



Joint Action on integrating prevention, testing and linkage to care strategies across HIV, viral hepatitis, TB and STIs in Europe

## RiskRadar - Report on pilot results

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## List of Acronyms

- AB Advisory Board
- AIDS Acquired Immuno-Deficiency Syndrome
- EU European Union
- FG Focus Group
- HCV Hepatitis C Virus
- HIV Human Immunodeficiency Virus
- ICT Information and Communication Technology
- MSM Men who have Sex with Men
- PrEP Pre-Exposure Prophylaxis
- NGO Non-Governmental Organization
- PN Partner Notification
- PWID People Who Inject Drugs
- SC Steering Committee
- STIs Sexually Transmitted Infections
- TB Tuberculosis
- U=U Undetectable = Untransmittable
- WP Work Package

## Executive Summary

The INTEGRATE Joint Action aimed to improve early diagnosis and linkage to prevention and care across HIV, STIs, viral hepatitis and TB in EU member states. The specific focus of Work Package 7 Obj. 1 of the Joint Action was to investigate how to improve the effectiveness of combination prevention efforts through the use of ICT tools, by assessing currently available technologies and adapting them – or designing new ones – targeting at risk populations in order to reduce the incidence of HIV, viral hepatitis, STIs and TB. The integration of the mentioned diseases represented indeed a challenge, since in most of the cases existing ICT tools were developed to prevent HIV transmission and needed to be adapted and extended to cover the other infections/pathologies.

This report describes the pilot phase of the RiskRadar, the new, integrated ICT tool developed in the course of the Joint Action as a web and mobile application for iOS and Android devices in 4 languages: English (the language of the original version), Croatian, Italian and Lithuanian (the languages of the countries where the pilots took place in the second half of 2020). The collaboration within the INTEGRATE Joint Action represented a great opportunity to bring together the strengths of experts in the ICT field with scientists, clinicians, members of academia and civil society to design, pilot and assess its effectiveness, with the aim to give an answer to the urgent need for trustworthy resources to support people accessing information online, thus reducing barriers to care. The RiskRadar application can provide support to people seeking information following a sexual encounter or needing advice on PrEP; to those who are looking for testing sites nearby, to people living with HIV and to other vulnerable groups.

Secondly, the report illustrates the results of the evaluation activities on the usability of the RiskRadar and on the level of satisfaction as rated by users.

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## 1. Introduction

The INTEGRATE Joint Action aimed to improve early diagnosis and linkage to prevention and care across HIV, STIs, viral hepatitis and TB in EU member states. The specific focus of Work Package 7 Obj.1 of the Joint Action was to investigate about how to improve the effectiveness of combination prevention efforts through the use of ICT tools, by assessing currently available technologies, adapting them and designing an enhanced new toolkit targeting at risk populations (PWID, MSM, migrants, homeless, prisoners...), in order to contribute reducing the incidence of HIV, viral hepatitis, STIs and TB. Finding an integrated approach to combat the mentioned diseases constituted a major challenge, since in most of the cases existing ICT tools were developed to prevent HIV transmission and needed creative solutions to be adapted and extended to cover the other infections/pathologies.

The process that brought to the design, technical development and launch of the RiskRadar was long and comprised many different steps:

- an initial desk review of the already existing ICT Tools on combination Prevention of HIV, viral hepatitis, STIs and TB, performed between end 2017 and 1<sup>st</sup> Qtr 2018 by INTEGRATE partners from CIPH, HR; CRI, IT; Flight, HR; Iskorak, HR; LILA Milano, IT; MFH, MT; Semmelweis University, HU
- the preparation of a Mapping Matrix of 115 existing ICT tools, then cleaned and reduced to 53 tools ordered by topic [Group 1 – Prevention: 29 ICT Tools (Prevention, Harm Reduction, PrEP); Group 2 – Testing: 24 ICT Tools (Testing, Partner Notification, Linkage to Care)]
- the evaluation - through a dedicated review form - of the tools included in the Matrix to identify those suitable for adaptation. In April/May 2018, 53 tools were rated by 17 Steering Committee and Advisory Board Members. CERTH conducted a more technical evaluation focussing on tool adaptability, reproducibility and data relevance.
- an in-depth discussion of the 7 shortlisted ICT tools (PRV17 – Your Ending HIV Toolkit; HR1 – Chemsex Care Plan; PrEP1 - PrEP in Europe; PrEP2 - PrEP Locator; TST8 – What’s your number; PN6 – Let Them Know; PN7 – Don’t Spread It) to pinpoint and analyse all useful features that would drive the new “integrated” ICT tool.
- approval of the proposal of the new, “integrated” ICT Tool in Sep 2019, to be developed by CERTH, foreseeing a website and mobile app with different components (Info Sheets with the basics for the different diseases, a Risk Calculator allowing users to assess risk exposure for the 4 disease areas, a PrEP dedicated component, a Test Finder, Testing/Treatment/Check-up visit reminders, a Partner Notification anonymous service, and finally a specific TB component, since TB differs from STIs)

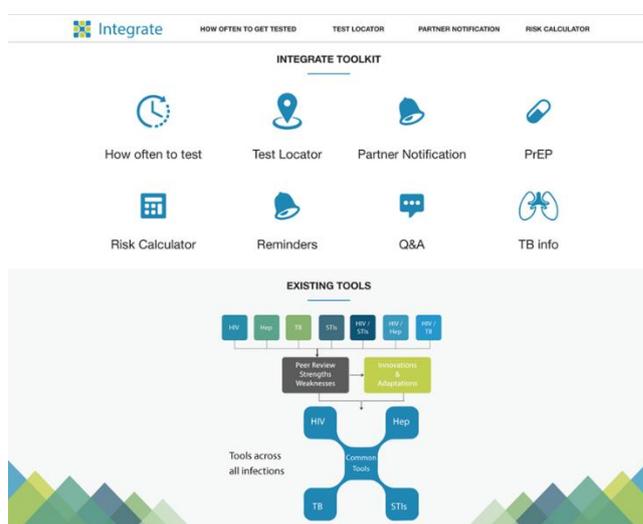


Figure 1: Proposal for the integrated ICT tool

- the technical development of the new web and mobile application. The development of the different components took much longer than expected, mainly due to difficulties in the design of the Risk Calculator logic tree for the different diseases, to new privacy rules brought about by the introduction of the GDPR in 2018, and to the subsequent translation of the original English version to Croatian, Italian and Lithuanian.

The RiskRadar was ready to be launched as a web and mobile application for iOS and Android devices in July 2020, during the COVID pandemic. Logos and promotional materials in the 4 languages were provided by CERTH to ensure a consistent visual identity in all pilot sites.



**Figure 2: RiskRadar logos and promotional banner**

This report describes the RiskRadar’ pilot phase of in the 3 selected countries: Croatia, Italy and Lithuania. The pilots took place in the second half of 2020 since, as already indicated, the app was launched at the beginning of July. Due to COVID restrictions, many of the planned promotional activities could not be implemented: public events could not be organized and also access to NGO premises was restricted and allowed only by appointment.

The report is structured as follows: chapter 2 describes the pilots in the 3 countries; chapter 3 summarizes usage statistics and metrics, while chapter 4 documents the evaluation methods and results in two partner countries: Italy and Lithuania. Final considerations, recommendations and conclusions and are outlined in chapters 5 and 6.

## 2. RiskRadar pilot phase

This pilot study had the purpose to assess the ease of use, utility, satisfaction and appeal of the newly designed RiskRadar - web and mobile applications for iOS and Android - in Croatia, Italy and Lithuania, in order to evaluate its potential in reaching population groups at risk for HIV, hepatitis, STIs and TB with clear and simple combination prevention messages. It lasted 6 months and allowed to collect data on number of accesses/downloads, most visited components/topics, and also to check the ICT tool's ability to bring users to seek further advice and support.

Pilot activities were carried out by the five organizations designated for this specific task (Iskorak, HR, Arcigay, LILA Milano, IT; RPLC, ULAC, LT) under the supervision of WP7 Obj. 1 Lead. All pilot partners basically followed the same procedures outlined in the protocol and kept track of problems, barriers, results and outcomes of the different steps foreseen in this phase:

- quality check of the translation in own language
- communication of eventual final improvements/changes needed
- promotion of the pilot phase through ads on websites, social media, communications to other relevant stakeholders (clinicians, NGOs, STI services, etc.)
- promotion of the tool, specifically addressing key affected groups, during everyday service activities and special events, whenever possible
- widespread promotion of RiskRadar across all EU stakeholders and the general public through the JA's communication channels: a) the INTEGRATE website and newsletters, b) INTEGRATE's social media accounts (Facebook, Twitter, LinkedIn), c) European Testing Week's (ETW) promotional activities and materials, especially during ETW in November 2020.

At the end of the pilot phase, involved partners provided a written report outlining the main outcomes of the activities performed. Quantitative data were provided by CERTH, in charge of the technical development of the tool.

### 2.1 Pilot activities in Croatia



During the second half of 2020, the Croatian partner **Iskorak** carried out the following promotional activities:

- publication of paid ads and posts on social media (Facebook and Instagram) targeted to MSM
- publication of posts on the organization's website [www.iskorak.hr](http://www.iskorak.hr)
- delivery of promotional messages to mailing lists and newsletters (list of the NGOs and other mailing lists)
- sharing and discussing RiskRadar with NGO's clients (e.g. at the community-based testing site), also with the organization's staff and volunteers
- presentation of the RiskRadar at national meetings/conferences

Figure 3: Promotional FB post, Croatia

Figure 4: RiskRadar promotion on Arcigay website home page, Italy



## 2.2 Pilot activities in Italy

The first of 2 Italian organizations involved in the RiskRadar pilot activities – **Arcigay** - carried out the following:

- publication of the RiskRadar banner on the official webpage
- publication of a dedicated article visible in the national website landing page, also promoted through the September 2020 newsletter, which was advertised through Twitter, LinkedIn and Instagram channels: <https://www.arcigay.it/articoli/riskradar-calcola-il-tuo-rischio/#.X04bU3IKhPY>



LILA Milano promoted the RiskRadar through the following:

- special, dedicated 1st news on the website <https://lilamilano.it/it/>
- printed materials (posters, leaflets) distributed in STI hospitals, gay venues and other sites visited by the target groups in Milan and suburban areas
- promotional posts on social media (Facebook, Twitter); paid posts on Facebook
- paid promotional message on Grindr, including the RR banner for direct download
- paid campaign on the gay.it website (posters, article and 3 different banners)
- promotion of the RR during the ETW and WAD virtual activities and celebrations
- presentation of the RiskRadar to clients accessing LILA Milano during testing activities
- dedicated article on LILA Dec newsletter

Figure 5: RiskRadar promotional posters and leaflets, Italy

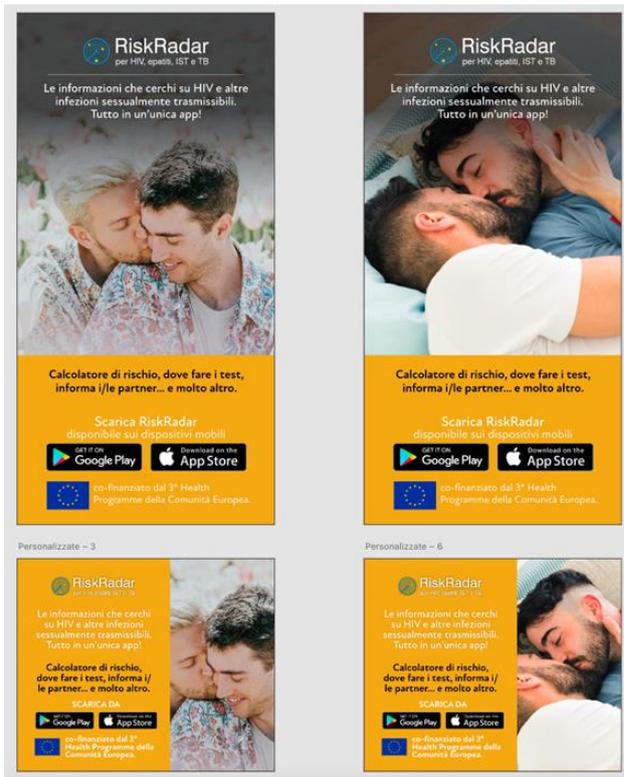


Figure 6: RiskRadar promotion on LILA newsletter, Italy

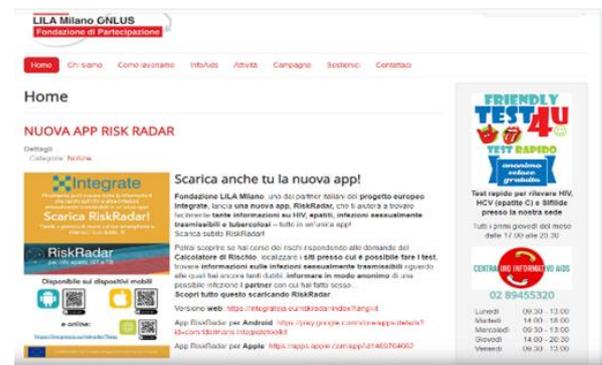


Figure 7: RiskRadar campaign on gay.it website (posters and banners), Italy

### 2.3 Pilot Activities in Lithuania

In Lithuania, various restrictions caused by the COVID-19 pandemic had an impact on the promotion of the tool. The activities included:

- banner on ULAC official website riskradar.ulac.lt highlighting general information about the project, description of the RiskRadar, links to the web and mobile applications, promotional materials – posters and cards
- printed promotional materials distributed in 14 low-threshold service sites and in the premises of other project partners (RPLC, Kaunas)
- Presentation of the RiskRadar during workshops targeted to public health specialists in the region, staff meetings of RPLC specialists and in the RPLC Facebook page

Figure 8: RiskRadar promotional posters and cards, Lithuania



- RiskRadar promotion during the autumn ETW and during WAD on ULAC website - thematic banners'2020
- RR banner introduced in the ULAC bulletin on ULAC website
- RiskRadar introduced in the quiz (in the section "how to evaluate the risk of getting HIV" for the question about testing), and promoted on ULAC website
- Promotional activities for OST patients in RPLC Kaunas: information dissemination by case managers through an information box with promotional materials



Figures 9-12: RiskRadar promotional materials and event, Lithuania

## 2.4 Considerations about the pilots

The pilot phase of the RiskRadar was deeply affected by COVID related restrictions. As already noted, no public event was allowed and this prevented the public talks and face-to-face (F2F) distribution of promotional materials. Furthermore, even leaving the leaflets for display in public spaces was discouraged and in some cases/periods forbidden, so sometimes it was not possible to make them available to people attending hospitals, drug treatment services, theatres, cinemas, gay venues, markets, etc. - handling of paper documents is considered as a possible mean of COVID transmission.

Pilot organizations' premises were accessible by appointment only, while not at all accessible during lockdowns. Contacts with clients were maintained mainly via emails, Skype and Zoom calls, regular phone calls. The offer of testing services was interrupted during the first lockdown in the 2<sup>nd</sup> quarter of 2020 and significantly reduced in the second half of the year, because free access was not allowed. Therefore, F2F contacts with clients were rare and COVID-19 often resulted to be their main concern.

Promotion was therefore only possible through the Internet, with posts, banners, ads on the websites of the organizations involved in the pilots and through their social media; messages were sent via email to national stakeholders; online newsletters were dedicated to the RiskRadar. These activities were not sufficient to attract the attention of the target groups; in fact, the number of people who accessed the RiskRadar was much lower than initially expected; on the other hand, also pilot organizations' expectations were much lower with respect to the pre-pilot phase, because it was easy to imagine that the restrictions introduced along with COVID would have had a big impact on the pilot phase.

One of the most important components of the RiskRadar - the Partner Notification service - that had required a lot of work on the part of the technical partner CERTH, could not be piloted: healthcare staff was overwhelmed by the COVID crisis and could not dedicate time to counseling patients diagnosed with an STI and giving them instructions and codes to access the PN component. This was really unfortunate, but could not be prevented. However, the COVID pandemic highlighted the impact of Contact Tracing (CT) in preventing and limiting the transmission of infectious diseases as well as the need for ICT-assisted CT/PN efforts to address disease outbreaks in large scale. A paper presenting RiskRadar's PN technical solution with its various development challenges (in terms of information flow, data privacy and ease of use) as well as the potential of adapting it as a CT service in the context COVID-19 is currently under publication.

Part of the mild attention devoted to the RiskRadar can be attributed to online fatigue during COVID-19: in the last twelve months most people spent a considerable amount of time on the Internet, working and schooling from home - tasks requiring continued online attention. Recent studies indicate that people' brains are trying to process a huge amount of online information and, as a result, are naturally dropping some of them – those that are not essential to daily work or studies, or to maintain social relations. The online ads of the RiskRadar did likely not reach top priority in the online long list of activities of potential users. Furthermore, COVID-19 – an infectious disease in itself, monopolized people's attention and concerns; many dedicated their time and energies to search information and resources about how to protect themselves from the new pandemic and neglected to care about sexually transmitted infections, also due to the fact that COVID restrictions reduced the opportunities for new encounters and exposure to sexual related risks. COVID-19 Contact tracing applications were widely promoted in the same period but did not receive the expected attention by European citizens, who mostly ignored the many influential invitations issued by governments to download them: this can be interpreted as another clue of Internet fatigue.

Despite the low numbers in access to the RiskRadar, overall users' experience with the new application was positive, as outlined in the next chapter dedicated to its evaluation.

### 3. RiskRadar usage: metrics and statistics

The RiskRadar’s features have been developed by CERTH using an iterative design and development process and informed participatory and user-oriented approaches. RiskRadar ensures high level of security and confidentiality and the possibility to derive data and statistics on the number of accesses, users’ risk-profile, most visited components, users’ satisfaction, all in compliance the GDPR regulations.

#### 3.1 Quantitative data - RiskRadar Usage and Evaluation Metrics

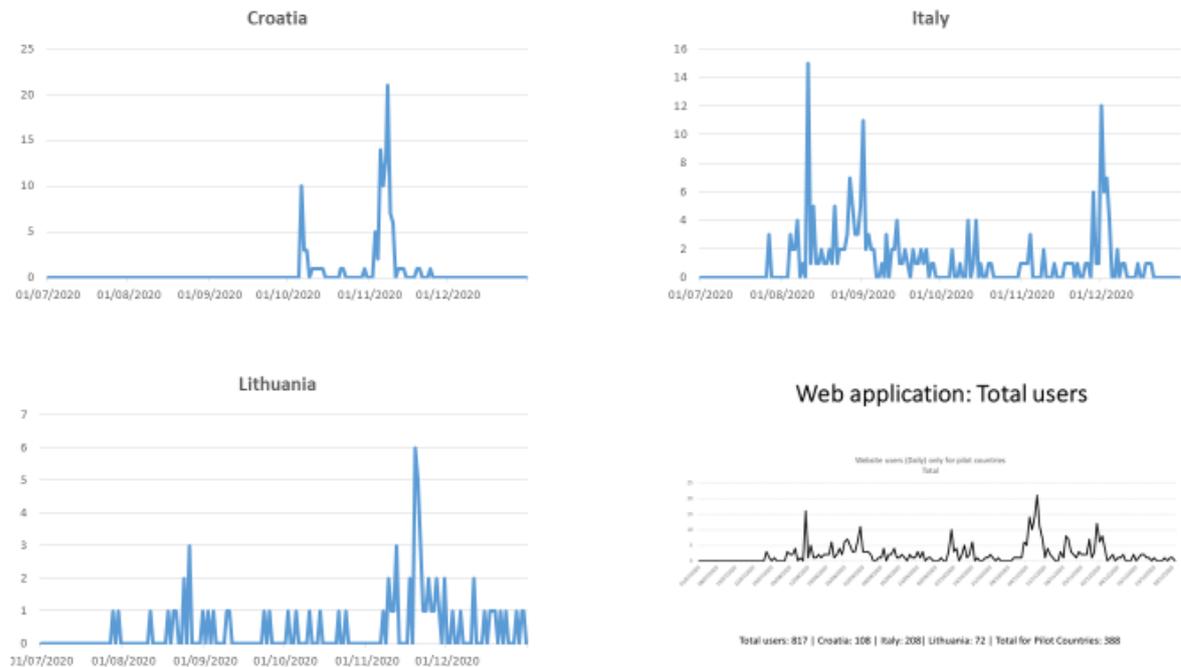
All quantitative data related to the pilots were collected and analysed by CERTH and periodically communicated to the Coordinator, WP7 Obj. 1 Lead and the organizations involved in the pilots for facilitating and improving the monitoring of promotional activities. They constituted the basis for the evaluation of the RiskRadar, which was also supported by qualitative data. The following table and graphs refer to the reporting period July – December 2020.

**Table 1: Total application usage metrics**

	<b>Total</b>	<b>Croatia</b>	<b>Italy</b>	<b>Lithuania</b>	<b>Total in pilot countries</b>
<b>Website visitors</b>	817	108	208	72	388
<b>Android app</b>	270	20	198	21	239
<b>iOS app</b>	260	3	193	7	203

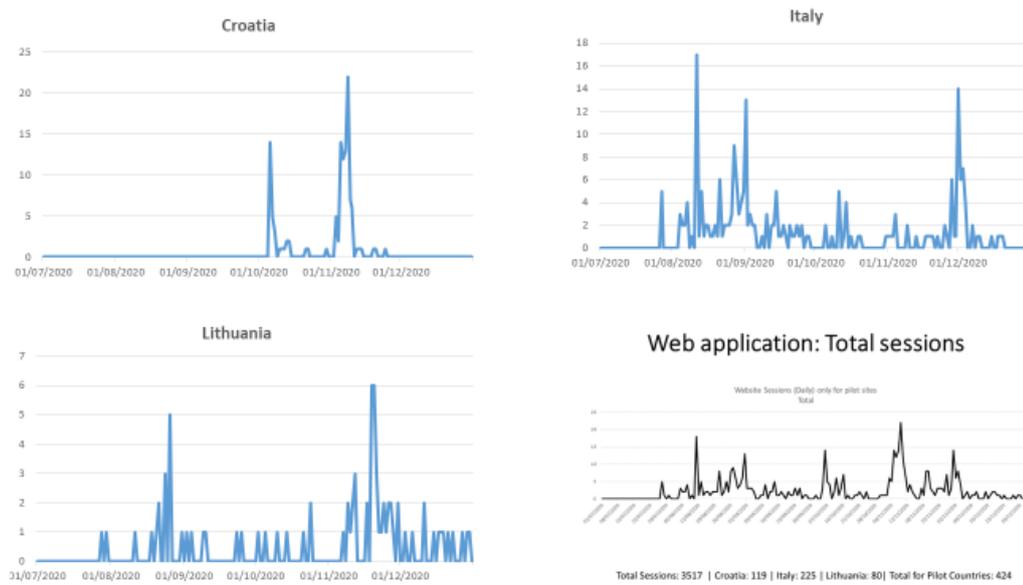
Figures 13-16 that follow, present the timelines (daily breakdown) for RiskRadar’s usage. More specifically, in each figure the top and bottom left plots present the daily count for Croatia, Italy and Lithuania respectively while the bottom right plot (black line) shows the total count for all countries (worldwide access). Figures 13 and 14 present the daily users and sessions for the RiskRadar we application; of course, the session count is higher since a single user can visit the RiskRadar web application more than once daily. Figures 15 and 16 present the daily count of installations for the Android and iOS mobile apps respectively, again for each pilot country and the overall total.

**Web application: Users – Total users; Users per pilot country**



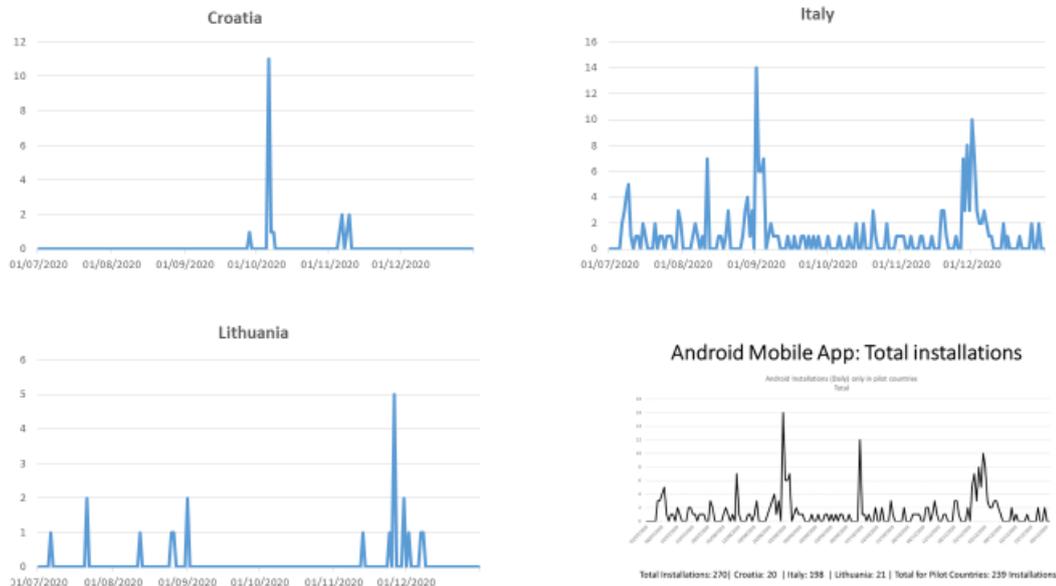
**Figure 13: Users on the RiskRadar web application per pilot country and in total (all countries)**

**Web application: Total sessions; Sessions per pilot country**



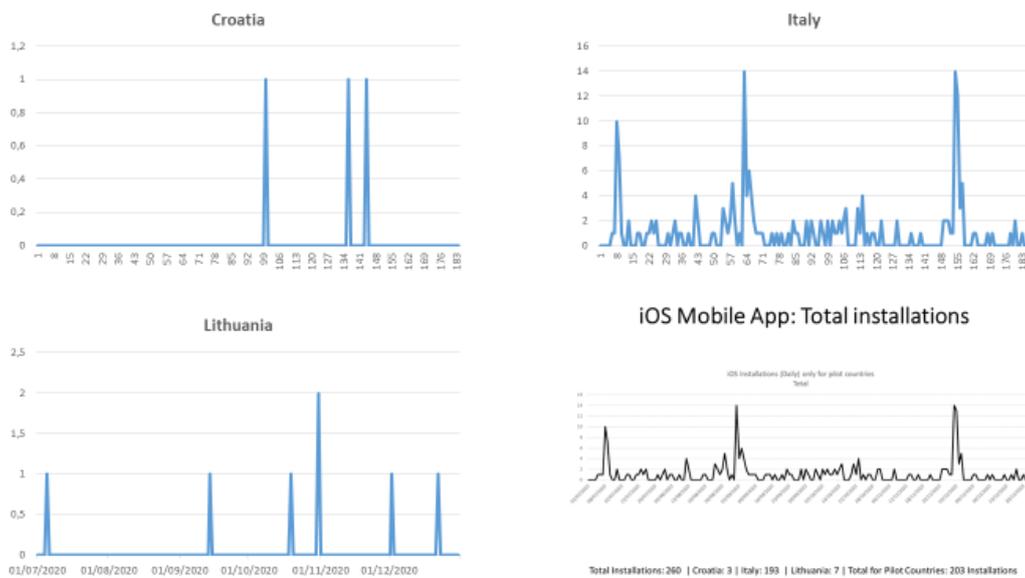
**Figure 14: Sessions on the RiskRadar web application per pilot country and in total (all countries)**

**Android Mobile App: Total Installations; Installations per pilot country**



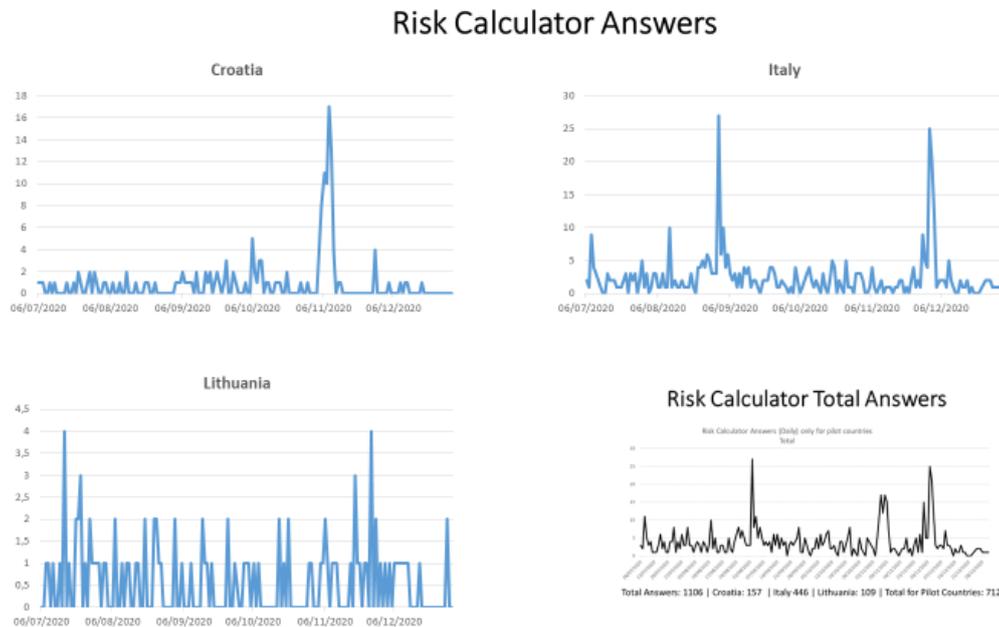
**Figure 15: Installations of the RiskRadar mobile app for Android per pilot country and in total (all countries)**

**iOS Mobile App: Total installations; Installations per pilot country**



**Figure 16: Installations of the RiskRadar mobile app for iOS per pilot country and in total (all countries)**

Figure 17 presents the daily amount of Risk Calculator sessions (across all platforms: web, Android and iOS) that were collected.



**Figure 17: Daily count of the Risk Calculator answers collected per pilot country and in total (all countries)**

The answers of the Risk Calculator were analysed to explore the risk factors and risky behaviours that the users reported while using it and are summarised in Tables 2 and 3. The total number of RC sessions are presented and then the percentages of each individual risk factor by pilot country to offer insights to the target audience reached by the various nation-wide promotional campaigns.

**Table 2: RiskRadar usage per pilot country**

Platform	Total visits/downloads	Croatia	Italy	Lithuania	English version* (available in all countries)
Web application	817	13.21%	25.45%	8.81%	52.51%
Mobile app (Android & iOS)	530	4.33%	73.77%	5.28%	16.60%**
<b>Total</b>	<b>1347</b>	<b>9.72%</b>	<b>44.47%</b>	<b>7.42%</b>	<b>38.38%</b>

\* Localisation data extrapolated from the user's language selection – any user from a pilot country viewing the English version is not included in the region metrics.

\*\* Lithuanian language not available for native iOS apps. The Lithuanian version is available only after language selection in the downloaded English version and this affects region metrics.

**Table 3: Risk factors recorded by users' answers in the RC (HIV status, sex-related risks)**

Language	Total RC Tests Taken	MSM	Both user and partner(s) are HIV+	User is HIV+	User's partner(s) is/are HIV+	Had unprotected sex
<i>All languages</i>	1106	27.67%	0.72%	5.70%	22.15%	14.47%
<i>English*</i>	394	13.96%	1.02%	3.55%	12.69%	7.11%
<i>Italian</i>	446	43.50%	0.67%	9.42%	34.08%	25.11%
<i>Croatian</i>	157	31.21%	0.64%	3.18%	20.38%	10.19%
<i>Lithuanian</i>	109	7.34%	0.00%	1.83%	10.09%	3.67%

*\* Localisation data extrapolated from the user's language selection – any user from a pilot country viewing the English version is not included in the region metrics.*

**Table 4: Risk factors recorded by users' answers in the RC (Drug injection risk, vaccination and immigrant status)**

Language	Total RC Tests Taken	PWID (Not sharing injecting materials)	PWID (Sharing injecting materials)	Not vaccinated for hepatitis B	Migrant	Has not had a TB screening (only for migrants)
<i>All languages</i>	1106	1.45%	2.08%	19.44%	6.33%	1.08%
<i>English*</i>	394	1.27%	2.54%	9.14%	7.61%	2.03%
<i>Italian</i>	446	2.02%	2.24%	28.70%	8.97%	0.90%
<i>Croatian</i>	157	0.00%	1.27%	19.11%	0.00%	0.00%
<i>Lithuanian</i>	109	1.83%	0.92%	19.27%	0.00%	0.00%

*\* Localisation data extrapolated from the user's language selection – any user from a pilot country viewing the English version is not included in the region metrics.*

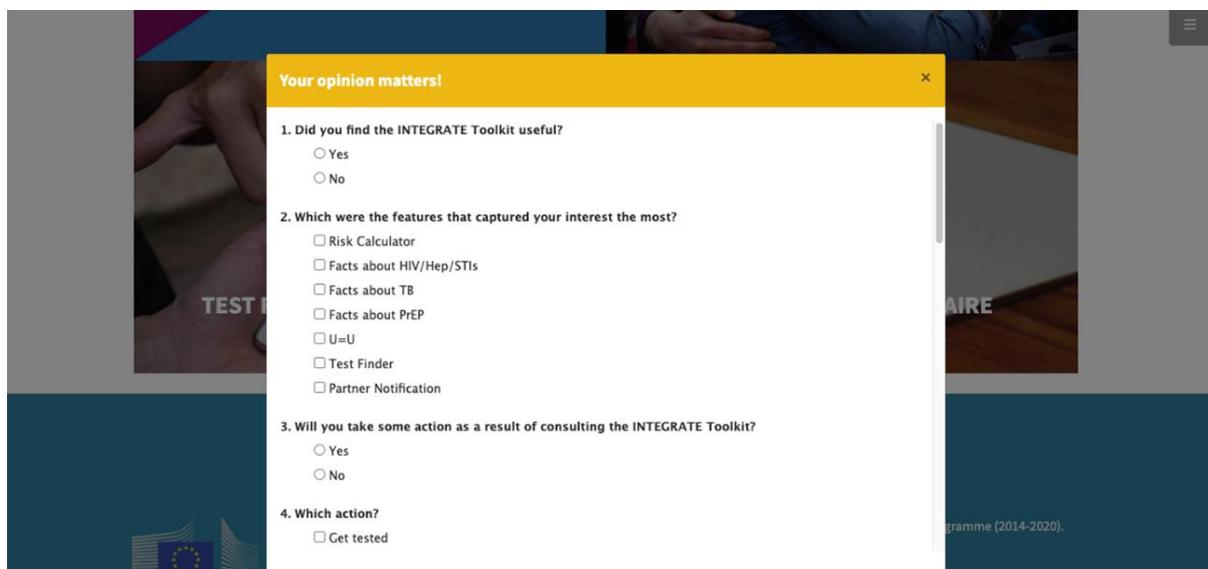
It should be noted that due to GDPR compliance issues and to ensure privacy, the user-selected language is used as a proxy for the user's country (so an Italian using the Risk Calculator in English will not be counted in the Italian statistics).

## 4. Evaluation methods and results

Different methods, data and results were utilized to evaluate the RiskRadar in a systematic manner from various points of view such as comprehensibility, ease of use, likeability, users' satisfaction, etc. Firstly, an evaluation component was incorporated in the RiskRadar itself: users had the opportunity to fill-in a short questionnaire after having accessed the application. After a few questions on the perceived usefulness and impact of the toolkit overall, the most interesting features and the intention to use RiskRadar again, the short version of the User Experience Questionnaire<sup>1</sup> (UEQ) was presented to the user. Finally, semi-structured interviews and focus groups exploring RiskRadar's acceptance were conducted in various piloting sites.

The evaluation processes and their results are presented in the final sections.

**Figure 18: The in-app evaluation questionnaire**



**Your opinion matters!**

1. Did you find the INTEGRATE Toolkit useful?

Yes

No

2. Which were the features that captured your interest the most?

Risk Calculator

Facts about HIV/Hep/STIs

Facts about TB

Facts about PrEP

U=U

Test Finder

Partner Notification

3. Will you take some action as a result of consulting the INTEGRATE Toolkit?

Yes

No

4. Which action?

Get tested

### 4.1 Evaluation Questionnaire Results (in app)

Sixty-seven questionnaires were collected in total. As indicated by the graphs here below, 92.5% of users who took the time to complete the questionnaire found the RiskRadar useful. 67% were males, 29% females and 4% transgender.

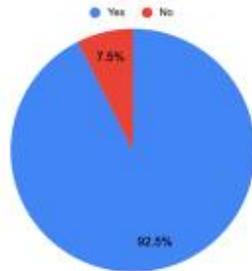
Quite surprisingly, the Fact sheets on the different STIs captured the highest interest, followed by the Risk Calculator, U=U, PrEP, Test Finder, TB and Partner Notification components. 67% of users declared they would take some action after having consulted the RiskRadar: 29% would seek advice and 26% would access testing services; 14% would schedule a new appointment at the clinic, 12% would start PrEP, 8% would see a doctor, 3% start treatment, 3% notify their partner(s), 2% stop sharing injecting equipment.

Importantly, 85% would use the application again.

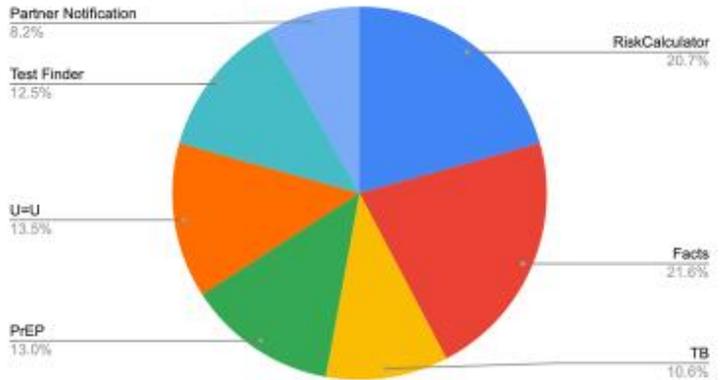
<sup>1</sup> <https://www.ueq-online.org/>

67 answers collected in total

Q1: Did you find RiskRadar useful?

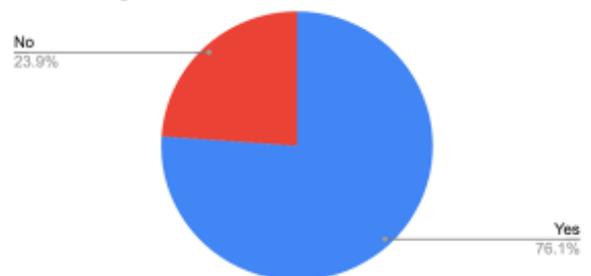


Q2: Which features captured your interest the most?

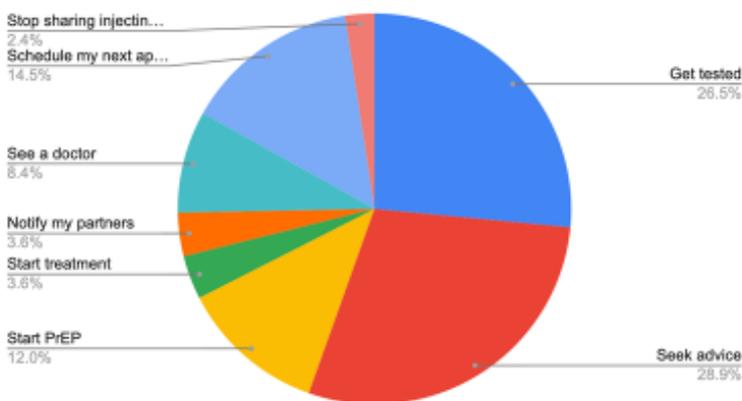


Graphs 1-2: Results in-app questionnaire

Q3: Will you take some action as a result of consulting RiskRadar?

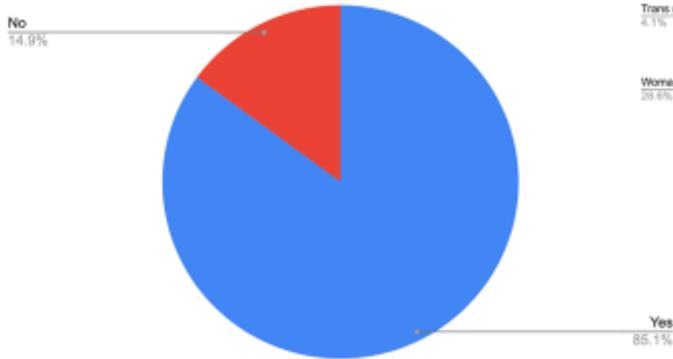


Q4: Which action?

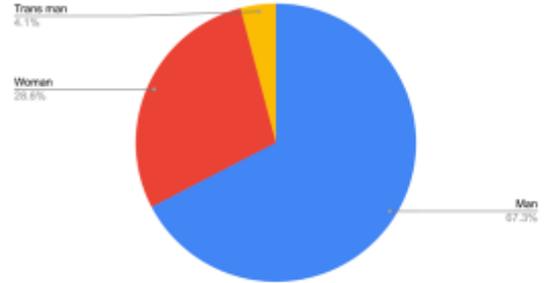


Graphs 3-4: Results in-app questionnaire (cont'd)

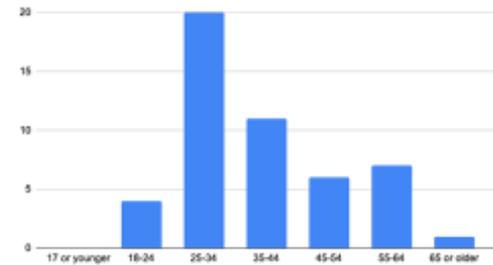
Q5: Will you use it again?



Q6: Are you a:



Q7: Your age is:



Graphs 5-7: Results in-app questionnaire (cont'd)

In Graph 8, the results of the User Experience Questionnaire are presented in detail; the user evaluates the RiskRadar toolkit as a whole, across 8 different categories by ranking them on a scale of 1 (negative – red colour,) to 7 (positive – green colour). The results are colour-coded in the graph to easily showcase the range of answers for each pair of characteristics (e.g. obstructive vs supportive, boring vs exciting etc.)

Graph 8: User Experience Questionnaire Scores (in app):

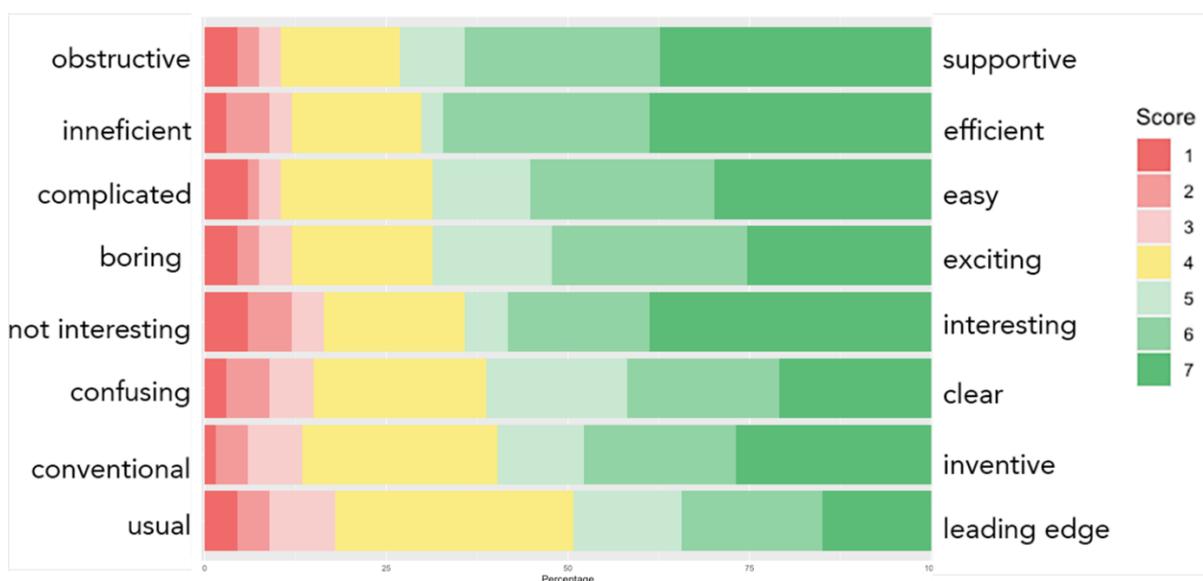


Table 4 lists the free-text comments and suggestions provided by the users that could provide valuable input for improving the RiskRadar toolkit in the future.

**Table 5: User comments and suggestions (in-app)**

<i>no suggestions. I normally test HIV and syphilis even if I have sex occasionally. I am <b>interested in getting tested for TB</b></i>
<i>Cancel it, it has nothing to do with the relationship. Correct the statement in the survey, it says Japan instead of clear (japan)</i>
<i>add <b>harm reduction</b> instructions for drug use</i>
<i>Just so forward, it is essential that information can be <b>obtained in one place</b></i>
<i>There could be more information or constantly updated, <b>updated statistics</b>. There is a lack of information such as the percentage of statistics spread through oral, anal, where to apply for lgbt individuals. There is a lack of what is paid and what is free. More information about hepatitis vaccines. There is still a lot to add to the improvement, but congratulations and glad it is, I would recommend it to others to sign up as well. Also, statistics could be or percentage written what the risk is if sperm, blood enters the mouth, and so on.</i>
<i>There is no <b>place in XXX where you can be tested</b> for HIV and hepatitis. Maybe there are none ..</i>
<i>in the <b>test section</b>, at the hospital of Feltre (BL) it is possible to do HIV tests</i>
<i>increase <b>diffusion</b> on the web</i>
<i><b>information on the use of drugs and antiretrovirals</b></i>

## 4.2 Qualitative Evaluation: Semi-structured interviews and Focus Groups

In order to complement the evaluation obtained through the in-app questionnaires, it was decided to conduct semi-structured interviews either online or by organizing F2F Focus Groups. CERTH, that has good experience in evaluating ICT tools, suggested to adopt a participatory validation methodology employing the “think aloud” approach where the participants were encouraged to be as talkative as possible while performing certain actions, expressing their initial reactions and thoughts. A scenario was presented to the participants, divided into episodes to solicit distinct user actions in order to assess ease of use and comprehensiveness of the RR.

A slide presentation of the validation scenario, with 8 different episodes/actions was prepared and translated to Italian and Lithuanian. At the end of the slide presentation, a link to the full User Experience Questionnaire to measure the users’ satisfaction provided by CERTH and easily accessible on Google Forms was included.

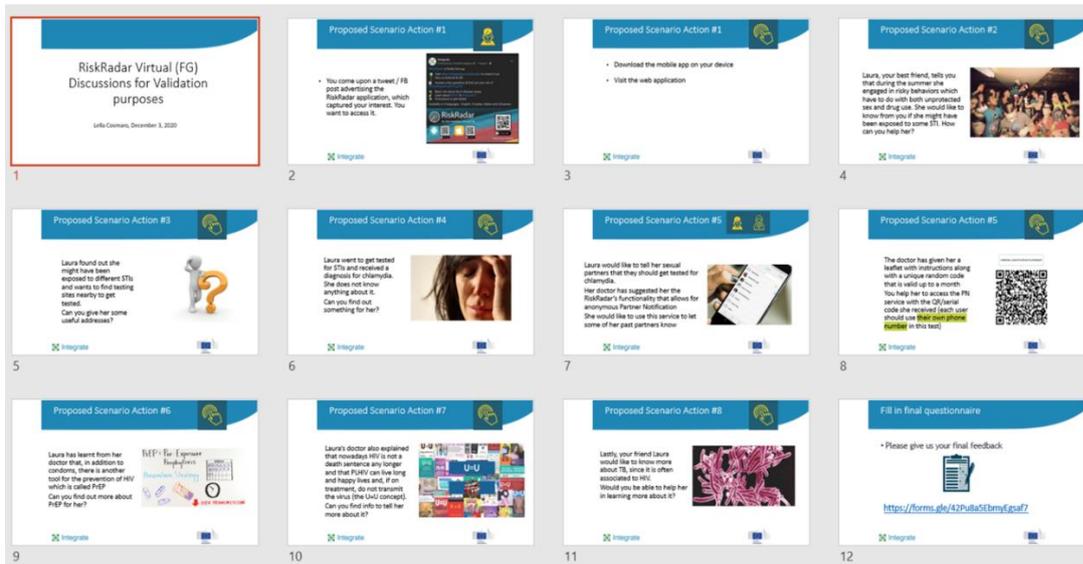


Figure 14: RiskRadar slides to guide the semi-structured interviews/FG – English version (Appendix I)

### 4.2.1 Qualitative Evaluation – Italy

Italian pilot partners opted for online interviews, which were conducted and recorded via the Zoom platform. Ten interviews were conducted in total by Arcigay and LILA Milano, by utilizing a predefined script/scenario suggested by CERTH and adapted to the RiskRadar needs by WP7 Lead.

The interviews were anonymous and conducted through the Zoom platform, by appointment. They were recorded and securely stored for eventual future reference.



Figure 15: Zoom recording of semi-structured interview - Italy

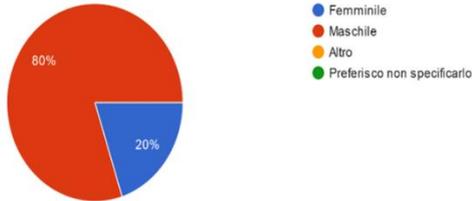
Table 6: RiskRadar evaluation through 10 Zoom semi-structured interviews, guided by the slide scenario

<b>Actions of scenario</b>	<b>10 Zoom interviews</b>	<b>Comments</b>
Action 1 – accessing RR (downloading the mobile app or accessing the web app)	All respondents accessed the mobile application	Download was easy in all cases.
Action 2 – assessing own risk using the Risk calculator (RC)	All respondents succeeded	<ul style="list-style-type: none"> <li>- One of the respondents could not access the RC on the iOS application. He received a message saying that data were not available at that moment.</li> <li>- Sometimes the RC did not immediately load on Android devices.</li> <li>- The final result of the Risk Calculator should be different from the previous text; the respondent said he would expect something more “important” and visible.</li> </ul>
Action 3 – using the Test Finder component	All respondents succeeded	<ul style="list-style-type: none"> <li>- 2 respondents found it difficult to apply the filters in the Test Finder (countries, diseases). Initially they did not find them and then did not easily understand what to do with them. It was not easy to read the sites in their cities.</li> <li>- In the Test Finder, the countries are not listed in alphabetical order and they should definitely be.</li> <li>- The Test Finder is not updated. One respondent from Perugia could not find the testing site present in his town</li> </ul>
Action 4 – finding information about STIs	All respondents succeeded	<ul style="list-style-type: none"> <li>- The titles/names of the diseases in the infosheets are written with small characters. Colors (titles and backgrounds) were not appreciated because they are too similar; all this makes the reading difficult.</li> <li>- Some texts are too long and they get boring. They are not adequate for a mobile application.</li> </ul>
Action 5 – using the Partner notification service	All respondents succeeded	The messages were exchanged among participants and the user’s leaflet was distributed to all the respondents.
Action 6 – finding information about PrEP	All respondents succeeded	The information about PrEP easily understandable, but too long. It should be reduced as no one would read it till the end.
Action 7 – finding information about U=U*	All respondents succeeded	On the contrary, the U=U page was considered too brief by two respondents; they would have liked to receive more info, but the link provided led them to a website in English, which they could not understand. They would have liked to learn more about the preventive role of ARV treatment.
Action 8 – finding information about tuberculosis	All respondents succeeded	Infographics are used only for the TB component, which makes it different from all the rest of them; it should be made more consistent.

After having used the RiskRadar and while still online, respondents were given the link to access the users' satisfaction questionnaire and were asked to complete it before terminating the interview, in order to ensure completion of the task. Questionnaire results are indicated in the following graphs.

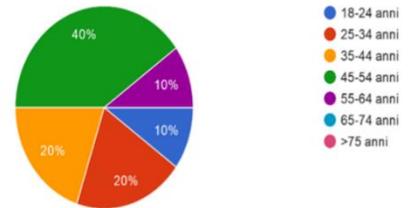
**Gender**

10 risposte



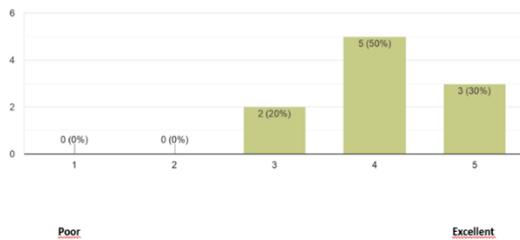
**Age range**

10 risposte



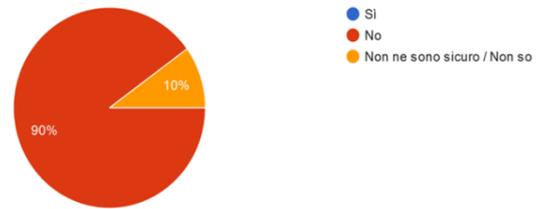
**How do you rate your computer skills?**

10 risposte

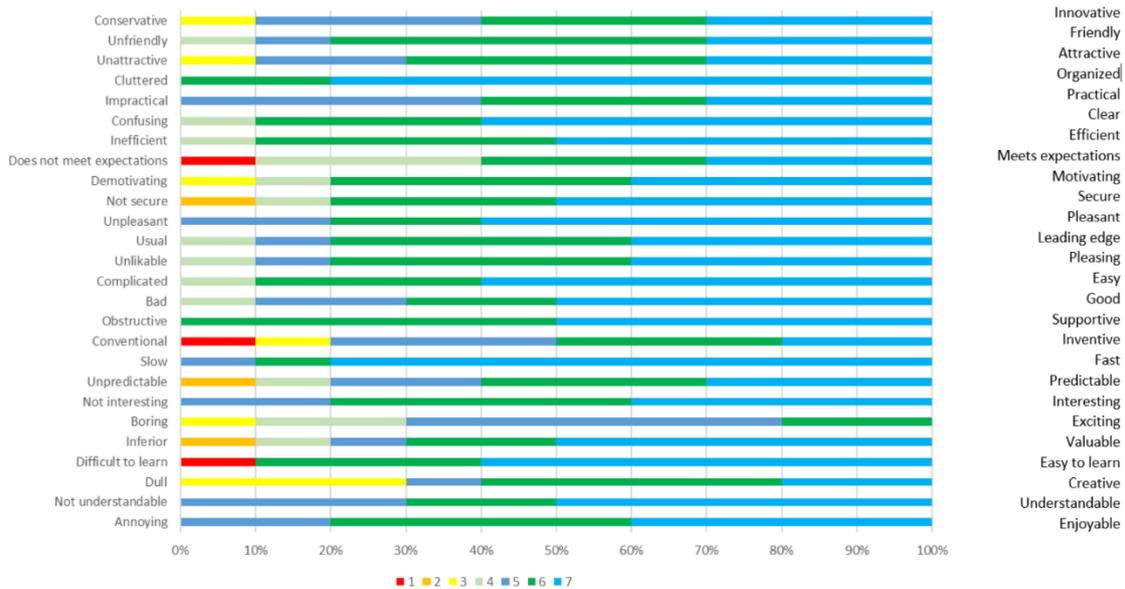


**Had you used an app like RiskRadar before?**

10 risposte



**Italian Users' Experience - RiskRadar is...**



**Graphs 9-13: Google questionnaire demographics and users' experience results**

As it is evident in the User’s experience table, the RiskRadar received very positive feedbacks during the semi-structured interviews conducted in Italy. It was considered very understandable, enjoyable, good, easy, efficient, clear, organized and friendly by all respondents. The features that received a few lower scores related to creativity and inventiveness. The idea of an integrated application focusing on different prevention aspects was appreciated in all cases.

Some comments and suggestions were made related to the possible improvement of some aspects: shortening of long texts in favor of introducing infographics, inclusion of information on drugs and chemsex, even changes in colors because white characters are difficult to read on a ochre-yellow background.

#### 4.2.2 Qualitative Evaluation - Lithuania

In Lithuania, various restrictions caused by the COVID-19 pandemic had an impact on RiskRadar promotional activities which started in the summer of 2020. Due to the low number of responses to the RR in-app evaluation questionnaires, it was decided to conduct interviews with target groups.

In January 2021 the Republican Centre for Addictive Disorders (RPLC) organized Focus Group (FG) interviews involving patients with diagnosed addictive disorders. Face-to-face FG interviews were conducted in the Vilnius (N=7) and Kaunas (N=5) premises of RPLC; the slide scenarios were translated to the national language by the Lithuanian partner Centre for Communicable Diseases and AIDS (CCDA/ULAC). Respondents provided their informed consent and were asked to take 8 specific actions in order to find out uptake and benefit of using the RR. After the interviews, 7 respondents (2 in Vilnius, 5 in Kaunas) filled in the final online questionnaire on Google Forms.

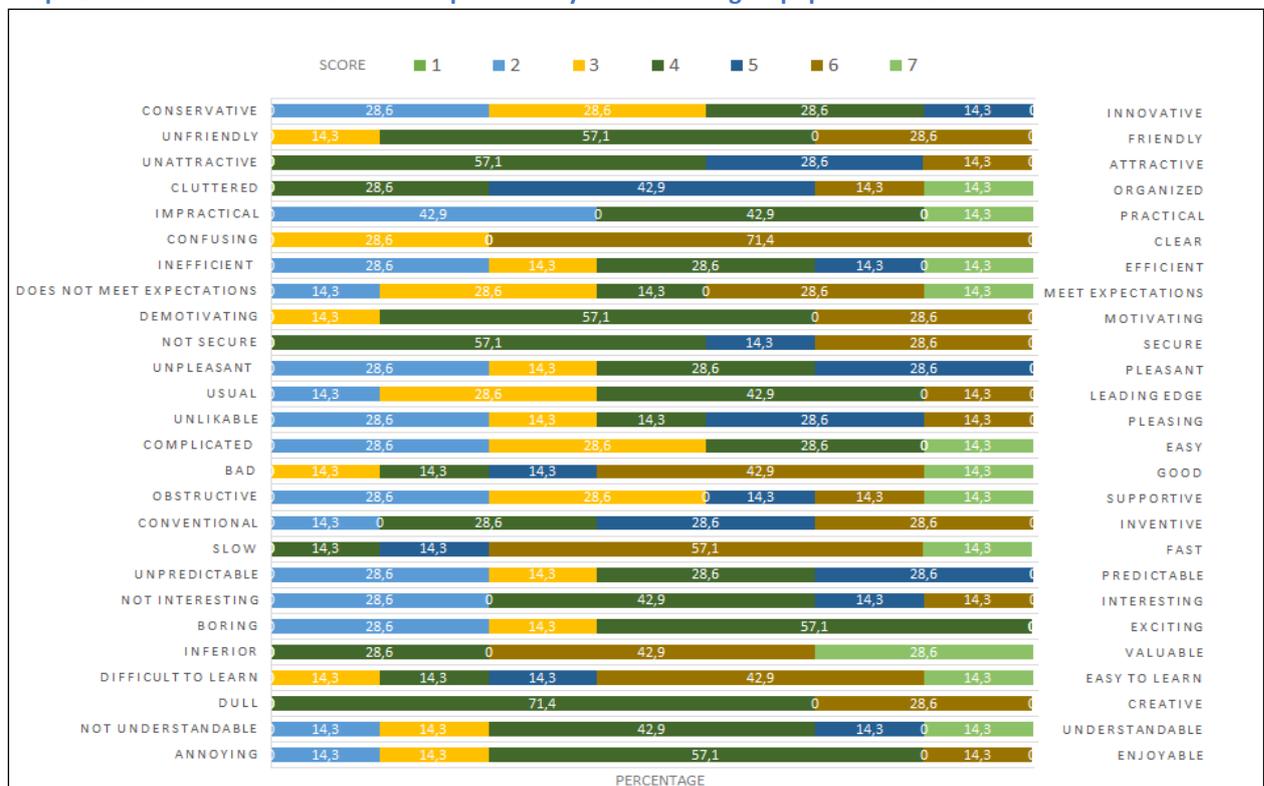
All the respondents were males. The majority (71.4%) were aged between 35 and 44 years and the rest – 28.6% - between 45 and 54 years. Computer skills were self-assessed by respondents as “bad” (42.9%) or “moderate” (42.9%); only one respondent (14.3%) indicated “very good” skills. 85.7% (N=6) of respondents used the mobile app and only one (14.3%) – the web app. None of the respondents indicated previous use of RR. The results of the evaluation of the RR users’ experience are presented in Graph 14.

**Table 7: RiskRadar evaluation through FG at RPLC premises, guided by the slide scenario**

Actions of scenario	FG1 – Vilnius N=5	FG2 – Vilnius N=2	FG3 – Kaunas N=5	Comments
Action 1 – accessing RR (downloading the mobile app or using a link to access the web app)	Only one respondent used the mobile app; the rest accessed RR by the link	Web and mobile applications were used	All respondents used the mobile app. All of them were interested in RR	Downloading the mobile app was complicated in groups 1–2
Action 2 – assessing own risk using the Risk calculator (RC)	All respondents succeeded	Both respondents succeeded	All respondents succeeded. At first, respondents suggested to consult a doctor for risk assessment. Questions and results of RC were unexpected and surprising	Some questions of RC were considered unclear. Some contact information was missing in the RC answers; difficult to obtain further advice

Action 3 – using the Test Finder component	Respondents found only one site to get tested in the whole country	Both respondents found actual sites to get a test	Respondents could not find any sites in the map. Only one found a site without contacts	Using the test finder was complicated in the groups 1 and 3. Sites should be better presented and listed in the actual locations
Action 4 – finding information about STIs	All respondents succeeded	Both respondents succeeded	All respondents succeeded	Respondents had sufficient skills to find needed information
Action 5 – using the Partner notification service	PN was not evaluated because respondents could not access the PN component	Both respondents succeeded	All respondents succeeded	The messages were exchanged among participants and the user's leaflet was distributed to all the respondents
Action 6 – finding information about PrEP	All respondents succeeded	Both respondents succeeded	All respondents succeeded	The information about PrEP easily understandable
Action 7 – finding information about U=U*	All respondents succeeded	Both respondents succeeded	All respondents succeeded	The actual information was easy to find
Action 8 – finding information about tuberculosis	All respondents succeeded	Both respondents succeeded	All respondents succeeded	The actual information was easy to find, though the text of the infographic was considered too small

**Graph 14: Evaluation of the RR users' experience by virtual focus group questionnaire**



In conclusion, in Lithuania the RiskRadar evaluation revealed positive features, but also highlighted some challenges in proper understanding and uptake of the new tool, particularly in those cases where users' computer skills were insufficient. To improve its usability and uptake, one of the two RR versions (web or mobile app) should be selected according to the skills and experience of the target group. Personal technical assistance and further advice should be available to achieve better results.

## 5. Final considerations on the Risk Radar pilot evaluation

The RiskRadar, despite the many difficulties encountered throughout its existence – from the design and technical development phases, then during the processes of translation, piloting and finally through to the final evaluation, survived the challenges and the COVID-19 restrictions that slowed-down and sometimes prevented promotional activities and interventions; at the end of INTEGRATE, it still remains a tool that can be accessed to find simple, user friendly information on combination prevention of HIV, hepatitis, STIs and TB in 4 different EU languages. Some suggestions were indicated to the purpose of further simplifying its access for key populations that do not have good computer skills (in Lithuania, patients of addictive disorder services encountered some difficulties in using the application and obtaining information). Overall feedbacks were very positive and encouraging and this should lead to the decision of investing in the survival of the Risk Radar after the joint action is concluded.

Furthermore, during the last year suggestions were made by the INTEGRATE SC and/or AB members for an additional expansion of the RiskRadar components, in order to enhance the tool's comprehensiveness through the inclusion of sections featuring other combination prevention issues such as information on HIV self-tests, chemsex, harm reduction services.

Meanwhile, as it was expected, some components would already need maintenance and update. As it was predicted at the beginning of this "adventure", one of the main challenges of online applications is the continuous update of existing information, because the ageing of such tools is extremely rapid; obsolete data/components risk to represent future problems rather than useful resources, contributing also to undermine the reliability of their developers and funders. Updates and improvements to the original English version would require translation into the other 3 present versions and, ideally, the application could be translated in other EU languages.

So, rather than considering the RiskRadar a completed task of the Joint Action after its evaluation, the final considerations lead to the need to carefully weigh the pros and cons on investing (a lot of time and resources) in the future sustainability of the tool, in order to ensure its accuracy, reliability and usefulness in combination prevention strategies.

## 6. Conclusions

Four years ago, WP7 Obj, 1 of INTEGRATE WP7 accepted the challenge of developing an integrated web and mobile application in support of combination prevention efforts in the 4 disease areas of the Joint Action. The task was successfully brought to conclusion through the collaboration of many partners, the competence of an incredible group of SC and AB experts from the health sector, academia, technology field, civil society and affected groups, and the technical expertise of the developers: the RiskRadar is a tool offering important and reliable information and support in accessing services; it is GDPR compliant and highly secure.

Some evaluation data were collected to provide evidence about its acceptance, usefulness and effectiveness and the overall feedback was very positive. Seventy-six (76) % of users who filled-in the in-app evaluation questionnaire indicated that they would take further action after having consulted the RiskRadar, such as seek advice, start PrEP, stop sharing injecting equipment, notify partners, start treatment. Such data, even if limited, seem to confirm that the tool supports the adoption of prevention behaviours and the uptake of services, which was the ultimate objective of this intensive effort.

Therefore, reaching a large number of people to provide behavioural intervention and support seems possible thanks to innovation, and ICT tools are promising delivery vehicles for STI/HIV prevention and care which can be broadly disseminated and allow increased confidentiality for users. It is now important to assess the cost and effort for the maintenance and sustainability of the RiskRadar, in order to make decisions about its future.

## Appendix I: The validation scenario through 8 different episodes

### RiskRadar Virtual (FG) Discussions for Validation purposes

Lella Cosmaro, December 3, 2020

### Proposed Scenario Action #1

You come upon a tweet / FB post advertising the RiskRadar application, which captured your interest. You want to access it.

### Proposed Scenario Action #1

- Download the mobile app on your device
- Visit the web application

### Proposed Scenario Action #2

Laura, your best friend, tells you that during the summer she engaged in risky behaviors which have to do with both unprotected sex and drug use. She would like to know from you if she might have been exposed to some STI. How can you help her?

### Proposed Scenario Action #3

Laura found out she might have been exposed to different STIs and wants to find testing sites nearby to get tested. Can you give her some useful addresses?

### Proposed Scenario Action #4

Laura went to get tested for STIs and received a diagnosis for chlamydia. She does not know anything about it. Can you find out something for her?

### Proposed Scenario Action #5

Laura would like to tell her sexual partners that they should get tested for chlamydia. Her doctor has suggested her the RiskRadar's functionality that allows for anonymous Partner Notification. She would like to use this service to let some of her past partners know.

### Proposed Scenario Action #5

The doctor has given her a leaflet with instructions along with a unique random code that is valid up to a month. You help her to access the PN service with the QR/serial code she received (each user should use their own phone number in this test).

### Proposed Scenario Action #6

Laura has learnt from her doctor that, in addition to condoms, there is another tool for the prevention of HIV which is called PrEP. Can you find out more about PrEP for her?

### Proposed Scenario Action #7

Laura's doctor also explained that nowadays HIV is not a death sentence any longer and that PLHIV can live long and happy lives and, if on treatment, do not transmit the virus (the U=U concept). Can you find info to tell her more about it?

### Proposed Scenario Action #8

Lastly, your friend Laura would like to know more about TB, since it is often associated to HIV. Would you be able to help her in learning more about it?

### Fill in final questionnaire

- Please give us your final feedback

<https://forms.gle/42Pu8a5EbmVEgsaf7>

## Consortium

### Croatia



Hrvatski Zavod za Javno Zdravstvo  
Zdravstvo Croatian Institute of Public Health



Life Quality Improvement Association



Croatian association for HIV and viral hepatitis



ISKORAK

### Denmark



Region Hovedstaden / CHIP

### Estonia



Tervise Arengu Instituut  
National Institute for Health Development

### Greece



Centre for Research & Technology Hellas, Institute of Applied Biosciences, Information Technologies institute



Hellenic Centre for Disease Control and Prevention

### Hungary



Semmelweis University

### Ireland



University College Dublin, National university of Ireland Dublin

### Italy



Arcigay Associazione LGBTI Italiana



Croce Rossa Italiana



Fondazione LILA Milano ONLUS - Lega Italiana per la Lotta contro l'AIDS



Fondazione Villa Maraini Onlus

### Lithuani



National Public Health Surveillance Laboratory



VILNIUS CENTRE FOR ADDICTIVE DISORDERS  
Vilnius Centre for Addictive Disorders



Centre for Communicable Diseases and AIDS



Vilnius University Hospital SANTARIŠKIŲ Klinikos

### Malta



Health Promotion and Disease Prevention

### Poland



National AIDS Centre Agency of the Ministry of Health

### Romania



"Victor Babes" Clinical hospital of infectious diseases and pneumophthisiology Craiova



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Institut of Public Health of Republic of Serbia

### Slovakia



Slovak Medical University in Bratislava

### Slovenia



National Institute of Public Health Nacionalni inštitut za javno zdravje

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