

THE NATIONAL QUALITY FORUM

TO: NQF Members

FR: NQF Staff

RE: Pre-voting review for *National Voluntary Consensus Standards for Hospital Care: Additional Priorities--2007, Part 3: Guidelines for Consumer-focused Public Reporting*

DA: June 6, 2008

This report provides guidance for Internet-based public reporting on the healthcare quality performance of U.S. hospitals though most of the guidance also can be applied to the public reporting of quality performance data from other locations. It is intended for use by those who sponsor public reports of quality performance information. The report focuses on how to select and report performance data; it does not recommend what performance measures should be reported. The guidance offers public report design and implementation strategies to increase the value and usefulness of publicly reported information to consumers and to stimulate industry action toward improvement in quality of care, patient safety, and patient-centeredness.

The information provided in this document reinforces and supplements the National Quality Forum (NQF)-endorsed™ recommendations on public reporting of healthcare quality data provided in *A Comprehensive Framework for Hospital Care Performance Evaluation: A Consensus Report*.

The guidelines work together to provide an interconnected set of guidance and will be voted on as such. However, to ensure that comments are properly associated with guideline elements, NQF is providing the opportunity to comment on each of the seven (7) elements separately.

Pursuant to section II.A of the Consensus Development Process, v. 1.8, this draft document, along with the accompanying material, is being provided to you at this time *for purposes of review and comment only – not voting*. You may post your comments and view the comments of others on the NQF website.

NQF Member comments must be submitted no later than 6:00 pm EDT, July 7, 2008. NQF strongly prefers to receive comments through the online comment form.

Alternately, comments may be submitted by email to info@qualityforum.org with the subject line - "Guidelines for Consumer-focused Public Reporting"; by mail to NQF, 601 Thirteenth Street, NW, Suite 500 North, Washington, DC 20005; or via fax to (202) 783-3434.

Thank you for your interest in the NQF's work. We look forward to your review and comments.

THE NATIONAL QUALITY FORUM

NATIONAL VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE: ADDITIONAL PRIORITIES 2007—PART 3: GUIDELINES FOR CONSUMER-FOCUSED PUBLIC REPORTING

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NQF MEMBER COMMENTS DUE TO NQF BY MONDAY, JULY 7, 2008, 6:00 PM EDT
PUBLIC COMMENTS DUE BY MONDAY, JUNE 30, 2008, 6:00 PM EDT**

NATIONAL QUALITY FORUM

NATIONAL VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE:

ADDITIONAL PRIORITIES 2007—PART 3:

GUIDELINES FOR CONSUMER-FOCUSED PUBLIC REPORTING

INTRODUCTION

This report provides guidance for Internet-based public reporting^α on the healthcare quality performance of U.S. hospitals. It is intended for use by those who sponsor public reports of quality performance information to help them develop and/or refine their efforts. This document does not recommend what performance measures should be reported. Instead, it focuses on how to select and report the performance data by providing evidence-, expert- and consensus-based guidance on how to standardize the approach to public reporting of quality information and by identifying additional resources that can be used in report construction and content development. The guidelines advanced in this report specifically address consumer-focused, Internet-based public reporting of healthcare quality performance information about acute care hospitals, but most of the guidance also can be applied to the public reporting of quality performance data from other locations. The guidance offers public report design and implementation strategies in order to increase the value and usefulness of publicly reported information to consumers and to stimulate industry action toward improvement in quality of care, patient safety, and patient-centeredness.

The information provided in this document reinforces and supplements the National Quality Forum (NQF)-endorsedTM recommendations on public reporting of healthcare quality data provided in *A Comprehensive Framework for Hospital Care Performance Evaluation: A Consensus Report*.¹

^α Public reporting, as used in this document, refers to the disclosure of information to consumers, to a community, or to a group of people who share a common interest in order to help them make better healthcare choices or to institutions to help them meet their obligations or duty to make information about their actions or performance available.

25 Although the guidelines offered in this report are specific to the public reporting of
26 healthcare quality information for consumers,^β other audiences can use the information
27 and benefit from it. For example, members of the media may find many of the concepts
28 presented to be helpful in providing objective, balanced information on quality and
29 quality reporting to the public.

30 Notably, interest in publicly reporting information about the quality of healthcare
31 (and its cost^χ) – in order to help make the healthcare system more accountable, to
32 improve consumer understanding and decisionmaking, and to improve quality – has
33 been increasing and is expected to continue to increase, even though reports about the
34 degree to which consumers are actually using this information are mixed.^{2,3,4} There is
35 no doubt that consumers bring an essential perspective to the development of healthcare
36 quality reporting that will help lead to a care system that is more responsive and
37 accountable to those it serves – and that there are some areas of system performance that
38 would never be examined if consumers did not have a strong voice in the process.⁵
39 However, studies have shown that consumers do not always seek out or use the
40 information that is available to guide healthcare choices.^{6,7} There are a number of
41 explanations for this: 1) consumers may not know that these reports exist; 2) consumers
42 are more likely to consult other sources for this information (trusted family, friends, and
43 physicians, for example) and will continue to do so until they become aware that public
44 reports are available and come to trust them;⁸ 3) the information consumers indicate
45 they want has not proven to be a good match for what they actually find relevant to
46 their decisionmaking needs;⁹ and 4) the information provided in public reports often is
47 not “evaluable” – that is, frequently it is not presented in a way that consumers can
48 understand, including its key points and overall meaning, and connect with emotionally
49 in order to be able to make healthcare choices and decisions that are consistent with
50 their goals.¹⁰

^β The term *consumers* is defined as patients (those currently using healthcare services) and potential patients (those who are making choices prior to using healthcare services); it also includes patients’ families.

^χ The issue of cost as part of a healthcare value equation, while important, is not addressed in this report. It is discussed in detail in the National Quality Forum’s 2007 *Background Paper on Healthcare Cost and Price Transparency: Useable, Audience-Specific Information on Costs and Price*.

51 But the most compelling and challenging reason that consumers do not always seek
52 or use public reporting information is that they have not identified a need for it. Many
53 consumers do not understand what information is included in healthcare quality
54 reporting and how it can be used to identify serious gaps that can then be addressed and
55 eventually closed. Thus, to date, most public reports have been difficult to understand
56 and use, have not adequately communicated what quality of care is, and have not
57 convinced consumers to pay attention to quality.¹¹ Without that essential knowledge,
58 they cannot appreciate that there are potentially serious consequences of getting poor
59 quality or unsafe care.

60 Fortunately, there is a growing body of knowledge about public reporting that,
61 although still at a nascent stage, can be used to improve public reports. This knowledge
62 is dynamic and should continue to be advanced through ongoing study and use. In
63 addition, the effectiveness of public reporting per se, as well as the formats, approaches,
64 and content used, must be systematically evaluated as part of the process.¹²

65 The sponsors of public reports on healthcare quality have a responsibility to use this
66 growing body of knowledge to educate consumers about quality, and they must work to
67 deal with the conflicts and contradictions that inevitably will occur as they craft
68 messages to inform consumers and select performance information to be reported that
69 conveys the level of quality that is provided at specific institutions. Sponsors must
70 embrace the challenges involved in producing reports that are credible and that will be
71 trusted and that, therefore, will be more likely to be widely used by consumers. In fact,
72 a fundamental obligation of those who sponsor public reports is to ensure that these
73 reports are objective and balanced and that they portray the data accurately.^{13,14,15}

74 In summary, there is evidence suggesting that healthcare quality reports and public
75 report cards that contain information that conflicts with information found elsewhere
76 and that are poorly constructed may impair consumers' ability to use the information
77 presented and also may cause consumers to make decisions that are not consistent with
78 their goals.^{16,17} This highlights the need for a national consensus on public reporting
79 strategies and for the standardization of the approach to public reporting to help change
80 these outcomes.^{18,19} As a step in that direction, this document presents guidelines for

81 implementing a standardized approach to reporting that can assist sponsors in their
82 efforts to create and improve healthcare quality reporting and reporting sites for
83 consumers.

84

85 BACKGROUND

86 As early as 1984, the Health Care Financing Administration publicly reported hospital
87 mortality rates for Medicare patients as part of its oversight responsibilities. However,
88 severe criticism of the methodology brought this reporting to an end after only a few
89 years.²⁰ In the early 1990s, several states, of which Maryland, New York, and
90 Pennsylvania were among the first, began publicly reporting information on healthcare
91 quality. But it was not until the late 1990s that the broader public reporting effort was
92 rekindled, largely as a result of the publication of the report of the President’s Advisory
93 Commission on Consumer Protection and Quality in the Health Care Industry.²¹ In
94 2001, the Institute of Medicine (IOM) recommended that “All healthcare organizations,
95 professional groups, and private and public purchasers should pursue six major aims:
96 specifically, healthcare should be safe, effective, patient-centered, timely, efficient, and
97 equitable.”²² In doing so, IOM laid out a framework for measurement (and ultimately
98 for reporting). In that same year, the National Committee for Quality Assurance
99 developed a framework for understanding quality of care that focused on three of the
100 six IOM “aims for improvement” – effectiveness, safety, and patient-centeredness. The
101 work of these and other groups helped to establish the expectations that the public
102 should have information about healthcare quality and that such reports could and
103 should be generated.

104 In 2002, NQF published *A National Framework for Healthcare Quality Measurement and*
105 *Reporting: A Consensus Report*, which established a platform and a set of principles for
106 U.S. healthcare quality improvement. One of the principles NQF endorsed in this report
107 states that national goals for healthcare quality improvement should be consistent with
108 the six IOM aims.²³ The consistent use of the IOM “aims,” or categories of performance,
109 reinforces the message that these categories define high-quality care and describe what
110 consumers should expect to know when making healthcare choices.²⁴

111 In 2003, NQF endorsed a framework for hospital care performance evaluation in its
112 report, *A Comprehensive Framework for Hospital Care Performance Evaluation*. Reporting the
113 performance measurement results to the public was one of six areas emphasized for the
114 governing of hospital care performance measurement that was endorsed through the
115 NQF Consensus Development Process, which at that time included more than 160 NQF
116 member organizations representing consumers, providers, health plans, purchasers,
117 researchers, and quality improvement organizations. As part of the reporting
118 recommendations that were offered, specific expectations were articulated regarding the
119 selection and use of performance measures, the generation of reports,, the verification of
120 report results, the distribution and dissemination of reports, and the need for consumer
121 research. In addition, clear consensus statements were offered regarding stakeholder
122 expectations related to report accuracy, a consumer orientation, and the need for a
123 standardized approach to reporting. Since that time, a number of organizations and
124 efforts, including the Consumer-Purchaser Disclosure Project, the AQA, the Hospital
125 Quality Alliance, and the Agency for Healthcare Research and Quality's (AHRQ's)
126 Talking Quality initiative, have offered their opinions regarding the approaches to and
127 selection of content for public reporting and have helped to inform a way forward. In
128 2007, NQF established the National Priorities Partners to work in partnership with other
129 healthcare leadership organizations to establish national priorities and goals for
130 performance measurement and public reporting. All of these efforts emphasize these
131 groups' enduring interest in and commitment to advancing and improving public
132 reporting on healthcare quality.

133

134 CHALLENGES AND OPPORTUNITIES

135 Public reports on healthcare quality are sponsored by many types of organizations and
136 entities, including the federal government; states; non-profit groups, including
137 consumer organizations; hospital accrediting organizations; business coalitions; hospital
138 associations; hospitals; and health plans and payers.^{25,26} Because of this diversity, the
139 type of information typically provided does not provide a consistent view of the level of
140 healthcare quality to be found at the institutions that are the focus of the reporting.²⁷ The

141 production and dissemination of public report cards is a multimillion dollar industry,²⁸
142 yet there is little evidence-based information about how they are constructed or what
143 their benefits are to consumers or to the healthcare industry.^{29,30} Furthermore, a review
144 of Internet-based hospital reports indicates that the breadth and depth of information
145 available may depend on geography or on other factors such as employment or health
146 plan or hospital choices.³¹

147 The challenges involved in producing accurate, useful reports include gaining an
148 understanding about what constitutes a useful report, the availability and maturity of
149 measure sets that convey a well-rounded picture of care, and ensuring that reports
150 support consumer understanding of quality and healthcare choice.^δ In all of these areas,
151 it is important to test the intended consumer audience.

152 The work generated through the groups and efforts described above, and others, has
153 set the direction for standardizing the approach to healthcare quality measurement and
154 reporting. In moving forward to meet the key challenge of helping consumers
155 understand what quality of care means and of providing reports that are accessible, the
156 use of symbols, graphics, and stories that are meaningful to consumers will help.
157 Consumers also need to be able to “see” the differences in quality of care across
158 institutions, which can be accomplished by illustrating the numerical differences with
159 graphics, tiering, and other techniques. To reach consumers, it is often more useful to
160 provide examples of the value or consequences of receiving care at specific institutions
161 (e.g., chances of dying or of developing serious problems) than it is to provide mortality
162 or morbidity data alone. To do this, sponsors must identify what is known about quality
163 in terms of existing measures and data, assess where gaps in data exist, and then apply
164 what is known to the development of objective, accurate, and balanced reports.
165 Additionally, sponsors should determine up front what they must do to make
166 consumers aware that the reports are available.

^δ The costs of producing public reports are always a consideration; however, addressing the issue of costs is outside the scope of this document. Report sponsors may want to review NQF’s *Background Paper on Healthcare Cost and Price Transparency: Useable, Audience-Specific Information on Costs and Prices*.

167 Sponsors must be mindful of the potential for unintended consequences. Although
168 the transparency that is inherent in the public reporting of healthcare quality data
169 accelerates quality improvement, and particularly competition to achieve greater
170 performance improvement, there is concern about the pressure that healthcare
171 institutions may experience to “perform to the measures.” Institutions and report
172 sponsors must work to avoid focusing on their performance as related to the measures
173 to the extent that they focus less on other important aspects of providing care. In
174 addition, although the evidence in this area is not consistent, the belief that the public
175 disclosure of performance information may encourage physicians to refuse to treat high-
176 risk patients also is a concern. Though there is conflicting evidence about this, it is
177 important to ensure that risk-adjustment methods take health status into account.^{32,33}
178 Another concern relates to what may be a perceived threat to market share. In fact, a
179 limited number of studies have shown that although hospital image may be affected, no
180 meaningful impact to market share appears to result from the public reporting of
181 healthcare quality information.^{34,35,36}

182 Sponsors and other stakeholders should accept the challenge of continuing to
183 develop the evidence base related to public reporting. This will involve testing the
184 theories of experts and garnering the input of target audiences.^e

185 It also is important to understand the knowledge already available that can help
186 move this effort forward and to use this information to create new opportunities to
187 improve public reporting for consumers. We know that a consistent approach to public
188 reporting depends on the availability of performance measures that meet consensus-
189 based criteria and that are widely accepted as accurate and reliable,^{37,38} and we know
190 that public reporting can and does stimulate efforts to improve performance.^{39,40,41} We
191 also know that consumer use of public reports is inconsistent in large part because the
192 reports do not convey information in meaningful ways, are not accessible when they are
193 needed, have not become trusted sources of information, and have provided

^e The *target audience* is the audience that the report sponsor has identified as the intended user of the report.

194 inconsistent information about the same institution. In addition, we know that there is a
195 lack of guidance regarding how to navigate the data.^{42,43} Finally, we know that the
196 challenge of developing and using a standardized approach to reporting is further
197 compounded by the fact that there are myriad report sponsors with varied reporting
198 goals.

199

200 GOALS OF CONSUMER-FOCUSED PUBLIC REPORTING

201 As noted earlier, this report addresses consumer-focused, Internet-based public
202 reporting of healthcare quality performance information about acute care hospitals,
203 although most of the information can be generalized to other settings. The guidance
204 offers public report design and implementation strategies to increase the value and
205 usefulness of publicly reported information to consumers and to stimulate industry
206 action toward improvement in quality of care, patient safety, and patient-centeredness.

207 The purpose of consumer-focused public reporting, supported by this guidance, is
208 to:

- 209 • increase consumer motivation to use public reports by making reports more
210 understandable;
- 211 • provide objective, unbiased, actionable, and evaluable performance information to
212 the public;
- 213 • improve quality of care provided across the industry; and
- 214 • stimulate further evolution of the quality and comparability of public reporting at
215 the organization, state, and national levels.

216 As these goals are addressed, it is important that sponsors continuously pursue public
217 reporting approaches that reflect current evidence, decrease consumers' confusion, and
218 increase consumers' ability to utilize information to make decisions about their
219 healthcare independently and with their providers. In doing so, sponsors should
220 address consumer information challenges and add to the knowledge base about
221 consumer-focused public reporting through research and dissemination.

222

223

224 **SCOPE OF THE GUIDANCE**

225 This guidance:

- 226 • was developed from knowledge gained from the literature, from the expertise of
227 individual researchers, and from consensus-based determinations, including those
228 from relevant NQF-endorsed consensus standards;
- 229 • focuses on reporting healthcare quality data from acute care hospitals in a web-
230 based format;
- 231 • is intended primarily for use by sponsors of consumer-focused sites to help
232 consumers understand quality of care so that they can participate in shared
233 decisionmaking with health professionals, which may include making shared
234 decisions about where to seek care and treatment; and
- 235 • can be used for both single and composite measures of quality, although the
236 guidance does not address the measures themselves.

237

238 The organization of the guidance as presented here is not intended to suggest the use of
239 a static, step-wise approach. Rather, it is expected that use of the guidelines will occur as
240 part of a dynamic process that will proceed mindful of the principles presented below.

241

242 **GUIDING PRINCIPLES**

243 To be of value, public reports should stimulate consumer interest in the information
244 being provided, enable consumers to understand what quality is, and facilitate the use
245 of comparative data in making healthcare choices. Reports should be designed to be
246 evaluable—that is, they must present data in a way that helps users understand the
247 information, including the key points and the data’s overall meaning. This means that
248 the information must be effectively interpreted and summarized. Reports also should be
249 designed so that they address quality in terms of the delivery of care that is needed, as
250 well as care that is safe, effective, patient centered, timely, efficient, and equitable; so
251 that they include objective (methodologic, evidence-based) measures of care; and so that
252 quality-related differences are highlighted effectively. The following principles underlie
253 how these reports should be constructed:

- 254 • The public and other healthcare stakeholders have the fundamental right to have
255 access to objective measures of quality of care provided by organizations in which
256 they receive care, in which they deliver care, from which they purchase care, and for
257 which they provide funding or regulation. All stakeholders also have the right to
258 receive the information in an understandable format.
- 259 • Because hospitals and health professionals respond to publicly available
260 information, a corollary use of the guidance is to provide incentives to improve
261 quality.
- 262 • To be most useful, information should be provided and displayed for an array of
263 common and cross-cutting healthcare conditions; it should be provided for
264 consumers of all ages, and it should be available across all of a healthcare provider's
265 organizational departments, and over time.
- 266 • It is important to be aware of and understand the values and biases that are present
267 in the reporting process in order to convey performance information in a responsible
268 manner.

269

270 GUIDELINES FOR CONSUMER-FOCUSED PUBLIC REPORTS

271 Because performance reports must appeal to the intended audience and take its needs
272 into account, the report sponsor must accept responsibility for establishing policies that
273 guide the development of report content and format, the report's production and
274 distribution, and the tasks involving educating users about the information and
275 diffusing the information.⁴⁴ When report sponsors begin to formulate specific plans for
276 launching or improving their existing public reports, they should already have achieved
277 a measure of clarity regarding these responsibilities. In addition, the target audience for
278 the report should be identified, as should the goals to be achieved by reporting, how the
279 quality of information and of the report itself will be ensured, how the report will be
280 supported, maintained, and updated over time, and what the political and
281 organizational realities are that will influence what information can or will be used.

282 The implementation of the following guidelines will help standardize the approach
283 to public reporting.

284

285 **Identify the Purpose, the Audience, and How to Reach the Audience**

286 Clarity about the report purpose and the approach that will be used to reach the target
287 audience is the first consideration and understanding the scope of the report will help in
288 this regard. Will the focus be on a single aspect of quality (such as a surgical care), or
289 will it be to develop a complete profile of quality (such as overall hospital care)? Will
290 individual and composite measures be included? What providers will be included and
291 how? Will they be presented by type, geographic area, ownership, or in other ways?
292 The target audiences should include the group of consumers for whom the report is
293 expected to provide a service as well as the secondary audiences that will find the report
294 of interest, including healthcare providers and policymakers.

295 The literature points out that the information needs of consumers will change based
296 on changing priorities and health concerns and will vary based on age, ethnicity,
297 culture, and level of healthcare literacy, among other factors. Often, there is opportunity
298 to add context that will assist the specific audience in using the report.⁴⁵ For example, a
299 superficial review of the characteristics of one group of consumers, older Americans
300 (65+), illustrates why the identification and understanding of the consumer groups to be
301 targeted is important. Older Americans have more disposable income to pay for
302 healthcare costs, including insurance, than do younger Americans; most are covered by
303 Medicare. But they are less likely to have completed high school, and their functional
304 and health literacy levels are lower. Chronic diseases are prevalent in this group, and
305 information about these diseases will be of interest. However, limitations in function
306 and mental activity can interfere with their ability to access and use information.
307 Distinguishing among the cohorts within this group can provide clues to their potential
308 needs, interests, and challenges; for example, baby boomers are more likely to be
309 proactive with respect to health, while those in older cohorts are believed to be more
310 compliant with a paternalistic approach to healthcare.⁴⁶

311 Once consumers believe that they need healthcare quality information in order to
312 make good care choices, they can be expected to seek and demand it. Thus, it is
313 essential to address the fact that consumers currently do not make use of publicly

314 disclosed information about quality because of the shortcomings of reports, their
315 complexity, and the limited relevance of the information they provide.⁴⁷ This is because
316 to use the complex, comparative information in a report, consumers must be able to
317 process the information, interpret it correctly, and then identify the important factors
318 and use them in making decisions or choices.⁴⁸ Additionally, they must be able to find
319 the information. For this reason, it is important to think up front about how the
320 information will be disseminated.

321

322 **GUIDELINE 1. Identify the purpose of the web-based report, its intended main**
323 **consumer audience(s), and how the report will be made known to the audience; also**
324 **identify secondary audiences and how their unique needs will be addressed.**

325 **1a. Identify the nature and purpose of the report (what it will be about and what is to**
326 **be accomplished by producing it).**

327 **1b. Identify the main consumer audiences for the report and describe their**
328 **characteristics, their knowledge about the subject matter of the report, their**
329 **information interests and needs, and how they will be expected to learn about and**
330 **use the web-based report. (In planning for use, provide for layering of information**
331 **that permits the user to drill down to the technical details).**

332 **1c. Identify secondary audiences for the report, such as healthcare providers and**
333 **policymakers, and describe how their report-specific interests and needs differ from**
334 **those of the main consumer audience. Determine how the report will accommodate**
335 **the secondary audiences (such as allowing users to drill down to the technical details**
336 **about measurement and statistical comparisons).**

337

338 **Use a Transparent Process That Involves Stakeholders**

339 Public performance reports for consumer audiences must seek to meet their needs by
340 obtaining and using the input, advice, and opinions of consumers throughout the entire
341 process of site development from the formation of the concept, to the selection of what is
342 to be reported, to testing, and to implementation, improvement, and retesting. To
343 discern consumer information interests accurately (what they want versus what they

344 may say they want), information should be collected in multiple ways. Input can be
345 obtained through cognitive testing to determine audience interests, to determine how
346 well the audience understands terms, and to find out how the audience interprets the
347 data, given the language used and the methods that are employed to convey them. One-
348 on-one cognitive interviews are valuable in exploring the best ways to display varied
349 types of information and in assessing the effectiveness of navigation tools. Such
350 interviews also help in gaining an appreciation of whether consumers view the format
351 and content as personally meaningful. Usability testing should be an ongoing activity
352 that begins before large-scale rollout.

353 Additionally, report sponsors must consider and involve all relevant stakeholders in
354 a transparent process. This means that the interests and needs of secondary audiences,
355 which include healthcare providers, policymakers, and others, must be addressed by
356 involving them in the processes of development and improvement. Furthermore, those
357 who collect and report the data should help providers achieve a common understanding
358 of their roles and responsibilities in performance measurement.⁴⁹

359 Stakeholder roles include helping to define the scope, format, and goals of the
360 report. Data should be shared with the institutions on which reporting is being
361 conducted, ideally by having them review the data display before it is presented
362 publicly. In addition to providing prepublication feedback, mediation processes should
363 be included.^{50,51} These actions will help ensure data validity and reliability and help
364 avoid errors in the reports. Report sponsors are responsible for any such errors.

365 Throughout the process, openness should be ensured with respect to process,
366 methods of determining what and how to report, the results reported, and report
367 sponsorship. This openness relates to the data as well as to information about site
368 sponsors, funders, and the process of building the report.

369

370 **GUIDELINE 2. Develop the web-based report using a transparent process that**
371 **involves relevant stakeholders.**

372 **2a. Identify the various stakeholders for the web-based report (these include, at a**
373 **minimum, the developers and sponsors of the report, the main consumer audiences**

374 and organizations that represent these audiences, and the entities that are being
375 measured and compared), and clarify their roles and responsibilities.
376 **2b. Establish governance and decisionmaking rules.**
377 **2c. Provide an opportunity for the entities that are being measured and compared to**
378 **preview their data and comment on the data’s accuracy before the report is released;**
379 **also, establish a mediation process.**
380 **2d. Involve consumers in the development and refinement of the report by seeking**
381 **their input into the report design and getting their feedback on draft versions of**
382 **language and data displays. Conduct usability/ease-of-use testing with consumers**
383 **before the report is released, and then collect their feedback after the launch to help**
384 **evaluate it.**

385

386 **Set the Stage by Communicating Information About Quality**

387 The literature shows that when consumers are faced with complex and unfamiliar
388 situations, they do not approach them with fixed ideas about what is important.⁵² This
389 suggests that before asking consumers what they want, it would be more useful to help
390 them first understand the concept of quality and the elements that comprise it. This
391 education about what constitutes quality care will help consumers appreciate what they
392 need to know when they make healthcare choices.⁵³ Sponsors must then work to
393 understand the desires and needs of the audiences that an understanding of quality will
394 stimulate.

395 Once a construct for defining quality is selected, language that is familiar to the
396 target audiences should be used to explain what the terms mean. For example, terms
397 such as *effective* or *beneficial* may be best understood by consumers as receiving care that
398 is proven to work best, and *safety* may be most clearly stated in terms of causing no
399 harm. The construct, terms, and definitions used in setting the context for the report
400 should be repeated and reinforced throughout, stressing the inferences that can be
401 drawn as well as the limitations. It is important that consumers understand that no
402 single measure can convey overall quality. For example, strong performance on a

403 measure does not mean that overall performance is strong; conversely, weak
404 performance does not mean that overall performance is weak.

405 In order to avoid overloading the audience with information, it is important to
406 provide only essential introductory material. Additional explanatory information can,
407 and should, be provided throughout the report in conjunction with the specific datasets;
408 i.e., “just in time”.

409

410 **GUIDELINE 3. At the beginning of the report, set the stage by communicating what**
411 **quality is, how quality varies, and how making quality comparisons can be of value**
412 **to consumers.**

413 **3a. Provide a brief introduction about healthcare quality.**

414 **3b. Explain that quality varies within and across institutions and how the report can**
415 **be used to make quality comparisons.**

416 **3c. Use consistent, simple, and familiar language to discuss quality and provide**
417 **examples that will resonate with the main consumer audiences.**

418

419 **Use Measures That Are Transparent and That Meet Widely Accepted, Rigorous**
420 **Criteria**

421 Performance data included in public reports must be credible, transparent, actionable,
422 valid, reliable, timely, important, scientifically sound, feasible, useable, and risk
423 adjusted as needed to assure comparability.^{54,55,56} With a target audience of consumers,
424 the information must be patient centered and meaningful to patients. Currently,
425 comprehensive sets of measures that provide a complete picture of any individual
426 component of care, disease state, or institution do not exist. Although the availability of
427 strong, evidence-based measures is improving, the diverse goals of public reporting
428 make it difficult to identify criteria that can be uniformly used to assess the impact of
429 public reporting of performance measures.⁵⁷ Additionally, until clinical data become
430 widely available through electronic health records, the entire healthcare industry must
431 rely mainly on administrative data – which may be clinically enriched with information
432 such as laboratory results – and manually abstracted clinical information from which to

433 derive quality of care conclusions. In selecting measures for reporting, it is essential that
434 they be widely used and, as appropriate to the scope, that they reflect quality-of-care
435 processes, access to care, treatment outcomes, and patient satisfaction. When adding
436 new measures to a report, consider a pilot period that provides for feedback and
437 refinement.

438 It is essential to convey the strengths and limitations of the types of measures being
439 used and of the data and to avoid “cherry picking” measures. However, providing
440 additional information about limited dimensions of care that are provided by specialty
441 organizations is appropriate. Data should be used only from well-documented
442 measures that include an analysis of the strengths, weaknesses, and limitations of the
443 data, and it is important to be explicit, both internally (within the sponsoring entity) and
444 externally (to the consumer audiences) about why the measures are included. Measures
445 of outcome such as mortality or adverse events are desirable, but they are not always
446 available. Process measures such as those involving immunization, assessment, or
447 prophylaxis may serve as proxies for outcomes as well as descriptors of important
448 elements of the care continuum. Structural measures such as staffing and utilization
449 may be useful within measure sets. Patient experiences of care, derived from
450 standardized surveys of satisfaction, are outcome measures that are of particular interest
451 to consumers.⁵⁸

452 Whether the report sponsor is faced with a dearth of measures or a large number of
453 them, the selection of which measures to use always will require a thoughtful balancing
454 of what is available against what is desirable; what conveys the most accurate and
455 objective account of the quality of care provided within institutions; and what represents
456 the current state of the quality of care. It is important to be clear about what
457 conclusions can and cannot be reached from the measures that are reported.

458

459 **GUIDELINE 4. Ensure that the measures included in a consumer-focused public**
460 **report are meaningful to consumers, transparent, and meet widely accepted, rigorous**
461 **criteria, including important, scientifically acceptable, feasible, and usable.**⁵⁹

462 **4a. Because measures inherently have components that affect the way they should be**
463 **reported, be clear about the types of conclusions that can be reached.**

464 **4b. In choosing measures to be reported, take into account that the best measures:** ⁶⁰

- 465 i. **are relevant to the healthcare-related concerns of the consumer audience;**
- 466 ii. **demonstrate variation and reflect care that those who are being measured can**
467 **impact; and**
- 468 iii. **provide information that reflects the overall quality of care provided by the**
469 **institutions included in the report (providing additional information about**
470 **limited dimensions of care for specialty institutions is acceptable).**

471

472 **Present and Explain the Data**

473 To be useful, all information to be considered in making decisions about quality of
474 care must be put in context and presented in a way that can be understood by the
475 consumer, with a particular emphasis on information that may be complex and
476 unfamiliar. Information presented also must be reasonably current – that is, no more
477 than two years old.⁶¹

478 Messages for different consumer audiences, such as parents, prospective parents,
479 and caregivers, will require different approaches. The cultural background of target
480 audiences can influence how they receive the content, and this in part will be affected by
481 the way in which the information is framed.

482 Information must be evaluable – that is, consumers, when making decisions, must be
483 able to comprehend the information and connect with it in a personally meaningful way
484 and then correctly process, interpret, identify, and weight it in order to select the “best”
485 option for them.^{62,63,64} Data displays that facilitate this evaluation reduce the cognitive
486 burden on the user and make it easy for him or her to quickly grasp the key points and
487 overall meaning. This requires that the data be summarized and sometimes interpreted
488 for the user. Strategies such as ordering by performance, labeling the meaning of data
489 (good, bad, average), and using summary measures can be used to make the data more
490 evaluable. The complexity and amount of information; the experience, skill and

491 motivation of the users; and the nature of the choices to be made are important
492 considerations in preparing evaluable information displays.

493 When it comes to tailoring reports to the specific audience, interactive web-based
494 reports provide far more flexibility and capability than do those presented through other
495 media. With these web-based reports, the ability to embed decision tools and provide
496 links to other resources increases that capability, and the cognitive burden on the users
497 can be reduced by using specific presentation techniques to organize information.⁶⁵
498 Providing summary information is important, and allowing users to drill down to the
499 technical details permits them to select the amount of information they want.

500 The types of information to be displayed should influence how the information is
501 displayed; for example, making comparisons across organizations on single dimensions
502 of care requires a different approach than presenting “whole pictures” of performance
503 using composite measures. However, when different approaches to displaying
504 information about various aspects of care are used, employing similar scales and
505 providing consistent cues to help users summarize data can help enhance consumer
506 understanding and decrease any confusion that may occur. In all cases, the goal is to
507 present the information clearly, accurately, and objectively in order to support consumer
508 understanding and decisionmaking. Some approaches to presenting information in
509 accessible and memorable ways are included in the implementation guidance included
510 in appendix A. However, it is important to remember that providing large amounts of
511 data does not necessarily translate into providing better information or facilitating better
512 decisions; in fact, offering too much data can lead to poor or inaccurate decisionmaking.

513

514 **GUIDELINE 5. Present and explain the data clearly and objectively in ways that help**
515 **consumers understand and use the information.**

516 **5a. Help consumers quickly and easily arrive at correct and meaningful conclusions.**

517 **i. Display data in formats that have been shown to be evaluable.⁶⁶ This means**
518 **summarizing and interpreting the data for the viewer (e.g., summary scores,**
519 **labels).**

- 520 ii. To help users make correct interpretations, report measures in a consistent way
521 so that within a report, either a high score or a low score consistently indicates
522 better performance.
- 523 iii. Make presentations of information more vivid and compelling by including
524 anecdotes or stories to illustrate meaning of the data.
- 525 iv. Take advantage of web-based capabilities for subordinating and sorting
526 information in order to make it responsive to the needs of users—that is, offer
527 options that allow users to select which parts of the information they want to
528 see and how they want to see it (e.g., listed in order of performance or
529 alphabetically, shown in summary format or in detailed breakdowns).
- 530a.
- 531 **5b. In presenting comparative quality information:**
- 532 i. Use tools and methods such as rank ordering, color coding, and/or symbols
533 that help users discern performance variation and quickly determine their best
534 options.
- 535 ii. When possible, include benchmarks to provide users a better context for
536 making comparisons and using the information.
- 537 iii. Provide risk-adjusted rates and grouping of information into categories such
538 as “better”, “average” within standardized categories (such as by disease or by
539 institution), when appropriate, and provide a simple explanation of why this
540 is being done; i.e., to make the comparisons fair and meaningful.
- 541 iv. Label indicators using everyday language (not clinical or technical terms).
- 542 v. Ensure that comparisons are accurate and supportable.
- 543 vi. Whenever possible, limit the use of statistics and terms that are difficult for
544 most consumers to understand.
- 545
- 546 **5c. In presenting data from composite measures:**
- 547 i. report all measures that comprise the composite without adding or deleting
548 any individual component or make any change to the composite transparent
549 (at a layer down from the initial data display); and
- 550 ii. report results for each component measure and for the composite.

551

552 **5d. In providing contextual information/decision support:**

- 553 i. provide a clear contextual framework as part of the report introduction.
- 554 ii. make sure that key messages are included in the data display;
- 555 iii. whenever data are missing, provide a specific explanation for this, and make
- 556 the distinction clear between data that are missing because of small numbers
- 557 (too few to report)and data that are missing because of a refusal to provide the
- 558 data;
- 559 iv. make information understandable by using everyday words and language;
- 560 v. use consumer testing to verify that the language and displays provided in the
- 561 report are easy for the intended consumer audience to understand and use
- 562 (Provide translations into languages other than English, if needed.); and
- 563 vi. use reasonably current data and display the dates/period that are covered by
- 564 the data.

565

566 **5e. In presenting technical documentation:**

- 567 i. Include detailed measure definitions, specifications, and risk adjustment
- 568 methods;
- 569 ii. Include resource information such as identification of the measure
- 570 developer, sources of data, and interpretation guides; and
- 571 iii. Provide details about methodology.

572

573 **Ensure That the Report Design and Its Navigation Features Enhance Usability**

574 Setting clear goals and involving the target audiences in design and testing is key to

575 developing a report that is responsive to its audiences. Report design should provide

576 clear navigation cues. For web-based reports, this means providing a site map; an index;

577 “tabs” that the user can select to get to various areas of the report; and effective search

578 functions. The navigation scheme should allow for vertical (adding information within

579 a topic area) and horizontal (adding additional topics) expansion as experience with the

580 report is gained.

581 For web-based reports, computer-aided navigational tools will enable users to
582 process smaller amounts of information faster, and it will help them to select
583 information based on their values and preferences. These tools can provide legends that
584 explain the information in data displays and notations (such as “to find your hospital”)
585 that can be used to help direct users to additional, more specific information about the
586 institution in which they are interested. In an electronic report, legends can be presented
587 as “pop-up” or “roll-over” displays that accompany the data display. Interactive web-
588 based reports also should offer navigational tools such as drop-down menus to facilitate
589 movement through the report. A wide range of useful and practical information for
590 Internet-based reports is available at www.usability.gov.

591 The selected format should make the report easy to skim and permit users to print
592 information for later use. This will allow consumers to select and access the information
593 or subsets of information they want without having to read the entire report and can be
594 accomplished by using some default order schema; ordering by performance is
595 generally preferable to alphabetical ordering. An interactive database is preferred
596 because it permits the user to select the ordering convention that best facilitates the
597 display of the desired information.

598 Once a format is designed, it is important to seek feedback on it from both
599 experienced and inexperienced users. The process of seeking feedback should be one
600 that takes into consideration preferences within target audiences – for example, younger
601 users generally like to use links and are more likely to read information that is visually
602 emphasized (through the use of caps and bolding).

603

604 **GUIDELINE 6. Ensure that design and navigation features enhance report usability.**

605 **Design features should be used to:**

- 606 a. **organize the information in a way that lets users know what is available**
607 **and lets them make their own choices;**
- 608 b. **provide an engaging format and include intuitive and consistent**
609 **navigation tools that are placed in consistent locations;**

- 610 c. **make the report easy to skim and build in layering to provide the**
611 **capability drill down to information and to navigate back out;**
612 d. **seek feedback and test the design and navigation with the intended**
613 **audience; and**
614 e. **provide users a way to print the information in understandable and**
615 **useable formats.**

616

617 **Evaluate and Improve the Report**

618 The importance of evaluating the effectiveness of public reporting cannot be overstated.
619 It is essential to regularly review and assess the report to ensure that it remains
620 consistent with its initial structure and that it stays current and accurate. The relevance
621 of the measures (metric definition, data collection, analysis, reporting) also should be
622 regularly reviewed.⁶⁷ Furthermore, conducting research, encouraging additional
623 research, and using the results of such research to increase knowledge about what
624 makes public reports more useful for consumers and as a way to stimulate provider
625 performance improvement will help ensure the continued relevance of public reports
626 and also will help them to develop in such a way that they meet the needs and desires of
627 consumers as they become increasingly sophisticated and knowledgeable in this area.

628

629 **GUIDELINE 7. Regularly review and assess reports to ensure their effectiveness,**
630 **usability, and currency.**

- 631 **7a. Conduct assessments of the use and impact of reports.**
632 **7b. Use a combination of methods to obtain and use feedback from the intended**
633 **consumer audiences and the institutions that are the subject of the reporting.**
634 **7c. Involve stakeholders in revisions and seek their feedback after the report**
635 **undergoes significant change.**
636 **7d. Use what is learned to help inform and drive the improvement and usefulness**
637 **of performance measures and the field of consumer public reporting.**

638

639

640 **RESEARCH RECOMMENDATIONS**

641 Public reports are relatively new, and little research has been conducted regarding what
642 makes them valuable to consumers. Thus a number of recommendations are offered for
643 both basic and applied research in this area. Such research is needed to advance
644 knowledge and enable its application to the building of scientifically sound and useful
645 public reports that will facilitate consumer understanding and choice and stimulate
646 ongoing improvement in reporting and quality improvement.

647

648 Research is recommended regarding:

- 649 **1. the impact of public reporting** in terms of communicating about and improving
650 quality, patient safety, and patient-centeredness; informed choice; pay for performance;
651 and understanding of “just in time” consumer activation;
- 652 **2. the content of public reports** in terms of how to ensure the quality and timeliness of
653 reported measures, including when and how to retire obsolete measures and how to
654 best obtain user input and feedback in order to construct and maintain the strongest
655 possible reports; and
- 656 **3. techniques of Internet-based reporting** that will ensure that information is as
657 accessible, clear, and evaluable as possible.

658

659 In addition, research in the following areas would be helpful in facilitating the
660 expansion of these reports:

- 661 • determining the impact of specific web-based report sites in terms of the
662 guidelines that facilitate or hinder usability,
- 663 • gathering and interpreting data that would result from comparing and
664 contrasting different reporting systems
- 665 • finding ways to deal with areas identified as gaps that public reporting should
666 fill (such as sentinel events and physician-level indicators, including how to align
667 physician-level indicators with hospital indicators);
- 668 • understanding how to better display price/cost in appropriate contexts;
- 669 • gathering and reporting information about physician volume and outcomes;

- 670 • exploring the legal implications of reporting, such as protections, impact on
671 future case law at the state and federal levels, and the possibility that reports could
672 be used in medical malpractice or healthcare fraud cases;
- 673 • evaluating the potential unintended consequences of reporting data related to
674 disparate population groups and developing stronger linkages at the level of
675 analysis;
- 676 • determining the impact and implication of using differing report formats and
677 constructs that aim to present similar information;
- 678 • exploring effective ways to include the voice of the consumer in developing
679 measures and reports;
- 680 • learning what constitutes a well-rounded picture of healthcare quality at the
681 hospital level – that is, what kind of measures are needed and how many;
- 682 • determining what is needed for “just-in-time” reporting from the consumer
683 perspective;
- 684 • understanding the issues related to cultural competence, linguistic access, and
685 health disparities with regard to public reporting; and
- 686 • understanding the effect of public reporting on the outcomes of improving
687 patient safety and patient-centeredness.

688

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691

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Appendix A - Guidelines for Consumer-focused Public Reporting of Hospital Quality of Care

| Guidelines | Implementation Considerations* |
|--|---|
| 1. Identify the purpose of the web-based report, its intended main consumer audience(s), and how the report will be made known to the audience; also identify secondary audiences and how their unique needs will be addressed. | <ul style="list-style-type: none"> • One purpose of public reporting is to make the healthcare system more externally accountable. • Sponsors should think upfront how to make consumers aware of their reports; e.g., think about where the target audience will review a report, choose methods to publicize the report. For web-based reports, consider partnering with organizations with similar interests and create links to their sites; create banner ads on such sites to point to the report location. Seek support of entities that can make the report available or publicize it; e.g., states, provider offices, local libraries, national libraries, newspapers. |
| 1a. Identify the nature and purpose of the report (what it will be about and what is to be accomplished by producing it). | |
| 1b. Identify the main consumer audiences for the report and describe their characteristics, their knowledge about the subject matter of the report, their information interests and needs, and how they will be expected to learn about and use the web-based report. (In planning for use, provide for layering of information that permits the user to drill down to the technical details.) | <ul style="list-style-type: none"> • Information can be used to add audience-specific context and issues, needs, interests. • Consider use of a screening tool such as discussed by Hibbard et al¹ that consists of age, education, and self-reported health to help consumers use information. |
| 1c. Identify secondary audiences for the report, such as health care providers and policy makers and describe how their report-specific interests and needs differ from those of the main consumer audience. Determine how the report will accommodate the secondary audiences (such as allowing users to drill down to the technical details about measurement and statistical comparisons). | |
| 2. Develop the web-based report using a transparent process that involves relevant | |

* Implementation guidance amplifies the Guidelines. It is drawn from a number of sources including NQF-endorsed recommendations contained in *A Comprehensive Framework for Hospital Care Performance Evaluation* as well as research, expert opinion, and experience of report sponsors and users. It is neither comprehensive nor uniform across the guidelines. Report sponsors may find additional information useful to their unique needs from resources such as TalkingQuality, Usability.gov and other sources including literature referenced in this report.

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| <p>stakeholders.</p> <p>2a. Identify the various stakeholders for the web-based report (these include, at a minimum, the developers and sponsors of the report, the main consumer audiences and organizations that represent these audiences, and the entities that are being measured and compared), and clarify their roles and responsibilities.</p> <p>2b. Establish governance and decision making rules.</p> <p>2c. Provide an opportunity for the entities that are being measured and compared to preview their data and comment on the data's accuracy before the report is released; also, establish a mediation process</p> <p>2d. Involve consumers in the development and refinement of the report by seeking their input into the report design and getting their feedback on draft versions of language and data displays. Conduct usability/ease-of-use testing with consumers before the report is released, and then collect their feedback after the launch to help evaluate it.</p> | <ul style="list-style-type: none"> • Consumers should be involved throughout the process from concept to refinement. • Roles include helping define the scope, format and goals of the report. • Institutions about which reporting should have opportunity to review the data display about their institution prior to its being presented publicly and an appeals processes should be provided. <hr/> <ul style="list-style-type: none"> • Consider providing access to comments received from providers. <hr/> <ul style="list-style-type: none"> • Collect information in multiple ways; e.g., cognitive testing, one on one cognitive interviewing, usability testing. |
| <p>3. At the beginning of the report, set the stage by communicating what quality is, how quality varies, and how making quality comparisons can be of value to consumers.</p> <p>3a. Provide a brief introduction about healthcare quality.</p> | <ul style="list-style-type: none"> • Provide a context for understanding quality of care in terms of what defines good or poor quality and what each can mean to individual's health. • Ensure that the introduction does not become a barrier to getting to the data by making it succinct and by providing a search feature on the report home page. <hr/> <p>One example of such an introduction is included below.^x</p> <p>Quality in health care, including in hospitals, can be described as “doing the right thing, at the right time, in the right way -- and having the best possible results.”</p> <p>This report provides information on how well all the hospitals in (insert location) care for patients with a wide range of health problems. It can help you choose a hospital for yourself, provide useful information for your loved ones if they need hospital care, encourage hospitals to improve their quality, and help everyone learn more about hospital quality.</p> <p>Don't people get good care in any hospital their doctor recommends?</p> |


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| <p>3b. Explain that quality varies within and across institutions and how the report can be used to make quality comparisons.</p> <p>3c. Use consistent, simple, and familiar language to discuss quality and provide examples that will resonate with the main consumer audiences.</p> | <p>Here are the facts:</p> <ul style="list-style-type: none"> • All hospitals do not provide the same quality of care. Some hospitals are better than others. • A particular hospital might do a very good job on some health problems and not such a good job on other health problems. • Whenever anyone goes to the hospital, they risk getting a new health problem while getting medical care for an existing problem. Hospitals vary in how well they protect patients from these risks. • Your doctor, or the specialist or surgeon he or she recommends, may be highly skilled, but hospital quality also depends on how well all the hospital staff, such as the nurses, take care of you, and on how well the hospital is organized. <p>• Be clear that no single measure can convey overall quality; e.g., strong performance on a measure does not mean overall performance is strong and conversely, weak performance does not mean overall performance is weak.</p> <p>• “Effective” or “beneficial” may be better understood as getting care that is proven to work best; “safety” may be clearer when stated in terms of no harm.</p> <p>• Ensure appropriate language and messaging choices by including discussion of these issues in consumer stakeholder input discussions.</p> |
| <p>4. Ensure that the measures included in a consumer-focused public report are meaningful to consumers, transparent and meet widely accepted, rigorous criteria, including important, scientifically acceptable, feasible, and usable.</p> | <ul style="list-style-type: none"> • Measures selected for reporting should be risk adjusted, as appropriate. • If measuring other than direct outcomes, be explicit about the strength of evidence supporting the measures and linking them to important outcomes. When multiple similar measures are available, choose those with the strongest evidence base. Avoid measures that do not have at least expert consensus-based support. • Use measures for which data is analyzed by a source independent of the provider. Any self-reported results should be distinguished from externally validated results. • Measures should be standardized with results that are available for institutions represented and are comparable, evaluable, distinguishable, replicable, presented timely and complementary • Measures should be balanced, comprehensive, and robust when |

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| | <p>used in sets and when possible, have been tested as a set.</p> <ul style="list-style-type: none"> • Use only data from well documented measures that include an analysis of strengths, weaknesses, limitations of the data and be both internally and externally clear and explicit about why the measures are included. • Select measures that focus on areas having the greatest impact on IOM aims and national priorities identified by the NQF National Priorities Partners. |
| <p>4a. Because measures inherently have components that affect the way they should be reported, be clear about types of conclusions that can be reached.</p> | <ul style="list-style-type: none"> • For example, it is not appropriate to report mortality for one condition and, suggest directly or by inference, that it applies beyond that one condition. |
| <p>4b. In choosing measures to be reported, take into account that the best measures:</p> <ol style="list-style-type: none"> are relevant to the healthcare-related concerns of the consumer audience; demonstrate variation and reflect care that those being measured can impact ; and provide information that reflects the overall quality of care provided by the institutions included in the report (providing additional information about limited dimensions of care for specialty institutions is acceptable). | <ul style="list-style-type: none"> • Ensure presentation of meaningful data in evaluable displays about healthcare outcome and patient experience , • Consider audience preferences, to the extent known/ discernible • Consider impact on providers serving vulnerable and disparate populations; e.g., potential effect of serving high risk patients on performance numbers • Information in reports should reflect quality of care processes, access to care, treatment outcomes and patient satisfaction, to the extent appropriate to report scope. • When deciding which measures to use, the potential for public benefit should outweigh the burden of data collection. • Select measures for which the population is large enough to obtain an appropriate sample. (A minimum of 30 annual cases in the denominator of a measure has been generally accepted and aggregating the data over multiple years has been used to achieve needed sample size.) • Differences in types of facilities (rural/urban, specialty/general) that influence how measures should be interpreted should be taken into consideration by the sponsor and should be explicit in the report. |
| <p>5. Present and explain the data clearly and objectively in ways that help consumers understand and use the information</p> | <ul style="list-style-type: none"> • Questions, about the institutions on which reported, to be answered by the report include: <ul style="list-style-type: none"> • Have they achieved goals? • Are they where they should be? |

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| | <ul style="list-style-type: none"> • Are they improving? • Are they better than others? • Ensure that reports take into account the needs of users with varying abilities, including limited sight. • In summarizing data, include information about its strengths and weaknesses and the uses to which it should and should not be put. • Ensure that conclusions reported can be supported by the strength of the metric. • Acknowledge differences between type of information available and what the audiences are believed to want. |
| <p>5a. Help consumers quickly and easily arrive at correct and meaningful conclusions.</p> <p>i. Display data in formats that have been shown to be evaluable. This means summarizing and interpreting the data for the viewer (e.g., summary scores, labels).</p> | <ul style="list-style-type: none"> • Interactive web-based reports offer greater flexibility and capability to tailor reports to the audience than do other media. • An evaluable data display is one where the best options “pop” out easily for the viewer. |
| <p>ii. To help users make correct interpretations, report measures in a consistent way so that, within a report, either a high score or a low score consistently indicates better performance.</p> | <ul style="list-style-type: none"> • Avoid a mix as this will likely be confusing to the user. • Reduce the cognitive burden by using such things as computer aided decisions tools, visual displays, explanatory narratives |
| <p>iii. Make presentations of information more vivid and compelling by including anecdotes or stories to illustrate meaning of the data.</p> | <ul style="list-style-type: none"> • When providing hospital-specific detail include things such as satisfaction scores accompanied by actual patient comments. Vivid presentations can assist consumers to make judgments and choices by helping them comprehend what the actual experience of a choice might be; e.g., relaying a 50 percent complication rate by noting that 5 out of 10 people who have X procedure develop complications. |
| <p>iv. Take advantage of web-based capabilities for subordinating and sorting information in order to make it responsive to the needs of users; that is, offer options that allow users to select which parts of the information they want see and how they want to see it (e.g., listed in order of performance or alphabetically, shown in summary format or in detailed breakdowns).</p> | <ul style="list-style-type: none"> • Provide displays that layer information and provide cues for drill down to find additional information; e.g.,; “To find your hospital”; “For more information” Embed decision tools into information presentations and provide links to additional resources to increase the options for supporting choices. • Don’t put technical information at first level of data display. |
| <p>5b. In presenting comparative quality information:</p> | <ul style="list-style-type: none"> • Tools to help readers differentiate levels of performance across hospitals are very helpful. • However, in presenting comparative information, avoid making differentiations that are not supported by the data |

- i. use tools and methods such as rank ordering, color coding, and/or symbols that help users discern performance variation and quickly determine their best options;

- For example, rank ordering should not be done unless it is statistically meaningful;
- Set cutpoints to discriminate among providers on the reported measures, with reasonable allowance for statistical confidence (e.g., interval bands around cutpoints).
- Examples of useful methods for distinguishing among performance levels follow:
 - Array in hierarchies or categories; e.g., by institution, by disease in alpha order; e.g., Alpha Hosp; Beta Hosp; etc.
 - Rank ordering can be useful when measures allow differentiation of performance in this manner. When rank order within categories using word cues, symbols, traffic light colors; e.g.
 - “best”, “better”, “below”
 - 
 - Further elucidate rank order by use of tiers, bands, groups; e.g., “top”, “middle”, “bottom” third
- Frame information to provide an alternative way to think about it; e.g., providing mortality rates vs survival rates.
- Provide for users to access focused amount of information at a time
- Provide context for individual measures; e.g., why the user should care about X to capitalize on ‘teachable moments’ when information is being sought.
- Balance comprehensiveness and complexity with relevance and functionality
- Use strategies to convey big picture through summary information; e.g., performance on a set of measures related to a particular health problem accompanied by access to the individual components. *Note: As the science evolves, composite measures may prove to be especially useful to do this.*
- Provide enough flexibility to allow for cross-cutting and condition-specific analysis of data and exploration of consumer sub-population exploration of interest areas; e.g., geographic, health condition, and personal characteristics such as ethnicity, age, race, gender, health insurance coverage.
- Provide information to help users understand the “trade offs” in simplifying presentations; e.g., a provider may fall into one

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| <p>ii. when possible, include benchmarks to provide users a better context for making comparisons and using the information;</p> | <p>category rather than another by a slight numerical difference.)</p> <ul style="list-style-type: none"> • Where appropriate, include adjustments for characteristics of rural and urban providers as well as information about comparability across such settings. |
| <p>iii. provide risk-adjusted rates and grouping of information into categories such as ‘better’, ‘average’ within standardized categories (such as by disease or by institution), when appropriate, and provide a simple explanation of why this was done; i.e., to make the comparisons fair and meaningful;</p> | <ul style="list-style-type: none"> • Use summaries and visual cues to facilitate understanding. • For credibility and transparency, provide a ‘drill-down’ to the technical details underlying the groupings/categories; however, recognize and address the fact that providing detail can create confusion if information is displayed in multiple ways that then result in it being displayed in more than one strata (tier, band). • The rationale and handling of rates that are not risk adjusted must be explained. • Don’t rely on numbers that require inferences and calculations |
| <p>iv. label indicators using everyday language (not clinical or technical terms);</p> | <ul style="list-style-type: none"> • Don’t make users click through to learn the meaning of an indicator – they are more likely to ignore than to click. |
| <p>v. ensure that comparisons are accurate and supportable; and</p> | <ul style="list-style-type: none"> • Results presented as rates or percentages should be accompanied by the number of observations and results from surveys should include the response rate. • Be clear about the meaning of differences since difference in numbers does not necessarily mean difference in performance. |
| <p>vi. whenever possible, limit the use of statistics and terms that are difficult for most consumers to understand.</p> | <ul style="list-style-type: none"> • This applies specifically to the initial view; it is not intended to limit access to appropriate detail on more granular views. • Use summaries and visual cues (See Presenting the Data) • Consider use of explanatory narratives to clarify meaning of statistics. <i>Consumers have a preference for narratives and they can facilitate statistical and experiential understanding.</i> • Don’t require consumer understanding of confidence intervals to interpret performance. |
| <p>5c. In presenting data from composite measures:</p> <p>i. report all measures that comprise the composite without adding or deleting any individual component or make any change to the composite transparent (at a layer down from the initial data display); and</p> | <ul style="list-style-type: none"> • Include an explanation of how the composite, as a roll up of component measures, makes sense as a construct for quality. • In web-based reports detail about individual component measures, weights assigned to the measures, and rationale for weighting can be made available through such things as drop down menus thus both the composite and component parts can |

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| <p>ii. report results for each component measure and for the composite.</p> | <p>be viewed in visual isolation.</p> <ul style="list-style-type: none"> • Measures should have been tested in a composite (i.e.. bundled) form. |
| <p>5d. In providing contextual information/ decision support:</p> <p>i. provide a clear contextual framework as part of the report introduction</p> <p>ii. make sure that key messages are included in the data display.</p> <p>iii. whenever data are missing, provide a specific explanation for this and make the distinction clean between data that are missing because of small numbers (too few to report) and data that are missing because of refusal to provide the data.</p> <p>iv. make information understandable by using everyday words and language.</p> <p>v. use consumer testing to verify that the language and displays provided in the report are easy for the intended consumer audience to understand and use (Provide translations into languages other than English, if needed.); and</p> <p>vi. use reasonably current data, and display dates/period that are covered by the data.</p> | <ul style="list-style-type: none"> • This convention should be observed until such time as the evidence clarifies what information is most useful and meaningful to include • Composite measures should convey an aggregated index of a group of related measures. As one example, when reporting mortality, report companion volume information. <hr/> <ul style="list-style-type: none"> • Succinctly, tell users why the information is important, where it came from; how it is relevant to them; how it is organized and how they can use it.² • ⁱDo NOT overwhelm the reader with lots of text. <hr/> <ul style="list-style-type: none"> • Many viewers will only look at the data display and will not read the text. <hr/> <ul style="list-style-type: none"> • Do NOT use unfamiliar terms. • While a glossary of terms is unlikely to be used by consumers, when definitions are needed, incorporate them where the term or concept is mentioned. • Talking Quality is a website sponsored by AHRQ that includes suggestions about communicating with consumers. <hr/> <ul style="list-style-type: none"> • Test to determine interests, understanding of terms, interpretation of data • Interview one on one for feedback about how site works and to understand emotional engagement <hr/> <ul style="list-style-type: none"> • Provide statements regarding what constitutes currency. • Update published reports at least annually. • Reported data should be no more than two years old, unless trends are important to the website’s message. |
| <p>5e. In presenting technical documentation:</p> <p>i. include detailed measure definitions, specifications, and risk</p> | <ul style="list-style-type: none"> • Include this information at ‘back-end’ of report and provide |

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| <p>adjustment methods;</p> <p>ii. include resource information such as identification of the measure developer, sources of data, and interpretation guides; and</p> <p>iii. provide details about methodology</p> | <p>access from summary information.</p> <ul style="list-style-type: none"> • Do NOT make users read this information unless they want to do so; in electronic displays, put at the next level down from the data display. • Identify measure steward • Include caveats about source of data • Provide interpretation guides about uses and limitations • Interpretation guides should address uses and limitations of the information without creating barriers to the data. • Details should include implications of small numbers; how numbers are 'bucketed'. • Do NOT put details at first level of data display. |
| <p>6. Ensure that report design and navigation features enhance report usability.</p> <p>Design features should be used to:</p> <p>6a. organize information in a way that lets users know what is available and lets them make their own choices;</p> <p>6b. provide an engaging format and include intuitive and consistent navigation tools that are placed in consistent locations;</p> <p>6c. make the report easy to skim and build in layering to provide the capability to drill down to information and to navigate back out;</p> <p>6d. seek feedback and test the design and navigation with the intended audience; and</p> <p>6e. provide users a way to print the information in understandable and useable formats.</p> | <p>• Provide notations to lead to additional information; e.g., "People who looked at this information frequently also reviewed X"</p> <p>• Provide links to patient education</p> <p>• Such tools include: tabs, drop down menus; clear, informative headings</p> <p>• Provide for cross linking to related information such as other information on the general topic that may be of interest such e.g., general information about heart disease or myocardial infarction to the viewer of AMI measures.</p> <p>• Use clickable links to control length of pages and permit access to expanded sets of information in other locations.</p> <p>• Use a small carefully selected combination of elements to present information, reduce clutter and ensure succinct presentations.</p> <p>• Feedback should include information about how users found the site, how they used it as well as comprehension of content, intuitiveness, interpretation, and salience.</p> <p>• Methods of obtaining feedback include those used in creating the report; e.g., focus groups and one on one interviews as well as pop up surveys and web-based locations for posting comments.</p> <p>• PDF formats are one example.</p> |
| <p>7. Regularly review and assess reports to ensure their effectiveness, usability, and</p> | |

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| <p>currency.</p> <p>7a. Conduct assessments of the use and impact of reports.</p> <p>7b. Use a combination of methods to obtain and use feedback from the intended consumer audiences and the institutions that are the subject of the reporting.</p> <p>7c. Involve stakeholders in revisions and seek their feedback after the report undergoes significant changes.</p> <p>7d. Use what is learned to help inform and drive the improvement and usefulness of performance measures and the field of consumer public reporting.</p> | <ul style="list-style-type: none"> • Seek feedback from both experienced and naïve users of public reports. • Consumer feedback can/should be collected in a number of different ways; e.g., focus groups, one on one interviews, surveys. • Consider where the audience will likely review the report; e.g., home, workplace, library, physician offices • Elicit support of stakeholders that can make the report available or publicize it; e.g., states, libraries, news media, providers. • To provide context and expand consumer understanding of health issues, consider partnering with organizations with similar interests and create links to sites that offer related educational/explanatory information • Be involved in collaborations among public reporters, involvement in policy making about both reporting and measures to be used. |
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¹TalkingQuality.gov. Last accessed April 2008.

1 APPENDIX B

2 Commentary

3

4 INTRODUCTION

5 | The hospital care additional priorities project 2007 was formally launched in August 2006
6 guided by a Steering Committee and a group of Technical Advisory Panels (TAP), each tasked
7 with work based on its expertise. The primary role of the “National Voluntary Consensus
8 Standards for Hospital Care: Additional Priorities, 2007” TAPs has been to apply the guiding
9 principles and, as relevant, the recommendations outlined in *A Comprehensive Framework for*
10 *Hospital Care Performance Evaluation* to the additional priorities identified for the project and to
11 recommend, as appropriate to the individual TAP’s charge, a group of performance measures,
12 public reporting guidance, or methodologies to the Steering Committee for their further
13 recommendation to National Quality Forum (NQF) membership for consideration under the
14 NQF Consensus Development Process (CDP).

15 As with other NQF consensus projects, the Steering Committee represented key healthcare
16 constituencies. The members of the TAP that developed the guidance in this report were
17 selected for their expertise in healthcare public reporting. (appendix E)

18 This appendix summarizes the guidance provided the TAP by the Steering Committee and
19 the work done by the TAP to accomplish its task.

20

21 APPROACH

22 The Steering Committee began its work by affirming its use of the framework delineated in the
23 NQF-endorsed™ *A Comprehensive Framework for Hospital Care Performance Evaluation*¹ and the
24 principles therein that address promoting standardization, driving measure set improvement,
25 and supporting implementation. This report includes a significant section related to reporting
26 results to the public that served as a reference throughout the work of the TAP.

¹ National Quality Forum (NQF). *A Comprehensive Framework for Hospital Care Performance Evaluation: A Consensus Report*. Washington, DC: NQF; 2003.

27 The Steering Committee provided specific guidance to all the TAPs in order to ensure a
28 consistent approach. In setting aims for the work, the Steering Committee included the
29 expectation that the work should ensure that the reporting of the consensus standards are performed
30 in a way that will properly represent the data and maximize their understanding. Additionally, it included
31 in its purpose statement that the hospital care additional priorities project is to improve the quality of
32 healthcare by recommending, among other things, guidance for public reporting of measures. The
33 specific charge to the Public Reporting TAP was to recommend a web-based approach for public
34 reporting of acute care hospital quality data that can be used, at minimum, to report the Agency on
35 Healthcare Research and Quality (AHRQ) Quality Indicators (QI). While AHRQ submitted its new
36 model reports for the QIs, it agreed that they should not be endorsed; rather than whatever was proposed
37 for endorsement be used to evaluate the model reports.

38

39 Development of the Public Reporting Guidance

40 The guidance put forth in this report was developed from evidence-, expert- and consensus-
41 based guidance for standardizing the approach and explanatory content of public reports in an
42 iterative process. The work began with the development of a set of assumptions about public
43 reporting and public reports, a set of principles about public reporting and consumer-based
44 public reports and a list of guidelines derived from the literature that described public reports/
45 reporting. Once the TAP had modified the list as a starting point, it then invited a group of
46 public report sponsors and researchers² to provide information in response to a set of structured
47 questions constructed by the TAP. (see tables 1 and 2 for interview questions)

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Table 1. Structured Questions for Site Sponsors

50 Overall.

- 51 1. What was your purpose in setting up a public reporting site? To what were you responding?
52 2. What was the process of putting the site together?
53 a. Did you do any testing?
54 b. What gap does your site fill for consumers?
55 3. Who uses your site and why?
56 a. How do you make users aware of your site?
57 b. How successful were your strategies?
58 4. What parts of your site are most effective? Which are least effective?
59 a. Why?
60 b. Please rank the elements based on their importance.

²Gulzar Shah, MStat, MSS, PhD, *Director of Research, National Association of Health Data Organizations*; Kristin L. Carman, PhD, *Principal Research Scientist, American Institutes for Research*; Christopher Queram, MA, and Joel Walker *Wisconsin Collaborative for Healthcare Quality* and David Miranda, PhD; Elizabeth Goldstein, PhD; Neil Gittings, MA; Benedicta Abel-Steinberg, *Centers for Medicare and Medicaid Services*.

- 61 5. Have you done any assessments of your site's impact, formal or informal?
- 62 a. What were your findings?
- 63 b. What would you do differently now that the site has been in use? Why?
- 64 c. What are the plans/next steps for your site?
- 65 6. Do you believe the measures you now report are the best at publicly conveying quality and safety?
- 66 a. Why?
- 67 b. On what bases should future measures be chosen?
- 68 7. Does the information on your site conflict with any existing public reporting of measures or expected public reporting of measures in
- 69 terms of measures chosen, calculation of measures or categorization of entity performance?
- 70 a. Why?
- 71 b. What effect will this have on consumers use of publicly reported data?
- 72 c. Is there a plan for harmonization of public results in the future?

73 **Display.**

- 74 9. What were your goals regarding displaying information?
- 75 10. Please tell us about your choices and rationale regarding the display of information on your site. We would like to hear about:
- 76 a. Why you chose the display you use and whether you considered other options;
- 77 b. Any testing of displays you did before settling on the one you use;
- 78 c. What works and what doesn't work in the way information is displayed on the site including graphic and visual displays;
- 79 d. Whether your users can tell the relative performance of hospitals from your data display and how you discern this;
- 80 e. How you gather and use information to change/improve the site;
- 81 f. Any reactions from other stakeholders to your display; and
- 82 g. Any unintended consequences.
- 83 11. We would like you to speak to specific things related to your data display including:
- 84 a. The type of and rationale for the contextual information or introduction used on your site;
- 85 b. The framework you use;
- 86 c. If/How benchmarks are used;
- 87 d. How the display helps consumers discriminate among hospitals' performance; e.g., evaluability;
- 88 e. If/How you ensure data timeliness overall and that reporting periods are equivalent across healthcare organizations;
- 89 f. Use of risk adjustment;
- 90 g. Display of confidence intervals;
- 91 h. If/How you deal with small numbers, non-responders as well as breadth of information across settings;
- 92 i. The rationale for the types of and way of displaying different types of information; e.g., clinical, safety, patient experience;
- 93 and
- 94 j. Your experience or suggestions regarding composites or other ways to "bucket" information

95 **Ensuring Credibility.**

- 96 12. What are the standards to which your data sources are held?
- 97 13. What are the key considerations regarding data sources and data verification?

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99 **Table 2. Structured Questions for Researchers**

100 **Overall.**

- 101 1. What consumer need(s) are filled by publicly reporting organizational quality data/performance?
- 102 2. Appreciating that public reporting (ex. Joint Commission Sentinel Events) and national goals (ex. Healthy People) exist, what gap
- 103 remains that public reporting for consumers should fill?
- 104 3. What do we really know about public reporting? (Your response could touch on how information is received and processed by
- 105 consumers, how to assure objectivity in reports, what designs/site characteristics most facilitate use of the information, what
- 106 behaviors change as a result of receiving public reports, etc.)

107 **Constructing an Approach.**

- 108 4. In sites designed primarily for consumers, what would be most useful in improving patient/clinician shared decision making
- 109 regarding where to obtain needed healthcare services?
- 110 5. In identifying an approach to a web-based public reporting model, template or framework, what has your experience taught you are
- 111 the most important or most desirable:
- 112 a. Grounding principles
- 113 b. Elements of the contextual framework or introduction
- 114 c. Components of quality to include (ex. patient-centered)
- 115 d. Types/categories of measures to report (e.g., those consumers access most often) for inclusion in public reports
- 116 e. Ways to insure comparability across organizations and over time
- 117 6. What are the elements (e.g., rank order, use of color codes, etc.) you have found to be most important to effective consumer
- 118 reporting sites? What are least effective? Why?
- 119 Please rank order the elements based on their importance.
- 120 7. What parameters or boundaries around amount of data to be reported should be set?

- 121 8. What existing public reporting sites would you rank in the top 5 of such sites? (They may be national, health plan, etc.)
122 9. What parameters or boundaries around amount of data to be reported should be set?
123 **Ensuring Credibility.**
124 10. What are the standards to which data sources should be held?
125 11. How should a public reporting approach (framework, model, template) be tested?
126 12. How and from whom should feedback regarding the reporting site and content be obtained?
127 13. What are the key considerations regarding data sources and data verification?
128 14. What do we need to know to improve public reporting and how do we get at it? What are the unanswered questions?
129 -----

130 In addition to responding to the questions posed by the TAP, some of the individuals
131 interviewed provided additional information; e.g., publications, content of related
132 presentations. The TAP then interviewed the primary developer³ of the AHRQ model reports
133 (appendix C). She provided her perspective on the rationale for developing a model report, the
134 development process and the role of sponsors of public reports and responded to a number of
135 questions previously posed to others interviewed.

136 Subsequent to the interviews, the TAP began shaping the product that is the guidance in
137 this report. It did so over a period of months of regular meetings during which the guidance
138 was developed in a deliberate, internal consensus building and iterative way.

139

140 THE PROPOSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE: ADDITIIONAL 141 PRIORITY AREAS – 2007

142 The guidelines and implementation considerations for internet-based, consumer-focused public
143 reports proposed herein were evaluated by the Steering Committee. It made refinements to the
144 guidelines and added to the implementation considerations. The Steering Committee made
145 clear that the guidance is and should remain dynamic as the evidence and experience around
146 public reporting continues to evolve.

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³ Shoshanna Sofaer, Dr.P.H., School of Public Affairs, Baruch College.

**APPENDIX D—STEERING COMMITTEE, TECHNICAL ADVISORY PANEL,
AND PROJECT STAFF**

STEERING COMMITTEE

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