# **Evaluation of the WHO Patient Safety Solutions Aides Memoir**

## **Executive Summary**

Prepared for the Patient Safety Programme of the World Health Organization

Donna O. Farley, PhD, MPH Evaluation Consultant

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#### Introduction

As described on the World Health Organization (WHO) patient safety website, "Patient Safety Solutions Aides memoir describe "...system designs or interventions that demonstrate the ability to prevent or mitigate patient harm stemming from the processes of health care." WHO established the goal to establish a set of Patient Safety Solutions Aides memoir (hereinafter called Solutions) that were evidence-based, presented in a standard format, and described in simple terms the actions to take to address risks associated with a particular patient safety problem. Each written Solution was to present the relevant problem and characterize the strength of evidence supporting actions to address it, including potential barriers to adoption, risks of unintended consequences created by the solution, and patient and family roles in the solution. In addition, each Solution was to cite relevant references and other resources.

In 2005, the World Health Organization (WHO) designated the Joint Commission and Joint Commission International as the WHO Collaborating Centre for Patient Safety Solutions. Working with WHO, and with guidance from an International Steering Committee, the Collaborating Centre developed the first set of nine Patient Safety Solutions.

#### The Inaugural Set of Patient Safety Solutions Aides Memoir

In April 2007, the inaugural set of Solutions was approved by the International Steering Committee for publication and dissemination, for use by WHO Member States as of May 2007. The Solutions were posted on the websites of both WHO and the Collaborating Centre. <sup>2</sup> The following are brief descriptions of topics for the nine Solutions:

- Look-Alike, Sound-Alike Medication Names. Confusing drug names is one of the most common causes of medication errors and is a worldwide concern. With tens of thousands of drugs currently on the market, the potential for error created by confusing brand or generic drug names and packaging is significant
- *Patient Identification*. The widespread and continuing failures to correctly identify patients often leads to medication, transfusion and testing errors; wrong person procedures; and the discharge of infants to the wrong families.
- *Communication During Patient Hand-Overs*. Gaps in hand-over (or hand-off) communication between patient care units, and between and among care teams, can cause serious breakdowns in the continuity of care, inappropriate treatment, and potential harm for the patient.
- *Performance of Correct Procedure at Correct Body Site*. Considered totally preventable, cases of wrong procedure or wrong site surgery are largely the result of miscommunication and unavailable, or incorrect, information. A major contributing factor to these types of errors is the lack of a standardized preoperative process.

<sup>&</sup>lt;sup>1</sup> At http://www.who.int/patientsafety/implementation/solutions/patientsafety/solutions explained/en/index.html.

<sup>&</sup>lt;sup>2</sup> At http://www.ccforpatientsafety.org/Patient-Safety-Solutions/.

- Control of Concentrated Electrolyte Solutions. While all drugs, biologics, vaccines and contrast media have a defined risk profile, concentrated electrolyte solutions that are used for injection are especially dangerous.
- Assuring Medication Accuracy at Transitions in Care. Medication errors occur most commonly at transitions. Medication reconciliation is a process designed to prevent medication errors at patient transition points.
- Avoiding Catheter and Tubing Mis-Connections. The design of tubing, catheters, and syringes currently in use is such that it is possible to inadvertently cause patient harm through connecting the wrong syringes and tubing and then delivering medication or fluids through an unintended wrong route.
- *Single Use of Injection Devices*. One of the biggest global concerns is the spread of Human Immunodeficiency Virus (HIV), the Hepatitis B Virus (HBV), and the Hepatitis C Virus (HCV) because of the reuse of injection needles.
- *Improved Hand Hygiene to Prevent Health Care-Associated Infections*. It is estimated that at any point in time more than 1.4 million people worldwide are suffering from infections acquired in hospitals. Effective hand hygiene is the primary preventive measure for avoiding this problem.

#### **Evaluation Aims and Approach**

The aims of this evaluation were to perform a comprehensive evaluation of the following:

- The concept of the patient safety solutions
- The value of the Aide memoir as a product/tool for generating awareness of patient safety solutions and the patient safety risk areas that they address, as well as for framing evidence-based policies and mechanisms to improve patient safety by WHO Member States.
- The process of development, quality and dissemination of the nine patient safety solutions Aide memoirs;
- The impact in terms of relevance and usability of the developed patient safety solutions Aide memoirs by both developing and developed Member States.

The evaluation was a retrospective assessment of the nine Patient Safety Solutions Aides memoir established in 2007. It was designed to obtain a mix of perspectives from a variety of stakeholders, including those who are not affiliated with WHO or the Collaborating Centre and those who are.

The following questions were addressed in the evaluation:

- 1. How effective is the **concept** of patient safety solutions Aide memoirs as the means to generate awareness of patient safety problems and available solutions, and to inform and aide governments as a policy development tool?
- 2. What is the **quality or scientific integrity** of the developed Aide memoirs solutions in terms of:
- 3. How **valuable** are the Aide memoirs in terms of the product?

- 4. What impact have the patient safety solutions Aide memoirs had in terms of aiding Member States achieve the objectives of improving patient safety:
- 5. How can the concept, value, quality and impact of the product be improved? Some of the critical questions are:

#### **Logic Model That Guided the Evaluation**

The evaluation was guided by a logic model of the system within which the Solutions had been developed and implemented. Within this system are numerous stakeholder groups, each with unique needs and priorities, which should be understood to assess how well the first set of Solutions have functioned and to best determine if and how to structure and manage this program in the future.

This logic model is shown in Figure 1, which shows the World Health Organization regional structure (on the left) and the parallel regional clustering of its Member States (on the right). The work of the WHO Collaborating Center on Patient Safety Solutions is shown in the center, including each of the key steps undertaken in the selection, development and dissemination process. Throughout the development process, the Collaborating Centre interacted with staff and others involved with WHO, as well as with individuals in many of the Member States.

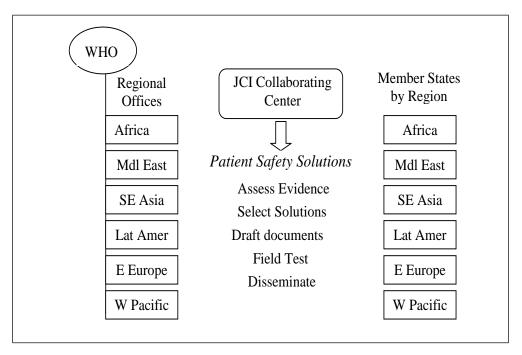


Figure 1. Logic Model of the WHO Patient Safety Solutions
Development and Dissemination

All of these organizations, and the individuals who are part of them, are stakeholders in this process. Further, we understood that each set of stakeholders provided its own unique perspectives and priorities as the solutions were being developed, and likewise, had a variety of views and reactions to the completed Solutions products.

#### **Evaluation Methods**

#### **Data Collection**

Table 1 shows how data was collected to address the evaluation questions, including which question(s) were addressed by each data collection method. For the question regarding the scientific integrity of the Solutions, the data gathered addressed the perceptions of stakeholders regarding the strength of the evidence for each Solutions (i.e., the science behind them); full analysis of the evidence base itself was beyond the scope of this evaluation. The differing views obtained from the various groups helped to reveal where there was agreement on issues or items and where there was not. It also helped to discern new issues that had not been anticipated at the start of the evaluation.

**Table 1 Methods for Collecting Data To Address Each Set of Evaluation Questions** 

Evaluation Question Sets	Member State Survey	WHO Regional Office Interviews	Other Stakeholder Interviews	Review documents
How effective is the <b>concept</b> of Patient Safety Solutions Aide memoirs?	X	X	X	
What is the <b>quality or scientific integrity</b> of the developed Aide memoirs Solutions?	X	X	X	X
How <b>valuable</b> are the Aide memoirs for Member States?	X	X	X	
What <b>impact</b> have the Patient Safety Solutions Aide memoirs had for Member States in improving patient safety?	X	Х	X	X
How can the concept, value, quality and impact of the product be improved?	X	X	X	

#### **Analysis of Data Collected**

Three analytic methods were used, one for each type of data collected, the results of which were synthesized together to generate overall findings and recommendations. The analyses addressed factual information on the development and dissemination of the Solutions, the perceptions of stakeholders interviewed about the Solutions program, and results of the stakeholder survey.

#### **Description of the Development and Dissemination Processes**

The primary sources of information about the development and dissemination processes were documents provided by the staff at WHO and the Collaborating Centre, along with telephone discussions with them to verify facts and gather additional detail. Using this information, the steps in the Solutions development process were summarized, including the structure established for the collaborative process, decisions made about topics for the Solutions, and engagement of stakeholders to get their feedback on draft products. The process for disseminating the

Solutions, once released, also was summarized, including the dissemination plan established, actual dissemination activities, and feedback from stakeholders on how the Solutions were being used in their countries. These descriptions are located at the start of each of the relevant chapters in this report.

#### **Analysis of Stakeholder Interview Results**

The written protocol used to conduct the interviews and record responses was structured to develop information on stakeholders' perspectives regarding the evaluation questions established for the evaluation. After completion of each interview, the notes were organized to populate each of these questions. The following groupings were used for the analysis:

Category	<u>Topics</u>
Concept of Patient Safety Solutions	Effectiveness of the Solutions concept The intended audiences for the Solutions Needs and priorities of member states Appropriateness of priorities addressed
Development of the Solutions	The development process Stakeholder involvement in development Evidence base for the Solutions The Solutions products
Dissemination of the Solutions	Availability of the Solutions products Dissemination strategy and process Stakeholder awareness of the Solutions Use of the Solutions

#### **Analysis of Stakeholder Survey Results**

The questionnaire was designed so that the broadest response could be obtained for questions regarding the patient safety needs and priorities in the WHO Member States, as well as stakeholder perceptions of how well the Patient Safety Solutions responded to those needs. Then a subset of respondents who reported they had been aware of the Solutions before the survey were the subjects for most of the remaining questions, which required familiarity with the Solutions to answer effectively. Finally, a smaller set of respondents who had actually used the Solutions in local patient safety improvement initiatives were asked questions about how they used the Solutions, and how useful they were to the improvement efforts.

A total of 956 surveys were completed by stakeholders in the six WHO regions. Of these, 75 individuals completed only the first three questions (what is your country, what type of organization are you in, and what is your current health- care role). Therefore, the effective sample is 881 completed surveys. This sample size was sufficiently large to generate useful estimates of stakeholders views and experiences with the Solutions. It was possible to examine regional differences in patient safety needs and responsiveness of the Solutions to those needs. For other topics, however, only overall estimates could be developed due to small sample sizes. The counts of respondents for are reported with each set of survey results.

The distribution of respondents by region is shown in Table 2. The largest percentage of respondents were from the Pan American, European, and Western Pacific regions, with fewer respondents from the other three regions.

Table 2 Distribution of Stakeholder Survey Respondents by WHO Region

Region	Number	Percentage
African	34	3.6
Eastern Mediterranean	91	9.5
European	285	29.8
Pan American	338	35.3
South East Asian	61	6.4
Western Pacific	147	15.4
Total	956	100.0

The distribution of respondents by the type of organization they represent is shown in Table 3. State ministries or departments of health, membership organizations, and individual health-care organizations were well represented in the survey respondents. The smallest percentages of respondents were from consumer or patient advocacy groups and from the WHO regional or country offices.

Table 3 Distribution of Stakeholder Survey Respondents by Type of Organization

Type of Organization	Number	Percentage
Ministry of health or department of health	209	21.9
WHO regional or country office	19	2.0
Health care membership organization	199	20.8
Consumer or patient advocacy group	24	2.5
An individual health-care organization	376	39.3
Other	129	13.5
Total	956	100.0

#### **Highlights of Findings: the Patient Safety Solutions Products**

The results presented in this Section address evaluation questions related to the actual products of the Patient Safety Solutions Aides memoir. These include the effectiveness of the underlying concept of the Solutions, the value of the Solutions to users, the evidence-base assessment, and the effectiveness of the written products actually produced. For each topic, the pertinent evaluation questions being addressed are listed, followed by a presentation of evaluation results. The Section ends with a discussion of findings based on these results.

The results for each topic are a combination of results from the stakeholder survey, individual interviews, and review of written materials and resources. Through this approach, it is possible to synthesize the diverse perspectives of different stakeholders. It also allows the analysis to combine quantitative data from the survey with qualitative data from the individual interviews, to "tell a cohesive story" with the interview information helping to interpret the survey results and capturing the dynamics of stakeholders' experiences with the Patient Safety Solutions.

The concept of the Patient Safety Solutions appears to have been well accepted. Most stakeholders interviewed felt that its primary role was to generate awareness, and that it should be used in conjunction with other WHO patient safety products and tools. They sought further guidance from WHO regarding its vision for the Alliance for Patient Safety and how the Solutions fit into that larger vision and package.

Variations in local patient safety need and priorities were found across countries. Although some differences between developing and developed countries were reported, some issues were shared across many countries, which offered an opportunity for the Solutions to address issues of importance to a large number of them. Indeed, the topics selected for the first set of Solutions were generally accepted as being of high priority and broadly applicable across countries of differing developmental status. This assessment emerged in results of the Field Review of the 2007 Solutions as well as in the stakeholder interviews and survey.

Stakeholders generally perceived that the key audience that WHO had designated for the Solutions was policy makers at the national level of countries. They also tended to agree that this target was too narrow, and that the audiences should be expanded to include health care providers and patient populations, as other important stakeholders for patient safety. This view was supported by the survey results, in which three groups were identified as target audiences by larger percentages of respondents than were the ministries or departments of health.

A variety of opinions emerged regarding the process used to develop the Solutions, and the quality of scientific evidence supporting each Solution. Substantial input by stakeholders was sought at many points in the development process. Despite this participative approach, opinions ranged from satisfaction that the process was effective in reaching strong consensus on Solutions topics to concerns about a lack of scientific structure for the process. Similarly diverse opinions were expressed about the adequacy (or not) of the evidence base to support each Solution, which also emerged in the survey results. Several specific issues and suggestions were raised for consideration by WHO in future work on the Patient Safety Solutions.

## Highlights of Findings: Dissemination and Impacts of The Patient Safety Solutions Aides Memoir

On May 2, 2007, WHO launched the Patient Safety Solutions Aides memoir at a telephone and on-site press conference at the National Press Club in Washington, DC. Press releases on the Solutions were released, and a press kit for the media was provided.

Evaluation results regarding the effectiveness of the dissemination of the Patient Safety Solutions Aides memoir are focused on the impacts of the Solutions on patient safety activities and improvements in the WHO member states. Although a central goal of the Solutions is to achieve improvements in patient safety practices, several intermediate steps are required to achieve those impacts. These include ensuring the availability and accessibility of the Solutions products, broad dissemination of them, achieving awareness of the Solutions among target audiences, and supporting uptake and use of the Solutions in patient safety activities at the country and local levels.

For the Patient Safety Solutions to influence patient safety practices in countries and local areas, potential users must be made aware of them and understand how best to use them. The first step

in this continuum is the dissemination of the Solutions product to the target audiences. Although substantial dissemination activities were undertaken, as reflected in Collaborating Centre reports to the Steering Committee and Regional Advisory Councils, feedback from the stakeholder interviews and survey indicates that these efforts fell somewhat short of achieving broad-spread awareness of the Solutions in many parts of the world.

Several issues appeared to be barriers to the availability of the Solutions products, some of which were identified in the survey results and others were raised during the interviews. The Collaborating Centre website received large numbers of hits for the Solutions following their release. However, stakeholders reported that it was difficult to find the documents on the websites, in particular the WHO website, and they could not find links between the sites. This is an important issue, given the large percentage of survey respondents who identified the web sites as the source where they first became aware of the Solutions,.

Interview respondents also expressed concerns that good translations for other languages were not available. They saw a need for WHO to provide more guidance regarding acceptable translations methods, so others could translate the Solutions into their languages. This perception was reinforced by the survey results, which revealed that a substantial percentage of users of the Solutions translated them into other languages to use them in their organizations.

Many of the interview respondents felt that the dissemination process was not effective. Those involved in developing the Solutions perceived that more emphasis had been on the products themselves, with less attention paid to implementing a proactive dissemination strategy. They were concerned that the target audience was countries' governments, rather than reaching out more broadly to health care communities. Implementation issues also arose, especially with the limited involvement of the WHO regional and country offices in the process. They felt that WHO should strengthen emphasis on proactive dissemination in the future, as an important first step toward encouraging patient safety improvement actions by countries.

According to both survey results and interview respondents, there were mixed levels of awareness of the Patient Safety Solutions in the field, with little or no awareness in many countries and moderate awareness in others. Limitations of the dissemination process contributed to this issue, but the interview respondents identified a variety of other barriers that also contributed. As a natural outgrowth of limited awareness, there appeared to be limited use of the Solutions, although some creative work by many countries was reported.

Consistent feedback was given that users that worked with the Solutions used it as one tool among the set of WHO patient safety products, which together could help them achieve synergy in implementation. With the Solutions identifying priorities that can be addressed in other initiatives, the stakeholders encouraged WHO to provide more guidance on how the various WHO patient safety products can be applied together in local improvement efforts.

### **Summary and Suggestions for Action**

Drawing upon the rich and diverse information obtained in this evaluation, this section presents a high-level summary of findings for each research question established for the evaluation.

#### 1. How effective is the concept of patient safety solutions Aide memoirs?

WHO envisioned that the Patient Safety Solutions products were to generate awareness of patient safety problems and available solutions, and to inform and aid governments as a policy development tool. According to feedback gained through the stakeholder survey and interviews, there was substantial consensus that this was an appropriate role for the Solutions. In particular, responses to the survey suggested that stakeholders in the field perceived it that way. However, there also were sentiments that the Solutions should reach not only governmental agencies but also providers delivering care in local areas, to serve as a tool that supports their patient safety improvement efforts.

Consistent with this feedback, the target audiences identified in both the survey and interviews encompassed a broader group than what had been envisioned originally, which had been focused on ministries or departments of health. Instead, the stakeholders consistently identified front-line providers, as well as patients and families, as important audiences for these products.

## 2. What is the quality or scientific integrity of the developed Aide memoirs solutions?

Although views regarding scientific integrity were mixed among the stakeholders, there was a general sense that future work in this area should place greater emphasis on performing a more formal assessment of the published evidence. This may become more important as additional patient safety issues are pursued for which practices required are not obviously based on established science or clinical "common sense" regarding actions to be taken. It also should be more feasible now because the evidence base was relatively shallow at the time the nine Solutions were being developed; it has strengthened considerably since then.

Although there might not always be a strong evidence base for patient safety solutions, the collaborative network recognized that the Solutions provide value by synthesizing the current evidence on important patient safety topics. Therefore, they were comfortable issuing Solutions in the interest of improving patient safety, even if they had a weaker base of evidence.

The greatest concerns about the need for stronger evidence-based products were expressed by those who were directly involved in the development of the initial nine Solutions. Some of the WHO staff, in particular, were concerned because WHO has a core policy that all its products are to be strongly evidence-based.

Based on experience with the 2007 Solutions, the collaborative network made revisions to the process for developing new solutions to do the following:

- Improve the scientific soundness of solutions
- Limit the number of solutions developed during any one round to provide adequate time for the increased rigor of the development process
- Ensure the relevance of solutions to both developing and developed countries
- Clarify the audiences for the solutions
- Establish a formal evaluation component for measuring the effectiveness and impact of disseminated solutions

The Collaborating Centre also developed a new methodology for evaluating and scoring the quality of evidence. As part of this process, full-text materials for all relevant titles and abstracts are obtained and subjected to a structured review. In evaluating the quality of evidence, the

attributes considered are the quantity of studies obtained from search strategy, dates of publication, study design, study methodological quality, consistency in findings across studies, directness to the issue, and sources of published studies. Studies that are deemed low quality or not relevant based on these attributes are excluded from further consideration and are not scored.

#### 3. How valuable are the Aide memoirs in terms of the product?

Despite the diversity of patient safety issues being faced by countries around the world, the results of this evaluation documented that some of these issues are shared by many countries. Those who were interviewed felt that a set of issues could be identified that were shared by developing, emerging, and developed countries, and the survey results supported this sentiment. In the top five issues identified by the survey respondents, health-care associated infections and medication errors stood out by being mentioned by greater than 80% of the respondents.

The question, then, is how responsive were the topics selected for the first nine Patient Safety Solutions to the needs of a large number of countries. Again, both interview and survey results suggest that this was accomplished. Although some interview respondents felt important issues had been omitted, or disagreed with some that were included, most felt that the nine topics selected were appropriate for an initial set of Solutions. The survey respondents also indicated satisfaction with the topics, with 50% to 80% of them rating the individual Solution topics as extremely relevant to their countries' patient safety priorities. Not surprisingly, improved hand hygiene for infection received the highest rating, in which almost 80% of them rated it as extremely relevant.

Even with this apparent agreement, regional differences in the relevancy of the Solutions might be expected, and this expectation was expressed by some of the interviewed stakeholders. However, the survey results revealed relatively little regional variation in the ratings of the individual Solutions. Statistically significant regional differences were found only for lookalike, sound-alike medication names, communication in patient handovers, medication accuracy at care transitions, and single use injection devices.

Looking ahead, it probably will be more difficult to achieve such a high level of responsiveness to countries' patient safety priorities. These first nine Solutions may have captured the most widely important issues; additional issues remaining to be addressed may not be shared as broadly as this first set of issues was.

## 4. How effective and usable are the following specific components of the Aide memoirs for users in each of the three groups of countries?

The written products that are the Patient Safety Solutions reflect the concept originally defined for them as informational and communication tools. They are brief documents written using the same format, to provide consistency for those who use them. Only a few interview respondents had comments about the usability of their format and content. Most seemed to be satisfied with the balance between brevity and information, and it was commented that the Solutions are concise and easy to read and distribute. Similar feedback was obtained from the survey respondents, of whom more than 80% rated the products as moderately to very useful. Although the ratings varied somewhat for the individual sections of the Solutions, they reflected general satisfaction with the products.

Most of the individuals who were involved in the development process reported that they were comfortable with that experience and with the products generated by it. Some concerns were raised, however, which merit attention in any future work in this area. Issues raised included the need for broader representation of countries across the world in the development process, the importance of using a more structured and systematic method for assessing the evidence, and the need to include patients and families more actively in the process. All of these issues pose a risk of generating a biased product if they are not managed effectively.

## 5. What impact have the patient safety solutions Aide memoirs had in terms of aiding Member States achieve the objectives of improving patient safety:

What weaknesses existed in the development and dissemination process for the Patient Safety Solutions tended to be found in the dissemination process. It was learned from the stakeholder survey that the most important way that stakeholders became aware of the Solutions was through the WHO and the WHO Collaborating Centre web sites. However, testing of those web sites revealed some important difficulties in navigating the sites, finding the Solutions documents, and accessing translations of them. Paper versions of the Solutions were less available, and delays were experienced in getting copies to some of the WHO regional offices.

Although the Collaborating Centre prepared a written dissemination plan and generally implemented it, the actions in the plan tended to be relatively passive, with little provision for proactive follow-up with the various stakeholder groups. Interview respondents reported that they had the sense that the emphasis during the development process was more on getting the products completed and less on dissemination of them. There also were some mixed signals from some of the WHO staff who were managing the program at that time, including only limited commitment by WHO to engage in the dissemination work. Two important resources, the WHO regional and country offices, were not used to full advantage. In fact, several interview respondents mentioned that the regional office staff were engaged relatively late in the development process, and they were not participants in designing and carrying out the dissemination plan.

With limited dissemination, the awareness of the Solutions around the world tended to be spotty. Stakeholders in some countries were very aware and actively working with the Solutions, while those in other countries had not even heard about them. The information obtained from the interviews and survey largely reflected the first group of stakeholders who were aware of the Solutions. Even so, only half of the survey respondents reported they were aware of the Solutions before doing the survey.

Those who indeed used the Solutions have done some impressive work, which was documented by the Collaborating Centre in its reports to the International Steering Committee. This work also was reflected in the responses of Solutions users in the stakeholder survey. They used the Solutions as a tool in their patient safety improvement initiatives, and they reported that the Solutions made important contributions to improvements they achieved.

#### 6. How can the concept, value, quality and impact of the product be improved?

When considering options for future actions or changes for the Solutions (or other WHO products), it is important to be aware that substantial changes have occurred in the patient safety environment in the five years since the initial Solutions were developed. Knowledge about patient safety has increased around the world, and many groups are mobilizing and lobbying

governments to do something about it. Therefore, the international health care community may have passed beyond the stage of needing basic education on patient safety.

Perhaps the best way to summarize suggestions for improvement for the Patient Safety Solutions is to present the views of the survey respondents. Presented in Table 4 are their responses to a list of possible improvements that had been identified from the stakeholder interviews.

Table 4 Suggestions by the Survey Respondents for Improvements to the Patient Safety Solutions

Suggestion for Improvement	Percentage of Respondents (N=391)
Highest Rated Suggestions	
Include recommendations in each Aide memoir for action by different key audiences (e.g., policy makers, healthcare managers, healthcare workers, patient and consumer groups)	59.3
Expand dissemination of the Aide memoirs so they reach more stakeholders	58.8
Provide training on suggested actions and strategies presented in the Aide memoirs	55.0
Provide guidance and instructions on how to use the Aide memoirs in parallel with other WHO patient safety programme solutions/recommendations (e.g. Clean Care is Safer Care, Safe Surgery Saves Lives, Blood Stream Infections interventions etc)	50.4
Carry out effectiveness studies of the Aide memoirs at the local and national levels to support better use of the Solutions.	48.9
Other Suggestions	
Adapt each Solution to apply for organizations in poor-resource environments	43.5
Provide guidance in the field by WHO or health authorities on how to use the Aide Memoirs	41.7
Translate the Aide memoirs into more languages	38.9
Provide users with more readily-available supplies of paper versions of the Aide memoirs	35.3
Develop a more evidence-based Aide memoirs	33.0
Develop the Aide Memoir into a more detailed product that will includes more information and suggested actions on the safety issue they address	32.7
Do not have any suggestions for improving the Aide Memoirs.	4.6

In summary, the following key issues emerged from the evaluation, which can be considerations for future WHO patient safety product development work:

- Be clear on the concept and role of the product
- Clearly identify the intended audiences for the products
- Establish an effective and representative process for developing products
- Ensure the relevancy of the topics to as many countries as possible

- Design the written product(s) to be consistent with its role and audiences
- Conduct proactive and strategic dissemination activities, to include WHO regional and country offices

One interview respondent pointed out that WHO is owed much of the credit for the increased understanding about patient safety across the world, because they did a lot of the work. Now it will be important for WHO to assess the current market carefully, so that it can identify what new support tools will be most needed to help countries move beyond awareness to successful actions.