RECOMMENDATIONS FOR IMPROVING THE QUALITY OF PHYSICIAN DIRECTORY INFORMATION ON THE INTERNET

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National Committee for Quality Assurance

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ABSTRACT: Although most health plans now make their physician directories available online to consumers, many of these Web sites contain inaccurate, out-of-date, or confusing information. This report of a consensus panel convened by the National Committee for Quality Assurance explores the necessary elements of a high-quality electronic directory. Panel members included: directory providers, consumer groups, traditional health plans, Internet-based health plans, physicians and physician organizations, state regulators, and large public and private purchasers. Their recommendations fall into five categories: physician descriptors and characteristics (name, gender, contact information, years in practice, languages spoken, specialty(ies), education, training, plan and hospital affiliations, acceptance of Medicare/Medicaid); physician expertise and knowledge (licensure and board certification, disciplinary actions, malpractice history); patient access (location, acceptance of new patients in all plans); relationship with patients; and performance measures. The panel further recommended that directories clarify their sponsorship and sources and maximize the searchability of information.

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Phyllis Torda, M.A., is Vice President for Product Development at NCQA. Ms. Torda is responsible for NCQA's efforts to develop new ways of evaluating the quality of health care provided by organizations and professionals. Her current focus is on ways to evaluate care at the provider level. Under her direction, NCQA has developed provider recognition programs in diabetes and a cardiovascular care. Other major initiatives under her direction have included: developing consumer-friendly health report cards; developing performance-based accreditation of managed care organizations that takes into account organizations' HEDIS results; developing accreditation and certification programs for disease management programs; and developing accreditation for preferred provider organizations. Prior to coming to NCQA in 1995, Ms. Torda was Director of Health and Social Policy at Families USA, a consumer advocacy group focusing on health reform issues. Ms. Torda has completed all requirements except the dissertation for a Ph.D. in History from the University of Wisconsin–Madison.

EXECUTIVE SUMMARY

The National Committee for Quality Assurance (NCQA) convened an expert consensus panel to consider and recommend the elements that constitute quality in electronic physician directories for consumers.

There are several reasons why such recommendations are needed:

- A large proportion of the population now relies on Web sites for health information, and most health plans have put their directories online.

- The electronic medium is preferable to paper-based directories in many ways, including its greater efficiency and cheaper maintenance costs.

- In spite of this potential, there are problems. There is much variation among online physician directories, and often a lack of accuracy and timeliness. Online directories can thus be confusing and misleading for consumers.

- There is no agreement on the "best" way to present a directory online, and no way for consumers to know if the information is accurate or the directory itself is trustworthy.

To begin to articulate standards for this important area, the NCQA consensus panel examined the subject from multiple vantage points. The panel included directory providers, consumer groups, traditional health plans, Internet-based health plans, physicians and physician organizations, state regulators, and large public and private purchasers.

The panel made recommendations about the kinds of information that would best help consumers choose doctors and health plans. Specifically, NCQA asked the panel to recommend 1) the essential elements in directories, and 2) how the information should be presented to be most useful to consumers. The panel worked from informational elements that already exist in many online directories and did not assume that every physician directory would include the same information. A previous Fund report identified many of the elements to consider.[1]

The recommended elements are grouped into five general categories. For each element, the panel recommended whether and how often the directory provider should verify and update the information.

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[1] *Accessing Physician Information on the Internet.* Elliot M. Stone, Jerilyn W. Heinold, and Lydia M. Ewing, The Commonwealth Fund, January 2002. Available at
http://www.cmwf.org/publications/publications_show.htm?doc_id=221298.

Physician Descriptors and Characteristics

- Name, gender, contact information, years in practice, languages spoken

- Specialty(ies), education, and training (verified)

- Health plan and hospital affiliations, acceptance of Medicare and Medicaid

Physician Expertise and Knowledge

- Licensure and board certification (verified)

- Disciplinary actions and malpractice history, where available (with verification and caveats that help consumers interpret and use the information

Patient Access

- Location

- Acceptance of new patients in all health plans, including Medicare and Medicaid

- Special aspects of access such as e-mail, availability of same-day appointments, handicap access, access to public transportation, and availability of off-street parking

Relationship with Patients

A special section on clinical interests that would be supplied by the doctor and subject to editing, covering subjects such as the particular area of the specialty in which the physician sees the most cases.

Performance Measures

Any publicly available, evidence-based measures of quality, including NCQA or other quality measures, mortality rates, and patient survey data.

The panel concluded that other elements should be optional and that some could be problematic. For example, links to physician Web sites may be difficult to verify and may imply an endorsement by the directory's administrators.

How information is presented is as important as what elements are included. Directories should clarify their sponsorship, sources, and the logic behind the order in which physicians appear. Each field of information should be defined and sourced, and it should be clear how often the fields are updated and/or verified. For elements that are difficult to keep up to date, such as

whether a physician is taking new patients from a particular health plan, the directory should caution consumers to verify that information for themselves. Any information about quality and quality problems should be accompanied by explanations that place the information in context and explain its meaning. For example, to help consumers interpret malpractice information, it is important to inform the consumer that malpractice histories tend to vary by specialty and by case mix.

The panel also considered the navigability of online directories. Most members strongly advise that as many elements as possible be searchable, so that consumers have the maximum flexibility in finding the providers they want. However, the panel agreed not to specify which particular items should be searchable (i.e., whether a consumer should always have the ability to search by specialty, gender, board certification, etc.), since different directories have different use patterns and purposes, and the same set of search elements may not fit all sites. Further, the group believed that the market for online directories will to some extent determine these requirements: the most searchable sites will likely become the most popular.

**RECOMMENDATIONS FOR IMPROVING THE QUALITY OF
PHYSICIAN DIRECTORY INFORMATION ON THE INTERNET**

Introduction

The explosion in the use of the Internet by consumers seeking information on physicians raises both challenges and opportunities for health care professionals. Of the 143 million Americans—54 percent of the U.S. population—using the Internet in 2001, 35 percent were searching for health care information.[2] Among the countless health Web sites are thousands of sources of information specifically about doctors.

By and large, nearly all health plans now direct members and potential members to their Web sites to check the physicians in their networks. Online directories have several advantages over traditional paper directories: they can be updated more frequently, display more information for a much lower cost, and do not require manual data entry. However, reporting more information increases the challenges of managing it and creates the potential for inaccuracy. Moreover, the way that information in an online directory is organized, and how the user is led through it, can be misleading if adequate explanations and disclosures are not included. The many creative and disparate ways that various directories display information online also can be confusing to consumers.

A 2002 Massachusetts Health Data Consortium's (MHDC) study concluded that there were "significant problems with the quality, quantity, and accuracy of information on physician directory Web sites."[3] To address the need for improvement, the National Committee for Quality Assurance (NCQA) convened an expert consensus panel to make recommendations about valid and reliable content for Internet-based physician directories.

A potential result of such projects will be the development of accreditation or certification standards for physician directories and the producers of directories. For example, NCQA could adopt physician directory recommendations by 1) recasting its current directory for the ADA–NCQA Diabetes Physician Recognition Program[4] to meet the recommendations and 2) working with NCQA stakeholders to incorporate these recommendations into its accreditation standards for health care organizations.

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[2] National Telecommunications and Information Administration and Economics and Statistics Administration, U.S. Department of Commerce, using U.S. Census Bureau Current Population Survey Supplements.

[3] Elliot M. Stone, Jerilyn W. Heinold, and Lydia M. Ewing, *Accessing Physician Information on the Internet*. The Commonwealth Fund, January 2002. Available at
http://www.cmwf.org/publications/publications_show.htm?doc_id=221298

[4] Available at http://www.ncqa.org/dprp/search.asp.

Background

MHDC's findings from its comprehensive assessment of physician directories provided the starting point for the consensus panel. The MHDC report, based on a review of 40 online physician directories, catalogs the content, strengths, and weaknesses of each. The 40 directories that were reviewed included commercial sites, hospital systems, health plans, physician organizations, and government sites. The review found best practices as well as inconsistencies and inaccuracies that could mislead consumers. For instance:

- Only 63 percent of the directories provided information on the medical schools physicians attended; 45 percent listed physicians' gender; 43 percent listed languages spoken, and 10 percent listed years in practice.

- Data were frequently incomplete or missing, without explanation.

- Often, there was no information about verification or updating protocols, or it was clear that the information was not verified and therefore possibly inaccurate and out of date.

- A few sites provided verification and updating information and the sources of their data, as well as context for the consumer to use in evaluating the information. For example, to help consumers interpret malpractice information, it is important to inform the consumer that malpractice histories tend to vary by specialty and by case mix.

NCQA conducted physician searches on various Web sites and found illustrations of many of the issues highlighted in the MHDC report, shown in the figures below. (The names of health plans, directories, and physicians have been changed.). For example, Figures 1 and 2 reveal discrepancies in directory information that two different health plans reported for the same physician (Dr. Smith). One plan provides only minimal information, including the physician's medical specialty, contact information, and participation in the plan's products (Figure 1). By contrast, the other plan (Figure 2) provides additional information including board certification, hospital affiliation, languages spoken, medical school attended, year of graduation, handicapped access, gender, health plan reimbursement arrangements, and acceptance of new patients.

Figure 1. Health Plan Directory, Minimal Information

Provider Directory

Health Plan 1

| Home | **Find a Doctor** | **Pharmacy** | **Health & Wellness** | Glossary | About Us | Contact Us |

| Members' Rights & Responsibilities | Provider Directory feedback | Provider Directory Guide | Researching a Provider |

Practice Profile
Please confirm with the provider's office that they still participate with your health plan.

John Smith, M.D.
Internal Medicine
969 Medical Road, Suite 12
Florence, MD 12121-0110
(301) 555-2448

Gastroentology
969 Medical Road, Suite 113
Florence, MD 12121-0110
(301) 555-1999

Provider Directory

Health Plan 1

| Home | **Find a Doctor** | **Pharmacy** | **Health & Wellness** | Glossary | About Us | Contact Us |

| Members' Rights & Responsibilities | Provider Directory feedback | Provider Directory Guide | Researching a Provider |

The following are providers with the name you entered. You will see a Yes in the column for the health plan where a provider participates. To obtain more detailed information about each provider, including the provider number associated with each plan, click the Yes link in the chart below.

Provider Name	PPO1	HMO1	HMO2	PPO2	Indemnity
John Smith, MD	Yes	No	No	No	Yes

Figure 2. Health Plan Directory, Comprehensive Information

Health Plan 2

Version en espanol	Home Page	Doctor Data	Contact Us

DOCTOR DATA

Search Criteria

Search Type: Name	Zip Code: 12121	Distance In Miles: 15	Provider Last Name: Smith

Note: Before making an appointment to see a specialist, check your employee booklet or call Member Services to determine whether you need a referral. Some health plans require you to get a referral from your primary care physician before seeing a specialist.

Provider Details

	Additional Information
John Smith, MD	
Plans:	View plans provider participates in
Board Certification:	Gastroenterology - Certified
Address:	969 Medical Road Suite 12 Florence, MD 12121-0110 (301) 555-2448
Hospital Affiliation:	Lotus Point Medical Center
Foreign Languages Spoken:	Spanish
Medical School Attended:	State University
Year of Graduation:	1971
Handicapped Access:	Yes
Gender:	Male
E-Pay Connectivity:	Yes – View Definition
Office Status:	Accepting New Patients – Please call provider to confirm.

Provider Details

	Additional Information
John Smith, MD	

Plan	Specialty/Patient Age Focus	Provider Role
• PPO • Indemnity • CDHP	Gastroenterology	n/a
• PPO • Indemnity • CDHP	Gastroenterology	Specialist

Figure 3 illustrates the existence of erroneous information reported for the same physician. Dr. Smith's specialties are gastroenterology and internal medicine; however, a commercial directory has incorrectly reported his specialty as anesthesiology. Figure 4 is an illustration of how little context many sites provide about the sources of their information and whether it has been validated. In the example shown, users are told only that information comes various sources and that it is cross-matched and verified by various sources. The site does state how frequently the information is updated (quarterly).

Figure 3. Erroneous Physician Directory Information

Directory Data

You Have Chosen: Find Physician by Name – Maryland Smith

Matches Found: 1

Physician	City	Specialty
Smith, John	Florence	Anesthesiology

Figure 4. Example of Incomplete Disclosure

General Information

Frequently Asked Questions

Contact Us

FREQUENTLY ASKED QUESTIONS

Where does the information in Directory Data come from?

Directory Data uses a variety of public and private data sources and cross-checks them against each other to provide you with comprehensive information.

How up-to-date is the physician data?

Directory Data updates the information every three months. In addition, whenever we get new information directly from a consumer or provider, we update the data.

Figure 5 is a good example (from a state medical board) of a directory providing context to help users understand and evaluate certain types of information, in this case malpractice history. Figure 6 demonstrates how one site provided links to primary sources of important information (about physician disciplinary actions), which would be difficult for the site itself to maintain.

**Figure 5. Context for Evaluating Information
(Web site of Massachusetts Board of Registration in Medicine)**

VI. Malpractice Information

Some studies have shown that there is no significant correlation between malpractice history and a doctor's competence. At the same time, the Board believes that consumers should have access to malpractice information. In these profiles, the Board has given your information about both the malpractice history of the physician's specialty and the physician's history of payments. The Board has placed payment amounts into three statistical categories: below average, average, and above average. To make the best health care decisions, you should view this information in perspective. You could miss an opportunity for high quality care by selecting a doctor based solely on malpractice history.

When considering malpractice data, please keep in mind:

*   Malpractice histories tend to vary by specialty. Some specialties are more like than others to be the subject of litigation. This report compares doctors only to the members of their specialty, not to all doctors, in order to make individual doctor's history more meaningful.
*   This report reflects data for the last 10 years of a doctor's practice. For doctors practicing less than 10 years, the data covers their total years of practice. You should take into account how long the doctor has been in practice when considering malpractice averages.
*   The incident causing the malpractice claim may have happened years before a payment is finally made. Sometimes, it takes a long time for a malpractice lawsuit to move through the legal system.
*   Some doctors work primarily with high risk patients. These doctors may have malpractice histories that are higher than average because they specialize in cases or patients who are at very high risk for problems.
*   Settlement of a claim may occur for a variety of reasons which do not necessarily reflect negatively on the professional competence or conduct of the physician. A payment in settlement of a medical malpractice

Figure 6. Links to Other Useful Information

Directory Data

You are now leaving Directory Data

The links below will take you either to www.docboard.org , the Web site of the Association of State Medical Board Executive Directors, or directly to a state's Medical Board site. There you will be able to find out if there have been any disciplinary actions taken against a particular doctor in your state. To date, 41 State Medical Boards have made this information public on the web. Most allow you to search for a physician by name, but some make you wade through text reports on disciplinary actions. If your state is not listed, the information is not yet available online. Call your State Medical Board for the information.

To find out if there are any state disciplinary actions against a physician in your state, use the links below or go to www.docboard.org, the Web site of the Association of State Medical Board Examiners. So far, 41 states have made this information public on the web. If your state is not listed, the information is not yet available online; you can call your State Medical Board for information.

Alabama	Iowa	Nebraska	Rhode Island
Arizona	Kansas	Nevada	South Carolina
Arkansas	Kentucky	New Hampshire	Tennessee

Physician directories aimed at consumers are published by many different organizations, which may have different goals, including:

- Directing health plan members to the physicians participating in the plan who meet members' needs for geographic access, type of care, or other preferences

- Directing consumers to physicians of a given specialty or physician group

- Providing public information on physician licensure, sanctions, and malpractice suits

- Assisting consumers with specific conditions in finding uniquely qualified physicians

Depending on a directory's purpose, its contents, completeness, currency, and accuracy can vary. This report examines standards for Web sites that provide consumers with physician information, such as those listed above. The standards should specify:

- items that should always be reported, and

- requirements for including explanatory text and disclosure statements that address 1) sources of data, 2) whether data have been independently verified, 3) frequency of updates and 4) limitations of the data.

The Consensus Panel

To build the standards for physician directories, NCQA brought to the current project its experience in setting standards for health care quality. NCQA accredits managed care organizations covering three-fourths of Americans with managed care coverage, including those who get their coverage through the Medicare and Medicaid programs. NCQA also operates the Diabetes Physician Recognition Program, which evaluates and publishes information on the quality of diabetes care, and is developing other similar programs. NCQA has an 11-year track record with its accreditation standards and Health Plan Employer Data and Information Set (HEDIS) performance measures of bringing together diverse groups of stakeholders to reach agreement on standards that will be broadly accepted and adopted by the industry.

For this project, NCQA constructed a stakeholder group that included creators of physician directories, users of directories, and experts on Internet information in health care. The individuals on the panel represent health plans, physicians, consumers, health care purchasers, regulators, and data organizations. Attachment A shows the panel members and the organizations they represent. (An explanation of the consensus-building process is available from NCQA upon request.)

Goals

The consensus panel focused on online directories designed to help consumers choose physicians and health plans. NCQA set the following goals for the panel:

1. To recommend items for inclusion in physician directories where there is consensus on:

   - content: which data elements should be included, what sources the directory publishers should use, and what disclosures they should make.

   - validation: how content should be verified and/or disclosed, and how frequently each item should be updated.

2. To identify items or characteristics of items about which consensus does not exist, and list the reasons for the lack of consensus.

3. To limit recommendations to information that is available now on some existing sites, rather than advocate for the inclusion of new items.

NCQA also set the limits of the project so that it would not produce:

1. Prescriptive requirements for online physician directories. In some areas, it seemed preferable to let the market for information determine how directories will evolve rather than make recommendations.

2. Specifications for new measures or types information.National requirements. There are enough regional differences in health care and in the availability of information that NCQA does not expect these recommendations to become national standards without considerable further development.For Web sites that have purposes other than to support consumer choice of physicians and health plans, some of the recommendations may not be applicable.

Recommendations—General Characteristics

The consensus panel arrived at the following general recommendations for the organization and information in an online directory.

1. An online physician directory provides users with easy access to descriptive and quality-related information about physicians. In particular, an online directory should:

- provide as much information as can be kept current and accurate

- be organized, efficient, and intuitive for the user, e.g., easily navigable

- educate users about how to use the information and explain what it means

- disclose any bias of the directory provider

2. An online physician directory should provide context for the detailed data reported. Such contextual information can be a general part of the Web site, or where needed can be included with individual elements. The recommendations on specific elements, which follow, provide guidelines. At minimum, the directory should provide:

- **A guide for using the information:** What data elements does the site report on each physician? Which elements are searchable, i.e., which can individuals use to search for a physician (e.g., name, specialty, gender)? How are data displayed (e.g., what is the order in which doctors will appear, and why)?

- **Caveats and disclaimers:** What should the consumer know in order to interpret and use the information? How recently was the site updated, and how can measures of quality or indicators of problems be interpreted? Directories also should indicate which items consumers should check themselves, such as whether doctors are accepting new patients in a given health plan.

- **Data source(s):** Where did the site obtain each item of information? In particular, sites should indicate what information is self-reported by physicians. Below are recommended sources for each element.

- **Data validation:** Did the site ensure that the data are accurate? Using what sources? The specific recommendations indicate which elements should be validated. In most cases the consensus panel recommends using validation sources approved by accrediting agencies.

- **Date of last update:** How is information kept current? When was it last updated? Does this vary by data element?

- **Data limitations:** Why might the user find some data fields empty? What conclusions can and cannot be drawn from this?

- **Disclosure of Web site sponsorship:** What parties sponsor the Web site and the directory information and what are the business arrangements (e.g., fees for participation)?

- **Other useful information:** Where else might consumers get information about physicians (e.g., links to other Web sites)?

3. Directories should provide all the recommended elements that are feasible based on the purpose of the directory. The consensus panel acknowledges that approaches to organizing and displaying content, as well as the individual data elements used, will vary according to the design and purpose of different directories. For this reason, the panel did not arrive at consensus on which of the data elements are most important. Although the panel did not feel it was appropriate to specify the placement of the content in a directory, members did recommend that certain data elements be displayed with information about validation and dates of last update.

The panel also considered the navigability of online directories. Most members strongly advise that as many elements as possible be searchable, so that consumers have the maximum flexibility in finding the providers they want. However, the panel agreed not to specify which particular items should be searchable (i.e., whether a consumer should always have the ability to search by specialty, gender, board certification, etc.), since different directories have different use patterns and purposes, and the same set of search elements may not fit all sites. Further, the group believed that the market for online directories will to some extent determine these requirements: the most searchable sites will likely become the most popular.

Recommendations—Specific Elements
Following are the specific elements that the consensus panel recommends as useful for consumer choice and feasible for directory sponsors to obtain and maintain. The data elements are grouped into five categories: physician descriptors and characteristics, physician expertise and knowledge, patient access, relationship with patients, and performance measures.

1. PHYSICIAN DESCRIPTORS AND CHARACTERISTICS   ([HTML version](#))   ([Word version](#))

Physician Name	
Definition	The legal name (first, middle, and last names) under which the physician is practicing medicine.
Data Source	Physician
Validation Needed?	Yes, by sources accepted by accredited or certified credentialing programs.
Periodicity of Update	Once and when a physician reports a change.

Gender	
Definition	Male or Female
Data Source	Physician
Validation Needed?	No
Periodicity of Update	Only if physician reports a change.

Specialty(ies)/Subspecialty(ies)	
Definition	The area(s) of medicine in which the physician is practicing. Physician should report only specialty areas approved by American Medical Association (AMA) and American Osteopathic Association (AOA).
Data Source	Physician
Validation Needed?	No
Periodicity of Update	When MD reports a change.
Comments	This is an area where a demonstration project can provide insight into how best to report/display specialty information as it relates to post-medical school training and board certification.

Post-Medical School Training	
Definition	The program(s) from which the physician completed post-medical school training (internships, residencies, fellowships). List only programs approved by the Accreditation Council for Graduate Medical Education.
Data Source	Physician
Validation Needed?	Yes, by the organization sponsoring the training program or other sources approved by organizations that accredit or certify credentialing programs.
Periodicity of Update	Once
Comments	This is an area where a demonstration project can provide insight as to how best to report/display post-medical school training information as it relates to specialty and board certification.

Medical School	
Definition	The school from which the physician received an M.D. degree or D.O. degree.
Data Source	Physician
Validation Needed?	Yes, by the school issuing the degree or other sources approved by organizations that accredit or certify credentialing programs.
Periodicity of Update	Once

Years in Practice	
Definition	The date (or number of years since) the physician started practicing as calculated by either: • Year of Graduation from medical school or from post-medical school training program • Year of Certification • Year Licensed.
Data Source	Physician
Validation Needed?	Yes, by source for whichever definition was used.
Periodicity of Update	Once
Comments	This is an area where a demonstration project can provide insight as to how best to report/display.

Professional Appointment(s)	
Definition	Academic and other professional appointments.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	Every 3 years
Comments	Memberships in professional societies are not recommended for reporting.

Health Plan Affiliation(s)	
Definition	The health plan(s) for which the physician is in the network.
Data Source	Health plan(s) or Physician
Validation Needed?	Yes, by health plan(s).
Periodicity of Update	• As frequently as possible; monthly is desirable. • Identify date of last update. • Instruct users to check with providers for most current information.
Comments	Preferably, for consumer ease of use, this element should be integrated with each physician record rather than presented as a link to a health plan directory. However, it is recognized that this information is difficult for non-health plan directories to maintain because of how often it changes.

Hospital Affiliation(s)	
Definition	The hospital(s) where the physician has clinical privileges.
Data Source	Hospital(s) or Physician
Validation Needed?	Yes, by the hospital(s).
Periodicity of Update	• Every 3 years and when the doctor or hospital reports a change. • Identify date of last update. • Instruct users to check with providers for most current information.
Comments	Preferably, for consumer ease of use, this element should be integrated with each physician record rather than presented as a link to a health plan directory. However, it is recognized that this information is difficult for non-health plan directories to maintain because of how often it changes.

Acceptance of Medicare	
Definition	Whether the physician accepts Medicare reimbursement. Distinguish between acceptance of traditional fee-for-service Medicare vs. Medicare managed care options offered by particular health plans.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	• As frequently as possible; monthly is desirable. • Identify date of last update.

Acceptance of Medicaid	
Definition	Whether the physician accepts Medicaid reimbursement. Distinguish between acceptance of fee-for-service Medicaid vs. Medicaid managed care option offered by a particular health plan.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	• As frequently as possible; monthly is desirable. • Identify date of last update.

Languages Spoken	
Definition	The language(s) other than English that the physician or other medical professionals in the office (RN, NP, PA) speak.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	When doctor reports a change.

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2. PHYSICIAN EXPERTISE AND KNOWLEDGE

Licensure	
Definition	The state(s) for which the physician has an active license to practice medicine.
Data Source	Physician
Validation Needed?	Yes, by the state(s) issuing a license.
Periodicity of Update	• Every 2 years. • Identify date of last update.
Comments	List the states that have issued the physician a license. Provide links to licensing boards.

Board Certification	
Definition	The specialty board(s) that certified the physician; include the year of certification and recertification. Use specialty boards approved by American Board of Medical Specialties and American Osteopathic Association.
Data Source	Physician
Validation Needed?	Yes, by the specialty boards or other sources approved by organizations that accredit or certify credentialing programs.
Periodicity of Update	Every 3 years and when and if recertification occurs.
Comments	For physicians that become board certified, then specialty information should also be updated at the time of board certification/recertification. This is an area where a demonstration project can provide insight as to how best to report/display board certification information as it relates to specialty and post-medical school training.

Disciplinary Action(s)	
Definition	• Criminal convictions • Disciplinary actions by Boards, Hospitals, Health Plans • Medicare/Medicaid sanctions • Drug Enforcement Administration sanctions (prescribing violations) • Food and Drug Administration sanctions (clinical research violations)
Data Source	Physician
Validation Needed?	Yes, by sanctioning organizations; the Federation of State Medical Boards (board actions only); individual State Boards (Note: there may be costs to obtain this information); or other sources approved by organizations that accredit or certify credentialing programs.
Periodicity of Update	Every 3 years and as published by sanctioning organizations.
Comments	• Ability to publish this information may vary based on state laws. • Link to source data or integrate data into site; may require licensing or other special arrangement with data sources. • Disclose that data varies across states.

Malpractice History	
Definition	Judgments of negligence against the physician and settlement of the claims over the last 10 years.
Data Source	Physician
Validation Needed?	Yes, by sources accepted by organizations that accredit or certify credentialing programs.
Periodicity of Update	Every 3 years and as published by reporting organizations.
Comments	• Include definition and caveats to assist understanding (see Figure 5 for example). • Include average claim by specialty as context. • Difficult to put information in context; malpractice histories tend to vary by specialty and by case-mix—requires good explanation.

Volume of Selected Procedures, where available	
Definition	The number of times the physician has performed a procedure. Report volume statistics only if data is: • Publicly available • Evidence-based • Externally validated • risk-adjusted • audited • from all payers and hospitals where the physician is affiliated whenever possible.
Data Source	Health plan, Hospital, or Physician
Validation Needed?	Yes, by organization sponsoring the statistics.
Periodicity of Update	Annually
Comments	• Include explanation of methods and data. • Include context for interpreting results. • Disclose that data is not available in all areas.

3. PATIENT ACCESS

Accepting New Patients by Health Plan	
Definition	Whether a new patient can get an appointment to see the physician. Report this for each health plan the physician is affiliated with, including Medicare and Medicaid plans.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	Annually or when physician reports a change.
Comments	• Instruct users to check with providers for most current information. • Identify date of last update.

Location	
Definition	The physician's office address(es).
Data Source	Physician
Validation Needed?	No
Periodicity of Update	As reported by physician.

Office Hours	
Definition	Hours that the physician's office staffs the phone line; hours that a patient can get an appointment to see the physician, including after-hours care; any specific arrangements the physician office has for providing after-hours care.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	As reported by physician.

3. PATIENT ACCESS (continued)

Aspects of Access	
Definition	Report the following information: • Availability of same-day appointments. • Handicap access (feasibility for people in wheelchairs to navigate the parking area, office building and examination rooms). • Access to public transportation (distance from physician's office to public mass transit). • Availability of off-street parking (distance from physician's office to off-street parking). • Use of e-mail (for the purposes of making appointments, care reminders, response to questions, etc).
Data Source	Physician
Validation Needed?	No
Periodicity of Update	As reported by physician.
Comments	Advise directory users to call the physician's office to get details on the access information reported.

4. RELATIONSHIP WITH PATIENTS

Clinical Interests	
Definition	Physician defined; state the information is self-reported.
Data Source	Physician
Validation Needed?	No
Periodicity of Update	As reported by physician.
Comments	The American Medical Association has criteria for editorial review of self-reported information to avoid inappropriate language and statements.

5. PERFORMANCE MEASURES—Patient-Reported and Clinical

Clinical Recognition	
Definition	Physician demonstrated he/she provides quality care as assessed by performance data such as that which is collected by a clinical recognition program. Report performance data only if data are: • Publicly available • Evidence-based • Externally validated • Risk-adjusted • Audited • From all payers and hospitals where the physician is affiliated whenever possible.
Data Source	Physician or Sponsor of clinical recognition program
Validation Needed?	Yes, by organization sponsoring the recognition program.
Periodicity of Update	Every 3 years
Comments	• An example of a clinical recognition program that meets the reporting criteria is the ADA-NCQA Diabetes Physician Recognition Program. • Include explanation of methods and data. • Include context for interpreting results.

Mortality Rates	
Definition	Risk-adjusted death rates. Report mortality data only if data is: • Publicly available • Evidence-based • Externally validated • Risk-adjusted • Audited • From all payers and hospitals where the physician is affiliated whenever possible
Data Source	Health Plan, Hospital, Physician, or State
Validation Needed?	Yes
Periodicity of Update	NA
Comments	• No national standardized source exists for this information. • Include explanation of methods and data; context for interpreting results

Patient Survey Data	
Definition	Possible survey measures include the following, which are derived from the Consumer Assessment of Health Plans (CAHPS) survey. Other surveys ask for similar information. • Average Wait Time for an Appointment • Average Wait Time in the Office • Courteous and Helpful Office Staff • How well Doctors Communicate.
Data Source	Patient survey-use population-representative samples.
Validation Needed?	NA
Periodicity of Update	NA
Comments	• No national standardized source exists for this information. • Include explanation of methods and response data, especially when response rates are very low. • Include context for interpreting results.

Below are the remaining data elements that the consensus panel considered for public reporting on provider directory Web sites. Panel members differed as to whether or not to recommend the inclusion of these elements in online directories, and agreed to designate them as option. For these elements, there was less agreement among panel members as to whether the panel should promote their inclusion, and they are considered optional. The considerations discussed by panel members are summarized for each of these data elements.

	Considerations for Reporting
Race/Ethnicity	• Creates the potential for consumer discrimination against a physician. • Supports consumer choice and can contribute to a good doctor-patient relationship.
Year of birth/age	• Creates the potential for consumer discrimination against a physician. • Supports consumer choice and can contribute to a good doctor-patient relationship.
Photograph	• Potential for consumer discrimination against the physician. • May infringe on physician's privacy; should always be optional for physicians.
Links to physician Web site	• Possibly connotes the Web site's endorsement of the physician. • Maintaining accuracy of the Web address information is problematic. • Requires continuing review of physicians' Websites for appropriate information.
Patient open-ended comments	• Editorial review is impractical. • Not necessarily representative of the opinions of patient population.
Philosophy of care	• The data element, Clinical Interests, can report this type of information if the physician wishes to include it.
Honors/Awards	• Collecting and maintaining accuracy of data is problematic.

Conclusion

The recommendations in this report are part of an ongoing effort to improve the quality of online physician directories. Clearly, the Internet is an ideal way to display a wide variety of information and keep it current. However, many issues remain to be explored, including the cost of maintaining ideal directories as recommended here and the feasibility of including information from multiple organizations, such as from multiple health plans.

A Commonwealth Fund–supported effort to test the recommendations produced here will document the costs and process of developing and maintaining the online directory and create a blueprint for others to follow. NCQA recommends that the demonstration include provision for further consultation with the consensus panel as the project encounters questions about the best ways to implement the panel's recommendations. In addition, NCQA's continuation of this project will involve an examination of its own physician directories for improvement and to consider standards in the future for organizations we accredit.

ATTACHMENT A

NCQA–Commonwealth Fund
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RELATED PUBLICATIONS

In the list below, items that begin with a publication number can be found on The Commonwealth Fund's website at www.cmwf.org. Other items are available from the authors and/or publishers.

#754 *Beyond Return on Investment: A Framework for Establishing a Business Case for Quality* (forthcoming). Michael Bailit and Mary Beth Dyer.

#751 *Achieving a New Standard in Primary Care for Low-Income Populations: Case Studies of Redesign and Change Through a Learning Collaborative* (forthcoming). Pamela Gordon and Matthew Chin.

#768 *Overcoming Barriers to Adopting and Implementing Computerized Physician Order Entry Systems in U.S. Hospitals* (July/August 2004). Eric G. Poon, David Blumenthal, Tonushree Jaggi, Melissa M. Honour, David W. Bates and Rainu Kaushal. *Health Affairs,* vol. 23, no. 4. *In the Literature* summary available at http://www.cmwf.org/publications/publications_show.htm?doc_id=233607; full article available at http://content.healthaffairs.org/cgi/content/full/23/4/184.

#767 *Exploring the Business Case for Improving the Quality of Health Care for Children* (July/August 2004). Charles Homer et al. *Health Affairs,* vol. 23, no. 4. *In the Literature* summary forthcoming; full article available at http://content.healthaffairs.org/cgi/content/full/23/4/159.

#761 *Hospital Quality: Ingredients for Success—Overview and Lessons Learned* (July 2004). Jack A. Meyer, Sharon Silow-Carroll, Todd Kutyla, Larry S. Stepnick, and Lise S. Rybowski. This study identifies and describes the key factors that contributed to the success of four high-performing hospitals across the country. Essential elements of a successful strategy, according to the study, include developing the right culture, attracting and retaining the right people, devising and updating the right in-house processes, and giving staff the right tools to do the job.

#700 *Quality of Health Care for Children and Adolescents: A Chartbook* (April 2004). Sheila Leatherman and Douglas McCarthy. The researchers use 40 charts and analyses to outline the current state of children's health care, arguing that the health care system has devoted far less attention to measuring the quality of care for children and adolescents than it has for adults.

#702 *Use of High-Cost Operative Procedures by Medicare Beneficiaries Enrolled in For-Profit and Not-for-Profit Health Plans* (January 8, 2004). Eric C. Schneider, Alan M. Zaslavsky, and Arnold M. Epstein. *New England Journal of Medicine,* vol. 350, no. 2. *In the Literature* summary available at http://www.cmwf.org/publications/publications_show.htm?doc_id=221468

#701 *Physician–Citizens—Public Roles and Professional Obligations* (January 7, 2004). Russell L. Gruen, Steven D. Pearson, and Troyen A. Brennan. *Journal of the American Medical Association,* vol. 291, no. 1. *In the Literature* summary available at http://www.cmwf.org/publications/publications_show.htm?doc_id=221467; full article available at http://jama.ama-assn.org/cgi/content/full/291/1/94.

#699 *Malpractice Reform Must Include Steps to Prevent Medical Injury* (January 6, 2004). Stephen C. Schoenbaum and Randall R. Bovbjerg. *Annals of Internal Medicine,* vol. 140, no. 1. *In the Literature* summary available at http://www.cmwf.org/publications/publications_show.htm?doc_id=221474

#686 *Obtaining Greater Value from Health Care: The Roles of the U.S. Government* (November/December 2003). Stephen C. Schoenbaum, Anne-Marie J. Audet, and Karen Davis. *Health Affairs,* vol. 22, no. 6. *In the Literature* summary available at
http://www.cmwf.org/publications/publications_show.htm?doc_id=221475; full article available at
http://www.healthaffairs.org/CMWF/Schoenbaum.pdf.

#636 *Value-Based Purchasing: A Review of the Literature* (May 2003). Vittorio Maio, Neil I. Goldfarb, Chureen Carter, and David B. Nash. From their review of the literature, the authors conclude that value-based purchasing will only be effective when financial incentives are realigned with the goals of high-quality care and performance measures address purchasers' particular concerns.

#635 *How Does Quality Enter into Health Insurance Purchasing Decisions?* (May 2003). Neil I. Goldfarb, Vittorio Maio, Chureen Carter, Laura Pizzi, and David B. Nash. According to the authors, public and private purchasers may be able to hold physicians and insurers accountable for the quality and safety of the health care they provide. Yet, there is little evidence that current value-based purchasing activities—collecting information on the quality of care or selective contracting with high-quality providers—are having an impact.

#614 *The Business Case for Tobacco Cessation Programs: A Case Study of Group Health Cooperative in Seattle* (April 2003). Artemis March, The Quantum Lens. This case study looks at the business case for a smoking cessation program that was implemented through the Group Health Cooperative (GHC), a health system and health plan based in Seattle.

#613 *The Business Case for Pharmaceutical Management: A Case Study of Henry Ford Health System* (April 2003). Helen Smits, Barbara Zarowitz, Vinod K. Sahney, and Lucy Savitz. This case study explores the business case for two innovations in pharmacy management at the Henry Ford Health System, based in Detroit, Michigan. In an attempt to shorten hospitalization for deep vein thrombosis, Henry Ford experimented with the use of an expensive new drug, low molecular weight heparin. The study also examines a lipid clinic that was created at Henry Ford to maximize the benefit of powerful new cholesterol-lowering drugs.

#612 *The Business Case for a Corporate Wellness Program: A Case Study of General Motors and the United Auto Workers Union* (April 2003). Elizabeth A. McGlynn, Timothy McDonald, Laura Champagne, Bruce Bradley, and Wesley Walker. In 1996, General Motors and the United Auto Workers Union launched a comprehensive preventive health program for employees, LifeSteps, which involves education, health appraisals, counseling, and other interventions. This case study looks at the business case for this type of corporate wellness program.

#611 *The Business Case for Drop-In Group Medical Appointments: A Case Study Luther Midelfort Mayo System* (April 2003). Jon B. Christianson and Louise H. Warrick, Institute for Healthcare Improvement. Drop-in Group Medical Appointments (DIGMAs) are visits with a physician that take place in a supportive group setting, and that can increase access to physicians, improve patient satisfaction, and increase physician productivity. This case study examines the business case for DIGMAs as they were implemented in the Luther Midelfort Mayo System, based in Eau Claire, Wisconsin.

#610 *The Business Case for Diabetes Disease Management at Two Managed Care Organizations: A Case Study of HealthPartners and Independent Health Association* (April 2003). Nancy Dean Beaulieu, David M. Cutler, Katherine E. Ho, Dennis Horrigan, and George Isham. This case study looks at the business case for a diabetes disease management program at HealthPartners, an HMO in Minneapolis, Minnesota, and

Independent Health Association, an HMO in Buffalo, New York. Both disease management programs emphasize patient and physician education, adherence to clinical guidelines, and nurse case management.

#609 *The Business Case for Clinical Pathways and Outcomes Management: A Case Study of Children's Hospital and Health Center of San Diego* (April 2003). Artemis March, The Quantum Lens. This case study describes the implementation of an outcomes center and data-based decision-making at Children's Hospital and Health Center of San Diego during the mid-1990s. It examines the business case for the core initiative: the development of a computerized physician order entry system.

The Business Case for Quality: Case Studies and An Analysis (March/April 2003). Sheila Leatherman, Donald Berwick, Debra Iles, Lawrence S. Lewin, Frank Davidoff, Thomas Nolan, and Maureen Bisognano. *Health Affairs,* vol. 22, no. 2. Available online at http://content.healthaffairs.org/cgi/reprint/22/2/17.pdf.

#606 *Health Plan Quality Data: The Importance of Public Reporting* (January 2003). Joseph W. Thompson, Sathiska D. Pinidiya, Kevin W. Ryan, Elizabeth D. McKinley, Shannon Alston, James E. Bost, Jessica Briefer French, and Pippa Simpson. *American Journal of Preventive Medicine,* vol. 24, no. 1 (*In the Literature* summary). The authors present evidence that health plan performance is highly associated with whether a plan publicly releases its performance information. The finding makes a compelling argument for the support of policies that mandate reporting of quality-of-care measures.

#578 *Exploring Consumer Perspectives on Good Physician Care: A Summary of Focus Group Results* (January 2003). Donna Pillittere, Mary Beth Bigley, Judith Hibbard, and Greg Pawlson. Part of a multifaceted Commonwealth Fund-supported study, "Developing Patient-Centered Measures of Physician Quality," the authors report that consumers can understand and will value information about effectiveness and patient safety (as well as patient-centeredness) if they are presented with information in a consumer-friendly framework.

#563 *Escape Fire: Lessons for the Future of Health Care* (November 2002). Donald M. Berwick. In this monograph, Dr. Berwick outlines the problems with the health care system—medical errors, confusing and inconsistent information, and a lack of personal attention and continuity in care—and then sketches an ambitious program for reform.

#534 *Room for Improvement: Patients Report on the Quality of Their Health Care* (April 2002). Karen Davis, Stephen C. Schoenbaum, Karen Scott Collins, Katie Tenney, Dora L. Hughes, and Anne-Marie J. Audet. Based on the Commonwealth Fund 2001 Health Care Quality Survey, this report finds that many Americans fail to get preventive health services at recommended intervals or receive substandard care for chronic conditions, which can translate into needless suffering, reduced quality of life, and higher long-term health care costs.