

# **Euro HIV EDAT**

## **Work package 4**

**Estimates of core indicators for  
monitoring and evaluation of  
community-based voluntary counselling  
and testing (CBVCT) for HIV in the  
COBATEST network**

**Final report**  
**Data for 2015 and 2016**

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The final report, Estimates of core indicators for monitoring and evaluation of community-based voluntary counselling and testing (CBVCT) for HIV in the COBATEST network, is based on data received by NIJZ or CEEISCAT for 2015 and 2016, submitted by the above listed CBVCT services or networks of the COBATEST network.

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## 1. INTRODUCTION

### 1.1 Community-based voluntary counselling and testing (CBVCT) for HIV

Early diagnosis of HIV infection is essential to decrease HIV related mortality and morbidity and to prevent further HIV transmission. It is a precondition for referral to treatment and HIV positive prevention. Community-based voluntary counselling and testing (CBVCT) services are recognized as a good approach to improve access to early HIV diagnosis for key populations at higher risk of HIV infection such as men who have sex with men (MSM), sex workers (SW), people who inject drugs (PWID) and migrants who may not actively seek HIV testing and counselling within the formal health care system or may face barriers to do so.

The COBATEST network of CBVCT services and networks has been created within the project “HIV community-based testing practices in Europe” (HIV-COBATEST) with co-funding from the Executive Agency for Health and Consumers (EAHC) under the EU Public Health Programme (Grant Agreement N° 2009 12 11) and grows and continues to operate within the project “Operational knowledge to improve HIV early diagnosis and treatment among vulnerable groups in Europe” (Euro HIV EDAT) with co-funding from the Consumers, Health and Food Executive Agency (Chafea), acting under the powers delegated by the Commission of the European union (Grant Agreement N° 2013 11 01).

All CBVCT services, members of COBATEST network, had committed to monitor and evaluate (M&E) their activities using a standardised approach defined in the document Core indicators to monitor HIV diagnosis at community-based voluntary counselling and testing (CBVCT) services, which has been developed within HIV-COBATEST project. In addition to many issues addressed, this document also defined objectives for M&E CBVCT activities, listed core CBVCT indicators, identified data sources and data items needed for estimating these indicators, and described measurement as well as calculation methods. This document is available at the EURO HIV EDAT project website (<https://eurohivedat.eu/>).

### 1.2 Guidelines for a data collection for monitoring and evaluation (M&E) of CBVCT for HIV

Guidelines for data collection for M&E of CBVCT for HIV in the COBATEST network have been developed within Work Package 4 task 2 of EURO HIV EDAT project at the National Institute of Public Health (NIJZ) in collaboration with Centre d'Estudis Epidemiològics sobre les Infeccions de Transmissió Sexual i Sida de Catalunya (CEEISCAT). The draft was presented and discussed at the workshop in December 2014 and the implementation of these guidelines was discussed. Based on consensus achieved and comments received the final guidelines were prepared. The guidelines were then distributed to all COBATEST network members in December 2014. The document is available at the EURO HIV EDAT project website (<https://eurohivedat.eu/>).

### 1.3 Core indicators to monitor HIV diagnosis at CBVCT services

Eighteen core CBVCT M&E indicators have been identified in the two documents, Core indicators to monitor HIV diagnosis at community-based voluntary counselling and testing (CBVCT) services and Guidelines for data collection for M&E of CBVCT for HIV in the COBATEST network, to be collected routinely within COBATEST network of CBVCT services within the Euro HIV EDAT project for M&E purposes.

The following 11 CBVCT M&E indicators were considered as level 1 indicators:

- CBVCT 1: Number of clients<sup>1</sup> tested for HIV with a screening test<sup>2</sup>
- CBVCT 2: Proportion of clients who reported to have been previously tested for HIV
- CBVCT 3: Proportion of clients who reported to have been tested for HIV during preceding 12 months
- CBVCT 4: Proportion of clients who reported to have been tested for HIV at the same CBVCT facility during preceding 12 months
- CBVCT 5: Proportion of clients with reactive screening HIV test result
- CBVCT 6: Proportion of clients tested for HIV with a screening test who received the results
- CBVCT 7: Proportion of clients with reactive screening HIV test result who received post-result counselling
- CBVCT 8: Proportion of clients with reactive screening HIV test result who were tested with confirmatory HIV test<sup>3</sup>
- CBVCT 9: Proportion of clients with positive confirmatory HIV test result
- CBVCT 10: Proportion of clients with positive confirmatory HIV test result who received the conclusive confirmatory HIV test result at CBVCT facility
- CBVCT 11: Proportion of clients with positive confirmatory HIV test result who received post-result<sup>4</sup> counselling at CBVCT facility

In addition, 5 optional CBVCT M&E indicators (level 2 indicators) have been suggested to be collected routinely within COBATEST network within the Euro HIV EDAT project for M&E purposes:

- CBVCT 12: Proportion of clients who received a pre-test discussion<sup>5</sup> or pre-test counselling or

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<sup>1</sup> A CBVCT service specific clients' unique identifiers must be used to eliminate duplicates and to link information obtained at different visits from the same client and information about the same client received from other services (e.g. HIV testing laboratory). For example Soundex code of a surname and date of birth can be used. Some CBVCT services may decide to collect personal data about their clients.

<sup>2</sup> Enzyme-linked immunosorbent assay (ELISA) HIV test or rapid HIV test.

<sup>3</sup> Only a positive result of a confirmatory HIV test is the conclusive evidence of HIV infection.

<sup>4</sup> The term post-result counselling is equivalent to the term post-test counselling.

<sup>5</sup> In accordance with the CBVCT code of good practice prepared by HIV-COBATEST project, it may be a shorter pre-test discussion instead of a pre-test or pre-result counselling session that precedes specimen collection. When rapid HIV tests are used, shorter pre-test discussion and post-test counselling may be conducted within one session with the client.

pre- result counselling<sup>6</sup> and were tested for HIV with a screening test

CBVCT 13: Proportion of clients with non-reactive screening HIV test result who received post-result counselling

CBVCT 14: Proportion of clients with negative confirmatory HIV test result who received the conclusive confirmatory HIV test result at CBVCT facility

CBVCT 15: Cost per client tested

CBVCT 16: Cost per HIV diagnosis

Finally, two optional core CBVCT indicators (level 3 indicators) should be considered by CBVCT services to be able to monitor successful linkage of HIV infected clients to health care and proportion of CBVCT services clients diagnosed late. *Linkage to health care was defined as entry into health care or follow-up by an HIV specialist or in an HIV unit within three months after HIV diagnosis at CBVCT facility and the linkage had been facilitated by the CBVCT site. Late HIV diagnosis was defined as diagnosis when CD4 cells count within three months after HIV diagnosis was  $<350$  CD4 cell/mm<sup>3</sup>.* These CBVCT indicators are:

CBVCT 17: Proportion of clients who tested HIV positive at CBVCT sites who were linked to health care

CBVCT 18: Proportion of clients who tested HIV positive at CBVCT sites who were diagnosed late

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<sup>6</sup> The term “pre-result counselling” implies counselling while waiting for a rapid HIV test result.

## 2. AIMS AND OBJECTIVES

The overall aim is to improve CBVCT for HIV in Europe based on evidence provided by M&E of CBVCT for HIV in the COBATEST network using standardised methods across Europe and contribute to early diagnosis of HIV infection to decrease HIV related mortality and morbidity and to prevent further HIV transmission.

The objectives of this report are:

- to present the CBVCT M&E indicators estimates for all clients for all CBVCT services/networks of the COBATEST network for 2015 and 2016 based on the data submitted to the NIJZ and/or CEEISCAT; and
- to provide the opportunity for participating CBVCT services/networks, to better understand the strengths and weaknesses of their data collection and management for the purpose of M&E of their service, especially with respect to availability of some data and the completeness of data collected.

For individual participating CBVCT services/networks M&E the estimates for CBVCT M&E indicators presented in this report provide an opportunity to compare their own performance to that of other CBVCT services/networks within the COBATEST network, which may contribute to the improvement of their own service, if considered necessary.



### 3. METHODS

Data were collected by CBVCT services/networks participating in the COBATEST network and BCN Checkpoint from Barcelona and Swiss Checkpoints during two periods from 1<sup>st</sup> January to 31<sup>st</sup> December 2015 and 1<sup>st</sup> January to 31<sup>st</sup> December 2016 according to the Guidelines for data collection for monitoring and evaluation of CBVCT for HIV in the COBATEST network (published on the EURO HIV EDAT project website: <https://eurohivedat.eu/>).

No personal data of clients (e. g. name, address, etc.) were included in data submitted to CEEISCAT or the NIJZ. Data were submitted either in disaggregated or aggregated format according to one of the following different data submission options defined in the Guidelines for data collection for monitoring and evaluation of CBVCT for HIV in the COBATEST network:

1. using the data collection form and the web-based tool for data entry developed by the HIV COBATEST project available on the EURO-HIV-EDAT project website (<https://eurohivedat.eu/>) managed by CEEISCAT (COBATEST web-based data entry; disaggregated data);
2. as data file with the data for estimating CBVCT M&E indicators according to the data file specifications prepared by the NIJZ (data file according to specification; disaggregated data);
3. using the EXCEL reporting form developed by CEEISCAT available on the project website (<https://eurohivedat.eu/>) to report already estimated CBVCT M&E indicators together with respective numerators and denominators (web-based Excel reporting form; aggregated data); or
4. using the paper reporting form for core CBVCT indicators for M&E developed by HIV COBATEST project and published in the document “Guidelines for Data Collection for Monitoring and Evaluating CBVCT for HIV in the COBATEST Network” available on the EURO-HIV-EDAT project website (<https://eurohivedat.eu/>) to report already estimated CBVCT M&E indicators together with respective numerators and denominators (paper reporting form; aggregated data).

In addition, one CBVCT service and one CBVCT network submitted some CBVCT M&E data in an e-mail message.

For all CBVCT services that had used COBATEST web-based tool for data entry, data files with the data for estimating CBVCT M&E indicators according to the above mentioned data file specifications were prepared by CEEISCAT and sent to the NIJZ. Some data cleaning was performed by CEEISCAT.

No data cleaning was performed at the NIJZ, as it was not possible to judge what was the truth and also resources to attempt to perform such data cleaning for so many different CBVCT services/networks were not available. Thus, there are some internal inconsistencies in the estimates of CBVCT M&E indicators for some of the CBVCT services. For example, if the number of clients of a particular CBVCT service that had been reported to have a reactive screening HIV test result was lower than the number of reported HIV infected clients linked to care, the former variable had not been recoded into a reactive screening test result and the estimated number of clients with a reactive screening test result remained lower than the number of HIV infected clients that had been reported to have been linked to care. There are also some internal inconsistencies in the estimates of CBVCT

M&E indicators for some of the CBVCT services/networks that had submitted data in aggregated format.

Analysis of all data received in disaggregated format were performed at the NIJZ and reports with estimated CBVCT M&E indicators for all these CBVCT services were prepared and distributed to these CBVCT services/networks for their use and are not presented in this report.

The following strategy was followed in preparing estimates for CBVCT M&E indicators for all CBVCT clients when there were missing values for variables (data items or responses to relevant questions) in the disaggregated data needed for estimating individual CBVCT M&E indicators.

- (a) Each CBVCT M&E indicator was first estimated taking into account available data for the numerator and using the denominator as defined for each CBVCT M&E indicator in the documents: Core indicators to monitor HIV diagnosis at community-based voluntary counselling and testing (CBVCT) services and Guidelines for Data Collection for Monitoring and Evaluation of Community-based Voluntary Counselling and Testing (CBVCT) for HIV in the COBATEST network. The denominators were defined in these two documents assuming that there would be no missing values for all variables needed to estimate individual CBVCT M&E indicators. This approach (approach a) disregarded the fact that the information for the respective numerator may not be available for all clients as expected (for the denominator as defined).
- (b) Then CBVCT M&E indicator was estimated taking into account available data for the numerator and in contrast to approach a, using for the denominator only the number of clients with available information for respective variable (the numerator). This approach (approach b) would give an accurate estimation of the CBVCT M&E indicator, if the information available for the respective numerator would be an accurate reflection of the true situation among all clients as expected, thus also for those with missing information for the respective numerator.

For example, to estimate the proportion of clients with reactive screening HIV test result (CBVCT M&E indicator 5) in a hypothetical situation of 100 clients tested for HIV with HIV screening test, where information on HIV screening test result was available for 50 clients only, of which 2 clients had a reactive HIV screening test result while information on HIV screening test result was missing for the other 50 clients, the two respective CBVCT M&E indicator 5 estimates would be presented in the report sent to respective CBVCT service as follows:

CBVCT 5: Proportion of clients with reactive screening HIV test result	
All	
Proportion (%) of clients with HIV reactive screening HIV test result	2
Numerator: number of clients with reactive screening HIV test result	2
Denominator: number of clients tested for HIV with a screening test	100
<b>Calculation of the indicator for ALL taking into account missing information for the particular question (variable)</b>	
Information (response) for the question (variable) for the numerator should be available for all clients tested for HIV with a screening test. Number of missing values for the particular question (variable) was:	50
Proportion (%) of clients with HIV reactive screening HIV test result	4
Numerator: number of clients with reactive screening HIV test result (YES)	2
Denominator: number of clients tested for HIV with a screening test for whom information on either having a reactive HIV screening test result (YES) or not having a reactive HIV screening test result (NO) was available	50

Assuming all 50 clients with missing information on the result of HIV screening test had a non-reactive result, the first estimate (using approach a) would be accurate (2%). Assuming that some of those 50 clients with missing information on the HIV screening test result had a reactive result, the first estimate would be an underestimate, while the second estimate (using approach b) could either be an overestimate, an underestimate or even an accurate estimate of the true HIV screening test reactivity rate, depending on how many of those 50 individuals with missing information had a reactive HIV screening test result. For example, the estimate for HIV screening test reactivity using approach b (4%) would be an overestimate of the true HIV screening test reactivity rate, if among these 50 clients with missing information on HIV screening test result only 1 had a reactive result (true rate would be 3%), an underestimate, if 4 had a reactive result (true rate would be 6%), and an accurate estimate, if 2 clients had a reactive result (true rate would be 4%). We should be aware that in case of missing information, it may be difficult to judge which of the two estimates is closer to the truth. In general, if the proportion of missing values for a particular variable (question) needed for estimating a particular CBVCT M&E indicator is very small, the difference between the two estimates tends to be small and it is easier to infer about the true value of a particular indicator.

Both such CBVCT M&E indicator estimates were included into reports distributed to CBVCT services/networks that submitted disaggregated data. When there were no missing values for respective variable, both estimates for a particular CBVCT M&E indicator for all clients were equal.

An overview of all CBVCT M&E indicators estimated from disaggregated data and those submitted to the NIJZ in aggregated form (already estimated CBVCT indicators together with respective numerators and denominators) has been prepared.

In case of missing values for particular variable needed for estimating a particular CBVCT M&E indicator, both estimates were shown: estimate prepared by using approach a (denoted as E) and estimate taking into account the denominator reflecting the number of missing values by using approach b (denoted as EMV). The number of missing values for respective variable (denoted by MV) was always shown. Whenever for a particular CBVCT M&E indicator there were no missing values for the respective numerator (MV = 0), the EMV was not presented (e. g. empty cell in the table).

Using the same hypothetical example as described above, respective results would be presented as follows:

CBVCT Code	Clients tested (CBVCT 1)	% with reactive screening test (CBVCT 5)		
		E	MV	EMV
Y	100	2%	50	4%

CBVCT M&E indicators estimates were presented in this report for all participating CBVCT services/networks without citing their identity. However, each CBVCT service/network can compare their estimates of CBVCT M&E indicators to those of other CBVCT services/networks based on their own estimates submitted as aggregated data or those sent to them separately by the NIJZ in the above mentioned reports.

In the report we presented in tables for all CBVCT services/networks all CBVCT M&E indicators estimates for all clients (E and/or EMV) together with the number of missing values (MV) where the denominator was the number of clients tested with HIV screening test. These indicators are:

CBVCT 1: Number of clients tested for HIV with a screening test

CBVCT 2: Proportion of clients who reported to have been previously tested for HIV

CBVCT 3: Proportion of clients who reported to have been tested for HIV during preceding 12 months

CBVCT 4: Proportion of clients who reported to have been tested for HIV at the same CBVCT facility during preceding 12 months

CBVCT 5: Proportion of clients with reactive screening HIV test result

CBVCT 6: Proportion of clients tested for HIV with a screening test who received the results

CBVCT 7: Proportion of clients with reactive screening HIV test result who received post-result counselling

CBVCT 8: Proportion of clients with reactive screening HIV test result who were tested with confirmatory HIV test

CBVCT 13: Proportion of clients with non-reactive screening HIV test result who received post-result counselling

If an individual CBVCT service did not have information needed to estimate one of these CBVCT M&E indicators, this would be denoted in tables as -. To summarize the variation in individual CBVCT M&E indicators between different CBVCT services/networks we also presented minimal estimated values, first quartile, mean, median, third quartile and maximum estimated values calculated from all available estimates of each CBVCT M&E indicator.

For all remaining CBVCT M&E indicators, we only presented estimates (E and EMV) for those CBVCT services/networks that submitted relevant information. These CBVCT M&E indicators are:

CBVCT 9: Proportion of clients with positive confirmatory HIV test result

CBVCT 10: Proportion of clients with positive confirmatory HIV test result who received the conclusive confirmatory HIV test result at CBVCT facility

CBVCT 11: Proportion of clients with positive confirmatory HIV test result who received post-result counselling at CBVCT facility

CBVCT 14: Proportion of clients with negative confirmatory HIV test result who received the conclusive confirmatory HIV test result at CBVCT facility

CBVCT 15: Cost per client tested

CBVCT 16: Cost per HIV diagnosis

CBVCT 17: Proportion of clients who tested HIV positive at CBVCT sites who were linked to health care

CBVCT 18: Proportion of clients who tested HIV positive at CBVCT sites who were diagnosed late

## 4. RESULTS

Data received by the NIJZ for 2015 and 2016 were submitted by 31 CBVCT services/networks from 11 European countries (Austria, Denmark, France, Italy, Latvia, Lithuania, Portugal, Slovenia, Spain, Switzerland and Ukraine), for the first half of 2015 by two CBVCT services/networks from two European countries (Czech Republic and Poland), for the whole year 2015 by one CBVCT service/network from Spain, for the first half of 2015 and whole year 2016 by two CBVCT services/network from Croatia and Spain, for the second half of 2015 and whole year 2016 by the CBVCT network from Germany and for the whole year 2016 by four CBVCT services/network from Spain. Table 1 shows the list of all these 41 CBVCT services/networks together with the country (and region) where they operate, information on the period the data were submitted for, data submission mode, and format of submitted data.

As expected, the proportion of clients who received a pre-test discussion or pre-test counselling and were tested for HIV with a screening test (CBVCT 12) at individual CBVCT service/network was very high for 2015 and 2016. In 2015, it was 100% for 30 of participating CBVCT services/networks and varied between 81% and 98% among the remaining four CBVCT services/networks and in 2016, 100% for 31 of participating CBVCT services/networks, and 84%, 99% and 99% for the remaining three CBVCT services/networks. Three CBVCT services did not submit data for this CBVCT M&E indicator for 2015 and four CBVCT services/network for 2016.

Tables 2 and 3 show separately for 2015 and 2016, for all participating CBVCT services/networks the absolute number of clients tested with HIV screening test (CBVCT 1), the absolute number of reported HIV screening reactive results together with the number of missing values, the absolute number of reported confirmed HIV infections together with the number of missing values, the absolute number of reported HIV infected clients linked to care and the absolute number of reported HIV infected clients with late HIV diagnosis. We received the data for a total of 95,493 clients who were tested for HIV with a screening test in these CBVCT services/networks in 2015 (for individual CBVCT services/networks the number varied from 8 to 43,097) and for a total of 72,916 clients who were tested for HIV with a screening test in 2016 (for individual CBVCT services/networks the number varied from 7 to 38,658).

With the exception of two, all CBVCT services/networks submitted complete information (without missing values) on HIV screening test result for 2015. For 2016, only one CBVCT service/network did not submit complete information (without missing values) on HIV screening test. Among 34 CBVCT services/networks that had at least one reactive HIV screening test result in 2015, seven had not submitted information on HIV confirmatory testing results and thus could not submit information on CBVCT M&E indicators for which the denominator is the number of clients with confirmed HIV infection. Among 30 CBVCT services/networks that had at least one reactive HIV screening test result in 2016, nine had not submitted information on HIV confirmatory testing results.

Tables 4 (data for 2015) and 5 (data for 2016), show for all individual CBVCT service/networks the number of clients tested for HIV with a screening test (CBVCT 1), the estimate for the proportion of clients tested for HIV with a screening test who received the results (CBVCT 6), the number of clients

with reactive screening test results, the proportion of clients with reactive screening HIV test result (CBVCT 5), the proportion of clients with reactive screening HIV test result who received post-result counselling (CBVCT 7), the proportion of clients with reactive screening HIV test result who were tested with confirmatory HIV test (CBVCT 8) and the proportion of clients with non-reactive screening HIV test result who received post-result counselling (CBVCT 13). In 2015, the proportion of clients with HIV reactive screening HIV test result varied between individual CBVCT services/networks from 0% to 5.7% (mean was 1.7% and the median 1.3%) and in 2016, from 0% to 8.4% (mean was 1.8% and the median 1.3%). In 2015, among 22 CBVCT services/networks without missing information on confirmatory HIV testing, 14 CBVCT services/networks provided information that all their clients with a reactive HIV screening test result were tested with HIV confirmatory tests (100%) and among the remaining eight CBVCT services/networks this proportion varied between 41.5% and 99.5%. Among six CBVCT services/networks with some missing information on confirmatory HIV testing, the estimated proportion of clients with a reactive HIV screening test result with HIV confirmatory test result (using the approach a) varied from 25.0% to 78.9%. In 2016, among 19 CBVCT services/networks without missing information on confirmatory HIV testing, 12 CBVCT services/networks provided information that all their clients with a reactive HIV screening test result were tested with HIV confirmatory tests (100%) and among the remaining seven CBVCT services/networks this proportion varied between 0% to 90.9%. Among six CBVCT services/networks with some missing information on confirmatory HIV testing, the estimated proportion of clients with a reactive HIV screening test result with HIV confirmatory test result (using the approach a) varied from 0% to 85.7%.

For all individual CBVCT service/networks with any reactive HIV screening test result, who have submitted any data on HIV confirmatory testing (27 CBVCT services/networks in 2015 and 30 CBVCT services/networks in 2016), tables 6 (data for 2015) and 7 (data for 2016) show the number of clients with reactive HIV screening test result, the proportion of clients with reactive screening HIV test result (CBVCT 5), the proportion of clients with reactive screening HIV test result who were tested with confirmatory HIV test (CBVCT 8), the proportion of clients with positive confirmatory HIV test result (CBVCT 9), and the proportion of clients with positive confirmatory HIV test result who received the conclusive confirmatory HIV test result at CBVCT facility (CBVCT 10). The results from 2015 showed, that among six CBVCT services/networks with complete information on the proportion of confirmed HIV positive results, the positivity rate varied between 0.3% and 3.4%. Disregarding missing information (using the approach a), maximum estimated HIV positivity rate in 2015 was 4.8%. In 2016, only two CBVCT services/networks had complete information on the proportion of confirmed HIV positive results. The positivity rates were 0.3% and 0.8%. Disregarding missing information (using the approach a), maximum estimated HIV positivity rate in 2016 was 8.4%.

Three CBVCT services/networks provided data on the proportion of clients with positive confirmatory HIV test result who received post-result counselling (CBVCT 11) in 2015. Proportions varied between 97% and 100%. Also for 2016, three CBVCT services/networks provided data on the proportion of clients with positive confirmatory HIV test result who received post-result counselling (CBVCT 11). Proportions varied between 91% to 100%. Four CBVCT services/networks provided the data on the proportion of clients with negative HIV confirmatory test result receiving those results (CBVCT 14) for year 2015, which varied between 0 and 100%. In 2016, seven CBVCT services/networks provided the



data on the proportion of clients with negative HIV confirmatory test result receiving those results (CBVCT 14). Proportions varied between 0% to 100%.

For 2015, three CBVCT services/networks submitted information on cost per client tested (CBVCT 15), 45 €, 52 € and 55 €. One CBVCT network provided the information on cost per one HIV diagnosis (CBVCT 16), which was 19,826 €. Swiss Checkpoint charged 60 Swiss Francs (55 €) for HIV-testing and counselling. In Swiss checkpoints in 2015, among MSM, the number needed to test to find one HIV infection was 83, which corresponded to costs of 5000 Swiss Francs (4,500 €) per one HIV diagnosis. For 2016, three CBVCT services/networks submitted information on cost per client tested (CBVCT 15), 52 €, 55 € and 159 €. One CBVCT network provided the information on cost per one HIV diagnosis (CBVCT 16), which was 17,480 €. In 2016, Swiss Checkpoint charged 60 Swiss Francs (55 €) for HIV-testing and counselling, which corresponded to 119 MSM needed to test to find one HIV infection. The corresponding costs per one HIV diagnosis was approximately of 7029 €.

Among 13 CBVCT services/networks that submitted complete information about the proportion of clients with confirmed HIV infections linked to health care (CBVCT 17) in 2015, 11 CBVCT services/networks reported that all such clients were linked to health care and two reported 94% and 91% of linkage to health care. Among 9 CBVCT services/networks that submitted incomplete information for this indicator, the estimated reported proportions of clients linked to health care (using the approach a) varied between 50% and 92%. In 2016, among 10 CBVCT services/networks that submitted complete information about the proportion of clients with confirmed HIV infections linked to health care (CBVCT 17), eight CBVCT services/networks reported that all such clients were linked to health care (100%) and two reported that 78 % and 79% were linked to health care. Among eight CBVCT services/networks that submitted incomplete information for this indicator, the estimated reported proportions of clients linked to health care (using the approach a) varied between 60% and 97%.

Three of four CBVCT services/networks that submitted complete information had no late diagnoses among clients with confirmed HIV infections at CBVCT sites (CBVCT 18) in 2015 and the proportion of late diagnoses at the remaining one was 28%. Three of seven CBVCT services/networks that submitted incomplete information had no late diagnoses among clients who tested HIV positive at CBVCT sites and among the remaining four these proportions (using the approach a) varied between 3% and 29%. In 2016, only one CBVCT service/network submitted complete information on late diagnoses among clients with confirmed HIV infections at the CBVCT site (CBVCT 18) and the proportion was 67%. Five of eight CBVCT services/networks that submitted incomplete information had no late diagnoses among clients who tested HIV positive at CBVCT sites and among the remaining three these proportions (using the approach a) were 20%, 30% and 44%.

For all individual CBVCT service/networks, tables 8 (for 2015) and table 9 (for 2016) present the proportion of clients who reported to have been previously tested for HIV (CBVCT 2), the proportion of clients who reported to have been tested for HIV during preceding 12 months (CBVCT 3) and the proportion of clients who reported to have been tested for HIV at the same CBVCT facility during preceding 12 months (CBVCT 4).



Table 1: CBVCT services/networks that submitted CBVCT M&E data for 2015 and 2016, reporting period, data submission modes and format, COBATEST network

CBVCT service/network	Country (region)	Reporting period	Data submission mode	Data format
AIDS Hilfe Wien	Austria	1.1. - 31.12.2015 1.1. - 31.12.2016	Data file according to specification	Disaggregated
Czech AIDS Help Societ (Prague)	Czech Republic	1.1. - 30.6.2015	Other: email	Aggregated
ISKORAK	Croatia	1.1. - 30.6.2015 1.1. - 31.12.2016	Data file according to specification	Disaggregated
AIDS Fondet	Denmark	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
AIDES <sup>†</sup>	France	1.1. - 31.12.2015 1.1. - 31.12.2016	Web based Excel reporting form	Aggregated
Gesundheitsamt Essen	Germany	1.7. - 31.12.2015 1.1. - 31.12.2016	Web based Excel reporting form	Aggregated
Fondazione LILA Milano ONLUS	Italy	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
Baltic HIV Association	Latvia	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
Demetra	Lithuania	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
CBVCT centres Poland <sup>†</sup>	Poland	1.1. - 30.6.2015	Other: email	Aggregated
Checkpoint LX	Portugal	1.1. - 31.12.2015 1.1. - 31.12.2016	Web based Excel reporting form	Aggregated
IN-Mouraria	Portugal	1.1. - 31.12.2015 1.1. - 31.12.2016	Web based Excel reporting form	Aggregated
MOVE-Se	Portugal	1.1. - 31.12.2015 1.1. - 31.12.2016	Web based Excel reporting form	Aggregated
Legebitra	Slovenia	1.1. - 31.12.2015 1.1. - 31.12.2016	Data file according to specification	Disaggregated
ADHARA	Spain	1.1. - 30.6.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
AVACOS-H	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
OMSIDA	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
Lambda	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
ACCAS	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
BCN Checkpoint <sup>†‡</sup>	Spain	1.1. - 31.12.2015	Web based Excel reporting form	Aggregated
IEMAKAIE	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
CAS Gibraltar	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
GADES	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
SILOÉ	Spain	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
ACAVIH	Spain	1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
CASDA	Spain	1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
CIBE Marítim	Spain	1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
Comité Anti-Sida Asturias (CCASiPA)	Spain	1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
STOP-SIDA	Spain; Catalonia	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated
ACASC	Spain; Catalonia	1.1. - 31.12.2015 1.1. - 31.12.2016	COBATEST web-based data entry	Disaggregated

Table 1 continued: CBVCT services/networks that submitted CBVCT M&E data for 2015 and 2016, reporting period, data submission modes and format, COBATEST network

CBVCT service/network	Country (region)	Reporting period	Data submission mode	Data format
CIAS	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
Gais Positius	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
Associació Anti-SIDA de Lleida	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
Actuavallès	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
Àmbit Prevenció	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
AssexoraTgn	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
ACAS Girona	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
SAPS-Creu Roja	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
Creu Roja Tarragona	Spain; Catalonia	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		
Swiss Checkpoints <sup>††</sup>	Switzerland	1.1. - 31.12.2015	Web based Excel reporting form	Aggregated
		1.1. - 31.12.2016		
Gay-alliance	Ukraine	1.1. - 31.12.2015	COBATEST web-based data entry	Disaggregated
		1.1. - 31.12.2016		

† - CBVCT services network. †† - BCN Checkpoint from Barcelona, Catalonia, Spain, and Swiss Checkpoints (Basel, Bern, Geneva, Lausanne, Zurich) are not members of the COBATEST Network.

Table 2: Number of clients tested with HIV screening test and reported numbers of HIV screening reactive results, confirmed HIV infections, HIV infected clients linked to care and clients with late HIV diagnosis, COBATEST network, 2015

CBVCT code	Clients tested with HIV screening test (CBVCT 1)	Reactive screening HIV test results		Positive confirmatory HIV test results		HIV infected clients linked to care	HIV infected clients with late HIV diagnosis
		N	MV	N	MV		
14	6490	59	476	36	12	21	1
15	398	4	0	4	0	4	0
17	583	2	0	2	0	1	-
18	26	0	0	NA	NA	NA	NA
21	13346	208	0	180	0	-	-
22	6552	73	0	62	0	62	-
23	324	10	0	10	0	9	1
26	252	7	0	7	0	4	-
28	583	33	0	12	21	12	0
32	218	9	0	6	3	6	0
35	142	1	0	1	0	1	0
36	1788	16	0	-	16	-	-
37	1491	12	0	-	12	-	-
39	927	11	0	7	4	5	-
41	116	2	0	1	0	1	-
42	1873	19	0	15	3	12	2
44	8	0	0	NA	NA	NA	NA
45	372	18	0	18	0	18	-
48	61	1	0	1	0	1	0
51	606	8	3	-	-	-	-
56	345	4	0	1	3	0	-
57	49	0	0	NA	NA	NA	NA
58	3655	118	0	47	-	-	-
63	922	17	0	8	-	-	-
65	1160	35	0	35	0	33	-
68	129	2	0	1	1	1	-
73	174	3	0	2	0	2	-
74	618	9	0	6	3	4	-
75	264	7	0	-	-	-	-
77	43097	293	0	128	-	120	-
82	5095	186	0	172	0	151	46
84	557	14	0	-	-	-	-
85	652	2	0	1	1	-	-
92	2139	17	0	-	17	24*	-
94	130	1	0	1	0	1	-
98	260	7	0	7	0	6	2
99	91	1	0	-	1	-	-

CBVCT code: service/network unique identifying code; N: Absolute number; MV: Number of missing values for particular question (variable); NA: Not applicable; -: Data not available. The rows showing data submitted in aggregated format are shaded (light grey rows).

\* The number of clients that had been reported to have a reactive screening HIV test result was lower than the number of reported HIV infected clients linked to care.

Table 3: Number of clients tested with HIV screening test and reported numbers of HIV screening reactive results, confirmed HIV infections, HIV infected clients linked to care and clients with late HIV diagnosis, COBATEST network, 2016

CBVCT code	Clients tested with HIV screening test (CBVCT 1)	Reactive screening HIV test results		Positive confirmatory HIV test results		HIV infected clients linked to care	HIV infected clients with late HIV diagnosis
		N	MV	N	MV		
14	6376	50	229	34	6	28	0
15	371	3	0	3	0	3	2
17	902	4	0	4	0	3	0
18	24	0	0	NA	NA	NA	NA
22	7034	99	0	55	-	55	-
23	481	21	0	18	3	15	0
26	294	6	0	-	6	-	-
28	179	15	0	15	0	13	3
32	280	6	0	4	2	4	0
35	133	4	0	4	0	4	-
36	1537	16	0	-	16	-	-
39	899	10	0	3	6	-	-
41	25	0	0	NA	NA	NA	NA
42	2452	20	0	10	8	9	3
44	109	9	0	9	0	7	4
45	1340	36	0	36	0	-	-
48	52	0	0	NA	NA	NA	NA
51	786	11	0	10	0	10	-
53	13	0	0	NA	NA	NA	NA
56	370	1	0	-	1	-	-
57	42	2	0	-	2	-	-
58	3219	100	0	-	100	-	-
61	48	1	0	1	0	1	
63	737	15	0	-	15	-	-
65	1167	33	0	32	-	31	-
68	21	0	0	NA	NA	NA	NA
73	188	1	0	0	0	NA	NA
74	571	17	0	15	2	9	-
75	702	13	0	-	13	-	-
77	38658	283	0	115	-	91	-
84	578	10	0	-	10	-	-
85	619	0	0	NA	NA	NA	NA
87	7	0	0	NA	NA	NA	NA
92	2098	14	0	-	14	-	-
94	131	1	0	1	0	1	-
96	106	0	0	NA	NA	NA	NA
98	303	11	0	8	0	7	0
99	64	1	0	1	0	1	-

CBVCT code: service/network unique identifying code; N: Absolute number; MV: Number of missing values for particular question (variable); NA: Not applicable; -: Data not available. The rows showing data submitted in aggregated format are shaded (light grey rows).

Table 4: Numbers of reactive HIV screening test results and estimates for CBVCT M&E indicators 1, 6, 5, 7, 8 and 13 for all clients of CBVCT services/networks, COBATEST network, 2015

CBVCT code	Clients tested with HIV screening test (CBVCT 1)	% with screening test receiving results (CBVCT 6)			Reactive screening test results	% with reactive screening test (CBVCT 5)			% with reactive screening test counselled (CBVCT 7)			% with reactive screening test with confirmatory test (CBVCT 8)			% with non-reactive screening test counselled (CBVCT 13)		
		E	MV	EMV		E	MV	EMV	E	MV	EMV	E	MV	EMV	E	MV	EMV
14	6490	93.3	426	99.8	59	0.9	476	1.0	94.9	3	100.0	93.2	0		95.5	261	99.8
15	398	97.2	0		4	1.0	0		100.0	0		100.0	0		96.2	7	97.9
17	583	99.1	1	99.3	2	0.3	0		100.0	0		100.0	0		99.3	2	99.7
18	26	100.0	0		0	0.0	0		NA	NA	NA	NA	NA	NA	100.0	0	
21	13346	-	13346	-	208	1.6	0		-	208	-	-	208	-	-	13138	-
22	6552	99.4	0		73	1.1	0		100.0	0		100.0	0		-	-	-
23	324	98.1	5	99.7	10	3.1	0		100.0	0		100.0	0		96.8	10	100.0
26	252	98.4	3	99.6	7	2.8	0		85.7	0		100.0	0		99.6	0	
28	583	99.8	1	100.0	33	5.7	0		90.9	3	100.0	36.4	21	100.0	99.6	1	99.8
32	218	98.2	0		9	4.1	0		100.0	0		66.7	2	85.7	97.6	1	98.1
35	142	99.3	1	100.0	1	0.7	0		100.0	0		100.0	0		99.3	0	
36	1788	0.9	0		16	0.9	0		100.0	0		43.8	0		-	-	-
37	1491	-	1491	-	12	0.8	0		-	12	-	-	12	-	-	1479	-
39	927	88.6	104	99.8	11	1.2	0		81.8	2	100.0	63.6	2	77.8	87.9	110	99.9
41	116	79.3	23	98.9	2	1.7	0		100.0	0		100.0	0		83.3	17	97.9
42	1873	92.6	133	99.7	19	1.0	0		57.9	8	100.0	78.9	2	88.2	81.4	283	96.1
44	8	100.0	0		0	0.0	0		NA	NA	NA	NA	NA	NA	100.0	0	
45	372	100.0	0		18	4.8	0		100.0	0		100.0	0		100.0	0	
48	61	31.1	26	54.3	1	1.6	0		100.0	0		100.0	0		25.0	29	48.4
51	606	94,1	0		8	1,3	3	1,3	62,5	2	83,3	-	8	-	91,1	23	94,8
56	345	99.7	1	100.0	4	1.2	0		100.0	0		25.0	1	33.3	100.0	0	
57	49	95.9	2	100.0	0	0.0	0		NA	NA	NA	NA	NA	NA	98.0	0	
58	3655	54.8	0		118	3.2	0		100.0	0		41.5	0		100.0	0	
63	922	100.0	0		17	1.8	0		100.0	0		81.8	0		100.0	0	
65	1160	0.7	1152	100.0	35	3.0	0		82.9	6	100.0	100.0	0		99.3	6	99.8
68	129	76.7	29	99.0	2	1.6	0		100.0	0		100.0	0		92.1	10	100.0
73	174	99.4	0		3	1.7	0		100.0	0		66.7	1	100.0	95.9	0	
74	618	0.8	607	45.5	9	1.5	0		100.0	0		66.7	0		99.3	4	100.0
75	264	100.0	0		7	2.7	0		100.0	0		-	7	-	100.0	0	
77	43097	100.0	0		293	0.7	0		100.0	0		45.7	0		100.0	0	
82	5095	100.0	0		186	3.7	0		100.0	0		99.5	0		100.0	0	-
84	557	100.0	0		14	2.5	0		100.0	0		-	14	-	100.0	0	
85	652	100.0	0		2	0.3	0		50.0	1	100.0	50.0	0		98.0	5	98.8
92	2139	100.0	0		17	0.8	0		100.0	0		100.0	0		100.0	0	
94	130	100.0	0		1	0.8	0		100.0	0		100.0	0		99.2	1	100.0
98	260	100.0	0		7	2.7	0		100.0	0		100.0	0		99.6	1	100.0
99	91	98.9	1	100.0	1	1.1	0		100.0	0		-	1	-	100.0	0	

Min	8	0.7		45.5	0	0.0		1.0	50.0		83.3	25.0		33.3	25.0		48.4
Q1	158	92.6		99.1	2	0.8			96.2		100.0	64.4		54.2	96.0		97.9
Mean	2581	85.6		93.5	33	1.7		1.2	94.0		97.6	80.7		75.2	95.0		95.9
Median	557	99.1		99.7	9	1.3		1.2	100.0		100.0	99.7		81.7	99.3		99.8
Q3	1639,5	100.0		100.0	19	2.7			100.0		100.0	100.0		97.2	100.0		100.0
Max	43097	100.0		100.0	293	5.7		1.3	100.0		100.0	100.0		100.0	100.0		100.0

E: Estimates of the Indicator; MV: Number of missing values for particular question (variable); EMV: Estimates of indicators taking into account missing information for the particular question (variable) (approach b); NA: Not applicable. Impossible to calculate as the denominator equals zero (0); -: Data not available. The rows showing data submitted in aggregated format are shaded (light grey rows).

Table 5: Numbers of reactive HIV screening test results and estimates for CBVCT M&E indicators 1, 6, 5, 7, 8 and 13 for all clients of CBVCT services/networks, COBATEST network, 2016

CBVCT code	Clients tested with HIV screening test (CBVCT 1)	% with screening test receiving results (CBVCT 6)			Reactive screening test results	% with reactive screening test (CBVCT 5)			% with reactive screening test counselled (CBVCT 7)			% with reactive screening test with confirmatory test (CBVCT 8)			% with non-reactive screening test counselled (CBVCT 13)		
		E	MV	EMV		E	MV	EMV	E	MV	EMV	E	MV	EMV	E	MV	EMV
		14	6376	92.9		126	94.7	50	0.8	229	0.8	94.0	0		80.0	0	
15	371	90.0	28	97.4	3	0.8	0		100.0	0		100.0	0		81.0	63	97.7
17	902	99.9	0		4	0.4	0		100.0	0		100.0	0		99.8	2	100.0
18	24	100.0	0		0	0.0	0		NA	NA	NA	NA	NA	NA	100.0	0	
22	7034	100.0	0		99	1.4	0		100.0	0		100.0	0		-	-	-
23	481	99.8	1	100.0	21	4.4	0		100.0	0		85.7	2	94.7	98.0	3	98.7
26	294	99.3	2	100.0	6	2.0	0		100.0	0		0.0	2	0.0	99.0	1	99.3
28	179	100.0	0		15	8.4	0		100.0	0		100.0	0		99.4	1	100.0
32	280	99.6	0		6	2.1	0		100.0	0		83.3	1	100.0	97.8	2	98.5
35	133	99.2	0		4	3.0	0		100.0	0		100.0	0		99.2	1	100.0
36	1537	-	-	-	16	1.0	0		-	-	-	-	-	-	-	-	-
39	899	54.8	406	100.0	10	1.1	0		50.0	5	100.0	20.0	1	22.2	62.2	325	98.0
41	25	56.0	11	100.0	0	0.0	0		NA	NA	NA	NA	NA	NA	44.0	13	91.7
42	2452	97.8	45	99.7	20	0.8	0		90.0	2	100.0	80.0	4	100.0	72.4	519	92.1
44	109	100.0	0		9	8.3	0		100.0	0		100.0	0		99.0	1	100.0
45	1340	-	1340	-	36	2.7	0		100.0	0		100.0	0		99.9	0	
48	52	0.0	28	0.0	0	0.0	0		NA	NA	NA	NA	NA	NA	32.7	28	70.8
51	786	96.1	0		11	1.4	0		100.0	0		90.9	0		96.0	0	
53	13	100.0	0		0	0.0	0		NA	NA	NA	NA	NA	NA	84.6	2	100.0
56	370	94.9	7	96.7	1	0.3	0		100.0	0		0.0	0		94.6	1	94.8
57	42	90.5	3	97.4	2	4.8	0		100.0	0		50.0	0		92.5	3	100.0
58	3219	-	-	-	100	3.1	0		-	-	-	-	-	-	-	-	-
61	48	100.0	0		1	2.1	0		100.0	0		100.0	0		100.0	0	
63	737	-	-	-	15	2.0	0		-	-	-	-	-	-	-	-	-
65	1167	-	1167	-	32	2.7	0		90.6	3	100.0	100.0	0		100.0	0	
68	21	85.7	3	100.0	0	0.0	0		NA	NA	NA	NA	NA	NA	95.2	1	100.0
73	188	100.0	0		1	0.5	0		100.0	0		100.0	0		100.0	0	
74	571	1.1	562	66.7	17	3.0	0		100.0	0		88.2	0		97.8	10	99.6
75	702	100.0	0		13	1.9	0		100.0	0		-	13	-	100.0	0	
77	38658	100.0	0		283	0.7	0		100.0	0		45.9	0		100.0	0	
84	578	100.0	0		10	1.7	0		100.0	0		-	10	-	100.0	0	
85	619	99.0	6	100.0	0	0.0	0		NA	NA	NA	NA	NA	NA	98.7	8	100.0
87	7	85.7	1	100.0	0	0	0		NA	NA	NA	NA	NA	NA	100.0	0	
92	2098	-	-	-	14	0.7	0		100.0	0		85.7	0		100.0	0	
94	131	100.0	0		1	0.8	0		100.0	0		100.0	0		99.2	1	100.0
96	106	97.2	3	100.0	0	0.0	0		NA	NA	NA	NA	NA	NA	98.1	2	100.0
98	303	98.7	4	100.0	11	3.6	0		100.0	0		90.9	1	100	97.6	7	100.0
99	64	98.4	0		1	1.6	0		100.0	0		100.0	0		100.0	0	

Min	7	0.0		0.0	0	0.0		0.8	50.0		100.0	0.0		0.0	32.7		70.8
Q1	95.5	90.3		97.0	1	0.4			100.0		100.0	80.0		16.7	94.8		97.2
Mean	1919	86.0		91.3	21	1.8		0.8	97.2		100.0	80.0		69.5	92.2		97.1
Media	371	99.0		100.0	8	1.3		0.8	100.0		100.0	90.9		97.4	98.8		99.8
Q3	968.25	100.0		100.0	16	2.7			100.0		100.0	100.0		100.0	100.0		100.0
Max	38658	100.0		100.0	283	8.4		0.8	100.0		100.0	100.0		100.0	100.0		100.0

E: Estimates of the Indicator; MV: Number of missing values for particular question (variable); EMV: Estimates of indicators taking into account missing information for the particular question (variable) (approach b); NA: Not applicable. Impossible to calculate as the denominator equals zero (0); -: Data not available. The rows showing data submitted in aggregated format are shaded (light grey rows).

Table 6: Estimates for CBVCT M&E indicators 5, 8, 9 and 10 together with the numbers of reactive HIV screening test results for all clients of CBVCT services/networks with any reactive HIV screening test result, COBATEST network, 2015

CBVCT code	Reactive screening test results	% with reactive screening test (CBVCT 5)			% with reactive screening test with confirmatory test (CBVCT 8)			% with positive confirmatory test result (CBVCT 9)			% with positive confirmatory test result receiving the result at CBVCT facility (CBVCT 10)		
		E	MV	EMV	E	MV	EMV	E	MV	EMV	E	MV	EMV
14	59	0.9	476	1.0	93.2	0		0.6	6443	76.6	91.7	3	100.0
15	4	1.0	0		100.0	0		1.0	394	100.0	100.0	0	
17	2	0.3	0		100.0	0		0.3	581	100.0	100.0	0	
21	208	1.6	0		-	208	-	1.3	0		-	180	-
22	73	1.1	0		100.0	0		0.9	0		100.0	0	
23	10	3.1	0		100.0	0		3.1	314	100.0	90.0	1	100.0
26	7	2.8	0		100.0	0		2.8	245	100.0	71.4	2	100.0
28	33	5.7	0		36.4	21	100.0	2.1	571	100.0	100.0	0	
32	9	4.1	0		66.7	2	85.7	2.8	212	100.0	83.3	1	100.0
35	1	0.7	0		100.0	0		0.7	141	100.0	100.0	0	
39	11	1.2	0		63.6	2	77.8	0.8	920	100.0	85.7	1	100.0
41	2	1.7	0		100.0	0		0.9	115	100.0	100.0	0	
42	19	1.0	0		78.9	2	88.2	0.8	1857	93.8	46.7	8	100.0
45	18	4.8	0		100.0	0		4.8	354	100.0	100.0	0	
48	1	1.6	0		100.0	0		1.6	60	100.0	100.0	0	
56	4	1.2	0		25.0	1	33.3	0.3	344	100.0	-	1	-
58	118	3.2	0		41.5	0		1.3	0		-	-	-
63	17	1.8	0		81.8	0		2.0	0		-	-	-
65	35	3.0	0		100.0	0		3.1	1124	100.0	2.8	35	100.0
68	2	1.6	0		100.0	0		0.8	128	100.0	100.0	0	
73	3	1.7	0		66.7	1	100.0	1.1	172	100.0	100.0	0	
74	9	1.5	0		66.7	0		1.0	612	100.0	100.0	0	
77	293	0.7	0		45.7	0		0.3	0		0.0	0	
82	186	3.7	0		99.5	0		3.4	0		100.0	0	
85	2	0.3	0		50.0	0		0.2	651	100.0	100.0	0	
94	1	0.8	0		100.0	0		0.8	129	100.0	100.0	0	
98	7	2.7	0		100.0	0		2.7	253	100.0	85.7	1	100.0

E: Estimates of the Indicator; MV: Number of missing values for particular question (variable); EMV: Estimates of indicators taking into account missing information for the particular question (variable) (approach b); -: Data not available.

MV \*: As the denominator includes all clients tested for HIV with a screening test and not only those with the reactive HIV screening test result, these numbers are very high and do not reflect poor data completeness.

The rows showing data submitted in aggregated format are shaded (light grey rows).

Table 7: Estimates for CBVCT M&E indicators 5, 8, 9 and 10 together with the numbers of reactive HIV screening test results for all clients of CBVCT services/networks with any reactive HIV screening test result, COBATEST network, 2016

CBVCT code	Reactive screening test results	% with reactive screening test (CBVCT 5)			% with reactive screening test with confirmatory test (CBVCT 8)			% with positive confirmatory test result (CBVCT 9)			% with positive confirmatory test result receiving the result at CBVCT facility (CBVCT 10)		
		E	MV	EMV	E	MV	EMV	E	MV	EMV	E	MV	EMV
14	50	0.8	229	0.8	80.0	0		0.5	6329	72.3	88.2	3	96.8
15	3	0.8	0		100.0	0		0.8	368	100.0	100.0	0	
17	4	0.4	0		100.0	0		0.4	898	100.0	100.0	0	
22	99	1.4	0		100.0	0		0.8	0		100.0	0	
23	21	4.4	0		85.7	0		3.7	463	100.0	83.3	3	100.0
26	6	2.0	0		0.0	2	0.0	-	294	-	-	-	-
28	15	8.4	0		100.0	0		8.4	164	100.0	100.0	0	
32	6	2.1	0		83.3	1	100.0	1.4	275	80.0	100.0	0	
35	4	3.0	0		100.0	0		3.0	129	100.0	100.0	0	
36	16	1.0	0		-	-	-	-	-	-	-	-	-
39	10	1.1	0		20.0	1	22.2	0.3	896	100.0	66.7	1	100.0
42	20	0.8	0		80.0	4	100.0	0.4	2440	83.3	70.0	3	100.0
44	9	8.3	0		100.0	0		8.3	100	100.0	100.0	0	
45	36	2.7	0		100.0	0		2.7	1304	100.0	-	36	-
51	11	1.4	0		90.9	0		1.3	776	100.0	-	10	-
56	1	0.3	0		0.0	0		-	370	-	-	-	-
57	2	4.8	0		50.0	0		-	42	-	-	-	-
58	100	3.1	0		-	-	-	-	-	-	-	-	-
61	1	2.1	0		100.0	0		2.1	47	100.0	100.0	0	
63	15	2.0	0		-	-	-	-	-	-	-	-	-
65	32	2.7	0		100.0	0		2.7	1135	100.0	-	32	-
73	1	0.5	0		100.0	0		0.0	187	0.0	-	-	-
74	17	3.0	0		88.2	0		2.6	556	100.0	93.3	1	100.0
75	13	1.9	0		-	13	-	-	702	-	-	-	-
77	283	0.7	0		45.9	0		0.3	0		0.0	0	
84	10	1.7	0		-	10	-	-	578	-	-	-	-
92	14	0.7	0		85.7	0		-	-	-	-	-	-
94	1	0.8	0		100.0	0		0.8	130	100.0	100.0	0	
98	11	3.6	0		90.9	0		2.6	292	72.7	75.0	2	100.0
99	1	1.6	0		100.0	0		1.6	63	100.0	100.0	0	

E: Estimates of the Indicator; MV: Number of missing values for particular question (variable); EMV: Estimates of indicators taking into account missing information for the particular question (variable) (approach b); -: Data not available.

MV \*: As the denominator includes all clients tested for HIV with a screening test and not only those with the reactive HIV screening test result, these numbers are very high and do not reflect poor data completeness.

The rows showing data submitted in aggregated format are shaded (light grey rows).



Table 8: Estimates for CBVCT M&E indicators 1, 2, 3 and 4 for all clients of CBVCT services/networks, COBATEST network, 2015

CBVCT code	Clients tested with HIV screening test (CBVCT 1)	% previously tested			% tested last year			% tested last year at the same facility		
		(CBVCT 2)			(CBVCT 3)			(CBVCT 4)		
		E	MV	EMV	E	MV	EMV	E	MV	EMV
14	6490	63.3	191	65.2	17.1	421	18.3	-	6490	-
15	398	65.3	0		24.9	299	100.0	24.9	164	42.3
17	583	71.0	2	71.3	7.7	538	100.0	6.5	304	13.6
18	26	69.2	0		38.5	16	100.0	26.9	9	41.2
21	13346	-	13346	-	-	13346	-	-	13346	-
22	6552	86.3	0		48.6	0		-	-	-
23	324	55.2	4	55.9	11.1	288	100.0	10.8	169	22.6
26	252	86.1	2	86.8	52.8	119	100.0	29.8	43	35.9
28	583	74.1	4	74.6	36.0	373	100.0	36.0	154	49.0
32	218	71.6	0		17.0	181	100.0	15.1	63	21.3
35	142	64.8	0		37.3	89	100.0	14.8	50	22.8
36	1788	46.0	0		18.0	0		0	0	
37	1491	-	1491	-	-	1491	-	-	1491	-
39	927	56.1	8	56.6	19.0	751	100.0	14.6	468	29.4
41	116	37.9	0		11.2	103	100.0	6.9	77	20.5
42	1873	70.3	107	74.6	20.7	1486	100.0	20.6	795	35.8
44	8	75.0	0		37.5	5	100.0	12.5	2	16.7
45	372	65.3	0		30.4	3	30.6	15.6	4	15.8
48	61	37.7	5	41.1	4.9	58	100.0	4.9	49	25.0
51	606	80.7	0		54.0	0		42.7	0	
56	345	49.6	0		31.6	236	100.0	18.6	176	37.9
57	49	81.6	1	83.3	61.2	19	100.0	51.0	9	62.5
58	3655	84.9	0		40.2	0		27.7	0	
63	922	68.8	0		38.5	0		15.0	0	
65	1160	76.7	11	77.5	22.3	901	100.0	22.3	371	32.8
68	129	69.8	1	70.3	16.3	108	100.0	14.7	48	23.5
73	174	64.9	0		19.0	141	100.0	18.4	69	30.5
74	618	81.4	0		19.9	495	100.0	19.3	160	26.0
75	264	45.8	9	47.5	-	264	-	-	264	-
77	43097	71.3	0		36.4	0		16.7	0	
82	5095	91.7	0		60.8	0		34.2	0	
84	557	51.5	0		19.9	446	100.0	18.1	268	34.9
85	652	41.4	4	41.7	11.2	579	100.0	10.9	414	29.8
92	2139	-	-	-	-	-	-	-	-	-
94	130	51.5	0		18.5	106	100.0	17.7	63	34.3
98	260	51.9	0		14.6	222	100.0	14.2	126	27.6
99	91	61.5	0		22.0	71	100.0	16.5	37	27.8
Min	8	37.7		41.1	4.9		18.3	0.0		13.6
Q1	158	51.8		51.7	17.0		100.0	14.2		22.7
Mean	2581	65.3		65.1	27.8		94.2	19.3		30.4
Median	557	67.0		70.3	22.0		100.0	16.7		29.4
Q3	1640	75.4		76.0	38.0		100.0	24.9		35.8
Max	43097	91.7		86.8	61.2		100.0	51.0		62.5

E: Estimates of the Indicator; MV: Number of missing values for the particular question (variable); EMV: Estimates of indicators taking into account missing information for the particular question (variable) (approach b); -: Data not available.

The rows showing data submitted in aggregated format are shaded (light grey rows).

Table 9: Estimates for CBVCT M&E indicators 1, 2, 3 and 4 for all clients of CBVCT services/networks, COBATEST network, 2016

CBVCT code	Clients tested with HIV screening test (CBVCT 1)	% previously tested			% tested last year			% tested last year at the same facility		
		(CBVCT 2)			(CBVCT 3)			(CBVCT 4)		
		E	MV	EMV	E	MV	EMV	E	MV	EMV
14	6376	62.7	140	64.1	19.4	319	20.4	12.8	2204	19.5
15	371	60.6	1	60.8	33.7	150	56.6	26.7	173	50.0
17	902	64.3	0		26.3	325	41.1	7.8	380	13.4
18	24	62.5	0		41.7	9	66.7	20.8	11	38.5
22	7034	88.0	0		53.0	0		-	-	-
23	481	54.1	1	54.2	23.1	224	43.2	12.1	232	23.3
26	294	88.1	3	89.0	54.4	43	63.7	37.8	43	44.2
28	179	64.8	0		48.0	63	74.1	31.3	63	48.3
32	280	68.9	0		32.9	88	47.9	11.1	91	16.4
35	133	67.7	1	68.2	36.8	59	66.2	21.8	57	38.2
36	1537	49.2	0		16.1	0		14.6	0	
39	899	68.0	2	68.1	36.0	320	56.0	22.1	398	39.7
41	25	48.0	0		24.0	14	54.5	12.0	16	33.3
42	2452	75.0	102	78.3	43.9	1376	100.0	28.6	761	41.5
44	109	46.8	0		19.3	59	42.0	8.3	59	18.0
45	1340	56.6	1	56.6	14.9	1140	100.0	10.4	2	10.5
48	52	7.7	26	15.4	-	52	-	0.0	51	0.0
51	786	81.6	4	82.0	57.0	1		32.4	1	32.5
53	13	61.5	1	66.7	7.7	7	16.7	0.0	6	0.0
56	370	54.1	3	54.5	23.5	171	43.7	23.8	177	45.6
57	42	78.6	3	84.6	42.9	11	58.1	26.2	10	34.4
58	3219	84.5	0		54.9	0		31.9	0	
61	48	43.8	0		16.7	28	40.0	2.1	27	4.8
63	737	70.6	0		27.7	0		11.5	0	
65	1167	80.5	21	81.9	46.4	245	58.8	23.1	249	29.3
68	21	81.0	0		52.4	4	64.7	19.0	5	25.0
73	188	63.8	0		26.6	81	46.7	13.3	72	21.6
74	571	84.2	0		55.5	91	66.0	21.2	131	27.5
75	702	63.8	17	65.4	51.3	263	82.0	16.5	345	32.5
77	38658	72.6	0		38.0	0		17.4	0	
84	578	43.3	0		30.1	329	69.9	18.7	328	43.2
85	619	36.8	5	37.1	20.4	390	55.0	12.0	432	39.6
87	7	42.9	0		28.6	4	66.7	14.3	4	33.3
92	2098	-	-	-	-	-	-	-	-	-
94	131	60.3	0		32.1	52	53.2	15.3	52	25.3
96	106	66.0	0		21.7	37	33.3	0.0	42	0.0
98	303	45.2	4	45.8	2.6	291	66.7	7.6	167	16.9
99	64	64.1	0		21.9	27	37.8	12.5	26	21.1

Min	7	7.7		15.4	2.6		16.7	0.0		0.0
Q1	96	51.6		54.3	21.7		42.9	11.2		17.2
Mean	1919	62.5		63.1	32.8		56.4	16.6		27.1
Median	371	63.8		65.4	31.1		56.3	14.9		28.4
Q3	968	73.8		80.1	45.8		66.7	22.8		39.3
Max	38658	88.1		89.0	57.0		100.0	37.8		50.0

E: Estimates of the Indicator; MV: Number of missing values for the particular question (variable); EMV: Estimates of indicators taking into account missing information for the particular question (variable) (approach b); -: Data not available. The rows showing data submitted in aggregated format are shaded (light grey rows).

## 5. CONCLUSIONS

The estimates for core CBVCT M&E indicators according to the data submitted for the year 2015 and 2016 vary between different CBVCT services/networks.

The total number of clients tested for HIV with a screening test in 37 CBVCT services/networks that submitted data to NIJZ or CEEISCAT for the year 2015 was 95,493 and for the year 2016, in 38 CBVCT services/networks 72,916.

With the exception of three, all CBVCT services/networks submitted complete information on HIV screening test result for 2015 and 2016. The proportion of clients with HIV reactive screening HIV test result varied between individual CBVCT services/networks from 0% to 5.7% in 2015, the respective mean was 1.7% and the median 1.3%. For 2016, the proportion of clients with HIV reactive screening HIV test result varied between individual CBVCT services/networks from 0% to 8.4%, the respective mean was 1.8% and the median 1.3%.

Numerous CBVCT services/networks had not submitted information on confirmatory testing of clients with reactive screening HIV test results and few CBVCT services/networks submitted information needed for estimating successful linkage to care. Anecdotal evidence suggests that some CBVCT services/networks (e. g. Catalan CBVCT services Network) may have such information, however the data entry using a COBATEST web-based approach is conducted before such information becomes available.

Only four different CBVCT services/networks submitted information on cost per client tested for HIV for both years and only one on cost per one HIV infection diagnosed. Since some CBVCT services/networks also perform other services in addition to HIV counselling and testing (e.g. comprehensive STI-testing, STI treatment and HIV treatment at Swiss Checkpoints), it would be a challenge to try to estimate the cost of the service per client tested for HIV only. However, for Switzerland, it can be based on the costs per test (see page 10).

For individual participating CBVCT services/networks, the estimates for CBVCT M&E indicators presented in this report provide an opportunity to compare their own performance to that of other CBVCT services/networks within the COBATEST network, which may contribute to the improvement of their own service, if considered necessary.

We should be cautious when interpreting this data, as these CBVCT M&E estimates are not representative of all CBVCT testing going on in Europe. However, our results confirm the feasibility of systematically collecting information on CBVCT for HIV, the usefulness of the CBVCT M&E indicators developed in the COBATEST Project as well as the potential use of such data for monitoring an evaluation CBVCT for HIV at regional and national level.

## 6. RECOMMENDATIONS TO COBATEST NETWORK

To obtain meaningful estimates for all CBVCT M&E indicators from data submitted in disaggregated format, it is important to submit as complete data as possible for all respective variables (questions) in the future data collection rounds.

Necessary resources should be invested in quality control to identify gaps and specific local needs in the data collection and data management procedures, so that data completeness and quality is improved.

As information about the proportion of clients with confirmed HIV infection successfully linked to health care is very valuable, all CBVCT services/networks that currently do not collect such information, might want to explore possibilities to obtain such information, for example from facilities to which their clients with positive HIV screening test result are referred to for HIV confirmatory testing and/or health care.

CBVCT services/networks need to increase and consolidate collaboration with organisations responsible for coordinating national or regional HIV surveillance in their respective countries or regions to be able to obtain estimates for some of these CBVCT M&E indicators.

Although these indicators are designed to help CBVCT services/networks to assess and to improve the quality of their own services, data for a few selected M&E indicators, such as for example screening HIV test reactivity rate, proportion of clients with positive confirmatory HIV test result and proportion of clients with confirmed HIV infection linked to health care, collected using standardised methods in all CBVCT services in a country, could be considered by national HIV and acquired immunodeficiency syndrome (AIDS) prevention, treatment and care programmes for M&E CBVCT as a part of national HIV testing and counselling programmes M&E efforts.