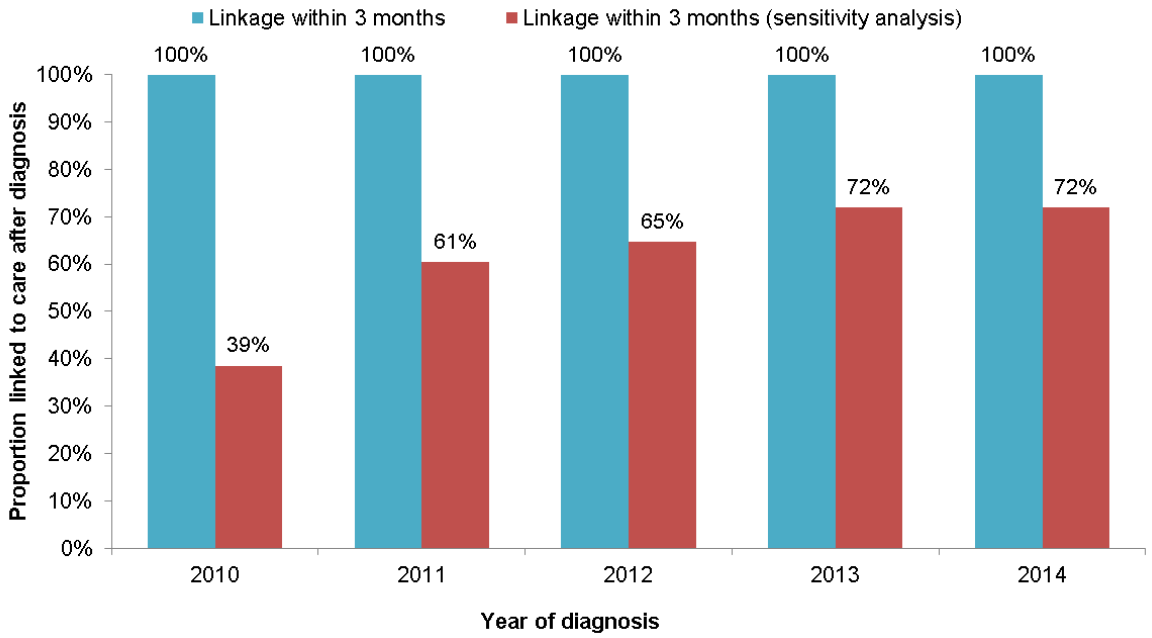
Figure 3: Distribution of time from diagnosis to first CD4 count, 2010-2014



Prompt linkage to care following diagnosis over time can be seen in Figure 4. Over the five years, linkage to care within 3 months was 100% (2,665/2,665). In sensitivity analysis, when

those people without a CD4 count taken were included in the denominator and considered not linked to care, linkage within 3 months from 2010-2014 fell to 63% (2,685/4,262).

Figure 4: Prompt linkage to care and sensitivity analysis, 2010-2014



Understanding the linkage to care context: a survey of national HIV surveillance focal points

The survey response from Greece was received by a representative from the Hellenic Center for Disease Control & Prevention.

HIV testing and diagnosis

Available settings for HIV testing:

STI clinics	Yes
Emergency departments	Yes
Antenatal services	Yes
Labour wards	No
Infectious disease unit	Yes
Other inpatient admissions	Yes
Tuberculosis services	Yes
Other outpatient services	Yes
Drug services	Yes
Prisons	Yes
General practice/primary	Yes
Pharmacies	No
Community settings	Yes
Self-sampling	No
Home/self-testing	No
Laboratories	Yes
Other setting	No

Data on positive HIV tests in all settings apart from emergency departments and community settings are reported as part of national surveillance, this includes data on reactive tests. The date of first reactive test and the date lab sample is taken for confirmatory test are used as the date of diagnosis.

HIV clinical care pathway

Routine HIV clinical care is provided in 26 infectious disease units and outpatients infectious clinics for HIV patients. Baseline assessments carried out at initial entry into care include: confirmatory HIV test, CD4 count, viral load measurement, a complete sexual history, partner notification and a complete medical history. Other assessments include routine lab test, examinations for other STDs, HLA tests, physical examination, x-rays and patient referral.

HIV data capture:

	Local level	National level
Date of first reactive test	Yes	Yes
Site of first reactive test	Yes	Yes
Confirmatory diagnosis date	Yes	Yes
Site of confirmatory diagnosis	Yes	Yes
HIV care attendance date	Yes	No
First CD4 count	Yes	Yes
First CD4 date	Yes	Yes

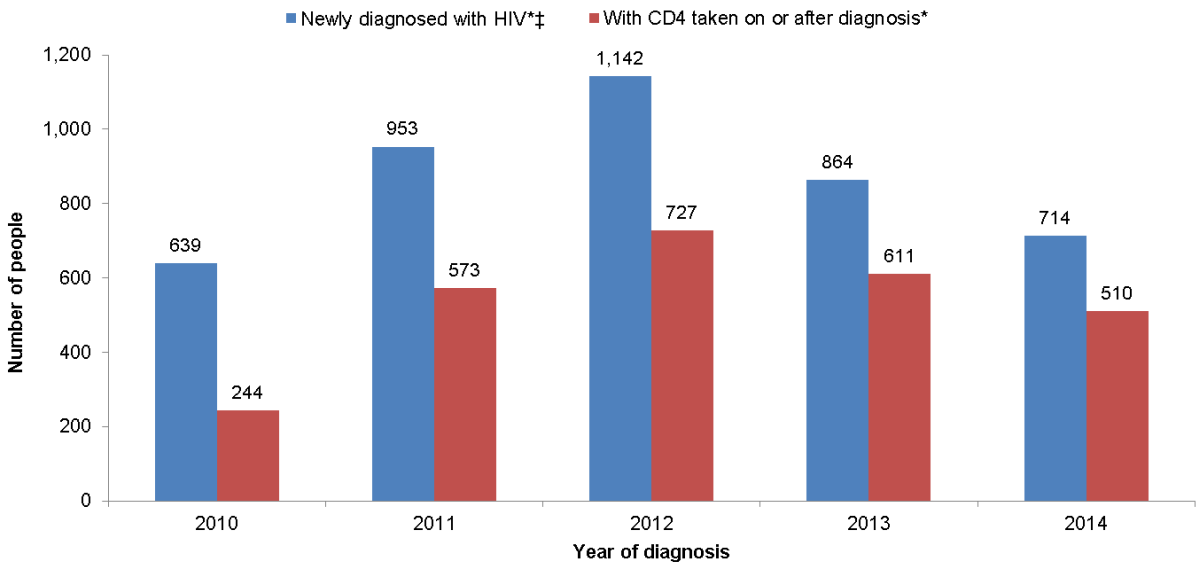
First viral load	Yes	Yes
First viral load date	Yes	Yes
HIV treatment start date	Yes	Yes

Greece currently has no official guidelines in place for linkage to care after diagnosis and no official definition for linkage to care. Both of these are in the process of being put in place.

Data and estimates

Figure 5 shows the availability of CD4 data after diagnosis using information from TESSy. Data were not updated by the country representative. No data were provided on viral load, care attendance and treatment initiation.

Figure 5: Data availability for people newly diagnosed with HIV, 2010-2014

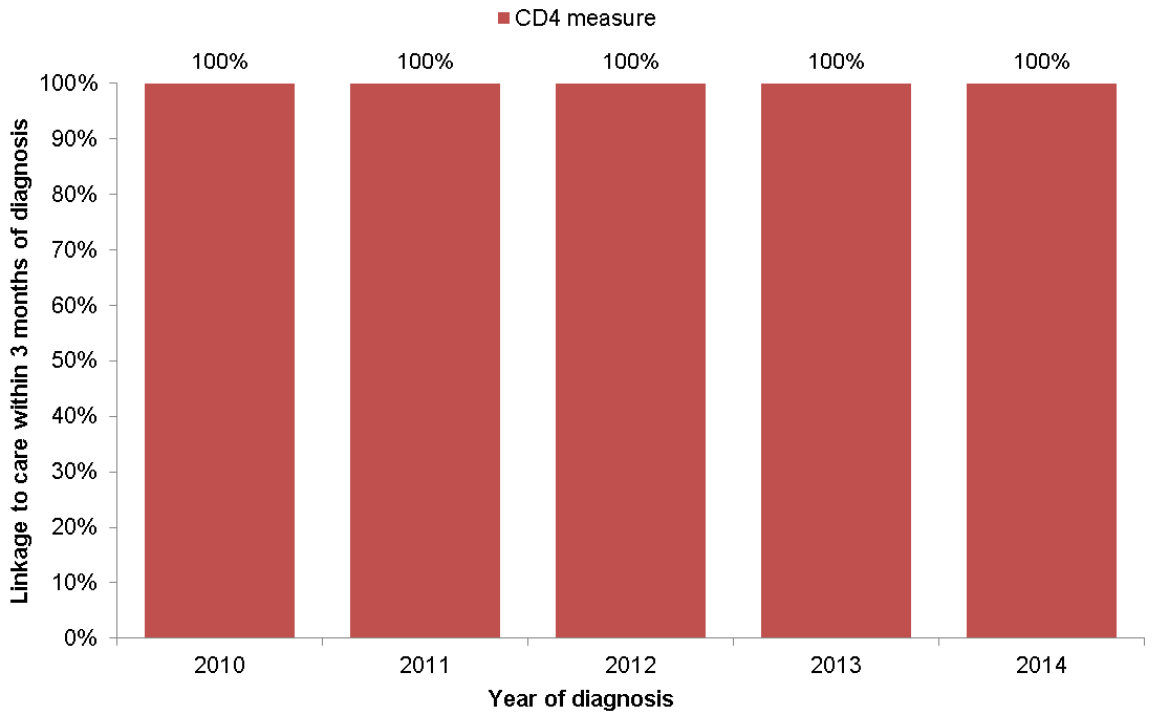


**Data source: TESSy*
‡ Excluding those who died within three months of diagnosis, were diagnosed previously or previously seen for care

The timeliness of care entry using the different measures for linkage (CD4, viral load, care attendance, treatment initiation) can be seen in

Figure 6. Estimates are presented where data are available (e.g. number of people with a CD4 count within 3 months / number of people with a CD4 after diagnosis). Linkage to care within 3 months of diagnosis was optimal in all years from 2010 and 2014 using the CD4 marker. No data is available for viral load, care attendance and treatment initiation

Figure 6: Linkage to care within 3 months using different markers of care entry, 2010-2014



Data provision

There were a few difficulties reported by Greece in providing the data used in the calculations for linkage to care above. However, viral load data are subject to significant reporting delay and attendance dates are not reported centrally.

Linkage to care definition and interpretation of estimates

The most appropriate measures used to monitor linkage to care after diagnosis in Greece are CD4 count, viral load and attendance date at clinic. There is no common practice followed by HIV units once an HIV diagnosed individual is linked to care. Therefore, in some cases the critical point is the first specialised HIV lab test (CD4 or VL) and in others, it could be the date of first attendance at the first appointment. Specifically, for people who inject drugs, it may be useful to take into account the first lab test because a high proportion of lost to follow up is observed among this population.

HIV positive cases in Greece are reported either by national reference centers, other laboratories or by HIV specialised units. The first CD4 counts and VL measurements are

available when an individual is linked to care after an initial HIV diagnosis. If diagnosis occurs at a national reference center or other laboratories, it is not feasible to include CD4 data in this epidemiological form. These counts are reported later when an HIV positive individual is referred to a HIV unit, where the doctor is reporting this case again. Therefore, the data is not lost but later reported.

OPTIMAL PARTNERS

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