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<td>Sender and receiver acceptability and usability of an online partner notification tool for STI in the Netherlands</td>
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Sexually Transmitted Diseases

Acknowledgment Form

Manuscript title:
Sender and receiver acceptability and usability of an online partner notification tool for STI in the Netherlands

Authors must obtain written permission from all individuals who are listed in the Acknowledgments section of the manuscript, because readers may infer their endorsement of data and conclusions. The corresponding author must sign the Acknowledgment form and submit online with the manuscript. The corresponding author must sign the following statement, certifying that (1) all persons who have made substantial contributions in the manuscript (e.g., Data collection, analysis, or writing or editing assistance), but who do not fulfill authorship criteria, are named in the Acknowledgements section of the manuscript; (2) all persons named in the Acknowledgments section have provided the corresponding author with written permission to be named in the manuscript; and (3) if an Acknowledgments section is not included, no other persons have made substantial contributions to this manuscript.

Corresponding Author Signature: [Signature]

Date: 6-04-2017
To the Editor-in-Chief,
Dr. William C. Miller, MD,
Sexually Transmitted Diseases

Amsterdam, 27 September, 2017

Dear Dr. Miller,

Ref.: Ms. No. STD17-126
Title: Sender and receiver acceptability and usability of an online partner notification tool for STI in the Netherlands

Thank you very much for your email of 25 September 2017 accepting our manuscript (STD17-126) for publication after preparing one minor revision.

Hereby we would like to submit our revised version that has been adjusted. This letter includes our response to the comment of the reviewer; below you will find the original comment (C) and our response (R).

Sincerely yours,

Martijn van Rooijen, on behalf of all authors
Authors response to the reviewer comment

C: The one remaining concern I have is that the website “sugestatest.nl” is no longer active and may confuse the readers who may miss the explanation of name change to “partnerwaarschuwing.nl”. This confusion may be compounded by the prominent use of the former site name throughout the paper. Perhaps better would be to use the new name with an English translation and a comment about the name change at first mention. The name change also begs the questions why the change was made?

R: We agree that mentioning the name change in the introduction without any explanation is confusing. As the evaluation in our manuscript concerned the tool Suggestatest.nl (the name was changed after the inclusion period) we think that using this name throughout the manuscript is appropriate.

We have omitted the name change from the introduction (line 68). In the second last paragraph of the discussion, we added a sentence mentioning the name change (including English translation of Partnerwaarschuwing.nl) and explained the reason why the name was changed (lines 242-244).

Original sentence in the introduction:
To date, Suggestatest.nl (nowadays called “Partnerwaarschuwing.nl”) and CheckOUT (Portugal) are to our knowledge the only published health care provider initiated Internet-based notification systems that are designed for patients with a verified STI only.

Revised sentence in the introduction:
To date, Suggestatest.nl and CheckOUT (Portugal) are to our knowledge the only published health care provider initiated Internet-based notification systems that are designed for patients with a verified STI only.

Added sentence to the discussion:
After the inclusion period of this study, the tool was renamed to “Partnerwaarschuwing.nl” (Partnernotification.nl in English) as some notified partners reported that were confused about the name Suggestatest.nl.
SENDER AND RECEIVER ACCEPTABILITY AND USABILITY OF AN ONLINE PARTNER NOTIFICATION TOOL FOR STI IN THE NETHERLANDS

Martijn S. van Rooijen¹, MSc, Hannelore Gotz²,³, MD, PhD, Pjer Vriens², Titia Heijman¹, PhD, Rik Koekenbier¹, MSc, Maaike van Veen¹, PhD, Helene Voeten²,³, PhD

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suggest a test Accept Usability paper v4 STD without tc
Conflicts of Interest:
None declared.

Funding:
This study was supported by the Dutch AIDS foundation (Grant number: 2009085) and the Research and Development Fund of the Public Health Service of Amsterdam.

Running title:
Acceptability and usability of an online partner notification tool for STI

Short Summary:
- Patients and sex partners rated the online partner notification tool Suggesttest.nl acceptable and usable.
- To use Suggesttest.nl to notify/get notified of HIV was rated less acceptable and usable.

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Abstract

Users (index patients with a verified STI and notified partners) rated the health care provider initiated Internet-based partner notification application Suggestatest.nl acceptable and usable. Both groups were less positive about Suggestatest.nl to notify/get notified of HIV than of other STI. An anonymous notification was perceived less acceptable.

Keywords:
Partner notification, Health Services Research, Public Health, Internet-based, Attitudes, HIV, Communication technologies, Contact tracing
Introduction

Partner notification (PN) is the process whereby the sexual partner(s) of a patient diagnosed with a sexually transmitted infection (STI) are identified and informed of their exposure to an STI. Many studies show a preference to notify partners face-to-face or by telephone rather than with technologies like SMS or email. However, internet-based PN might be an additional method to reach more partners.

To assist PN at the STI clinics of Rotterdam and Amsterdam, the Netherlands, an online tool called Suggestatest.nl was developed explicitly for patients who were diagnosed with an STI or HIV infection. Using this tool, index patients could send an anonymous or non-anonymous notification message by email, SMS, postal mail or with the username of their partner to a gay social network account. A general evaluation of the use of Suggestatest.nl showed that this novel tool suits a small number of index clients, mainly by sending anonymous text messaging. Out of those intending to use Suggestatest.nl, 23% notified a partner through Suggestatest.nl and 58% of the partners notified through Suggestatest.nl logged-in to read their notification online.

To date, Suggestatest.nl and CheckOUT (Portugal) are to our knowledge the only published health care provider initiated Internet-based notification systems that are designed for patients with a verified STI only. Less is known about the acceptability of these tools for both the sender (index patient) and the receiver (notified partner). In addition, much of the published acceptability research relied on hypothetical scenarios of accessing options for PN. In this study we evaluated the acceptability and usability of Suggestatest.nl in both index patients and notified partners who have used this PN tool.
Materials and Methods

Study setting

The STI outpatient clinics of Rotterdam and Amsterdam perform respectively about 12,500 and 40,000 STI consultations annually, free of charge and anonymous. In case an STI is diagnosed, the health care professional discusses the PN options and registers the patient’s preference. These options consist of patient referral (supported with a contact card or - from March 2012 onward - with Suggestatest.nl), provider referral or contract referral.

Suggestatest.NL

Patients with a confirmed STI diagnosis (chlamydia, lymphogranuloma venereum, gonorrhea, syphilis, HIV and/or trichomoniasis) received a nurse-generated code when they preferred to use Suggestatest.nl for PN. To notify, the index patient had to login to Suggestatest.nl using the nurse-generated code. For each partner, the patient had to select the method (SMS/email/postal/gay dating site) and the mode (anonymous/non-anonymous) of sending the notification. All partners – irrespective of the above selected method - received a standardized message with a unique partner code and had to login to the website to read about the notified STI or HIV, possible treatment and how to make an appointment at the STI clinic.

Theoretical framework from the “Technology Acceptance Model” (TAM) was used to develop the questionnaires for index patients and notified partners. The two factors that determine TAM are "perceived usefulness" (referred to as acceptability) and "perceived ease of use" (referred to as usability). Questionnaires on acceptability and usability to notify/be notified through Suggestatest.nl of STI and HIV were offered online to all participants regardless their diagnosis/received notification. After the index patient had sent a
Suggestatest.nl notification, an invitation window popped-up to complete an online questionnaire. Partners were recruited for an online questionnaire after reading their STI notification online. After completing the questionnaire, participants were asked to fill-in their email address to receive an additional online questionnaire after 2 weeks. The online questionnaires were collected from March 2012 until June 2013 (Supplementary Tables 1 & 2). Because the online response of partners was low, partners visiting the STI clinics and notified through Suggestatest.nl (who had not yet filled-in an online questionnaire) were recruited from July 2012 until June 2013 to fill in a paper-and-pencil questionnaire.

Statistical analysis and data collection

All questionnaire data were analyzed in IBM SPSS Statistics version 21 (IBM Corporation, Armonk, New York, USA). The acceptability and usability scores were constructed from the mean of the items included. Constructs were only calculated if none of the items for this construct had a missing values. For each construct, the reliability was calculated using the Spearman-Brown statistic (2-items) or the Cronbach’s coefficient alpha (α) (3 or more items). Reliability values of ≥0.7 were assumed acceptable and all were 0.75 or above. Frequency of Internet use for arranging personal matters was categorized in less frequent (scores 1-3) and frequent (scores 4-5). Respondents and non-respondents were compared with the chi-squared test or Fisher’s exact test and the Mann-Whitney U test. Using the Independent t test, the mean scores of notified partners who responded to the online and those who responded to the paper-and-pencil questionnaires, were compared. The paired t-test was used to compare scores on different items within the same group. P values of less than 0.05 were considered statistically significant.

Ethics
This study was waived by the Medical Ethical Committee of the Erasmus University of Rotterdam, because Suggestatest.nl was an extension of standard care.
Results

Index patients

During the study period, 112 (19.8%) out of 565 Suggestatest.nl users completed the questionnaire (Supplementary Figure 1). Response was higher among MSM (27.7%), compared to heterosexual men (13.1%) and women (17.0%, p=0.002), and responders notified a higher median number of partners than non-responders (Supplementary Table 3).

Four responders were newly diagnosed with HIV.

The majority of index patients reported that they were able to notify more partners than without the existence of Suggestatest.nl (Table 1). The acceptability and usability to use Suggestatest.nl to notify sexual partners of HIV was rated significantly less acceptable and usable (3.0 and 3.6, respectively) than notifying of another STI (4.4 and 4.7, respectively; p<0.001; Table 1). Among MSM, the overall acceptability was higher (4.4) than among non-MSM (4.1; p=0.007) whereas the overall usability was not different (4.5 versus 4.4, respectively; p=0.28).

Notified partners

Out of 2,030 notified partners, 163 (8.0%) responded to the questionnaires (53 online and 110 offline at the STI clinic) (Supplementary Figure 1). Notified partners who filled-in the questionnaire were comparable to those who did not respond (Supplementary Table 1). The acceptability and usability scores of online and offline responders were not significantly different. Of the 106 partners who were notified of HIV exposure, three responded to a questionnaire.
Most notified partners preferred to receive a non-anonymous notification via SMS (Table 2). Partners who were notified anonymously rated their notification less acceptable (2.7) than partners who were notified by name (4.4; p<0.001) (Table 2). The acceptability and usability to be notified of HIV through Suggestatest.nl was rated significantly less acceptable and usable (3.3 and 3.2, respectively) than being notified of another STI (both 4.4; p<0.001). The overall acceptability and usability scores of Suggestatest.nl (4.1) did not differ between MSM and non-MSM (p=0.28 and p=0.50).
Discussion

Statement of principal findings

The online PN tool Suggestatest.nl was rated acceptable and usable by both senders (index patients) and receivers (notified partners). Both groups were less positive about Suggestatest.nl to notify/get notified of HIV than of another STI. Partners notified anonymously perceived their mode of notification less acceptable than those notified by name.

Strengths and weaknesses of the study

While most papers on acceptability of electronic PN relied on hypothetical scenarios, we measured acceptability and usability in a real setting, in both patients and partners who used Suggestatest.nl. Moreover, we measured the opinion of both MSM and heterosexuals who used Suggestatest.nl. Patients who chose to use Suggestatest.nl may be more enthusiastic about Suggestatest.nl than STI patients in general. However, their partners who did not have any choice in the method of how they received a notification, were also generally positive about Suggestatest.nl.

For our study, we recruited notified partners when they visited the website to read their notification or during the resulting consultation at the STI clinic. Unfortunately, the overall participation rate of notified partners was low (8%). This might have resulted in overestimated acceptability and usability scores, making it difficult to generalize the measured opinion to the general STI clinic population. Due to missing notification codes of 43 notified clients, no information of the received notification was known.
The questions concerning the acceptability and usability of using Suggestatest.nl to notify of HIV exposure were mainly answered by patients and partners who notified or were notified of an STI other than HIV. As a consequence, the lower acceptability and usability to notify of HIV through Suggestatest.nl were mainly hypothetical. Theoretically, the usability to notify partners of STI or HIV exposure through Suggestatest.nl should be comparable because it uses the same system with identical actions. However, the construct of usability was rated lower for HIV than other STI, indicating that it probably did not measure usability only.

Comparison with other studies

A study among Peruvian MSM and transgender women diagnosed with STI showed that the introduction of a hypothetical Internet-based PN system resulted in a dramatic increase in anticipated notification of secondary partners.\textsuperscript{12} In our study, almost 80\% of the index patients reported that they had notified more partners than they would have done without the existence of Suggestatest.nl.

A study among Spanish MSM of their anticipated notification behavior showed that face to face or a phone call were the preferred methods to notify of STI or HIV for both stable and casual partners.\textsuperscript{13} An identifiable SMS was the next most popular method to notify stable and casual partners of STI or HIV. The preference for sending an identifiable SMS contradicts our findings: most patients notified their partners anonymously.\textsuperscript{6,7} A similar effect was seen in a UK study: the preference of respondents for a partner notification method was dependent on whether they see themselves as index patients or contacts.\textsuperscript{14} Another possibility is that patients in our study who were willing to send an identifiable SMS or email have used their own mobile or email and only those with interest in sending an anonymous notification have used Suggestatest.nl.
In a review of the acceptability of electronic PN a pattern emerged across studies showing that anonymity was less acceptable than the electronic delivery method itself. In our study, the same effect was seen: notified partners were less positive about the fact that their Suggestatest.nl notification was anonymous but were still content about Suggestatest.nl.

Implications for clinicians and policymakers

It seems that, according to the opinion of our patients, STI clinics should offer an online PN tool like Suggestatest.nl. As stated by Hottes et al, a web-based PN service like inSPOT should be supplementary to traditional PN tools. After developing a PN website, the costs of facilitating online PN are relatively low and it can easily be offered as an addition to already existing traditional tools. Based on our findings we would recommend to incorporate the possibility to notify anonymously.

Patients could be asked to immediately start filling in the contact information of their partners in Suggestatest.nl when they are at the STI clinic for a treatment consultation. Possibly, patients are then more motivated to notify their partners than later at home, and public health nurses could assist with this process. However, it is also important to offer Suggestatest.nl use at a later stage, because at the STI clinic the majority of participants reported that they were unable to fill in contact details of all partners.

Unanswered questions and future research

We recognize that there is a possible trade-off between reaching more partners by the implementation of a low threshold online PN tool and the quality of the sent notification: as many partners do not read their online notification (42%; e.g. because they think it is an
unsolicited message/spam), the sent notification might not have resulted in health care seeking. Future research should focus on the most suitable ways of directing online notified partners into care. After the inclusion period of this study, the tool was renamed to “Partnerwaarschuwing.nl” (Partnernotification.nl in English) as some notified partners reported that were confused about the name Suggestatest.nl.

Our study mainly focusses on patients who chose to use Suggestatest.nl and their partners in which participation was low. For generalizability, more research is necessary which measures the opinion of all notified STI-clinic clients regarding online partner notification.
Contributors:

MvR, and RK designed the study protocol, supported by HG, TH, and HV. PV was
responsible for the development of the Suggestatest.nl website and the implementation of the
online questionnaires. MvR performed the statistical analyses supported by HG, MvV, and
HV. MvR, HG and HV drafted the paper, all authors commented on draft versions, and all
approved the final version.

Previously presented:

Information from this paper has been disseminated during a poster presentation at the STI &
AIDS World Congress (17 July 2013, Vienna, Austria; abstract number P5.003).

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suggest a test Accept Usability paper v4 STD without tc
questionnaires. We would like to thank Udi Davidovich for his suggestions on analysis of the measured questionnaire data.
References


SENDER AND RECEIVER ACCEPTABILITY AND USABILITY OF AN ONLINE PARTNER NOTIFICATION TOOL FOR STI IN THE NETHERLANDS

Martijn S. van Rooijen¹, MSc, Hannelore Gotz²,³, MD, PhD, Pjer Vriens², Titia Heijman¹, PhD, Rik Koekembier¹, MSc, Maaike van Veen¹, PhD, Helene Voeten²,³, PhD

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None declared.

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Keywords:
Partner notification, Health Services Research, Public Health, Internet-based, Attitudes, HIV, Communication technologies, Contact tracing
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To date, Suggestatest.nl (nowadays called “Partnerwaarschuwing.nl”) and CheckOUT (Portugal) are to our knowledge the only published health care provider initiated Internet-based notification systems that are designed for patients with a verified STI only. Less is known about the acceptability of these tools for both the sender (index patient) and the receiver (notified partner). In addition, much of the published acceptability research relied on hypothetical scenarios of accessing options for PN.
In this study we evaluated the acceptability and usability of Suggestatest.nl in both index
patients and notified partners who have used this PN tool.
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Study setting

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Suggestatest.NL

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All questionnaire data were analyzed in IBM SPSS Statistics version 21 (IBM Corporation, Armonk, New York, USA). The acceptability and usability scores were constructed from the mean of the items included. Constructs were only calculated if none of the items for this construct had a missing values. For each construct, the reliability was calculated using the Spearman-Brown statistic (2-items) or the Cronbach’s coefficient alpha (α) (3 or more items).\textsuperscript{11} Reliability values of $\geq 0.7$ were assumed acceptable and all were 0.75 or above. Frequency of Internet use for arranging personal matters was categorized in less frequent (scores 1-3) and frequent (scores 4-5). Respondents and non-respondents were compared with the chi-squared test or Fisher’s exact test and the Mann-Whitney U test. Using the Independent t test, the mean scores of notified partners who responded to the online and those who responded to the paper-and-pencil questionnaires, were compared. The paired t-test was used to compare scores on different items within the same group. P values of less than 0.05 were considered statistically significant.

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This study was waived by the Medical Ethical Committee of the Erasmus University of Rotterdam, because Suggestatest.nl was an extension of standard care.
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Notified partners

Out of 2,030 notified partners, 163 (8.0%) responded to the questionnaires (53 online and 110 offline at the STI clinic) (Supplementary Figure 1). Notified partners who filled-in the questionnaire were comparable to those who did not respond (Supplementary Table 1). The acceptability and usability scores of online and offline responders were not significantly different. Of the 106 partners who were notified of HIV exposure, three responded to a questionnaire.
Most notified partners preferred to receive a non-anonymous notification via SMS (Table 2). Partners who were notified anonymously rated their notification less acceptable (2.7) than partners who were notified by name (4.4; p<0.001) (Table 2). The acceptability and usability to be notified of HIV through Suggestatest.nl was rated significantly less acceptable and usable (3.3 and 3.2, respectively) than being notified of another STI (both 4.4; p<0.001). The overall acceptability and usability scores of Suggestatest.nl (4.1) did not differ between MSM and non-MSM (p=0.28 and p=0.50).
Statement of principal findings

The online PN tool Suggestatest.nl was rated acceptable and usable by both senders (index patients) and receivers (notified partners). Both groups were less positive about Suggestatest.nl to notify/get notified of HIV than of another STI. Partners notified anonymously perceived their mode of notification less acceptable than those notified by name.

Strengths and weaknesses of the study

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Comparison with other studies

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In a review of the acceptability of electronic PN a pattern emerged across studies showing that anonymity was less acceptable than the electronic delivery method itself. In our study, the same effect was seen: notified partners were less positive about the fact that their Suggestatest.nl notification was anonymous but were still content about Suggestatest.nl.

**Implications for clinicians and policymakers**

It seems that, according to the opinion of our patients, STI clinics should offer an online PN tool like Suggestatest.nl. As stated by Hottes et al, a web-based PN service like inSPOT should be supplementary to traditional PN tools. After developing a PN website, the costs of facilitating online PN are relatively low and it can easily be offered as an addition to already existing traditional tools. Based on our findings we would recommend to incorporate the possibility to notify anonymously.

Patients could be asked to immediately start filling in the contact information of their partners in Suggestatest.nl when they are at the STI clinic for a treatment consultation. Possibly, patients are then more motivated to notify their partners than later at home, and public health nurses could assist with this process. However, it is also important to offer Suggestatest.nl use at a later stage, because at the STI clinic the majority of participants reported that they were unable to fill in contact details of all partners.

**Unanswered questions and future research**

We recognize that there is a possible trade-off between reaching more partners by the implementation of a low threshold online PN tool and the quality of the sent notification: as many partners do not read their online notification (42%; e.g. because they think it is an
unsolicited message/spam), the sent notification might not have resulted in health care seeking. Future research should focus on the most suitable ways of directing online notified partners into care. After the inclusion period of this study, the tool was renamed to “Partnerwaarschuwing.nl” (Partnernotification.nl in English) as some notified partners reported that were confused about the name Suggestatest.nl.

Our study mainly focusses on patients who chose to use Suggestatest.nl and their partners in which participation was low. For generalizability, more research is necessary which measures the opinion of all notified STI-clinic clients regarding online partner notification.
Contributors:

MvR, and RK designed the study protocol, supported by HG, TH, and HV. PV was responsible for the development of the Suggestatest.nl website and the implementation of the online questionnaires. MvR performed the statistical analyses supported by HG, MvV, and HV. MvR, HG and HV drafted the paper, all authors commented on draft versions, and all approved the final version.

Previously presented:

Information from this paper has been disseminated during a poster presentation at the STI & AIDS World Congress (17 July 2013, Vienna, Austria; abstract number P5.003).

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questionnaires. We would like to thank Udi Davidovich for his suggestions on analysis of the measured questionnaire data.
References


Table 1. Acceptability and usability scores and partner notification related answers of index patients who used Suggestatest.nl to notify sex partners, the Netherlands, March 2012 - June 2013

<table>
<thead>
<tr>
<th>Activity</th>
<th>Acceptability$^1$</th>
<th>Usability$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=112</td>
<td>N=112</td>
</tr>
<tr>
<td></td>
<td>mean (sd)</td>
<td>mean (sd)</td>
</tr>
<tr>
<td>Arrange personal matters via internet</td>
<td>4.0 (0.8)</td>
<td>4.6 (0.7)</td>
</tr>
<tr>
<td>Notify sex partners via internet</td>
<td>4.0 (0.9)</td>
<td>4.6 (0.8)</td>
</tr>
<tr>
<td>Notify sex partners with SAT while at home</td>
<td>4.4 (1.0)</td>
<td>4.6 (0.7)</td>
</tr>
<tr>
<td>Notify with SAT compared to former performed notification (N=52)</td>
<td>4.0 (1.0)</td>
<td>4.5 (0.7)</td>
</tr>
<tr>
<td>Notify of STI with SAT$^2$</td>
<td>4.4 (0.8)</td>
<td>4.7 (0.7)</td>
</tr>
<tr>
<td>Notify of HIV with SAT$^2$</td>
<td>3.0 (1.5)</td>
<td>3.6 (1.4)</td>
</tr>
<tr>
<td>The STI clinic offering SAT</td>
<td>4.8 (0.4)</td>
<td>4.8 (0.4)</td>
</tr>
<tr>
<td>Willingness to receive notification through SAT$^3$</td>
<td>4.4 (1.0)</td>
<td>NA$^4$</td>
</tr>
<tr>
<td>Recommend SAT</td>
<td>4.6 (0.6)</td>
<td>NA$^4$</td>
</tr>
<tr>
<td><strong>Overall</strong>$^5$</td>
<td><strong>4.2 (0.6)</strong></td>
<td><strong>4.4 (0.5)</strong></td>
</tr>
</tbody>
</table>

1 suggest a test Accept Usability tables v3 STD
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Experience with notifying partners</td>
<td>53 (47.3)</td>
<td>59 (52.7)</td>
</tr>
<tr>
<td>Able to fill in contact information of all partners at the STI clinic</td>
<td>41 (36.6)</td>
<td>71 (63.4)</td>
</tr>
<tr>
<td>Notified more partners with Suggestatest.nl than without the existence of SAT</td>
<td>88 (78.6)</td>
<td>24 (21.4)</td>
</tr>
</tbody>
</table>

NA: not applicable; SAT: Suggestatest.nl; sd: standard deviation

1 Acceptability and usability scores ranged from 1 to 5.

2 As most participants did not notify of HIV, questions about using SAT to notify of STI or HIV exposure were asked regardless of type of notification sent. Four index patients were newly diagnosed with HIV. Three rated Suggestatest.nl as very acceptable and usable to notify partners of both HIV and STI exposure (all scored 5). The other patient was less positive (HIV: 2 and 3.5; STI: 3 and 4, respectively).

3 This is not based on experience but on the index patient’s opinion.

4 Usability was not applicable for these items because the questionnaires focused on the acceptability of SAT only.
Overall acceptability and usability are based on all items mentioned in above table except “Notify with SAT compared to former performed notification”, because of a relative high number of missing values.
Table 2. Acceptably and usability scores and partner notification related answers of partners who were notified through Suggestatest.nl, the Netherlands, 01-03-2012 until 31-05-2013

<table>
<thead>
<tr>
<th></th>
<th>Acceptability</th>
<th>Usability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=163</td>
<td>N=163</td>
</tr>
<tr>
<td></td>
<td>mean (sd)</td>
<td>mean (sd)</td>
</tr>
<tr>
<td>Arranged personal matters via internet</td>
<td>4.1 (0.8)</td>
<td>4.5 (0.8)</td>
</tr>
<tr>
<td>Enter a personal code online to view detailed notification</td>
<td>4.0 (1.2)</td>
<td>4.3 (1.1)</td>
</tr>
<tr>
<td>Read the STI-specific notification using the internet</td>
<td>4.0 (1.0)</td>
<td>4.4 (0.9)</td>
</tr>
<tr>
<td>Receive an anonymous or non-anonymous notification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anonymous</td>
<td>2.7 (1.5)</td>
<td>NA</td>
</tr>
<tr>
<td>Non-anonymous</td>
<td>4.4 (0.9)</td>
<td>NA</td>
</tr>
<tr>
<td>Receive notification via SAT compared to previously received</td>
<td>3.6 (1.0)</td>
<td>3.6 (1.0)</td>
</tr>
<tr>
<td>notification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receive notification of STI via SAT</td>
<td>4.4 (0.9)</td>
<td>4.4 (0.9)</td>
</tr>
<tr>
<td>Receive notification of HIV via SAT</td>
<td>3.3 (1.5)</td>
<td>3.2 (1.5)</td>
</tr>
<tr>
<td>The STI clinic offering SAT</td>
<td>4.4 (0.9)</td>
<td>4.5 (0.8)</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Willingness to send notification through SAT</td>
<td>4.1 (1.2)</td>
<td>NA^4</td>
</tr>
<tr>
<td>Recommend SAT</td>
<td>4.4 (0.9)</td>
<td>NA^4</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td>4.1 (0.8)</td>
<td>4.1 (0.7)</td>
</tr>
</tbody>
</table>

Received in the past an STI notification through a method other than Suggestatest.nl (36 missings)

| Yes | 64 (50.4%) |
| No | 63 (49.6%) |

Preferred method of receiving a notification through Suggestatest.nl (50 missings)

| SMS, anonymous | 31 (27.4%) |
| SMS, non-anonymous | 56 (49.6%) |
| Email, anonymous | 11 (9.7%) |
| Email, non-anonymous | 14 (12.4%) |
| Postal, anonymous | 0 |
Postal, non-anonymous  1 (0.9%)  
Gay dating site, anonymous  0  
Gay dating site, anonymous  0  

NA: not applicable; SAT: Suggestatest.nl; sd: standard deviation

1Acceptability and usability scores ranged from 1 to 5.

2Total number of questionnaires were N=163: N=53 were filled in online after sending a notification and N=110 offline when visiting the STI clinic. None of the scores were statistically different between those who responded online and those who responded offline. Due to missing answers, single items and constructs (only calculated if all items were available) were not available for all participants; for acceptability, the items were complete for (from above) 118, 150, 150, 90, 32, 47, 146, 144, 147, 128, 127 and 133 participants respectively; for usability, the items were complete for (from above) 119, 157, 149, 46, 145, 141, 146, and 136 participants respectively.

3Opinion about (non)anonymous notification was only measured for the type of received notification (N=90 anonymous, N=32 non-anonymous, N=41 missing).

4Usability was not applicable for these items because the questionnaires focused on the acceptability of SAT only.

5Only asked to N=64 partners who were notified before.
Questions on acceptability and usability of SAT to notify for STI and HIV were offered to all participants regardless the type of received notification. Three partners were notified of HIV exposure. They rated Suggestatest.nl as acceptable (mean 4.7; individual scores 4, 5 and 5) and usable (mean 4.2; individual scores 3.5, 4 and 5) to notify of STI. The acceptability and usability to receive an HIV notification through Suggestatest.nl were rated 4.3 (individual scores 3, 5 and 5) and 3.2 (individual scores 3, 5 and 1.5), respectively.

This is not based on experience but on the opinion of the notified person.

Overall acceptability and usability based on items mentioned in above table except - because of a relative high number of missing values - “arrange personal matters via internet”, “receive an anonymous or non-anonymous notification”, “receive notification via SAT compared to previous received notification”, “preference to send notification through SAT”, and “recommend SAT”. For online respondents, the first item and latter two items were asked only in the follow-up questionnaire participants received 2 weeks after completing the first one (23 out of the 53 online responders filled-in). With the latter 2 items included, the mean acceptability score was 4.1 (sd=0.7), and the total number of completed questionnaires was N=103.
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