

VT Health Care Innovation Project

Care Models and Care Management Work Group Meeting Agenda

Tuesday, January 14, 2014; 10:00 AM to 12 Noon

ACCD - Calvin Coolidge Conference Room, 1 National Life Drive, Montpelier

Call-In Number: 1-877-273-4202; Passcode 2252454

Item #	Time Frame	Topic	Relevant Attachments	Decision Needed?
1	10:00-10:10	Welcome; Introductions; Approval of Minutes	Attachment 1b - Minutes from December Meeting	Yes
2	10:10-10:15	Co-Chair Report (Other VHCIP Work Group Activities, Core Team Update, Health Care Reform Update, Legislative Update) <i>(Public Comment)</i>		
3	10:15-10:20	Staff Report (January 21 Webinar, Request for Inventory Information, Provider Grant Program Update, Conflict of Interest Policy Update) <i>(Public Comment)</i>	Attachment 3a - Inventory Template Attachment 3b - Draft Provider Grant Program Application	
4	10:20-11:05	Presentation from Designated Agencies (Mary Moulton and Colleagues) <i>(Public Comment)</i>		
5	11:05-11:15	Outline concerns about adapting care models and care management in Vermont <i>(Public Comment)</i>		
6	11:15-11:40	Discussion: <ul style="list-style-type: none"> • What is working well in Vermont? • Characteristics of fully integrated system and high-functioning care models/care management activities (see attached IOM paper and Commonwealth Fund Senate testimony; please read in advance) <i>(Public Comment)</i> 	Attachment 6a - IOM Team-Based Care Paper Attachment 3b - Commonwealth Fund Senate Testimony on High Performance Health Care System	
7	11:40-11:55	Business: Work Group deliverables (characteristics of ideal care management, recommendations for public and private investments to achieve ideal characteristics and integrated system), Work Plan, consulting resources <i>(Public Comment)</i>	Attachment 7a - CMCM Consultant Scope of Work Attachment 7b - CMCM Draft Work Plan	Yes
8	11:55-12:00	Next Steps, Wrap-Up and Future Meeting Schedule (including between-meeting webinars)	Attachment 8 - Meeting Schedule for CMCM (with Webinars)	

**VT Health Care Innovation Project
Care Models & Care Management WG Meeting Minutes**

December 10, 2013 10:00-12:00 p.m.

DFR, 3rd Floor Conference Room, 89 Main St., Montpelier, VT

Attendees: **Bea Grause, Renee Kilroy, Co-Chairs;** Peter Albert, Thomas Boyd, Janet, Catton, Dana Demartino, Cameron Erickson, Erin Flynn, Meagan Gallagher, Eileen Girling, Kelly Gordon, Selina Hickman, Pat Jones, Patti Launer, Vicki Loner, Clare McFadden, Madeleine Mongan, Mary Moulton, Annie Paumgarten, Laural Ruggles, Jenney Samuelson, Catherine Simonson, Audrey-Ann Spence, Beth Tanzman, Nancy Eldridge, Lisa Viles, Julia Shaw, Marlys Waller, Georgia Maheras, Nelson LaMothe, George Sales

Agenda Item	Topic	Next Steps
1 – Welcome, Introductions, Approval of Minutes	<p>The meeting started at 10:07am with a welcome remark from the chair.</p> <p><u>Document Item #1 Minutes 11/12/13:</u> The first action was to approve the minutes from the previous meeting held on November 12, 2013. Motion to approve was called for by Peter Albert, and was seconded by Nancy Breiden. All of the members approved it, with no dissension or abstentions.</p>	
2 – Expected Work Products	<p>Bea Grause opened up the discussion around the evolution of the group, and continues to seek inputs and feedback as the progress of the group continues. She indicates that the work the WG is doing is “ahead of the curve”, and pilot groups will start off in January. Documents will also be made available then.</p> <p><u>Document Item #1 SIM Driver Diagram; Document Item #2 – Excerpts from SIM Ops Plan:</u> The discussion continued on with Excerpts from the SIM Driver Diagram, Excerpts from the SIM Operational Plan (OP), and Excerpts from the Core Team Decision Points document. Some of the comments and feedback shared include:</p> <ul style="list-style-type: none"> • How to involve/coordinate with Payment Models & Workforce planning • Different skills-set requirements 	

Agenda Item	Topic	Next Steps
	<ul style="list-style-type: none"> • Exploring broader definition to include not just certified or licensed practitioners, but LT-care providers and support as well • Seek consumer inputs to identify what is lacking with the workforce, as well as redundancies; leverage existing networks. • Connect with undergrad and graduate programs to people are aware of the opportunities that are available, and better understand what is being done in the state. • Explore a certification or training program to create a para-professional “layer” to free up the professionals, although there are still disagreements on how to roll-out. • Issues around the data can be a barrier—what data is actually being collected? Not sure where to start collecting data, and what is needed. Disconnect between mental health (MH) and primary care (PC) providers also apparent—what the PC may need is different from what is provided by the MH practitioners. 	
<p>3 – Draft Charter and Work Plan</p>	<p><u>Document Item #3 – Draft Charter & Work Plan:</u> The chair asked if the group is comfortable with the Draft Charter’s scope of work, the outline. Some brief discussion and comments ensued:</p> <ul style="list-style-type: none"> • Members are still seeking guidance on care models that the CMCM will review • Question regarding what resources the committees have is still up the air. Is the \$250K available to support the group? Georgia Maheras says ‘yes’ (e.g., cost for consultants) • Intent of the OP was to creating a mapping to capture a very broad landscape of activities <p>One request was to add “values of recovery, independence” in bullet 4, and to ensure that the patient’s voice is heard. Looking at the holistic view of the patient by also taking care of the patient’s social needs helps improve lives, and also helps to avert additional medical spending.</p> <p>After the discussion, a motion to approve the draft was presented by Peter Albert, and was seconded. The draft was unanimously approved with no dissension or abstention.</p> <p>A brief discussion followed regarding the Work Plan. Peter Albert mentioned the need to connect with other groups as certain decision points are reached, and Georgia Maheras responded that the Co-Chairs meeting is a good forum for sharing core pieces, as well as milestones. Peter also asked about what tool to use in identifying gaps, redundancies, and areas of collaboration, to which he was directed to the information and data available in the GMCB site for all hospitals.</p>	

Agenda Item	Topic	Next Steps
4 – Revised Inventory Template, Process/Timeline for Collecting Information	<u>Document Item #4 Inventory of care Coordination/Mgmt Programs:</u> A draft inventory checklist was presented as part of the packet, and Pat Jones states that it is still a work-in-progress, and she will talk to the committee on how to operationalize the inventory process (gathering, distillation, writing, etc.).	
5 – Resource Discussion	<u>Document Item #5 Excerpts for Type 1/Type 2 Budget document:</u> [UMass Team was recused from the discussion].	
6 – Presentation on Support and Services at Home (SASH)	SASH is a program funded by Medicare under the Centers for Medicare and Medicaid Services, part of the US Department of Health and Human Services. Vermont’s SASH (Support and Services at Home) is critical for serving seniors as it fills both non-medical and social needs of residents in their homes and has a direct impact on housing conditions for seniors. Nancy Eldridge, Executive Director of Cathedral Square, presented their involvement in the SASH program.	
7 – Public Comment	Julie Wasserman asked about Nancy Eldridge’s presentation on SASH, regarding the ‘56% of those studied by RTI’ (pg. 10 of the presentation), as possible areas of duplication. Nancy clarifies that SASH is a group of organizations, inter-professional teams, and not a stand-alone organization.	
8 – Next Steps	<u>Document Item #8 Proposed Meeting Schedule:</u> Pat Jones suggested that organizations that are related to work together in presenting a webinar (refer to the schedule). She encouraged anyone wanting to present to let her know. Webinars will be recorded.	

Inventory of Care Coordination/Care Management Programs

Please describe your organization’s activities in the following categories **(if no activities in a particular category, delete the column or leave blank):**

Organization Name: _____

Contact Person: _____

	High Risk Patient Care Coordination (e.g., high cost patients, transitions of care)	Special Services Care Coordination (e.g., mental health, substance abuse, other specific situations – please list)	Episodic Pathways (e.g., prenatal care, other – please list)	Disease Management (e.g., diabetes, asthma, cardiovascular disease, other conditions – please list)	Post-Discharge Follow-Up (e.g., patients discharged from inpatient or emergency care)	Utilization Management (e.g., utilization review of inpatient services, medication management)	Preventive/Wellness Engagement (e.g., health coaching)	Life Resource Management (e.g., resources and counseling needed to mitigate acute and chronic life stressors)	Other (please describe)
Description of Activities									
Eligibility Criteria for Program or Activity									
Staff Licensure and/or Credentials									
Estimated # of People Served									
Measures of Success									
Interactions With Other Care Management Organizations (outline relationships between different organizations)									

	High Risk Patient Care Coordination (e.g., high cost patients, transitions of care)	Special Services Care Coordination (e.g., mental health, substance abuse, other specific situations – please list)	Episodic Pathways (e.g., prenatal care, other – please list)	Disease Management (e.g., diabetes, asthma, cardiovascular disease, other conditions – please list)	Post-Discharge Follow-Up (e.g., patients discharged from inpatient or emergency care)	Utilization Management (e.g., utilization review of inpatient services, medication management)	Preventive/Wellness Engagement (e.g., health coaching)	Life Resource Management (e.g., resources and counseling needed to mitigate acute and chronic life stressors)	Other (please describe)
Data systems currently available for implementation, communication tracking and measuring success									
Data systems needed for implementation, communication tracking and measuring success									
Payment Model (e.g., fee-for-service, pay for performance, bundled payment, shared savings)									
Funding Source(s)									
Gaps, Barriers and Disincentives in Receiving Services									

Vermont Health Care Innovation Project Grant Program Application

Draft dated 12.23.2013

I. Background

The federal Centers for Medicare and Medicaid Innovation (CMMI) awarded the State Innovation Model (SIM) grant to Vermont. The grant provides funding and other resources to support health care payment and delivery system reforms aimed at improving care, improving the health of the population, and reducing per capita health care costs, by 2017. To maximize the impact of non-governmental entity involvement in this health care reform effort, Vermont identified funding within its SIM grant to directly support providers engaged in payment and delivery system transformation. The State has determined that a competitive grant process will foster innovation and promote success among those providers eager to engage in reforms. These grants will be reviewed by the VHCIP/SIM Core Team using the criteria found in the Grant Program (GP) Criteria.

Applicants can seek technical assistance support as well as direct funding. The total amount available for direct funding is \$3,377,102.

GP grants will support provider-level activities that are consistent with overall intent of the SIM project, in two broad categories:

1. Activities that directly enhance provider capacity to test one or more of the three alternative payment models approved in Vermont's SIM grant application:
 - a. Shared Savings Accountable Care Organization (ACO) models;
 - b. Episode-Based or Bundled payment models; and
 - c. Pay-for-Performance models.
2. Infrastructure development that is consistent with development of a statewide high-performing health care system, including:
 - a. Development and implementation of innovative technology that supports advances in sharing clinical or other critical service information across different types of provider organizations;
 - b. Development and implementation of innovative systems for sharing clinical or other core services across different types of provider organizations;
 - c. Development of management systems to track costs and/or quality across different types of providers in innovative ways.

Preference will be given to applications that demonstrate:

- Support from and equitable involvement of multiple provider organization types that can demonstrate the grant will enhance integration across the organizations;
- A scope of impact that spans multiple sectors of the continuum of health care service delivery (for example, prevention, primary care, specialty care, mental health and long term services and supports);

- Innovation, as shown by evidence that the intervention proposed represents best practices in the field;
- An intent to leverage and/or adapt technology, tools, or models tested in other States to meet the needs of Vermont's health system;
- Consistency with the Green Mountain Care Board's specifications for Payment and Delivery System Reform pilots. The Green Mountain Care Board's specifications can be found here: <http://gmcboard.vermont.gov/PaymentReform>.

II. What these grants will fund

Grants will fund the following types of activities. Appendix B includes a detailed list of federal guidelines around this funding.:

- Data analysis
- Facilitation
- Quality improvement
- Evaluation
- Project development

III. Grant submission requirements

Applicants will be expected to provide the following in support of their application:

- GP Application Cover Form. This form is found in Appendix A.
- Grant Narrative. The Grant Narrative should be a maximum of 12 pages double-spaced, 12 point font, with 1-inch margins, paginated in a single sequence. The Grant Narrative should contain the following information:
 - a. A clear description of the activities for which the applicant is requesting funding or technical assistance;
 - b. A clear description of alternative funding sources sought and rationale for requesting SIM funds;
 - c. A description of technical assistance services sought. Appendix D provides more detail about the technical assistance services available under this grant .
 - d. A description of the project's potential return-on-investment in terms of cost savings and quality improvement, and plans for measuring both;
 - e. A description of how the project will avoid duplication where similar innovations in Vermont are currently underway;
 - f. A summary of the evidence base for the proposed activities or technical assistance;
- A project plan, staffing structure, deliverables description, and timeline for completion of the proposed activities. This includes a project management plan with implementation timelines and milestones.

- Executed Memorandum of Understanding or other demonstration of support from partner providers, if applicable.
- Budget Narrative. Budget Narrative guidance is found in Appendices B and C. The Budget Narrative should contain the following:
 - a. A budget for the proposed project, consistent with specified budget formats;
 - b. A description of any available matching support, whether financial or in-kind;
 - c. Information regarding on-going support that may be needed for work begun under this grant.

DRAFT

IV. State resources available to grantees

Grant recipients may receive the following support, to the extent that a need has been clearly established in the grant application. More detail about the technical assistance can be found in Appendix D:

- Supervision to ensure compliance with federal antitrust provisions;
- Assistance in aligning with other testing models in the state;
- Assistance with appropriately attributing outcomes and savings to testing models;
- Overall monitoring of health care quality and access;
- Funding for specific activities;
- Technical Assistance:
 - Meeting facilitation
 - Stakeholder engagement
 - Data analysis
 - Financial modeling
 - Professional learning opportunities

V. Compliance and Reporting Requirements

As a responsible steward of federal funding, the state, through the Agency of Human Services, Department of Vermont Health Access (DVHA), monitors its sub-recipients utilizing the following monitoring tools:

- 1) Ensure that sub-recipient is not disbarred/suspended or excluded for any reason
- 2) Sub-award agreement
- 3) Sub-recipient meeting and regular contact with sub-recipients
- 4) Required pre-approval for changes to budget or scope of grant
- 5) Quarterly financial reports
- 6) Bi-annual programmatic reports
- 7) Audit
- 8) Desk Reviews
- 9) Site audits

In its use of these monitoring tools, the State emphasizes clear communication to ensure a feedback loop that supports sub-recipients in maintaining compliance with federal requirements. The State may at any time elect to conduct additional sub-recipient monitoring. Sub-recipients therefore should maintain grant records accurately in the event that the State exercises this right. The State may also waive its right to perform certain sub-recipient monitoring activities. If, at any

time, the State waives its right to certain sub-recipient monitoring activities, it will note which activities were not completed and the reasons why that activity was not necessary. Each of the monitoring tools and policies regarding their use are described in detail below.

1) Sub-recipient status

When signing the sub-award agreement, Sub-recipient's certify that neither the Sub-recipient nor Sub-recipient principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible or excluded from participation in federal programs or programs supported in whole or in part by federal funds.

Additionally DVHA will utilize the Excluded Parties List System (www.epls.gov) to confirm that neither the Sub-recipient nor its principals are presently disbarred at least once during DVHA's fiscal year. DVHA will print a screen shot of its EPLS search, and place it in the Sub-recipient's files.

2) Sub-award agreement

A sub-award agreement is provided to each sub-recipient at the beginning of each grant. This sub-award agreement will detail the Catalog of Federal Domestic Assistance (CFDA) program name and number, the award name and number as assigned by the funder, the award period, and the name of the federal awarding agency. This sub-award agreement will also include: definitions, the scope of work to be performed, payment provisions, funder grant provisions, blank financial and programmatic reports, and a copy of this policy. Other information may be included if necessary.

Unless any changes are required, only one sub-award document will be generated for the term of a grant, even if that term spans several years. All sub-recipients must sign the sub-award agreement and any additional documents sent with the sub-award, or funding will be terminated.

3) Sub-recipient meeting/ sub-recipient contact

The State may decide, at the beginning of a grant or at any time during a grant, to host a meeting of grant partners in order to review grant goals and/or obligations. A sub-recipient meeting may be held with one individual sub-recipient, or with multiple sub-recipients.

The State will also maintain contact with sub-recipients. Sub-recipients are expected to notify the State if they are having any difficulty carrying out their grant responsibilities or if they need clarification of their grant responsibilities.

Sub-recipients meeting and sub-recipient contact will be noted on the sub-recipient checklist, with appropriate supporting documentation included in the sub-recipient's folder.

4) Required pre-approval for changes to budget or scope of grant

As stated above, all sub-recipients must seek prior approval from the grants manager at the State to utilize grant funding for any activities not explicitly described in the goals section of the narrative. Sub-recipients must also seek prior approval before making any changes to their section of the budget.

Notes regarding any prior approval requested by a sub-recipient, or a sub-recipient's failure to comply with this grant term, will be maintained on the sub-recipient checklist.

5) Quarterly financial reports

The Sub-recipient will submit accurate financial reports to the State no later than the tenth of the month following the quarter being reported (January 10th, April 10th, July 10th, October 10th). A blank copy of the required financial report will be provided with the sub-award agreement. All questions regarding financial reports should be directed to Robert Pierce at robert.pierce@state.vt.us.

Financial reports will be reviewed by the State for accuracy and to ensure that all charges are eligible to be reimbursed by the grant. Sub-recipients are expected to respond promptly to all questions concerning financial reports.

Sub-recipient's submission of quarterly financial reports will be recorded and monitored on the sub-recipient checklist.

6) Bi-annual programmatic reports

The sub-recipient will submit accurate programmatic reports to the State no later than the tenth of the month following the 6-month period being reported (January 10th and July 10th). A blank copy of the required programmatic reports will be provided with the sub-award agreement. All questions regarding programmatic reports should be directed to Georgia Maheras at georgia.maheras@state.vt.us.

Programmatic reports will be reviewed by the State for accuracy and to ensure that all charges are eligible to be reimbursed by the grant. Sub-recipients are expected to respond promptly to all questions concerning programmatic reports

7) Audit

Sub-recipients who spent at least \$500,000 in federal funds from all federal sources during their fiscal year must have an audit performed in accordance with OMB Circular A-133. The A-133 compliant audit must be completed within 9 months of the end of the sub-recipient's fiscal year. The sub-recipient shall provide the State with a copy of their completed A-133 compliant audit including:

- The auditor's opinion on the sub-recipient's financial statements,
- the auditor's report on the sub-recipient's internal controls,
- the auditor's report and opinion on compliance with laws and regulations that could have an effect on major programs,
- the schedule of findings and questioned costs,
- and the sub-recipients corrective action plan (if any).

The State will issue a management decision on audit findings within 6 months after receipt of the sub-recipient's A-133 compliant audit report.

If a sub-recipient's schedule of findings and questioned costs did not disclose audit findings relating to the Federal awards provided by the State and the summary schedule of prior audit findings did not report the status of audit findings relating to Federal awards provided by the State, the sub-recipient may opt not to provide the A-133 compliant audit report to the State. In this case, the State will verify that there were no audit findings utilizing the Federal Audit Clearinghouse database.

Any sub-recipient that, because it does not meet the \$500,000 threshold or because it is a for-profit entity, does not receive an audit performed in accordance with OMB Circular A-133 may at its option and expense have an independent audit performed. The independent audit should be performed to obtain reasonable assurance about whether the sub-recipient's financial statements are free of material misstatement. The independent audit should also take into consideration the sub-recipient's internal control, but does not necessarily have to contain the auditor's opinion on the agency's internal control. If the sub-recipient elects to have an audit report that covers more than the sub-recipient's financial statements, the State requests that the entirety of the auditor's report be provided to the State.

If the sub-recipient chooses not have an independent audit and the sub-recipient will receive at least \$10,000 during the current fiscal year, they will be subject to on-site monitoring during the award period.

Sub-recipients who are individual contractors will not be subject to on-site monitoring based solely on the lack of an independent audit.

8) Desk Reviews

All sub-recipients who are estimated to receive \$10,000 or more during the fiscal year will undergo a desk review at least once during the grant period. If a sub-recipient receives less than \$10,000, the State may at its discretion opt to conduct a desk review. During a desk review, sub-recipients might be expected to provide:

- Adequate source documentation to support financial requests including but not limited to an income statement, payroll ledgers, cancelled checks, receipts ledgers, bank deposit tickets and bank statements, and timesheets.
- If salary is funded under the award and if the staff whose salary is funded under the award is charged to other funding sources, time distribution records to support the amounts charged to federal funding provided by the State.
- A statement verifying that the organization has a system in place for maintaining its records relative to federal funding provided by the State for the amount of time as specified in the sub-award document.
- Adequate documentation to support required match, if any.

9) Site visits

All sub-recipients who receive \$50,000 or more in federal funding passed through the State for three consecutive fiscal years (July 1 – June 30), will undergo a site visit at least once during the three year period. Sub-recipient will be subject to desk monitoring during the intervening years. The State will arrange a suitable date and time for on-site monitoring with the sub-recipient. Recipients receiving a site visit will be expected to provide all of the back-up documentations as specified above, as well as:

- A written policy manual specifying approval authority for financial transactions.
- A chart of accounts and an accounting manual which includes written procedures for the authorization and recording of transactions.
- Documentation of adequate separation of duties for all financial transactions (that is, all financial transactions require the involvement of at least two individuals).
- If grant funds are utilized to purchase equipment, demonstration that the organization maintains a system for tracking property and other assets bought or leased with grant funds.
- A copy of the agency's Equal Opportunity Policy and Practices in Hiring.

Appendix A: Application Cover Form

General Information:

Organization Applying: _____

Key Contact for Applicant: _____

Key Contact Email and Phone Number: _____

Project Title and Brief Summary:

Project Title: _____

Brief Summary of the Project (max. 150 words):

Budget Request Summary:

Budget Category	Year 1	Year 2	Year 3
Personnel			
Fringe			
Travel			
Equipment			
Supplies			
Indirect			
Contracts			
Total			

Appendix B: CMMI Funding Restrictions

All funds expended through this grant program must comply with the federal guidelines found in the State Innovation Models FOA found

here: http://innovation.cms.gov/Files/x/StateInnovation_FOA.pdf

The cost principles address four tests in determining the allowability of costs. The tests are as follows:

- **Reasonableness (including necessity)**. A cost is reasonable if, in its nature or amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost. The cost principles elaborate on this concept and address considerations such as whether the cost is of a type generally necessary for the organization's operations or the grant's performance, whether the recipient complied with its established organizational policies in incurring the cost or charge, and whether the individuals responsible for the expenditure acted with due prudence in carrying out their responsibilities to the Federal government and the public at large as well as to the organization.
- **Allocability**. A cost is allocable to a specific grant, function, department, or other component, known as a cost objective, if the goods or services involved are chargeable or assignable to that cost objective in accordance with the relative benefits received or other equitable relationship. A cost is allocable to a grant if it is incurred solely in order to advance work under the grant; it benefits both the grant and other work of the organization, including other grant-supported projects or programs; or it is necessary to the overall operation of the organization and is deemed to be assignable, at least in part, to the grant.
- **Consistency**. Recipients must be consistent in assigning costs to cost objectives. They must be treated consistently for all work of the organization under similar circumstances, regardless of the source of funding, so as to avoid duplicate charges.
- **Conformance**. This test of allowability—conformance with limitations and exclusions contained in the terms and conditions of award, including those in the cost principles—may vary by the type of activity, the type of recipient, and other characteristics of individual awards. "Allowable Costs and Activities" below provides information common to most HHS grants and, where appropriate, specifies some of the distinctions if there is a different treatment based on the type of grant or recipient.

These four tests apply regardless of whether the particular category of costs is one specified in the cost principles or one governed by other terms and conditions of an award. These tests also apply regardless of treatment as a direct cost or an indirect cost. The fact that a proposed cost is awarded as requested by an applicant does not indicate a determination of allowability.

Direct Costs and Indirect Costs

This is for illustrative purposes. We strongly recommend applicants review all of the federal guidance provided in the FOA found here: http://innovation.cms.gov/Files/x/StateInnovation_FOA.pdf.

Direct costs are costs that can be identified specifically with a particular award, project or program, service, or other organizational activity or that can be directly assigned to such an activity with a high degree of accuracy. Direct costs include, but are not limited to, salaries, travel, equipment, and supplies directly benefiting the grant-supported project or program. Indirect costs (also known as “facilities and administrative costs”) are costs incurred for common or joint objectives that cannot be identified specifically with a particular project, program, or organizational activity. Facilities operation and maintenance costs, depreciation, and administrative expenses are examples of costs that usually are treated as indirect costs. There is a 10% cap on indirect costs. The organization is responsible for presenting costs consistently and must not include costs associated with its indirect rate as direct costs.

Examples of Unallowable Direct Costs:

- Alcohol
- Alteration and Renovation Costs
- Animals
- Bad Debts
- Bid and Proposal Costs
- Construction or Modernization
- Dues/Membership-Unallowable for Individuals (unless fringe benefit or employee development costs if applied as established organization policy across all funding sources).
- Entertainment
- Fines and Penalties
- Fundraising
- Honoraria- if this cost is for speaker fee that it is allowable as a direct cost.
- Invention, Patent or Licensing Costs-unless specifically authorized in the NOA.
- Land or Building Acquisition
- Lobbying
- Meals (Food)
- Travel

Appendix C: Budget Narrative Guidance

INTRODUCTION

This guidance is offered for the preparation of a budget request. Following this guidance will facilitate the review and approval of a requested budget by ensuring that the required or needed information is provided. In the budget request, awardees should distinguish between activities that will be funded under this agreement and activities funded with other sources.

A. Salaries and Wages

For each requested position, provide the following information: name of staff member occupying the position, if available; annual salary; percentage of time budgeted for this program; total months of salary budgeted; and total salary requested. Also, provide a justification and describe the scope of responsibility for each position, relating it to the accomplishment of program objectives.

<i>Position Title and Name</i>	<i>Annual</i>	<i>Time</i>	<i>Months</i>	<i>Amount Requested</i>
<i>Project Coordinator Susan Taylor</i>	<i>\$45,000</i>	<i>100%</i>	<i>12 months</i>	<i>\$45,000</i>
<i>Finance Administrator John Johnson</i>	<i>\$28,500</i>	<i>50%</i>	<i>12 months</i>	<i>\$14,250</i>
<i>Outreach Supervisor (Vacant*)</i>	<i>\$27,000</i>	<i>100%</i>	<i>12 months</i>	<i>\$27,000</i>

Sample Justification

The format may vary, but the description of responsibilities should be directly related to specific program objectives.

Job Description: Project Coordinator - (Name)

This position directs the overall operation of the project; responsible for overseeing the implementation of project activities; coordination with other agencies; development of materials, provisions of in service and training; conducting meetings; designs and directs the gathering, tabulating and interpreting of required data; responsible for overall program evaluation and for staff performance evaluation; and is the responsible authority for ensuring necessary reports/documentation are submitted to HHS. This position relates to all program objectives.

B. Fringe Benefits

Fringe benefits are usually applicable to direct salaries and wages. Provide information on the rate of fringe benefits used and the basis for their calculation. If a fringe benefit rate is not used, itemize how the fringe benefit amount is computed. This can be done for all FTE in one table instead of itemizing per employee.

PENDING CMMI AND CORE TEAM FINAL APPROVAL

Sample

Example: Project Coordinator — Salary \$45,000

<i>Retirement 5% of \$45,000</i>	=	<i>\$2,250</i>
<i>FICA 7.65% of \$45,000</i>	=	<i>3,443</i>
<i>Insurance</i>	=	<i>2,000</i>
<i>Workers' Compensation</i>	=	<i>_____</i>
<i>Total:</i>		

C. Consultant Costs

This category is appropriate when hiring an individual to give professional advice or services (e.g., training, expert consultant, etc.) for a fee but not as an employee of the awardee organization. Hiring a consultant requires submission of the following information:

1. Name of Consultant;
2. Organizational Affiliation (if applicable);
3. Nature of Services to be Rendered;
4. Relevance of Service to the Project;
5. The Number of Days of Consultation (basis for fee); and
6. The Expected Rate of Compensation (travel, per diem, other related expenses)—list a subtotal for each consultant in this category.

If the above information is unknown for any consultant at the time the application is submitted, the information may be submitted at a later date as a revision to the budget. In the body of the budget request, a summary should be provided of the proposed consultants and amounts for each.

D. Equipment

Provide justification for the use of each item and relate it to specific program objectives. Maintenance or rental fees for equipment should be shown in the "Other" category. All IT equipment should be uniquely identified. As an example, we should not see a single line item for "software." Show the unit cost of each item, number needed, and total amount.

<u>Item Requested</u>	<u>How Many</u>	<u>Unit Cost</u>	<u>Amount</u>
<i>Computer Workstation</i>	<i>2 ea.</i>	<i>\$2,500</i>	<i>\$5,000</i>
<i>Fax Machine</i>	<i>1 ea.</i>	<i>600</i>	<i><u>600</u></i>

Sample Justification

Provide complete justification for all requested equipment, including a description of how it will be used in the program. For equipment and tools which are shared among programs, please cost allocate as appropriate. States should provide a list of hardware, software and IT equipment which will be required to complete this effort. Additionally, they should provide a list of non-IT equipment which will be required to complete this effort.

E. Supplies

Individually list each item requested. Show the unit cost of each item, number needed, and total amount. Provide justification for each item and relate it to specific program objectives. If appropriate, General Office Supplies may be shown by an estimated amount per month times the number of months in the budget category.

Sample Budget

Supplies

General office supplies (pens, pencils, paper, etc.)

<i>12 months x \$240/year x 10 staff</i>	<i>=</i>	<i>\$2,400</i>
<i>Educational Pamphlets (3,000 copies @) \$1 each</i>	<i>=</i>	<i>\$3,000</i>
<i>Educational Videos (10 copies @ \$150 each)</i>	<i>=</i>	<i>\$1,500</i>
<i>Word Processing Software (@ \$400—specify type)</i>	<i>=</i>	<i>\$ 400</i>

Sample Justification

General office supplies will be used by staff members to carry out daily activities of the program. The education pamphlets and videos will be purchased from XXX and used to illustrate and promote safe and healthy activities. Word Processing Software will be used to document program activities, process progress reports, etc.

DRAFT, SUBJECT TO CMS APPROVAL AND FINAL VHCIP CORE TEAM APPROVAL

F. Other

This category contains items not included in the previous budget categories. Individually list each item requested and provide appropriate justification related to the program objectives.

Sample Justification

Some items are self-explanatory (telephone, postage, rent) unless the unit rate or total amount requested is excessive. If the items are not self-explanatory and/or the cost is excessive, include additional justification. For printing costs, identify the types and number of copies of documents to be printed (e.g., procedure manuals, annual reports, materials for media campaign).

G. Total Direct Costs \$ _____

Show total direct costs by listing totals of each category.

H. Indirect Costs \$ _____

To claim indirect costs, the applicant organization must have a current approved indirect cost rate agreement established with the Cognizant Federal agency. A copy of the most recent indirect cost rate agreement must be provided with the application.

Sample Budget

The rate is _____% and is computed on the following direct cost base of \$ _____.

<i>Personnel</i>	\$	
<i>Fringe</i>	\$	
<i>Travel</i>	\$	
<i>Supplies</i>	\$	
<i>Other</i>	\$ _____	
<i>Total</i>	\$	x _____% = Total Indirect Costs

Appendix D: Technical Assistance

State resources available to grantees

Projects supported by the Provider Grants Program may be provided the following supports, to the extent that a need has been clearly established in the grant application:

- Supervision to ensure compliance with federal antitrust provisions;
- Assistance in aligning with other testing models in the state;
- Assistance with appropriately attributing outcomes and savings to testing models;
- Overall monitoring of health care quality and access;
- Funding for specific activities;
- Technical Assistance:
 - Meeting facilitation
 - Stakeholder engagement
 - Data analysis
 - Financial modeling
 - Professional learning opportunities

Core Principles & Values of Effective Team-Based Health Care

Pamela Mitchell, Matthew Wynia, Robyn Golden, Bob McNellis, Sally Okun, C. Edwin Webb, Valerie Rohrbach, and Isabelle Von Kohorn*

October 2012

**Participants drawn from the Best Practices Innovation Collaborative of the IOM Roundtable on Value & Science-Driven Health Care*

The views expressed in this discussion paper are those of the authors and not necessarily of the authors' organizations or of the Institute of Medicine. The paper is intended to help inform and stimulate discussion. It has not been subjected to the review procedures of the Institute of Medicine and is not a report of the Institute of Medicine or of the National Research Council.

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Mount Sinai Palliative Care Team

Park Nicollet

University of Pennsylvania Transitional Care Model

Veterans Affairs Patient-Aligned Care Teams

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Core Principles & Values of Effective Team-Based Health Care

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GOAL

This paper is the product of individuals who worked to identify basic principles and expectations for the coordinated contributions of various participants in the care process. It is intended to provide common reference points to guide coordinated collaboration among health professionals, patients, and families—ultimately helping to accelerate interprofessional team-based care. The authors are participants drawn from the Best Practices Innovation Collaborative of the Institute of Medicine (IOM) Roundtable on Value & Science-Driven Health Care. The Collaborative is inclusive—without walls—and its participants are drawn from professional organizations representing clinicians on the front lines of health care delivery; members of government agencies that are either actively involved in patient care or with programs and policies centrally concerned with the identification and application of best clinical services; and others involved in the evolution of the health care workforce and the health professions.

Teams in health care take many forms, for example, there are disaster response teams; teams that perform emergency operations; hospital teams caring for acutely ill patients; teams that care for people at home; office-based care teams; geographically disparate teams that care for ambulatory patients; teams limited to one clinician and patient; and teams that include the patient and loved ones, as well as a number of supporting health professionals. Teams in health care can therefore be large or small, centralized or dispersed, virtual or face-to-face—while their tasks can be focused and brief or broad and lengthy. This extreme heterogeneity in tasks, patient types, and settings is a challenge to defining optimal team-based health care, including specific guidance on the best structure and functions for teams. Still, regardless of their specific tasks, patients, and settings, effective teams throughout health care are guided by basic principles that can be measured, compared, learned, and replicated. This paper identifies and describes a set of core principles, the purpose of which is to help enable health professionals, researchers, policy makers, administrators, and patients to achieve appropriate, high-value team-based health care.

THE EVOLUTION OF TEAMS IN HEALTH CARE

Health care has not always been recognized as a team sport, as we have recently come to think of it. In the “good old days,” people were cared for by one all-knowing doctor who lived in the community, visited the home, and was available to attend to needs at any time of day or night. If nursing care was needed, it was often provided by family members, or in the case of a

* Participants drawn from the Best Practices Innovation Collaborative of the IOM Roundtable on Value & Science-Driven Health Care.

family of means, by a private-duty nurse who “lived in.” Although this conveyed elements of teamwork, health care has changed enormously since then and the pace has quickened even more dramatically in the past 20 years. The rapidity of change will continue to accelerate as both clinicians and patients integrate new technologies into their management of wellness, illness, and complicated aging. The clinician operating in isolation is now seen as undesirable in health care—a lone ranger, a cowboy, an individual who works long and hard to provide the care needed, but whose dependence on solitary resources and perspective may put the patient at risk.^{1,2}

A driving force behind health care practitioners’ transition from being soloists to members of an orchestra is the complexity of modern health care, which is evolving at a breakneck pace. The U.S. National Guideline Clearinghouse now lists over 2,700 clinical practice guidelines, and, each year, the results of more than 25,000 new clinical trials are published.³ No single person can absorb and use all this information. In order to benefit from the detailed information and specific knowledge needed for his or her health care, the typical Medicare beneficiary visits two primary care clinicians and five specialists per year, as well as providers of diagnostic, pharmacy, and other services.⁴ This figure is several times larger for people with multiple chronic conditions.⁵ The implication of these dynamics is enormous. By one estimate, primary care physicians caring for Medicare patients are linked in the care of their patients to, on average, 229 other physicians yearly,⁶ to say nothing of the vital relationships between physicians, nurses, physician assistants, advanced practice nurses, pharmacists, social workers, dieticians, technicians, administrators, and many more members of the team. With the geometric rise in complexity in health care, which shows no signs of reversal, the number of connections among health care providers and patients will likely continue to increase and become more complicated. Data already suggest that referrals from primary care providers to specialists rose dramatically from 1999 to 2009.⁷

Given this complexity of information and interpersonal connections, it is not only difficult for one clinician to provide care in isolation but also potentially harmful. As multiple clinicians provide care to the same patient or family, clinicians become a team—a group working with at least one common aim: the best possible care—whether or not they acknowledge this fact. Each clinician relies upon information and action from other members of the team. Yet, without explicit acknowledgment and purposeful cultivation of the team, systematic inefficiencies and errors cannot be addressed and prevented. Now, more than ever, there is an obligation to strive for perfection in the science and practice of interprofessional team-based health care.

URGENT NEED FOR HIGH-FUNCTIONING TEAMS

The incorporation of multiple perspectives in health care offers the benefit of diverse knowledge and experience; however, in practice, shared responsibility without high-quality teamwork can be fraught with peril. For example, “handoffs,” in which one clinician gives over to another the primary responsibility for care of a hospitalized patient, are associated with both avoidable adverse events and “near misses,” due in part to inadequacy of communication among clinicians.⁸⁻¹² In addition to the immediate risks for patients, lack of purposeful team care can also lead to unnecessary waste and cost.¹³ Given the frequently uncoordinated state of care by groups of people who have not developed team skills, it is not surprising that some clinicians report that team care can be cumbersome and may increase medical errors.¹⁴ By acknowledging the aspects of collaboration inherent in health care and striving to improve systems and skills, identification of best practices in interdisciplinary team-based care holds the potential to address

some of these dangers, and might help to control costs.^{15,16} Identifying best practices through rigorous study and comparison remains a challenge, and data on optimal processes for team-based care are elusive at least partly due to lack of agreement about the core elements of team-based care. Once the underlying principles are defined, researchers will be able to more easily compare team-based care models, payers will be able to identify and promote effective practices, and the essential elements for promoting and spreading team-based care will be evident.

THE STATE OF PLAY

The high-performing team is now widely recognized as an essential tool for constructing a more patient-centered, coordinated, and effective health care delivery system. As a result, a number of models have been developed and implemented to coordinate the activities of health care providers. Building on foundations established by earlier reports from the IOM¹⁷ and the Pew Health Professions Commission,¹⁸ team-based care has gained additional momentum in recent years in the form of legislative support through the Patient Protection and Affordable Care Act of 2010 and the emergence of substantial interprofessional policy and practice development organizations, such as the Patient-Centered Primary Care Collaborative and the Interprofessional Education Collaborative (IPEC).

In addition to national initiatives, there are many deeply considered, well-executed initiatives in team-based care in pockets across the United States. High-functioning teams have been formed in a variety of practice environments, including both primary and acute care settings.^{1,19-24} Teams have also been formed to serve specific patients or patient populations, for example, chronic care teams, hospital rapid response teams, and hospice teams.²⁵⁻²⁷

Analyses of the quality and cost of team-based care do not yet provide a comprehensive, incontrovertible picture of success. Still, two reviews indicate that team-based care can result in improvements in both health care quality and health outcomes, and one review indicates that costs may be better controlled, particularly in transitional care models.^{16,28} Research on team-based care has been hindered by lack of common definitions. While common elements, success factors, and outcome measures are beginning to be described in a variety of team-based care scenarios, a widely-accepted framework does not yet exist to understand, compare, teach, and implement team-based care across settings and disciplines.

Fundamental to the success of any model for team-based care is the skill and reliability with which team members work together. Team function has been described in one conceptualization as a spectrum running from parallel practice, in which clinicians mostly work separately, to integrative care, in which the interdisciplinary team approach is pervasive and nonhierarchical and utilizes consensus building, with many variations along the way.²⁹ It is likely that the appropriate team structure varies by situation, as determined by the needs of the patient, the availability of staff and other resources, and more. A unifying set of principles must not only acknowledge this variation but embrace as formative the underlying situation-defined needs and capacities.

Despite the pervasiveness of people working together in health care, the explicit uptake of interprofessional team-based care has been limited. At the most basic level, establishing and maintaining high-functioning teams takes work. In economic terms, if the transaction costs of team functioning outweigh the benefit to team members, there is little incentive to embark on the journey toward formal team-based care.³⁰ Some of the specific costs that may be restraining forces include lack of experience and expertise, cultural silos, deficient infrastructure, and inade-

quate or absent reimbursement.³¹ These barriers were outlined in a 2011 conference convened by the Health Resources and Services Administration, the Josiah Macy Jr. Foundation, the Robert Wood Johnson Foundation, and the ABIM Foundation in collaboration with IPEC. The publication of the proceedings, *Team-Based Competencies: Building a Shared Foundation for Education and Clinical Practice*, identified key barriers to change, including the absence of role models and reimbursement, resistance to change, and logistical barriers.

Despite these barriers, teams are built and maintained. Researchers have identified facilitators of team-based care, or factors that constitute and promote good teams and teamwork. For instance, Grumbach and Bodenheimer found that key facilitators include having measurable outcomes, clinical and administrative systems, division of labor, training of all team members, effective communication, and leadership.^{1,30} IPEC has focused on effective interprofessional work and has defined four domains of core competencies: values/ethics, roles/responsibilities, communication, and teamwork/team-based care.³²

Our aim is to build from this prior work to identify a set of core principles underlying team-based care across settings, as well as the essential values that are common to the members of high-functioning teams throughout health care. By doing so, we hope to help reduce barriers to team-based care, while supporting the facilitators of effective teamwork in health care.

APPROACH

The authors are individuals knowledgeable about team-based care who participated in an interprofessional work group that was drawn from the IOM's Best Practices Innovation Collaborative. To achieve the goal of identifying basic principles and values for interprofessional team-based care, we first synthesized the factors previously identified in various health care contexts, then took these distilled principles to the field to understand how well they represent team-based care in action. We held monthly conference calls between October 2011 and June 2012 with frequent e-mail collaboration in the intervals. We then reviewed the health professions' and "gray" literature and discussed common elements. Using this information, we drafted a definition of team-based care and a sample set of principles and values critical to team-based care. To test the applicability and validity of the principles and values, and to understand their on-the-ground actualization, we performed "reality check" interviews with members of team-based health care practices. Teams with various compositions, practice settings, and patient profiles were identified around the country through the literature review and the input of experts. A draft of the team-based care definition, principles, and values was sent to teams in advance of a telephone interview. We then interviewed members of the teams by telephone during January 2012 using a semi-structured approach. Based upon the results of the interviews, we refined the team-based care principles and values, identified key themes, and added illustrative examples.

A PROPOSED DEFINITION OF TEAM-BASED HEALTH CARE

To inform a proposed definition of team-based care, we reviewed the literature and reflected on the definitions and factors identified in prior work. Elements found across the definitions we reviewed include the patient and family as team members, more than one clinician, mutual identification of the preferred goal, close coordination across settings, and clear communication and feedback channels. Ultimately, we chose to adapt the definition developed through a detailed literature review and consensus process by Naylor and colleagues.²⁸ Although this defi-

nition was developed for use in the context of primary care for chronically ill adults, its core elements were easily adapted to apply to the work of teams across settings:

*Team-based health care is the provision of health services to individuals, families, and/or their communities by at least two health providers who work collaboratively with patients and their caregivers—to the extent preferred by each patient—to accomplish shared goals within and across settings to achieve coordinated, high-quality care.*²⁸

VALUES

In the process of considering and refining the principles of team-based care, we noted that while teams are groups, they are also made up of individuals. In addition to particular behaviors that facilitate the function of the team, we heard from the teams we interviewed that certain personal values are necessary for individuals to function well within the team. This harmonizes with the core competency domain of “values/ethics” put forward in IPEC’s *Team-Based Competencies*.

The following are five personal values that characterize the most effective members of high-functioning teams in health care.

- **Honesty:** Team members put a high value on effective communication within the team, including transparency about aims, decisions, uncertainty, and mistakes. Honesty is critical to continued improvement and for maintaining the mutual trust necessary for a high-functioning team.
- **Discipline:** Team members carry out their roles and responsibilities with discipline, even when it seems inconvenient. At the same time, team members are disciplined in seeking out and sharing new information to improve individual and team functioning, even when doing so may be uncomfortable. Such discipline allows teams to develop and stick to their standards and protocols even as they seek ways to improve.
- **Creativity:** Team members are excited by the possibility of tackling new or emerging problems creatively. They see even errors and unanticipated bad outcomes as potential opportunities to learn and improve.
- **Humility:** Team members recognize differences in training but do not believe that one type of training or perspective is uniformly superior to the training of others. They also recognize that they are human and will make mistakes. Hence, a key value of working in a team is that fellow team members can rely on each other to help recognize and avert failures, regardless of where they are in the hierarchy. In this regard, as Atul Gawande has said, effective teamwork is a practical response to the recognition that each of us is imperfect and “no matter who you are, how experienced or smart, you will fail.”²
- **Curiosity:** Team members are dedicated to reflecting upon the lessons learned in the course of their daily activities and using those insights for *continuous improvement* of their own work and the functioning of the team.

Principles of Team-Based Health Care

Shared goals: The team—including the patient and, where appropriate, family members or other support persons—works to establish shared goals that reflect patient and family priorities, and can be clearly articulated, understood, and supported by all team members.

Clear roles: There are clear expectations for each team member's functions, responsibilities, and accountabilities, which optimize the team's efficiency and often make it possible for the team to take advantage of division of labor, thereby accomplishing more than the sum of its parts.

Mutual trust: Team members earn each others' trust, creating strong norms of reciprocity and greater opportunities for shared achievement.

Effective communication: The team prioritizes and continuously refines its communication skills. It has consistent channels for candid and complete communication, which are accessed and used by all team members across all settings.

Measurable processes and outcomes: The team agrees on and implements reliable and timely feedback on successes and failures in both the functioning of the team and achievement of the team's goals. These are used to track and improve performance immediately and over time.

PRINCIPLES OF TEAM-BASED HEALTH CARE

Each health care team is unique—it has its own purpose, size, setting, set of core members, and methods of communication. Despite these differences, we sought to identify core principles that embody “teamness.” After reviewing the literature and published accounts of team processes and design, five principles emerged: shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes. These principles are not intended to be considered in isolation—they are interwoven, and each is dependent on the others. Eleven teams across the nation considered the principles, verified and clarified the meaning of each, and described how each comes into play in their own team environments. Descriptions of the teams are listed throughout. The following section describes each of the principles in detail, provides examples from the teams we interviewed, and considers organizational factors to support development of teams that cultivate these five principles, as well as the values that support high-quality team-based health care. Arguably, the most important organizational factor supporting team-based health care is institutional leadership that fully and unequivocally embraces and supports these principles in word and action.³³

Shared Goals

The team—including the patient and, where appropriate, family members or other support persons—works to establish shared goals that reflect patient and family priorities, and that can be clearly articulated, understood, and supported by all team members.

The foundation of successful and effective team-based health care is the entire team's active adoption of a clearly articulated set of shared goals for both the patient's care and the team's work in providing that care. Although obvious to some extent, the explicit development and articulation of a set of shared goals, with the active involvement of the patient, other caregivers, and family members, does not happen easily or by chance. We found that teams shared several strategies and practices with regard to establishing shared roles.

First, the patient, caregivers within the family, and the family itself must be viewed and respected as integral members of the team. High-functioning teams in health care strive to organize their mission, goals, and performance seamlessly around the needs and perspective of patients and families. This element is central to the most forward-thinking team-based care and represents a central tenet of a social compact between health care professionals and society.³⁴ As an example, this commitment to patient involvement in the team is central to team training within the Department of Veterans Affairs (VA) patient-aligned care team, which emphasizes that without the veteran (the patient), the team has no mission or goal. Team members are taught to think of things from the veteran's point of view and align the team's concerns and actions with those of the veteran. This "patient-centered"* attitude is embedded in many of the teams interviewed, including the University of Pennsylvania Transitional Care Model, in which team members acknowledge explicitly that the patient and family are the ones who truly "own" the plan of care.

Second, as part of integrating the patient into the team, high-functioning teams fully and actively embrace a shared commitment to the patient's key role in goal setting. Many teams interviewed used their first meetings with the patient and family, or an initial "intake" interview, to begin the process of developing shared goals. The patient and family meeting is the tool employed by team members at Hospice of the Bluegrass, for example, to help team members develop a shared understanding of the full extent of the patient and family's needs, which are then translated into stated goals of care. To engage in a full discussion, they noted, it is especially important for the team to be clear with the patient and family about all the types of needs the team is prepared to fulfill. Patients and families may not expect the full extent of services available. When such a comprehensive approach to patient needs is taken, though, patients and families are grateful to know that the team will collaborate with them to meet their needs to the extent possible.

**Department of Veterans Affairs
Patient-Aligned Care Teams (PACT)
Nationwide**

Team Composition: Each PACT is comprised of a veteran, a registered nurse (RN), a physician, a licensed practical nurse, and a clerical assistant. The RN functions as a care manager for the team.

Clinical Care: The purpose of the team is to provide interprofessional care coordination for veterans as a component of a patient-centered medical home. There are currently 7,000 primary care teams nationwide. These care teams coordinate the activities of the clinical and nonclinical staff to achieve increased access, continuity of service, and improved communication for veterans.

Team Process: Team members go through formalized training to learn best practices for team function, and some teams undergo further training to become trainers themselves. Teams work with a panel of patients and meet regularly to debrief. The team is led by a team member, often the RN care manager.

For more information, visit <http://www.va.gov/primarycare/pcmh/>.

*As described by Berwick (2009), patient-centeredness reflects an "experience (to the extent the informed, individual patient desires it) of transparency, individualization, recognition, respect, dignity, and choice in all matters—without exception—related to one's person, circumstances, and relationships in health care."

Third, teams regularly evaluate their progress toward the shared goals and work together with patient and family members to refine and move toward achievement of these goals. At Cincinnati Children's Hospital, this monitoring and updating takes place daily during patient- and family-centered rounds. Core elements of daily rounds include reviewing together the events of the past 24 hours, creating a daily assessment and plan of care, and reviewing and updating criteria for and progress toward hospital discharge. This process ensures that the team both reaffirms with regularity the applicability of the shared goals and offers an opportunity for clarification of intent and prevention of misunderstandings.

Organizational factors that enable development of shared goals include

- Providing time, space, and support for meaningful, comprehensive information exchange between and among team members, particularly when a new team forms—for example, when a new patient/family begins to work with the team.
- Facilitating establishment and maintenance of a written plan of care that is accessible and updatable by all team members.
- Supporting teams' capacity to monitor progress toward shared goals for the patient/family and the team.

The perspectives and experiences shared in the interviews strongly support the foundational nature of shared goals within the larger framework of team-based care principles. To achieve shared goals that are meaningful and robust, the patient and family must be integrally involved as members of the team in developing, refining, and updating the goals. While shared goals are the roadmap guiding the work of the team, the development and execution of these goals is dependent upon the other principles that follow. Clear roles, mutual trust, and effective communication among team members are essential for work to be done and goals to be met. Measurable processes and outcomes determine the level of success, help to refine goals over time, and guide improvement.

**University of Pennsylvania Transitional Care Model
Philadelphia, Pennsylvania**

Team Composition: Team members include hospital, primary care, home health, and hospice staff. The team is comprised of a transitional care nurse (TCN) and other health professionals (e.g., physicians, social workers, physical therapists, primary care providers, hospice staff, home health aides).

Clinical Care: The team ensures that at-risk, chronically ill older adults and their family caregivers receive transitional care services regardless of care setting. Patients may be identified for services during an acute episode or by the primary care provider.

Team Process: Team members identify older adults with multiple chronic conditions and two or more risk factors via a standardized screening assessment and risk criteria tool. The patient is then paired with a TCN who initiates a collaborative, comprehensive assessment of the patient's health status and simultaneously develops a care plan with the patient and family caregivers to address their identified goals. The care plan is then continually reevaluated during the intervening period to ensure it meets the needs and preferences of the patient and family caregivers.

For more information, visit <http://www.transitionalcare.info>.

Clear Roles

There are clear expectations for each team member's functions, responsibilities, and accountabilitys, which optimize the team's efficiency and often make it possible for the team to take advantage of division of labor, thereby accomplishing more than the sum of its parts.

Members of health care teams often come from different backgrounds, with specific knowledge, skills and behaviors established by standards of practice within their respective disciplines. Additionally, the team and its members may be influenced by traditional, cultural, and organizational norms present in health care environments. For these reasons it is essential that team members develop a deep understanding of and respect for how discipline-specific roles and responsibilities can be maximized to support achievement of the team's shared goals. Attaining this level of understanding and respect depends upon successful cultivation of the personal values necessary for participating in team-based care, noted above. Training and working in interdisciplinary settings where these values are foundational also allows the team to safely challenge the boundaries of traditional roles and responsibilities to meet the needs of the patient.

Integrating patients and families fully into the team represents a particular challenge that requires careful planning. Patients and families are unique members of the team in several ways. First, patients and families often do not have formal training in health care. Although different health professionals may, at times, speak "different languages," if patients and families are to be full members of the team, they must understand their fellow team members. Second, a number of different patients and families typically come in and out of the team many times per day. This

Hospice of the Bluegrass Kentucky

Team Composition: The hospice team includes hospice physician, on-call nurse, nurses, certified nursing assistants, chaplains, bereavement counselors, social workers, and volunteers.

Clinical Care: The goal of the Hospice team is to manage the terminal illness for the patients and family in a holistic way, primarily through pain and symptom management as well as offer psychosocial and spiritual support to both the patients and families.

Team Process: Choosing hospice allows the patient and family to work with health professionals and to be in charge of treatment decisions. The patient's physician works with the Hospice team and remains responsible for the plan of care. Hospice nurses assess and provide nursing care. Social workers and chaplains assess the patient's and family's needs for counseling, social services, financial assistance, and spiritual care. Certified nursing assistants can provide personal care, and trained volunteers and therapists provide additional services and counseling. Bereavement counselors support family members and friends.

For more information, visit <http://www.hospicebg.org/about.html>.

requires continual adaptation by other team members who must "shift gears" as they form and reform teams on a regular basis. Finally, just as clinicians must adapt to the various patients they encounter, so, too, must patients learn the rules and customs of each new health care team with which they interact. Processes that introduce—and reintroduce—the patient and family to the roles, expectations, and rules of the team are critical if they are to participate as full members of the team.

Managing a team is challenging and becomes especially so as the membership increases and includes some or all of the following disciplines: licensed physical and mental health professionals (e.g., nurses, physicians, nurse practitioners, physician assistants, social workers, psychologists, pharmacists, physical, occupation-

al and speech therapists, and dietitians); personal care providers (e.g., certified nurse aides and home health aides); community providers (e.g., spiritual care, community-based support, and social media); and the patient, family, and others close to the patient. In addition, it is possible to have teams integrated into larger teams. An example of this is the medication management team at Park Nicollet, which collaborates with and is a part of the Health Care Home team. To establish clear roles that support “teamness,” the teams we interviewed engage a number of strategies and practices.

First, team members determine the roles and responsibilities expected of them based on the shared goals and needs of the patient and family. At Hospice of the Bluegrass, team members anticipate a broad spectrum of patient and family needs that may, to some extent, alter the way in which they perform their professional duties. Following the patient and family meeting, in which the team identifies needs and goals that range from treating pain to addressing food insecurity to engaging spiritual services, the team members then lay out how they will intervene to maximize resources. This maximization may include adding responsibilities to particular team members’ work. For example, if the services of a chaplain are primarily required, he or she may also take on the responsibility of bringing supplies to the home, or asking about the level of pain. Inherent in these shared responsibilities is identification of needs that require the knowledge and skills of other team members.

Second, team members must engage in honest, ongoing discussions about the level of preparation and capacities of individual members to allow the team to maximize their potential for best utilization of skills, interests, and resources. This frankness allows the team to inventory the discipline-specific assets of team members and ensure that they are creatively aligned with the team’s shared goals. Once they have engaged in the process of matching patient goals to needed roles and planning for the best utilization of team resources, team members must have the autonomy to implement these plans. For example, at El Rio Community Health Center, the clinical pharmacist serves as the primary care provider for patients with diabetes and comorbid conditions, such as hypertension and hyperlipidemia, requiring complex medication management. This occurs through a medical staff–approved collaborative practice agreement in which the pharmacist provides appropriate diagnostic, educational, and therapeutic management services, including prescribing medication and ordering laboratory tests, based on national standards of care for diabetes.³⁵ The arrangement is sharply focused on the needs of the patient while maximizing the expertise of health professionals in the clinic.

Park Nicollet
St. Louis Park, Minneapolis

Team Composition: The Health Care Home care team is comprised of clinical pharmacists, nurses, physicians, social workers, mental health professionals, diabetes educators, care coordinators, and more.

Clinical Care: Park Nicollet is a nonprofit, integrated health care system. Within the Health Care Home care team model, pharmacists help patients with managing medications, including recommending drug therapies more suited to patients’ lifestyles and preferences and ensuring that patients understand their drug regimens.

Team Process: As part of the Health Care Home care team, clinical pharmacists and pharmacy residents work directly with patients, physicians, nurses, and other members of the care team to optimize the medication regimen. Patients frequently meet independently with pharmacists to discuss medications or in conjunction with the appointment with the primary care provider. Pharmacists are located alongside the other members of the clinical care team, and are immediately available for questions, clarifications, and quick consults.

For more information, visit <http://www.parknicollet.com/>.

**El Rio Community Health Center
Tucson, Arizona**

Team composition: The pharmacy team is formed by five clinical pharmacists and two residents who work together with the center staff, which includes physicians, nurse practitioners, physician assistants, dentists, clinical diabetes educators, nutritional counselors, behavioral health workers, mental health workers, nurses, administrative staff, and more.

Clinical Care: El Rio Community Health Center serves over 75,000 people in the Tucson area to provide accessible and affordable care for all income levels. In particular, the pharmacy team focuses on diabetes care and the clinic's most complex cases.

Team Process: Team members work together to develop a comprehensive care plan for the patient. The entire center coordinates care using an electronic health record system, and each patient is provided with a printed care plan. To discuss quality improvement and team communication, the pharmacy team meets once a month, and then every other week with clinical staff.

For more information, visit <http://www.elrio.org/programs.html>.

Third, while roles and responsibilities must be clearly defined and explicitly assigned, team members must anticipate and embrace flexibility as needed. For example, a challenge faced by patient-aligned care teams in the VA is the absence of personnel. If no replacement exists for an absent team member, then the team can become dysfunctional. Thus, while clear roles must exist to enable accountability and creativity, effective communication and flexibility must be built into the fabric of the team to ensure that seamless coverage is available. Building in flexibility requires that team members understand to the greatest extent possible the background, skillsets, and responsibilities of their teammates.

Fourth, team members must seek the appropriate balance between roles and responsibilities that fall to individual team members and those that are better accomplished collaboratively. Given the high transaction costs of using a team, clear roles help facilitate decisions about the appropriate engagement of multiple team members in particular scenarios. For example, the BRIGHTEN (Bridging Resources of an Interdisciplinary Geriatric Health Team via Electronic Networking) program at Rush University in Chicago finds that occasionally issues arise at team meetings that do not concern all team members or that are best handled by one or two team members alone. To flag these items and facilitate the work that requires full team engagement, the team has a standing rule that issues involving one or two team members will be handled outside of team meetings.

Finally, all teams have certain roles and responsibilities that are routinely indicated to support the team's functioning. These roles include team leadership, record keeping, and meeting facilitation, as well as other administrative tasks. Carrying out routine tasks requires the team to utilize their resources creatively while avoiding pretence and superiority in the process. Routine tasks should be assigned in a manner similar to patient care tasks—balancing patient need, team goals, and local resources. Teams should determine which member is most appropriate for the role, recognizing that some roles may be best rotated across the team.

The issue of team leadership has sometimes been contentious, especially when approached in the political or legal arenas, where questions about team leadership often become entangled in professional “scope of practice” issues. In particular, arguments have arisen around “independent practice” versus team-based care and, where care is team-based, whether all team functions must be “physician-led,” and what this would imply for other health professionals with regard to care management decision making. These debates are taking place in many states, with a number of potential solutions taking shape, and this paper does not aim to resolve them. How-

ever, our interviews produced two potentially helpful observations. First, these questions seem much less problematic in the field than they are in the political arena. Among the teams we interviewed, notions of “independent practice” were not relevant because no one member of the team was seen as practicing alone, and leadership questions were not sources of conflict; rather, when leadership issues were raised they were portrayed as matters for open discussion that led to mutually agreeable solutions. Second, this relative lack of conflict might be because these teams use the term “leadership” in a nuanced way.

There is widespread agreement that effective teams require a clear leader, and these teams recognize that leadership of a team in any particular task should be determined by the needs of the team and not by traditional hierarchy. For example, the Mount Sinai palliative care team identified the need to improve a weekly clinical care meeting. They identified the main goal for the meeting: addressing complex patient issues in a context that ensured that each team member had an equal voice. The team assessed the training and skillsets of all team members, and, based upon the goal, determined—somewhat surprisingly, yet successfully—that the chaplain was the best person to run the clinical care meeting. This example nicely illustrates that being an effective team leader for a particular task (like running a team meeting) can require a set of skills that are distinct from those required for making clinical decisions.

While the teams we interviewed acknowledged that physicians are clinically and often legally accountable for many team actions, the physicians on the teams we interviewed were not micromanagers; instead, they were collaborators who did not seek or exercise authority to override decisions best made by other team members with particular expertise, whether in social work, chaplaincy, or care coordination, etc.

Since roles on the team vary by both professional capability as well as function, patients and their caregivers must be fully informed about these roles. Each team member should communicate his or her role clearly and solicit input from others, especially the patient and family, so that all responsibilities are clearly defined and understood. For example, at Park Nicollet, clinical

**BRIGHTEN (Bridging Resources of an Interdisciplinary Geriatric Health Team via Electronic Networking)
Rush University, Chicago, Illinois**

Team Composition: The virtual team includes the patient, a psychologist, social worker, chaplain, psychiatrist, physical and occupational therapists, pharmacist, dietician, and the patient’s primary care provider.

Clinical Care: The goal of the team is to support and treat older adults with depression and anxiety by integrating health care resources and delivery.

Team Process: Older adults who screen positive for depression or anxiety complete a comprehensive evaluation with a BRIGHTEN mental health clinician, including standardized measures. Team members correspond virtually to develop care recommendations. The clinician provides recommendations to the older adult, collaboratively develops a treatment plan, and aids the older adult in implementing the plan.

For more information, visit <http://brighten.rush.edu>.

pharmacists and pharmacy residents are placed directly next to other care providers to answer any questions that arise in the course of clinical care, as well as to make it apparent that all care providers work together. Likewise, during rounds at Cincinnati Children’s Hospital, all members of the team introduce themselves to each patient and family by name and then describe how they contribute to the team in clear language. Roles and responsibilities are discussed verbally and written into the care plan. The team explicitly solicits all opinions, including those of the patient and family.

While team members’ expertise and skills should be tai-

lored to the needs of the patient, it is also important to recognize when unintended or unforeseen consequences may occur. The experience and skills of team members are likely to overlap, with the potential for confusion or frustration about roles and responsibilities, possibly leading to misunderstandings and disruption in care to the patient. For example, within the Park Nicollet medication management group, multiple team members are skilled and experienced in aspects of diabetes care and management. Team members work together to identify clearly the roles and responsibilities for which they are best suited, ensuring that roles are discrete and that the experience is harmonized for patients. After roles and responsibilities are clarified, team members may, at times, find themselves in situations for which they feel ill-prepared or are not comfortable. To ensure that team members are empowered to seek support at any time, the team must foster an environment of continuous learning in which seeking advice or help is considered a strength and rewarded. In a high-functioning team environment, team members will hold significant responsibility and accountability. To foster success rather than stress, the team must establish transparent and measurable expectations related to roles and responsibilities, for each individual member and for the team as a whole.

Organizational factors that enable establishing and maintaining clear roles include

- providing time, space, and support for interprofessional education and training, including explicit opportunities to practice the skills and hone the values that support teamwork.
- facilitating communication among team members regarding their roles and responsibilities.
- redesigning care processes and reimbursement to reflect individual and team capacities for the safe and effective provision of patient care needs.

Regardless of a team's setting, size, or member characteristics, roles and responsibilities must be clear and accountability expected. Yet, despite the best of intentions, teams are not immune to the inherent norms of health care delivery systems. Even effective teams with clear roles and responsibilities may experience the emergence of silos of care, decreased teamwork, or delayed engagement of needed personnel or resources within their group. A team with well-articulated roles and responsibilities grounded in the values of honesty, discipline, creativity, humility, and curiosity fosters an environment where any team member feels safe bringing such concerns to the forefront for discussion, proactive improvement, and prevention.

**Mount Sinai Palliative Care Team
New York, New York**

Team Composition: The palliative care team includes more than 80 team members: nurses, doctors, social workers, chaplain, doulas (volunteer companions), massage and yoga therapists, and more.

Clinical Care: The team aims to help patients with advanced illnesses and their families make informed decisions regarding their health care when curative measures are no longer effective, with the goals of relieving suffering and attaining optimum quality of life.

Team Process: Team members hold both daily interprofessional rounds and meetings with patients and families, and weekly in-person meetings—both care-oriented and administrative—to coordinate their activities. Communication also happens virtually, through the electronic medical record, email, text messages, or phone calls.

For more information, visit <http://www.mountsinai.org/patient-care/service-areas/palliative-care>.

Mutual Trust

Team members earn each other's trust, creating strong norms of reciprocity and greater opportunities for shared achievement.

Trust is the current that flows through the team, allowing team members to rely upon each other personally and professionally and enabling the most efficient provision of health care services. Achieving a team with norms of mutual trust requires establishing trust, maintaining trust, and having provisions in place to address questions about or breaches in trust. When a strong trust fabric is woven, team members are able to work to their full potential through relying on the assessments and information they receive from other team members, as well as the knowledge that team members will follow through with responsibilities or will ask for help if needed. The BRIGHTEN team explained that actively developing trust in team members allows them to learn from and build on each other's assessments and conclusions and permits non-duplication of work.

Establishing and maintaining trust requires that each team member hold true to the personal values of honesty, discipline, creativity, humility, and curiosity, which together support the creation of an environment of mutual continuous learning. The Mount Sinai palliative care team emphasized the importance of setting the stage for trust as early as the hiring process. Using shared values as the basis for selecting team members is critical to ensuring that the norms that support a trusting environment are upheld. This team finds that "shoehorning" someone into the team can be very harmful. The hiring process has been carefully amended to ensure that professional and personal values and skills will nurture, and be nurtured by, the team.

In a clinical setting, providing excellent patient care is the direct outcome of implementing personal values in the context of professional skill. At El Rio Community Health Center, a key element of building team members' trust in each other is documenting the contribution of each team member and professional group to high-quality patient care and outcomes. Making

Mike O'Callaghan Federal Medical Center Nellis Air Force Base, Nevada

Team Composition: Teams are generally unit-based and comprised of nurses, physicians, surgeons, clinical pharmacists, discharge coordinators, and more. Some clinicians, such as physician assistants and social workers, are primarily in outpatient settings where team-based care is spreading.

Clinical Care: The goal is to provide collaborative, coordinated care to improve patient outcomes and safety. The foundation of team-based care at Nellis is TeamSTEPPS.

Team Process: The team established routine multidisciplinary daily rounds attended by clinicians from multiple professions. Team care was enhanced by the implementation of the electronic medical record (EMR), which can be updated quickly, allowing teams to customize notes, order sets, flow sheets, and more. The team meets weekly to discuss improvements to communication and the EMR.

For more information, visit <http://teamstepps.ahrq.gov/>.

these data transparent to the whole team generated better understanding of and appreciation for team members' contributions, as well as the potential gains in efficiency and effectiveness possible through leveraging team members' capacities in purposeful team-based care.

In addition to carrying out patient care duties professionally, a critical element of trust is understanding and respecting the rules and culture of the team. Many teams said that a critical element to establishing trust among team members is ensuring that all voices on the team are heard equally. At Nellis Air Force Base, the ethos is that, regardless of military rank, everyone is expected to raise ques-

tions or concerns. To facilitate a safe and trusting environment in which more junior team members can speak up, incentives are aligned to encourage leaders to listen with open minds and address team members' questions and concerns.

The importance of personal connections among team members as an instrument for building trust was endorsed by some teams. The BRIGHTEN team refers specifically to their "culture of cake," in which team members' significant events are celebrated at meetings, with cake. The cake does not derail the purpose of the meeting—the celebration is part and parcel of the work of the team, while at the same time, team members focus on their joint tasks. The Mount Sinai palliative care team has a monthly birthday celebration for members of their team at which there are no clinical or administrative tasks. Nellis Air Force Base has team- and community-building activities throughout the year—for example, picnics or bowling—so that individuals can get to know each other on a personal level.

Developing and maintaining trust with patients and families may require special consideration, as they may not have the longevity on the team or daily working relationship shared by other team members. Clinician members of the team can develop trust with patients and families by using effective communication to explain the process of developing shared goals and establishing clear roles. By being accountable and following through with these principles, patients and families will come to trust the values of other team members. Clinician members may benefit from learning skills formally to build trust with patients and families. Negotiation and conflict management skills may be particularly valuable. For example, at Cincinnati Children's Hospital, team members are taught to make themselves "vulnerable" by stepping out of their traditional roles and looking through the eyes of the patient and family in order to find common ground as a starting point for mutual trust.

Organizational factors that facilitate development of mutual trust include

- Providing time, space, and support for team members to get to know each other on a personal level.
- Embedding in education and hiring processes the personal values that support high-functioning team-based care.
- Developing resources and skills among team members for effective communication, including conflict resolution.

Mutual trust enables team members to set clear goals and achieve shared goals in a harmonious, efficient fashion. Fundamentally, mutual trust enables these by setting the foundation for good

**Cincinnati Children's
Family- and Patient-Centered Rounds
Ohio**

Team Composition: The team is formed of the patient and their family, and the hospital physicians, nurses, administrative staff, and others.

Clinical Care: Team members provide integrated, comprehensive care for patients and their families in the hospital inpatient setting.

Team Process: The patient and family are integrated as full members of the team, active in conversations and decisions. Hospital staff members meet with the patient and family during morning rounds to discuss the patient's condition, care plan, and progress. Team members clearly explain their role on the team, refrain from using medical jargon, ask for the feedback, and elicit questions and clarifications from the patient and family.

For more information, visit <http://www.cincinnatichildrens.org/professional/referrals/patient-family-rounds/about/>.

communication, which is the focus of the following principle. As with each of these principles, mutual trust and effective communication are tightly linked and mutually supportive. Thus, the signs of mutual trust in a team include not only elements of team function, such as equal participation and facilitative leadership style, but also outcomes such as successful quality-improvement efforts and redesigned care processes in which team members build on each other's work. In the preoperative surgery unit at Nellis Air Force Base, the team established continuous-note charting in the electronic medical record. The preoperative nurse, surgeon, anesthesiologist, and others use one running note to chart their observations and plans, maximizing the utility of their collaborative work.

Effective Communication

The team prioritizes and continuously refines its communication skills. It has consistent channels for candid and complete communication, which are accessed and used by all team members across all settings.

If the team members are unable to provide information and understanding to each other actively, accurately, and quickly, subsequent actions may be ineffective or even harmful. In the digital age, team communication is not limited to in-person communication, such as in team meetings. It incorporates all information channels—progress notes and electronic health records, telephone conversations, e-mail, text messages, faxes, and even “snail mail.” Many channels of communication may be employed by team members to achieve their purposes. The framing and content of that communication is the core of effective communication. Effective communication should be considered an attribute and guiding principle of the team, not solely an individual be-

havior. Effective communication requires incorporation of all of the values underlying effective teams: honesty, discipline, creativity, humility, and curiosity. Effective communication also comprises a set of teachable skills that can be developed by each member of the team and by the team as a whole. The teams we interviewed employed a number of strategies and skills for developing and employing effective communication.

First, setting a high standard for, and ensuring, consistent, clear, professional communication among team members is a core function of a high-performing team. The BRIGHTEN program employs the Rush University Medical Center Geriatric Interdisciplinary Team Training Program guide to the fundamentals of effective

Vermont Blueprint for Health Vermont

Team Composition: An Advanced Primary Care Practice (APCP) consists of a primary care clinician and practice staff (administrative and clinical). The Community Health Teams (CHTs) vary considerably depending upon the community, but can be comprised of registered nurses, care coordinators, mental health and substance abuse counselors, dieticians, public health officials, and more.

Clinical Care: The Blueprint system coordinates community health resources to guarantee that each Vermont resident receives patient-centered care. The system currently includes 79 APCPs, serving 350,000 Vermonters.

Team Process: Advanced Primary Care Practices are National Committee on Quality Assurance-recognized, demonstrating that the practice is improving access for patients, utilizing health information technology, coordinating and tracking each patient, and promoting patient self-management. The CHTs collaborate with the APCPs to help patients receive the services they need, both medical and nonmedical, to improve or maintain good health.

For more information, visit <http://hcr.vermont.gov/blueprint>.

teamwork. The guide outlines individual and team communication practices that support effective teamwork.³⁶ For example, team members should speak clearly and directly in a succinct manner that avoids jargon, while drawing upon their professional knowledge. They should tend toward discussing verifiable observations rather than personal opinion. Team members should listen actively to each other and show a willingness to learn from others. The need for these strategies is highlighted by the fact that many of the teams we interviewed indicated that allowing everyone an equal voice in the room is a core practice. At Park Nicollet, interprofessional care is facilitated when all are encouraged to attend team meetings and encouraged to ask questions and share ideas equally. The skills outlined are also critical for the University of Pennsylvania Transitional Care Team, which works with the patient, family, inpatient care team, and outpatient providers to ensure that the patient's care plan is followed while ensuring that all providers' roles and responsibilities are honored.

Second, effective communicators are deep listeners—actively listening to the contributions of others on the team, including the patient and family. Individuals on the team need to be able to listen actively and model this for others on the team by clarifying or elaborating key ideas, reflecting thoughtfully on value-laden or controversial “hot-button” issues. Team members may need to help each other improve this skill either through team exercises or individual conversations. Patients and families often participate more as listeners on the team; their contributions may need to be facilitated through the active listening of other team members. Team members may need to coach each other, including patients and families, in succinct and clear contributions. Team members should recognize that questions are a valuable way to clarify and to learn from each other. Teams that perform patient- and family-centered rounds at Cincinnati Children's Hospital engage listening at many levels. First and foremost, central to rounds is the

**MD Anderson Cancer Center
Texas**

Team composition: Multidisciplinary teams are formed with various specialties, including medical oncologists, surgical oncologists, radiation oncologists, radiologists, and pathologists. The care team also includes a clinical pharmacist, specialized therapists, research and clinical nurses, and a genetic counselor.

Clinical Care: The multidisciplinary care team coordinates several specialties to develop a comprehensive cancer care plan.

Team Process: Disease-specific centers have multidisciplinary meetings to discuss new and complex cases, and also conduct multidisciplinary rounds. Team members coordinate care via an electronic health record, which can be accessed by the patient as well. The centers also streamline and coordinate other activities, including referrals, billing and coding, diagnostic and treatment services, personnel training and education, and quality improvement.

For more information, visit <http://www.mdanderson.org/patient-and-cancer-information/care-centers-and-clinics/care-centers/index.html>.

elicitation, on the first day, of the patient and family's preference for participation (or nonparticipation) in team rounds. Whatever option patients and families choose, the plan of care and daily work are defined by the goals and concerns expressed by the patient and family. Active listening—with confirmation of information transfer—is fundamental to the rounds. Pediatric interns who present the events of the past 24 hours to the team are taught to confirm the report with the patient and family. Since orders are entered into the computer during rounds, a final step is an official “read-back” of those orders, ensuring accuracy and preventing errors.

Finally, team communication requires continual reflection, evaluation, and improvement.

Recognizing signs of tension and unspoken conflict can serve as a trigger to reexamine the communication patterns of the team.

Both individual and team communication skills are teachable and learnable.^{37,38} Individuals should be able to use a wide range of effective communication techniques, recognize when their own or the team's communications are not functioning well, and act as a facilitator. One or more individual team member may act as a coach for patients and families not accustomed to or comfortable with active team membership and communication.* Fundamentals of effective team communication include the active membership of the patient and family and the willingness and capability of team members to be clear and direct and communicate without technical jargon. Information sharing is the goal of communication, and all team members need to recognize that this includes both technical and affective information.

Organizational factors that sustain effective communication include

- providing ample time, space, and support for team members to meet—in-person and virtually—to discuss direct care as well as team processes.
- ensuring that team members are trained in shared communication expectations and techniques.
- utilizing digital capacity—including the electronic medical record, e-mail, Web portals, personal electronic devices, and more—to facilitate easy, continuous, seamless, transparent communication among team members, with a special focus on inclusion of patients and families.

As an example of this last factor, at MD Anderson Cancer Center, patients can access their full medical records and communicate virtually with team members through the myMDAnderson Web portal. The uptake of this service has been enormous and patient and provider satisfaction with the service is high.

Measurable Processes and Outcomes

The team agrees on and implements reliable and timely feedback on successes and failures in both the functioning of the team and achievement of the team's goals. These are used to track and improve performance immediately and over time.

High-functioning teams, by definition, have embraced or at least integrated the principles of team-based care noted above. The high-functioning team has agreed upon shared goals for delivery of patient-centered care. Clear roles and responsibilities have been shared across the team and team members have committed to shared accountability. High-functioning teams recognize the importance of trust in all interactions, and actively work to build and maintain a respectful and trusting environment. Effective communication is at the core of the team's work and is apparent in all encounters among team members, patients, and other participants in the care process.

Once they employ these principles, how do teams know they are high-functioning? How can teams that are initially forming assess their progress? How can teams that have been disrupted or lost some functionality understand what efforts are needed to regain it? And, how can teams know that they are improving care and outcomes while controlling costs to the best of their

*For more information, visit <http://www.ama-assn.org/resources/doc/ethics/research-ambulatory-patient-safety.pdf>.

ability? Only through rigorous, continuous, and deliberate measurement of the team's processes and outcomes can potential barriers be identified and strategies developed to overcome them. Measurement of team effectiveness is not a new science. Other industries which employ highly-educated, strongly-motivated professionals with complimentary or overlapping responsibilities in high-pressure, high-risk situations like aviation, nuclear power, and the armed services have developed a significant body of literature on measuring the effectiveness of teamwork. Only recently, with higher levels of attention given to patient safety and high-quality care, has health care begun explicitly to create and measure team-based health care delivery.

Measures for team-based health care fall into two categories: processes/outcomes and team functioning. The teams we interviewed considered three types of processes and outcomes: patient outcomes, patient care processes that lead to improved patient outcomes, and value outcomes. Improved patient outcomes provide one of the most important measures of any type of health care, and the number of validated measures has grown exponentially in recent years. The National Quality Measures Clearinghouse currently lists thousands of clinical quality measures from the National Quality Forum (NQF), the Ambulatory Care Alliance, the Physician Consortium for Performance Improvement, the Joint Commission, the National Committee on Quality Assurance (NCQA), health professional organizations, federal agencies, insurers, and many more. Patient outcome measures should and do vary between teams, reflecting the patients and populations served, as well as the unique strengths, challenges, and improvement initiatives of the team. For the hospital-based teams we interviewed, readmission to the hospital within 30 days was commonly cited as a relevant measure. Safety measures were also cited as important outcomes for patients. In some cases, teams track process measures that are linked to improved patient outcomes. The Vermont Blueprint for Health has adopted a comprehensive approach to patient outcomes by committing to achieve recognition of each of its Advanced Primary Care Practices as NCQA patient-centered medical homes, among other requirements. Finally, teams assess their outcomes by integrating quality and cost data. Increased capacity for delivering care, using the skillsets of diverse individuals in communicating effectively to the patient, caregivers, and the rest of the team, may decrease the cost of health care.²⁸ Leaders at MD Anderson have developed a framework for integrating information about the health outcomes of their patients with the costs of the care provided, resulting in a reproducible, trackable analysis of the value of their team care model.³⁹ The MD Anderson approach is illustrative of how the impact of a team can be measured. Currently, many measures that are tied to clinician performance refer to the work of a single clinician, typically a physician.⁴⁰ This perception of one individual's accountability for clinical outcomes possibly undermines the effectiveness of the team, or, at least, does not provide an incentive to accelerate team-based care.

In addition to more traditional process and outcome measures, and reflecting a current national quality trend, all teams interviewed said that they measure satisfaction—formally or informally—of the patients and families they serve as well as that of the other team members. Satisfaction reflects the relational components of care, including rapport, respectful communication, and trust. It is unclear whether the patient and family's perception of care is related to clinical effectiveness. Still, patient satisfaction is used as a proxy for, and if well-designed may truly reflect, patient-centeredness and patient engagement in care. Members of the team at Cincinnati Children's Hospital say they know they have succeeded when, on the day of discharge, the patient and family say: "You've answered all my questions, covered all the bases, taken good care of me, and treated me like an equal. Thank you." Similarly, a favorite informal measure of satisfaction mentioned by Hospice of the Bluegrass is public commemoration of the services provid-

ed by the hospice team in the patient's obituary. Many teams we interviewed also emphasized the importance of measuring satisfaction among other team members as a way of tracking team function. The El Rio Community Health Center has implemented 360-degree evaluations which include measures of employee satisfaction. At the University of Pennsylvania, in addition to patient and cost outcomes, a critical measure of success is the satisfaction of team members, which is linked to staff retention—a critical element for team functioning. The Vermont Blueprint has a qualitative component to its evaluation, including focus groups, individual interviews, and a planned statewide implementation of the Consumer Assessment of Healthcare Providers and Systems Patient-Centered Medical Home (CAHPS PCMH) survey in order to ascertain patient and practice experiences with team-based care.

In addition to measuring the satisfaction of patients and other team members (which are indirect measures of team functioning), engaging in routine, frequent, meaningful evaluation of team function per se allows team members to improve their skills to fulfill the other principles of team-based care. A number of tools have been developed to directly assess the functionality of teams. Two measures mentioned by teams we interviewed include the Team Development Measure (teammeasure.org) and TeamSTEPPS questionnaires. Valentine and colleagues have produced a review of team measurement tools applicable to health care; a summary table of these tools, reproduced with permission, is available in the Appendix.⁴¹ Despite the availability of team measurement tools, there is room for improvement in measurement of teamwork, since current measures look at various aspects of teamwork, few of them are robustly validated, and many are not routinely applied to teams in practice.

Organizational factors that support measurement to improve team function and outcomes include

- prioritizing continuous improvement in team function and outcomes and ensuring that electronic systems routinely provide data about the measures that matter to the teams providing care and can be immediately updated as indicated by frontline teams.
- developing routine protocols for measurement of team function, aimed at continuous improvement of the processes of team-based care.
- providing ample time, space, and support for team members to engage in meaningful evaluation of processes and outcomes together.

In summary, measurement of team-based care should include both measures of the processes and outcomes that derive from team functioning and measures of team functioning itself. There is a deficiency in the availability of validated measures with strong theoretical underpinnings for team-based health care. Improved measurement will enable teams to grow in their capacity to fulfill the principles, facilitate the spread, improve the research, and refine evaluation of the high-value elements of team-based care.

IMPLICATIONS OF THE TEAM-BASED HEALTH CARE PRINCIPLES AND VALUES

To examine the implications of the principles and values of team-based health care outlined here, members of the Best Practices Innovation Collaborative met on February 28, 2012. Participants at the meeting provided feedback about the principles and values described here and considered the timeliness of the framework, including bridges to ongoing activities in related

sectors. From those discussions, four themes emerged to guide the immediate activities of those working to accelerate high-value team-based health care:

- Ensuring that the patient and family are at the center of the team requires careful planning and execution.
- Targeting of team-based care—matching resources to patient and family needs—is essential to maximize value.
- Building bridges to ongoing activities related to team-based care is critical to ensure efficiency.
- Defining a coordinated research agenda for team-based care is necessary to achieve continuously improving, high-value team-based health care.

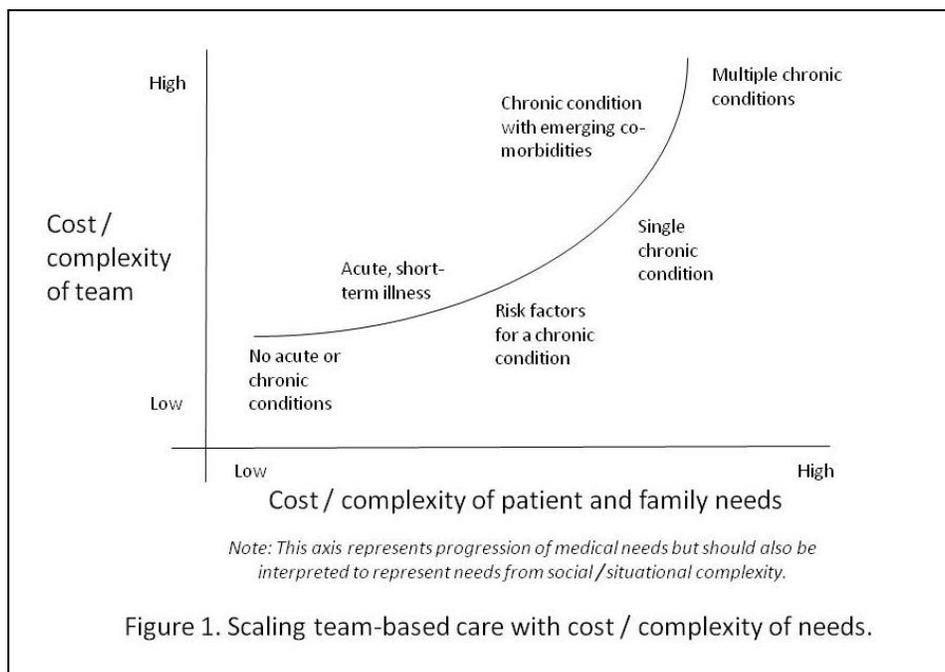
Making Patients and Families Active Members of the Team

The requirement that patients and families be at the center of care is espoused by most health care reform and improvement processes, including the patient-centered medical home, care coordination, interprofessional education, and more. Ensuring that patients and families are active members of the health care team is the next critical step toward high-value health care. Mitchell and colleagues describe a social compact between health professionals, patients, and society intended to strengthen the connections between patient-centered care and team-based care, with a call for patients to be active members of health care teams.³⁴ The codes of ethics of health professional societies have long argued that shared decision making is an ethical obligation, and that the legal and ethical notion of informed consent is built on the fundamental rights of patients to participate in decisions that affect their well-being.^{42,43} Moreover, people who are involved in their own care have better health outcomes and typically make more cost-effective decisions.⁴⁴ In reality, the practice of putting patients and families on health care teams is daunting. Patients are often ill-prepared to participate on health care teams and health professionals are often ill-equipped to practice collaboratively with patients for many reasons—imbalance of power in relationships, poor communication, non-intuitive systems, payment structures that reward volume over value, lack of workforce preparation, and more. The solution to many of these problems requires restructuring the culture and practices of health care, including promoting transparency of information in an understandable fashion, orientation of people to health care team practices, predictability, and development and spread of readily-available tools for knowledge sharing, self-care, and patient–clinician–team communication.³⁷ There is also a role for measuring the performance of organizations in creating a practice environment that supports shared decision making.⁴⁵

Targeting of Team-Based Care

High-quality team-based health care is costly to implement. As described by those we interviewed, teams are complex systems that require substantial investment to function at their highest capacity. Thus, the use of teams should be targeted to situations in which the transactional costs of team care are outweighed by the benefits in terms of health outcomes. Targeting is an ongoing process in which the needs of the patient and family are assessed repeatedly, with the expectation that needs are personal and will change over time and based on the situation. Health

professionals must, as part of their professional responsibilities, ensure that assessments and re-assessments are completed and call upon other health professionals and community services as indicated by patient/family needs. Figure 1 presents a schematic of the relationship between complexity of patient needs and the complexity of the corresponding team-based care. The exact composition of the team and services mobilized should be tailored according to patient/family needs and local resources.



Building Bridges to Activities Related to Team-Based Care

Team-based care and activities related to teams are increasing in many health care sectors. Building bridges between these activities can help ensure synergy and efficiency. Here, we highlight connections between team-based care and three areas in particular: interprofessional education and workforce development, health informatics, and care coordination.

Interprofessional Education

Health education groups in the United States and abroad have called for improved interprofessional education in the preclinical and clinical settings. A U.S. effort—the Interprofessional Education Collaborative—is led by a coalition of academic associations, foundations, and government agencies. In 2011 the group released a report on the core competencies of interprofessional education to stimulate effective team-based practice. These core competencies harmonize with the principles outlined in this paper and are critical for guiding the education, evaluation, and certification of health education programs and members of the modern health care workforce. We believe that the values and principles described in this paper supplement the core competencies and should be used to guide selection of candidates for the health professions, their training, their licensure and certification, and their ongoing evaluation by em-

ployers, patients, and society. Many team training tools currently exist in practice to help health professionals—and, ideally, patients and families—continue to develop and maintain values and skills to support their teamwork. One of the best-known programs, TeamSTEPPS, has recently expanded from the acute care to the ambulatory care setting.

Health Informatics and Technology

The explosion of digital capacity and stimulation of infrastructure development through policy have created opportunities for promotion and facilitation of team-based care. Health informatics has the capacity to support the work of teams (e.g., communication, process improvement, group training, shared work) while allowing required documentation within the regulatory and medico-legal environment. For example, an electronic health record designed with teams in mind can enable team charting, and informatics-driven simulation training systems can provide a safe, effective means of improving teamwork, particularly for rare or high-stakes situations. Furthermore, informatics can help teams make sense of vast amounts of data that can be captured to maximize continuous learning, monitor population health, and promote safety and quality without overwhelming team members.

High-functioning teams and their organizations must consider the transformative impact of Web-based, digital, and mobile technology on health and health care delivery. Technological innovations such as telehealth monitoring devices, behavior sensing mobile applications, and diagnostic tools on smartphones are already engaging patients and practitioners in new ways and expanding the continuum of care beyond traditional settings. The Internet is democratizing medical knowledge by providing unprecedented access to health-related content, research, and patient-to-patient communities such as CureTogether and PatientsLikeMe. The rapid emergence of innovative technologies, expanded access, and broad adoption is poised to disrupt how teams manage health and illness as well as how patient-centered care is delivered and received.⁴⁶

Care Coordination

According to the NQF, “care coordination helps ensure a patient’s needs and preferences for care are understood, and that those needs and preferences are shared between providers, patients, and families as a patient moves from one health care setting to another. Care among many different providers must be well-coordinated to avoid waste, over-, under-, or misuse of prescribed medications, and conflicting plans of care.”^{4,47} Additionally, the forthcoming IOM discussion paper “Communicating with Patients on Health Care Evidence” reports that 64 percent of people strongly agree (and 92 percent of people agree overall) that health care providers should work as a team to coordinate care and share health information. For patients with chronic conditions, 72 percent strongly agreed (and 97 percent agreed overall) that their care ought to be coordinated. These findings strongly support the conclusion that not only should care be coordinated to increase quality, but that patients already expect to receive coordinated care.⁴⁸

Reviewing the myriad activities in the area of care coordination is beyond the scope of this paper; however, the links between team-based care and care coordination are clear. For example, care coordination starts with a written plan of care; team-based care requires an explicit statement of shared goals. These are integrally related activities; the patient’s goals should drive the development of the patient’s care plan. Fundamentally, we see the principles and values of high-functioning team-based care as central to the success—both in terms of efficiency and ef-

fectiveness—of care coordination. The NQF publication *Preferred Practices and Performance Measures for Measuring and Reporting Care Coordination: A Consensus Report* (2010) outlines many of the specific steps that can help patients and clinicians achieve the principles of effective team-based care within the context of practicing care coordination. Many of the NQF-endorsed preferred practices are applicable to all settings in which team-based care is employed⁴⁹.

Defining a Research Agenda

To date, research on team-based care has largely focused on describing the successful elements of individual programs. Comparisons of team-based care programs and paradigms have been hampered by lack of common definitions, shared conceptualization of components, and a clear research agenda. The bulk of this paper attempts to frame the first two elements. Here, we outline suggestions for an approach to the third element—the research agenda. We suggest that the research agenda be divided into two broad categories: targeting team-based care and sustaining effective team-based care.

The first main purpose of research about team-based care is to determine the specific practices that achieve the best outcomes and cost savings for particular patients in a given setting. Simply stated, the research agenda should aim to perfect the science of targeting team-based care. The elements of team-based care to be studied include the *who* (team composition and roles), *what* (services provided), *where* (health care setting, home or community environment, transition between settings), and *how* (teamwork model employed, including methods of communication, conflict resolution, etc). The measured outcomes should be meaningful to patients and should include improved personal and community health, reduced costs, and the comparative effectiveness of team-based care elements for particular patients in particular settings.

As the science of targeting team-based care is perfected, the second purpose of the research agenda must be to consider elements critical to sustaining targeted team-based care. Areas for consideration include engagement of patients and families (what are the most effective and efficient ways to help patients and families become active participants in their care and as members of the team—including the role of personal technologies and informatics?); the health care workforce (how are the right people selected and trained?); practical tools for team-based care implementation and assessment (how can tools be matched to local needs and uptake of high-quality tools be promoted?); and more.

SUMMARY

In conclusion, accelerating the implementation of effective team-based health care is possible using common touchstone principles and values that can be measured, compared, learned, and replicated. This paper provides guidance about the personal values and core principles of high-performing teams as well as the organizational support that is required to establish and sustain effective team-based care. Teams hold the potential to improve the value of health care, but to capture the full potential of team-based care, institutions, organizations, governments, and individuals must invest in the people and processes that lead to improved outcomes. To target expenditures and plan wisely for outcome-oriented team-based care, the top priorities should be the *targeting of team-based care* to situations in which it promotes the most efficiency and effectiveness and *patient engagement* (including shared decision making). Given the enthusiasm and

activity in team-based care present today, immediate and deep investment in these areas holds profound potential for transformative change in U.S. health care.

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Appendix

Team Measurement Tools

Adapted with permission from Valentine et al., *Measuring Teamwork in Health Care Settings: A Review of Survey Instruments* (in press).

Team Effectiveness Surveys <i>(teamwork one of several dimensions measured)</i>				
Survey Name	Psychometric Validity*	Related to Outcomes‡	Team Behaviors Measured	Team Emergent States Measured§
Work Group Effectiveness (Campion 1993)	No	Yes	Workload sharing Communication	Social support Potency
Crossfunctional Cooperation (Pinto 1993)	No	No	Cooperation	none
Group Effectiveness/Interdisciplinary Collaboration (Vinokur-Kaplan 1995/Armer 1978)	No	Yes	Effort Use of expertise Strategy	none
Team Process Domain (Denison 1996)	No	No	Workload sharing Use of expertise Strategy	Norms Teamwork Values
Psychological Safety & Team Learning (Edmondson 1999)	Yes	Yes	Team learning behaviors	Psychological safety Team efficacy
Team Effectiveness Audit Tool (Bateman 2002)	Yes	No	Use of resources	Team synergy
Team Process (Doolen 2003)	No	No	Information sharing Team processes	none
Team Diagnostic Survey (Wageman 2005)	No	Yes	Effort Use of expertise Strategy Social interactions	none
Team Survey (Senior 2007)	No	No	Task interactions	Social support
Teamwork Surveys for Bounded Teams <i>(groups of people who work together routinely)</i>				
Survey Name	Psychometric Validity*	Related to Outcomes‡	Team Behaviors Measured	Team Emergent States Measured§
Team Process Scale (Brannick 1993)	No	No	Communication Coordination Collaboration	Group cohesion

Team Member Exchange Quality Scale (Seers 1995)	No	No	Communication Coordination Workload sharing	Understanding roles
Collaboration Scale (Kahn 1997)	No	No	General teamwork quality Communication	Shared objectives
Team Climate Inventory (Anderson 1998)	Yes	Yes	Communication Coordination Collaboration Use of all members' expertise Share workload Shared decision making	Respect Group cohesion Social support Psychological safety Shared objectives
Team Process Quality (Hauptman 1999)	No	No	Communication Coordination Collaboration Use of all members' expertise	none
Team Survey (Millward 2001)	Yes	No	Communication Coordination Use of all members' expertise Share workload	Respect Understanding roles Shared objectives
Team Effectiveness (Pearce 2002)	Yes	No	General teamwork quality Communication	none
Team Functioning (Strasser 2002)	No	No	Communication Collaboration Use of all members' expertise Active conflict management	Respect Psychological safety Understanding roles Shared objectives
Cross-Functional Team Processes (Alexander 2005)	Yes	Yes	Communication Shared decision making	Respect Social support Psychological safety
Teamwork Quality Survey (Hoegl 2001)	Yes	Yes	Communication Coordination Collaboration Use of all members' expertise Share workload Shared decision making Active conflict management Effort	Respect Group cohesion Social support
Teamwork Scale (Friesen 2008)	No	No	none	Respect Group cohesion Social support

Team Organization (La Duckers 2008)	No	No	Communication Coordination	none
Teamwork Surveys for Unbounded Teams <i>(groups of people who work in shifting/changing configurations)</i>				
Survey Name	Psychometric Validity*	Related to Outcomes‡	Team Behaviors Measured	Team Emergent States Measured§
ICU Nurse Physician Collaboration (Shortell 1991)	Yes	Yes	Communication Coordination Use of all participants' expertise Shared decision making Active conflict management Effort	Respect
Collaboration & Satisfaction about Care Decisions (Baggs 1994)	No	Yes	Communication Coordination Collaboration Use of all participants' expertise Shared decision making	none
Professional Working Relationships (Adams 1995)	No	No	General teamwork quality Communication Coordination Collaboration Use of all participants' expertise Share workload Shared decision making Active conflict management Effort	Respect Social support Understanding roles
Relational Coordination (Gittell 2002)	No	Yes	Communication Use of all participants' expertise Active conflict management	Respect Shared objectives
Hospital Survey on Patient Safety (AHRQ 2004)	Yes	Yes	Communication Coordination Collaboration	Respect Psychological safety Social support

Perceptions about Interdisciplinary Collaboration (Copnell 2004)	No	No	Communication Coordination Collaboration Use of all participants' expertise Shared decision making	none
Teamwork Scale (Hutchinson 2006)	No	No	General teamwork quality Communication	none
Safety Attitudes Questionnaire (Sexton 2006)	No	Yes	Communication Coordination Collaboration Use of all participants' expertise Active conflict management	Respect Psychological safety Social support
Leiden Operating Theater & Intensive Care Safety (LOTICS) (Van Beuzekom 2007)	No	No	General teamwork quality	Understanding roles
Collaboration Scale (Masse 2008)	No	No	Communication Use of all participants' expertise Active conflict management	Respect Psychological safety
Nurse Physician Collaboration (Ushiro 2009)	No	No	Communication Coordination Collaboration Use of all participants' expertise Share workload Active conflict management Effort	Respect Social support Understanding roles Shared objectives
Nursing Teamwork Survey (Kalisch 2010)	No	Yes	Communication Coordination Collaboration Use of all participants' expertise Share workload Active conflict management Effort	Respect Social support Understanding roles Shared objectives

*Surveys determined to display psychometric validity if they met reasonable standards in four domains: internal consistency/reliability, interrater agreement and reliability, discriminant validity, and content/external validity.

‡Outcomes defined as clinical measures, nonclinical process measures, or both.

§Emergent states are defined as “affective, cognitive and motivation states that emerge during the course of [teamwork].”



Learning from High Performance Health Systems Around the Globe

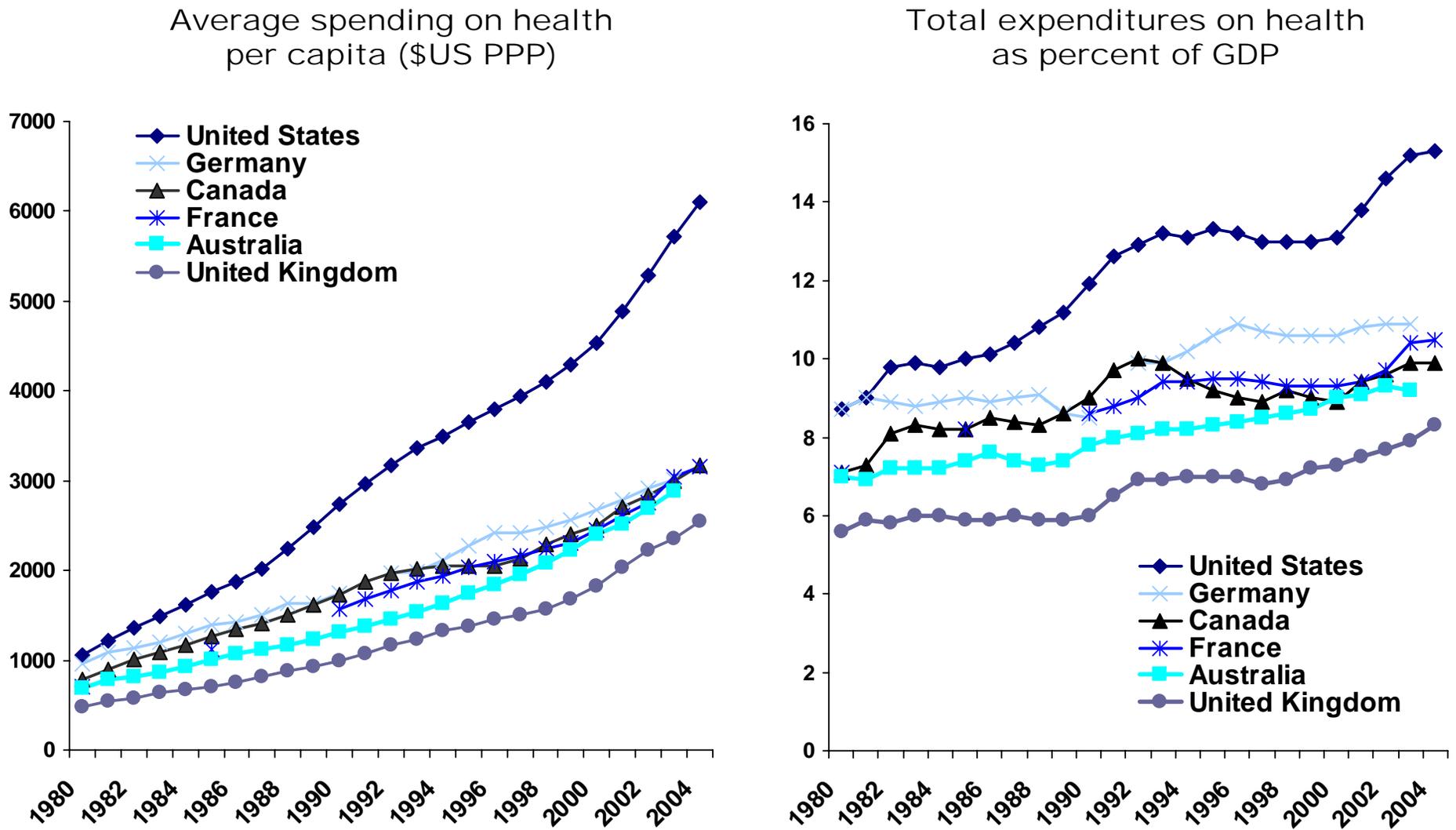
Karen Davis

President, The Commonwealth Fund

Senate HELP Committee Hearing

January 10, 2007

Figure 1. International Comparison of Spending on Health, 1980-2004

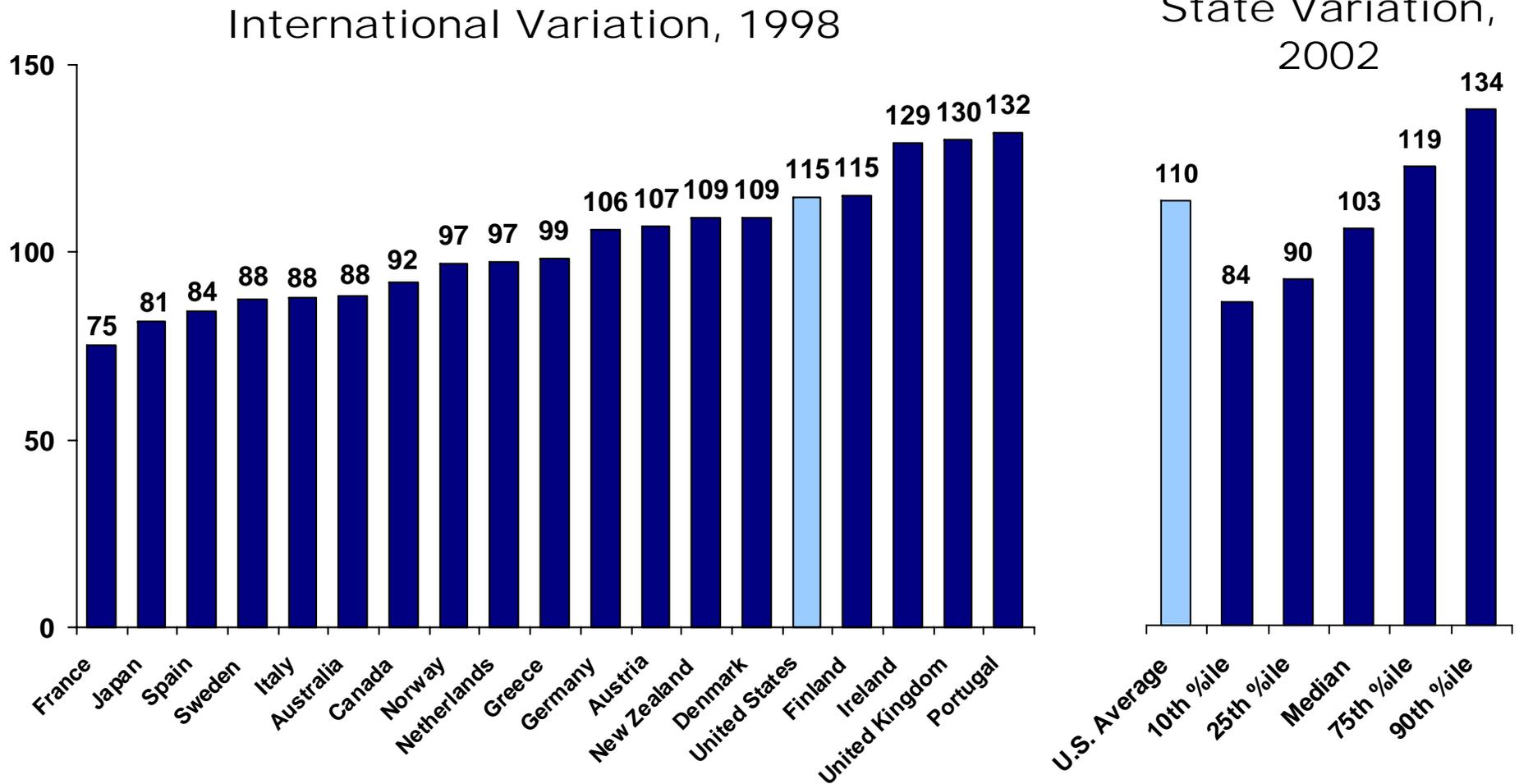


Data: OECD Health Data 2005 and 2006.

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Figure 2. Mortality Amenable to Health Care

Deaths per 100,000 population*



* Countries' age-standardized death rates, ages 0–74; includes ischemic heart disease.

See Technical Appendix for list of conditions considered amenable to health care in the analysis.

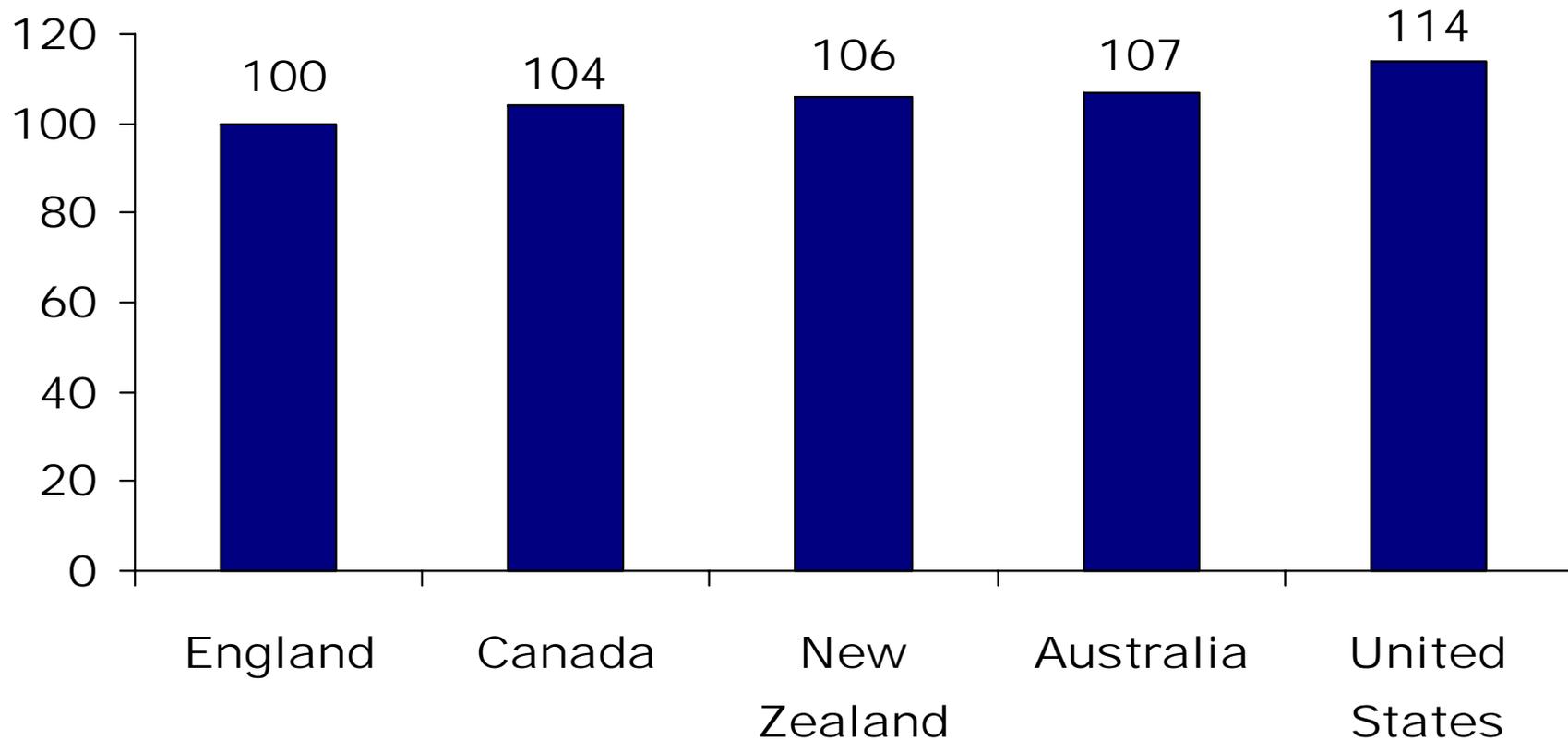
Data: International estimates—World Health Organization, WHO mortality database (Nolte and McKee 2003);

State estimates—K. Hempstead, Rutgers University using Nolte and McKee methodology.

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Figure 3. Breast Cancer 5-year Relative Survival Rate

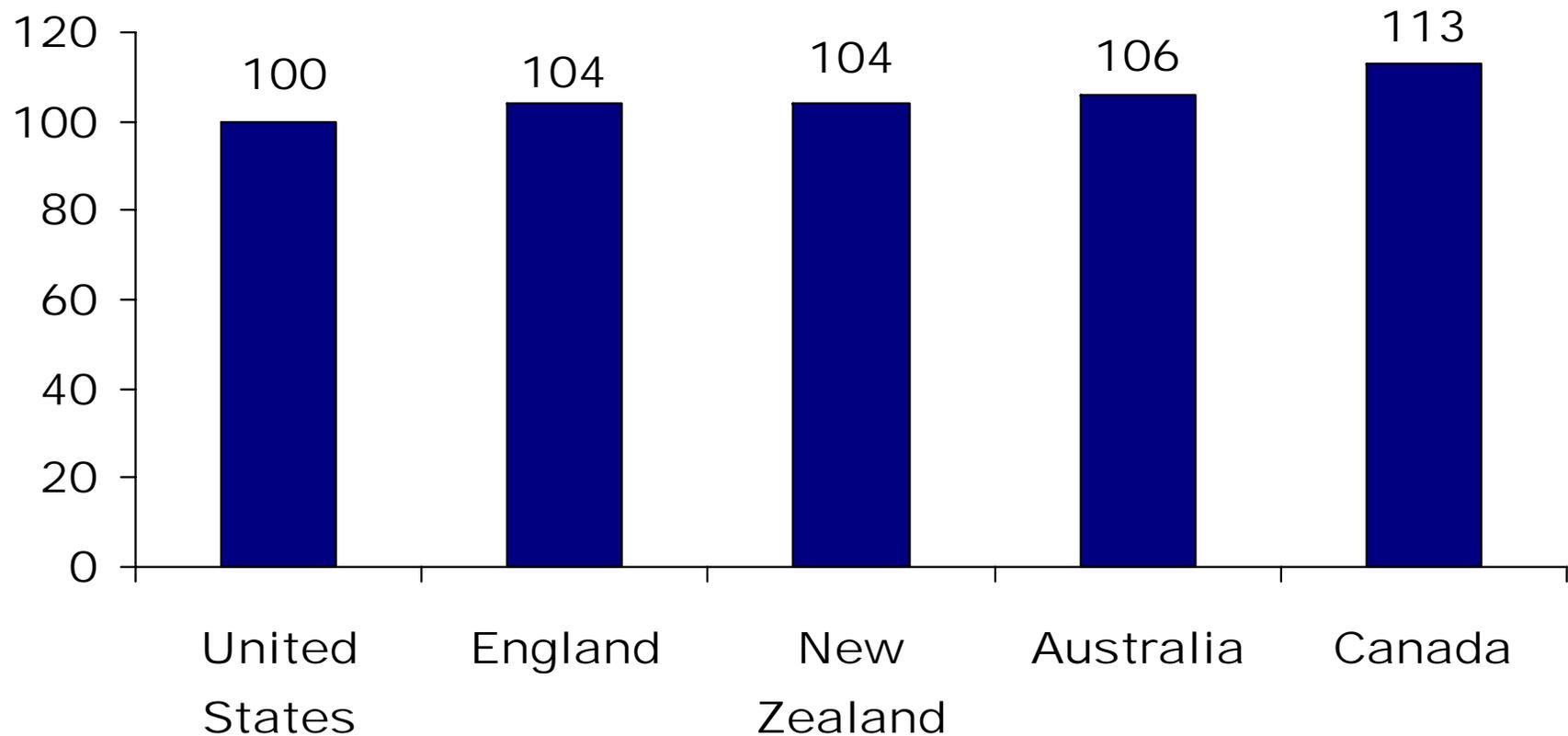
Standardized Performance on Quality Indicator
100=Worst Result; Higher Score=Better Results



Source: P.S. Hussey, G.F. Anderson, R. Osborn et al., "How Does the Quality of Care Compare in Five Countries?" *Health Affairs* (May/June 2004).

Figure 4. Kidney Transplant 5-year Relative Survival Rate

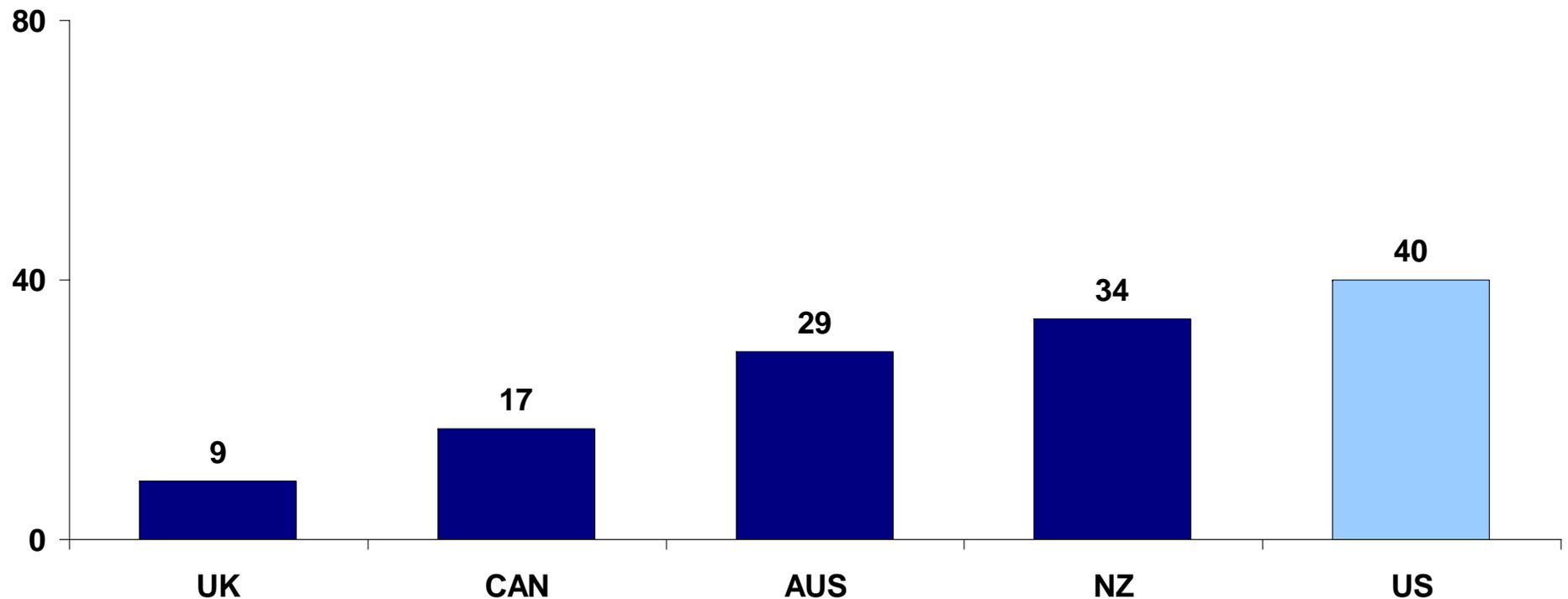
Standardized Performance on Quality Indicator
100=Worst Result; Higher Score=Better Results



Source: P.S. Hussey, G.F. Anderson, R. Osborn et al., "How Does the Quality of Care Compare in Five Countries?" *Health Affairs* (May/June 2004).

Figure 5. Access Problems Because of Costs in Five Countries, Total and by Income, 2004

Percent of adults who had any of three access problems* in past year because of costs



* Did not get medical care because of cost of doctor's visit, skipped medical test, treatment, or follow-up because of cost, or did not fill Rx or skipped doses because of cost.

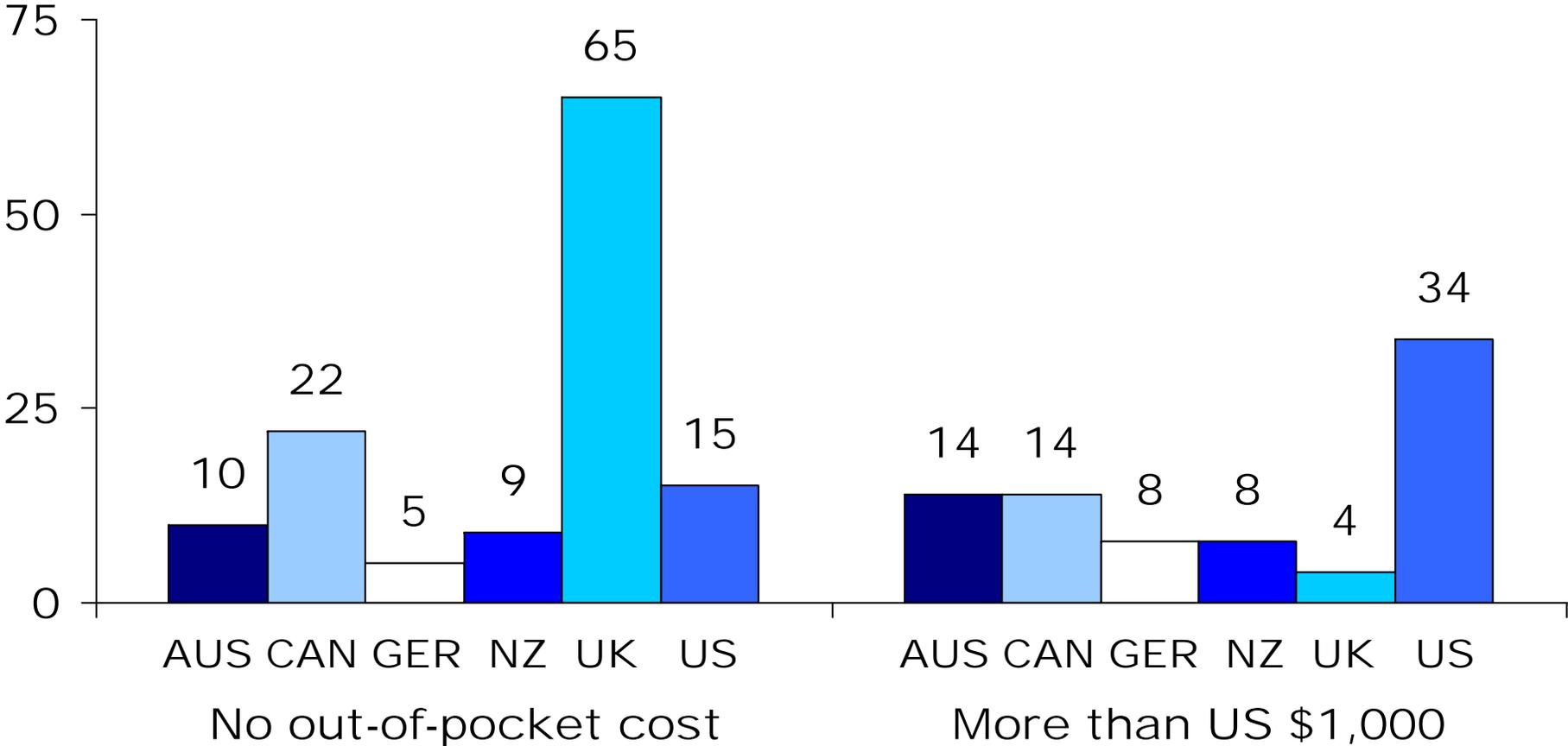
UK=United Kingdom; CAN=Canada; AUS=Australia; NZ=New Zealand; US=United States.

Data: 2004 Commonwealth Fund International Health Policy Survey of Adults' Experiences with Primary Care (Schoen et al. 2004; Huynh et al. 2006).

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Figure 6. Out-of-Pocket Medical Costs in the Past Year

Percent



Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults

Figure 7. Length of Time with Regular Doctor

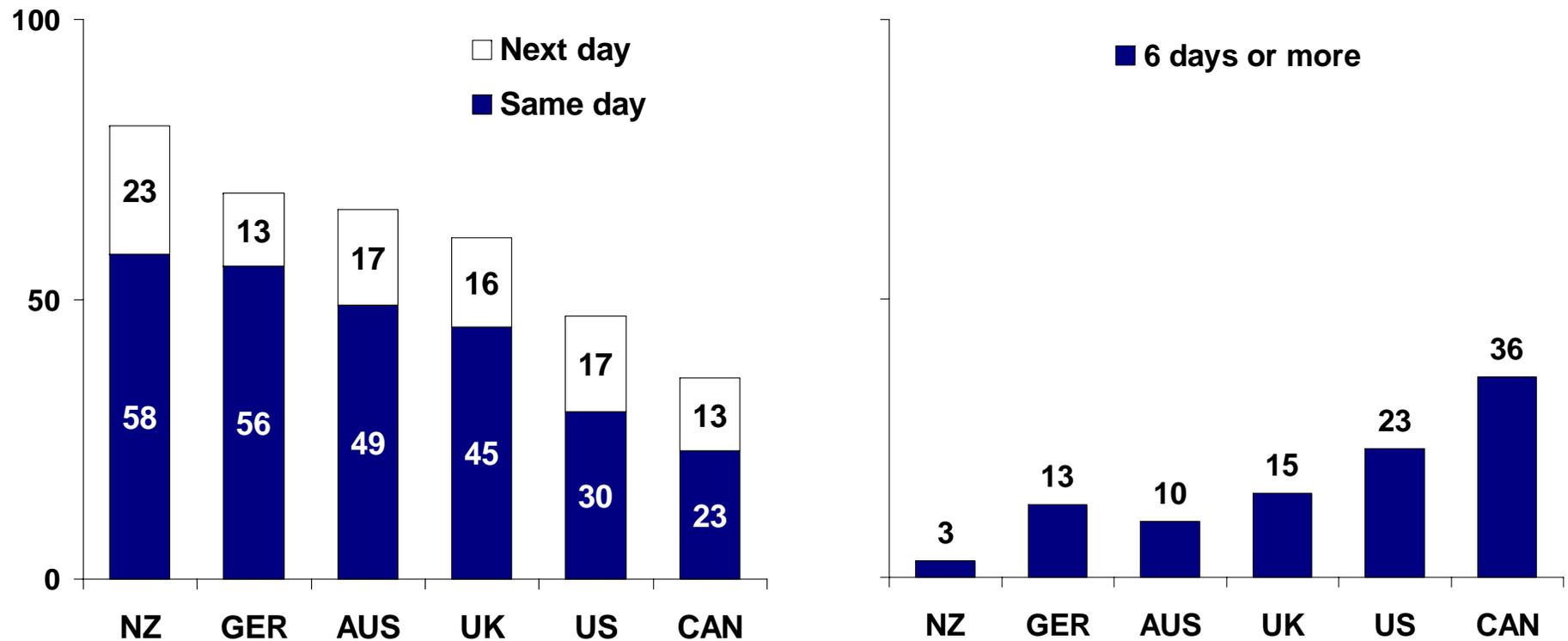
Percent:	AUS	CAN	GER	NZ	UK	US
Has regular doctor	92	92	97	94	96	84
Less than 2 years	16	12	6	19	14	17
5 years or more	56	60	76	57	66	42
No regular doctor	8	8	3	6	4	16

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults

Figure 8. Waiting Time to See Doctor When Sick or Need Medical Attention, Sicker Adults in Six Countries, 2005

Last time you were sick or needed medical attention, how quickly could you get an appointment to see a doctor?

Percent of adults



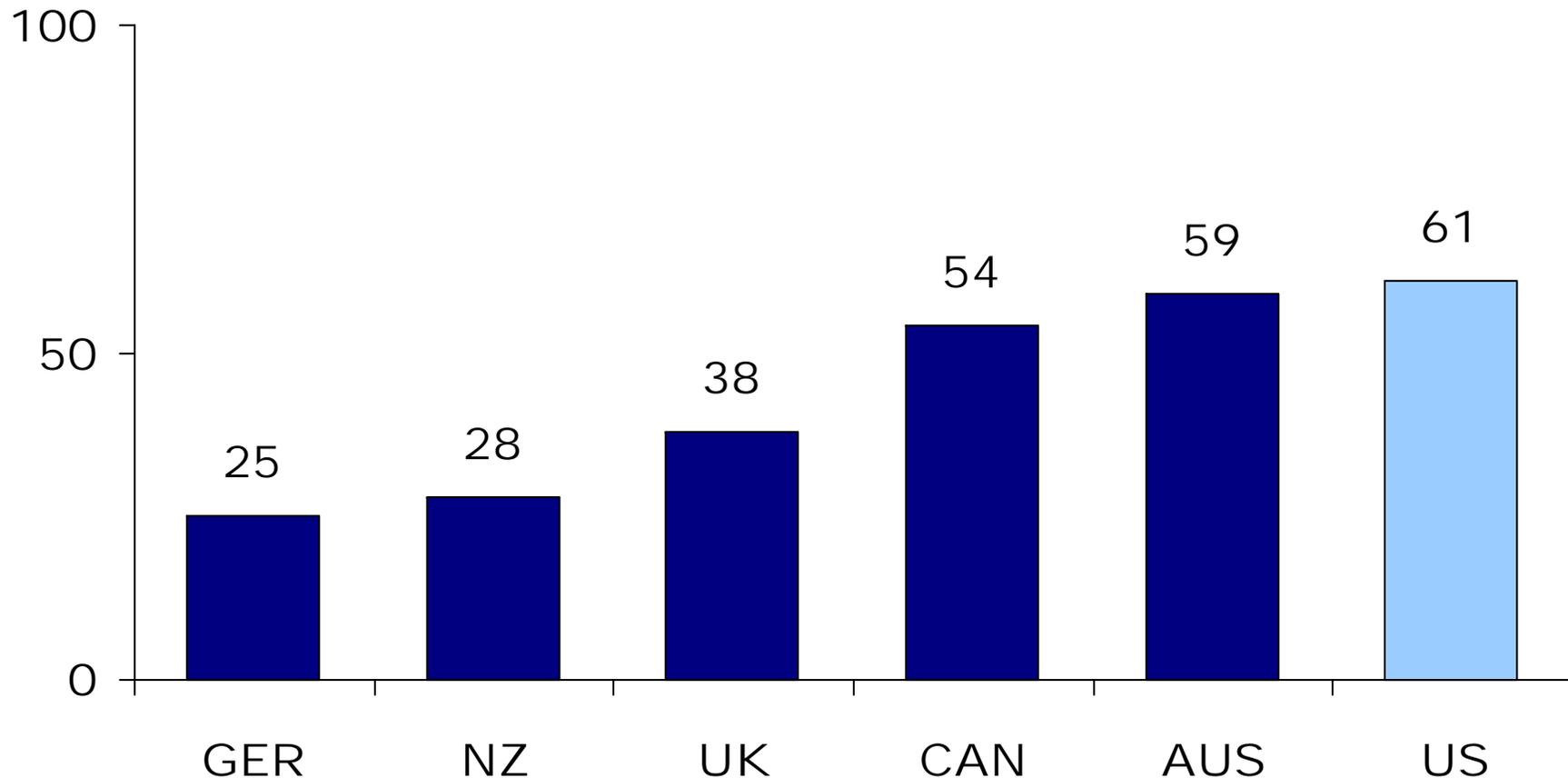
NZ=New Zealand; GER=Germany; AUS=Australia; UK=United Kingdom; US=United States; CAN=Canada.

Data: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults (Schoen et al. 2005a).

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Figure 9. Difficulty Getting Care on Nights, Weekends, Holidays Without Going to the ER, Among Sicker Adults in Six Countries, 2005

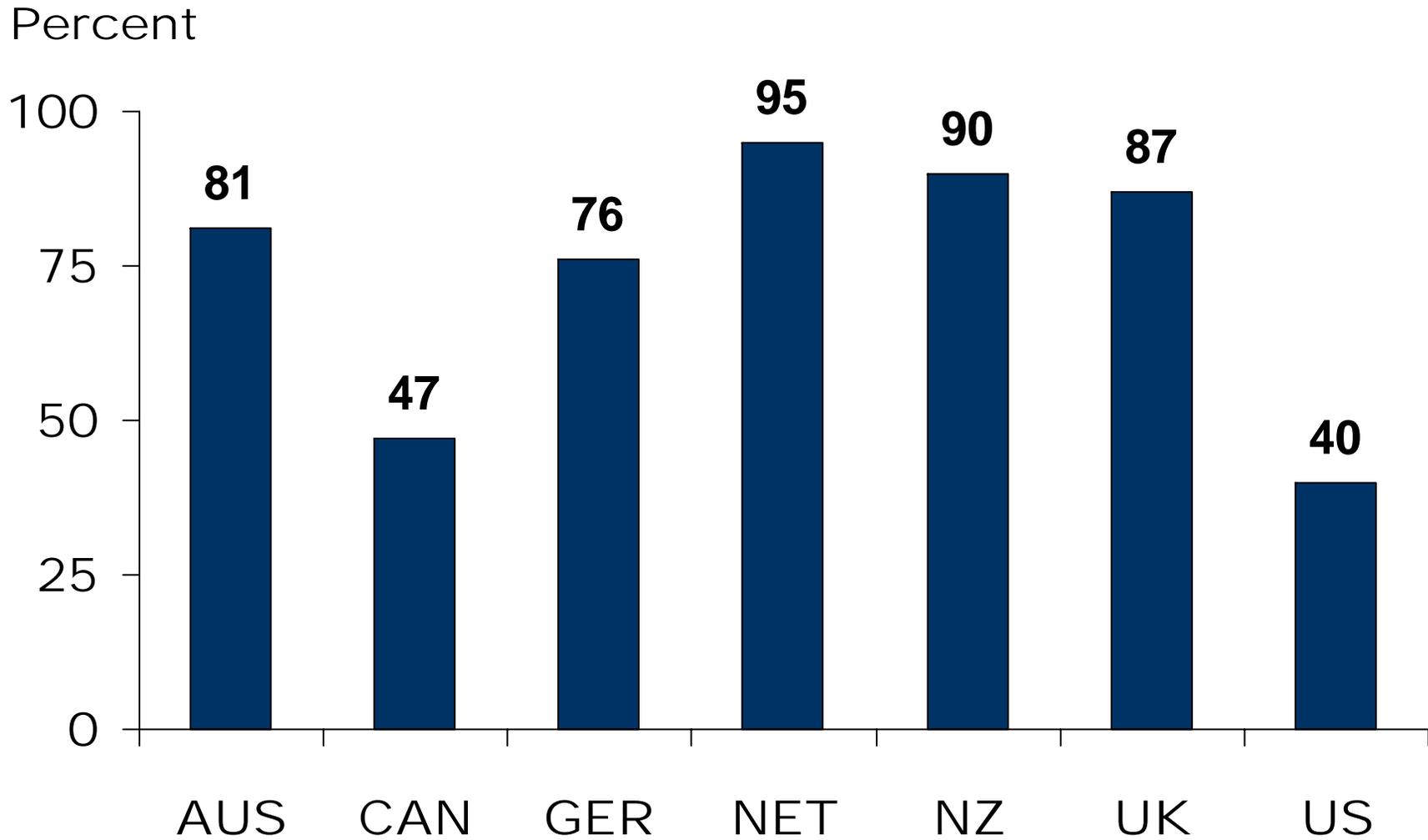
Percent of adults who sought care reporting "very" or "somewhat" difficult



GER=Germany; NZ=New Zealand; UK=United Kingdom; CAN=Canada; AUS=Australia; US=United States.
Data: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults (Schoen et al. 2005a).

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Figure 10. Practice Has Arrangement for After-Hours Care to See Nurse/Doctor



Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

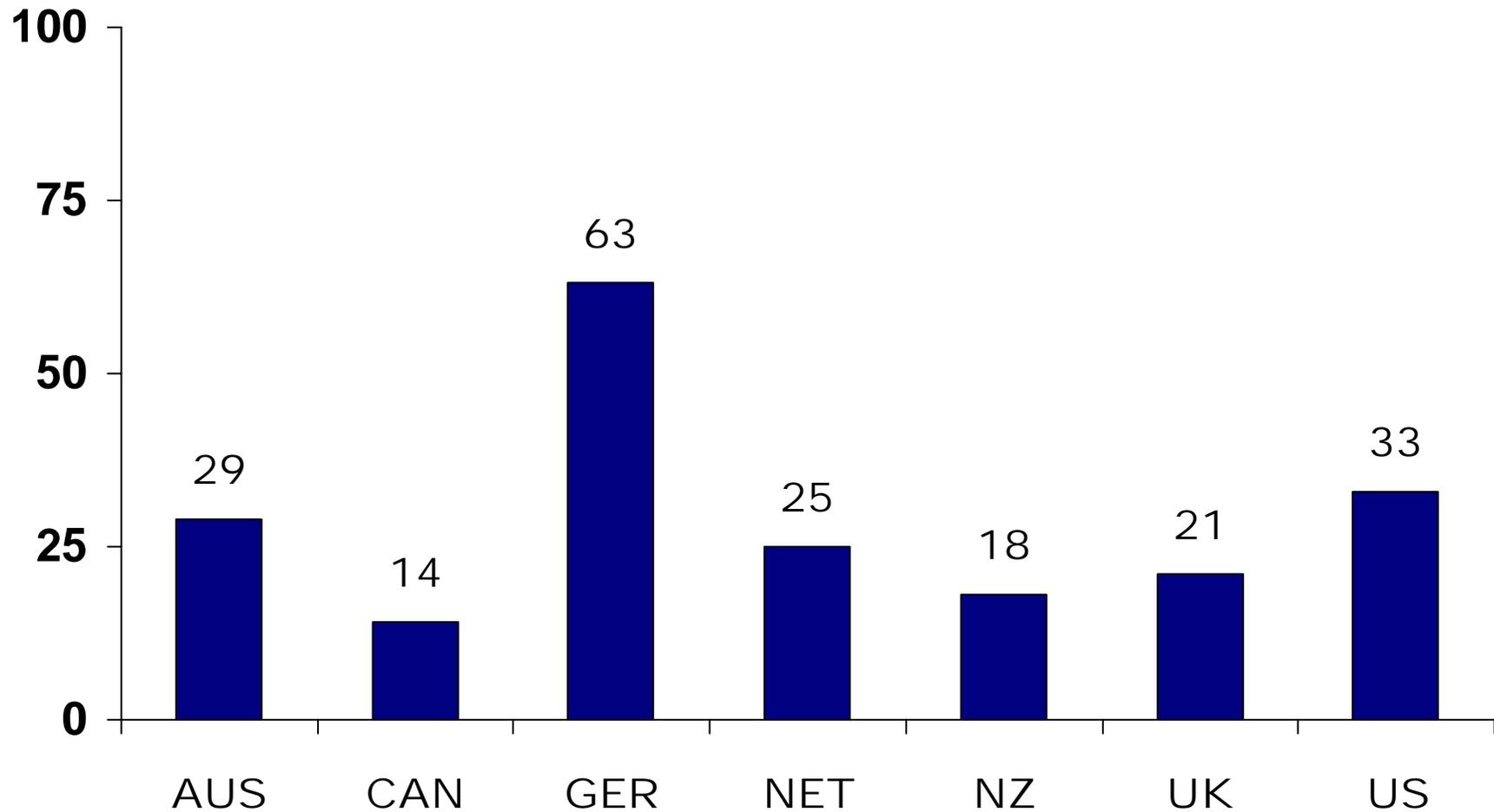
Figure 11. Patients Report Problems with Care Coordination

Percent saying in the past 2 years:	AUS	CAN	GER	NZ	UK	US
Test results or records not available at time of appointment	12	19	11	16	16	23
Duplicate tests: doctor ordered test that had already been done	11	10	20	9	6	18
Percent who experienced either coordination problem	19	24	26	21	19	33

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults

Figure 12. Doctor Routinely Gives Patients with Chronic Diseases Plan to Manage Care at Home

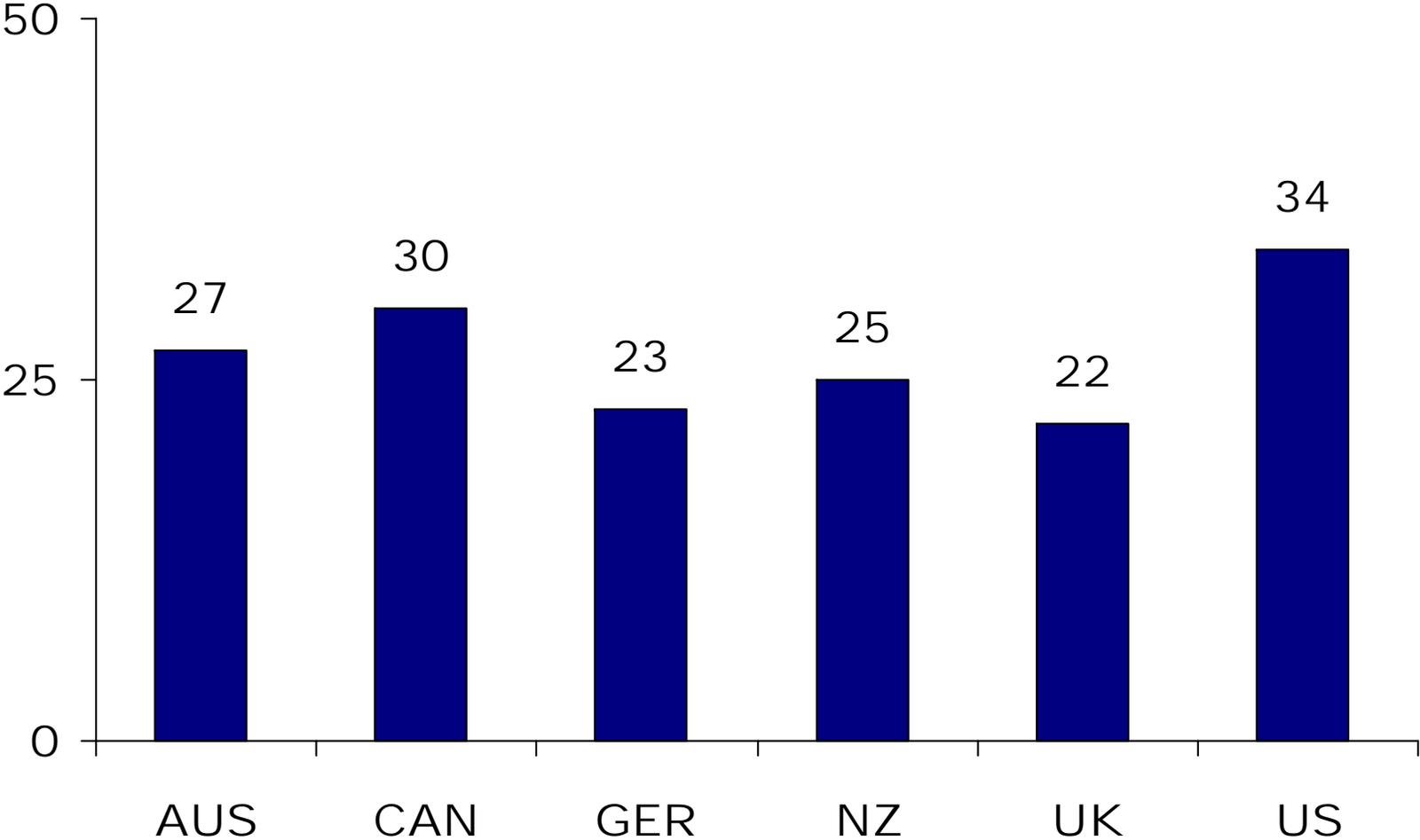
Percent gives written plan



Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

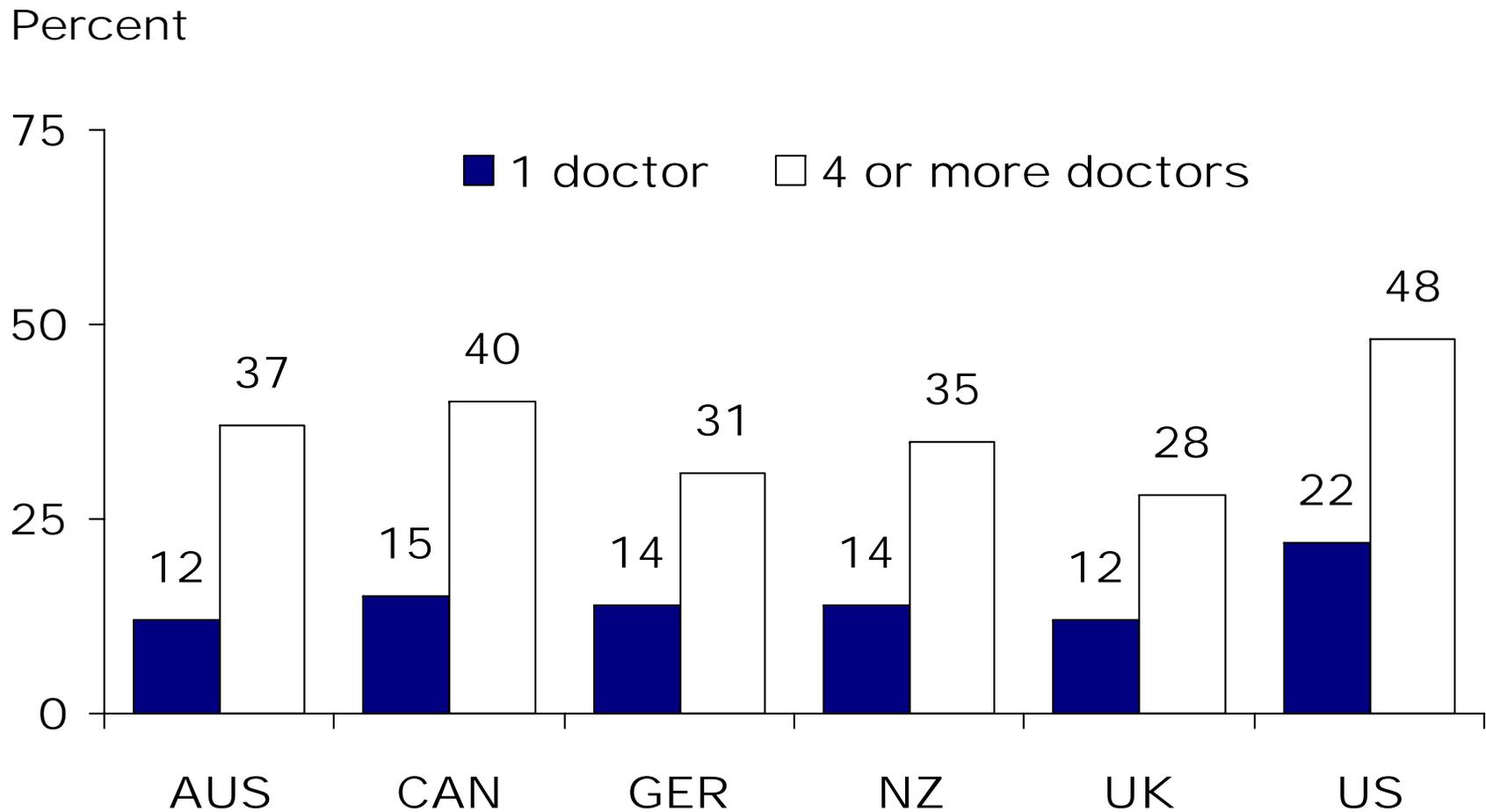
Figure 13. Any Error: Medical Mistake, Medication Error or Test Error in Past 2 Years

Percent



Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults

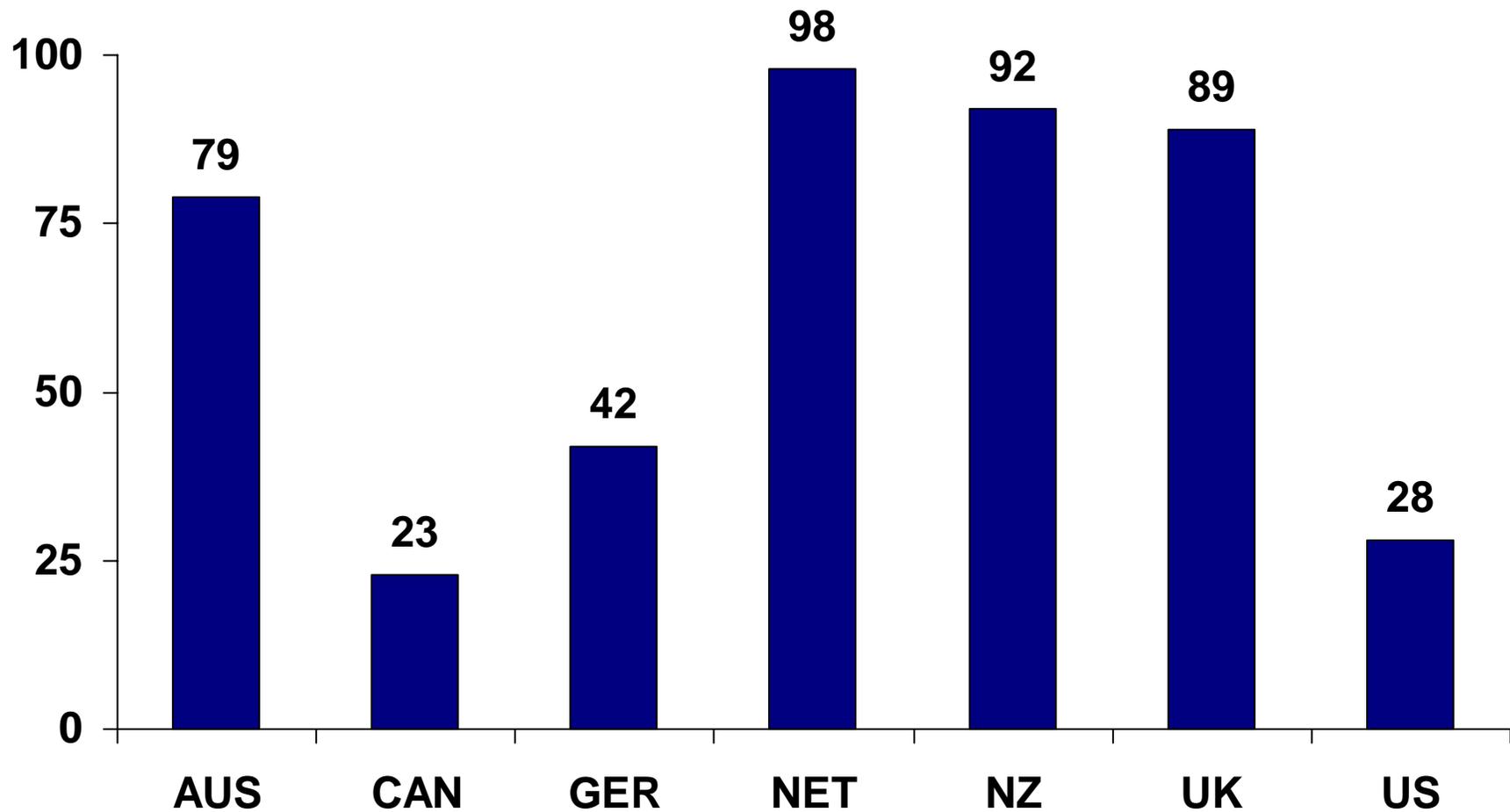
Figure 14. Patients Reporting Any Error by Number of Doctors Seen in Past Two Years



Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults

Figure 15. Primary Care Doctors Use of Electronic Patient Medical Records, 2006

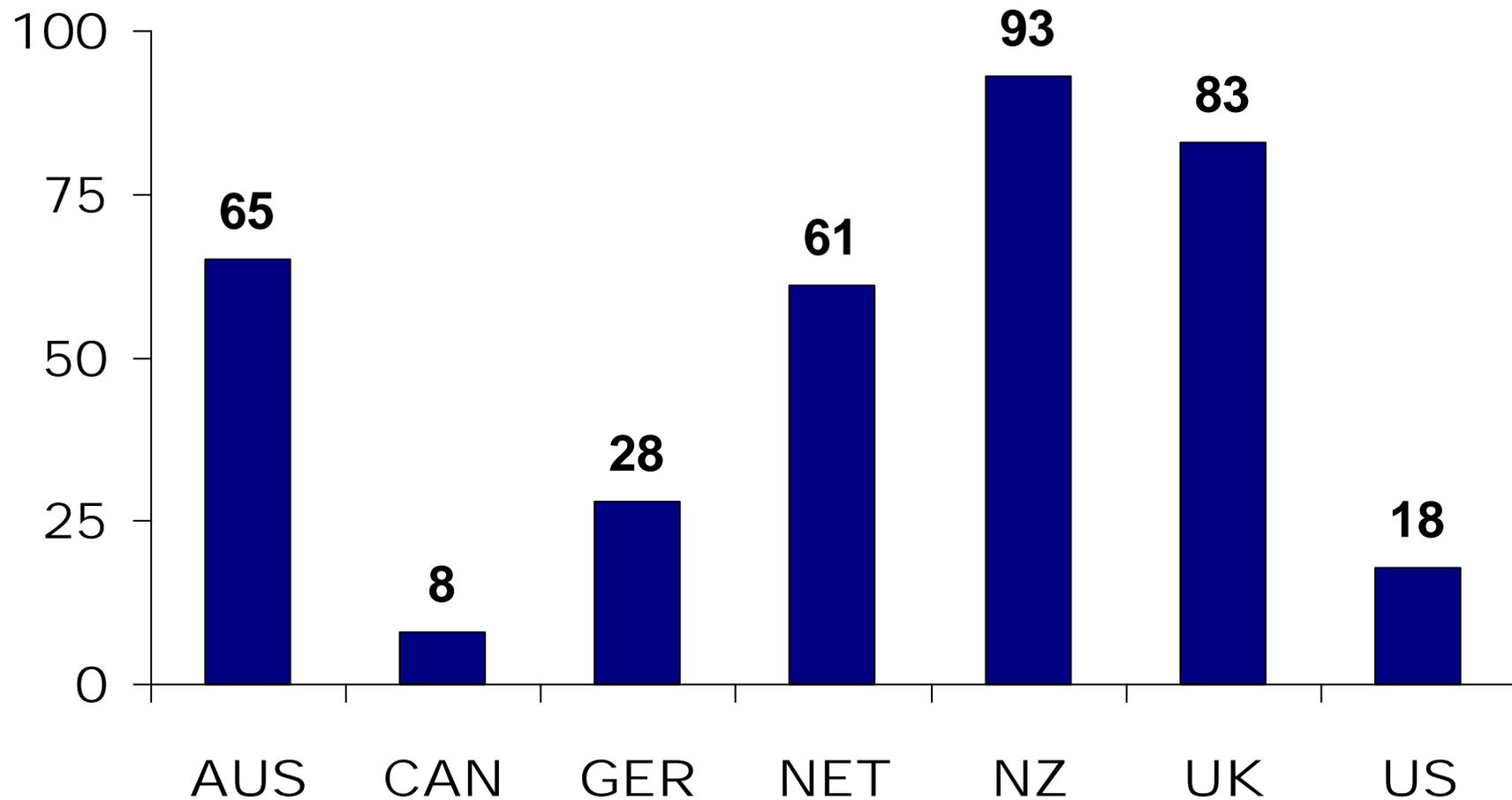
Percent



Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

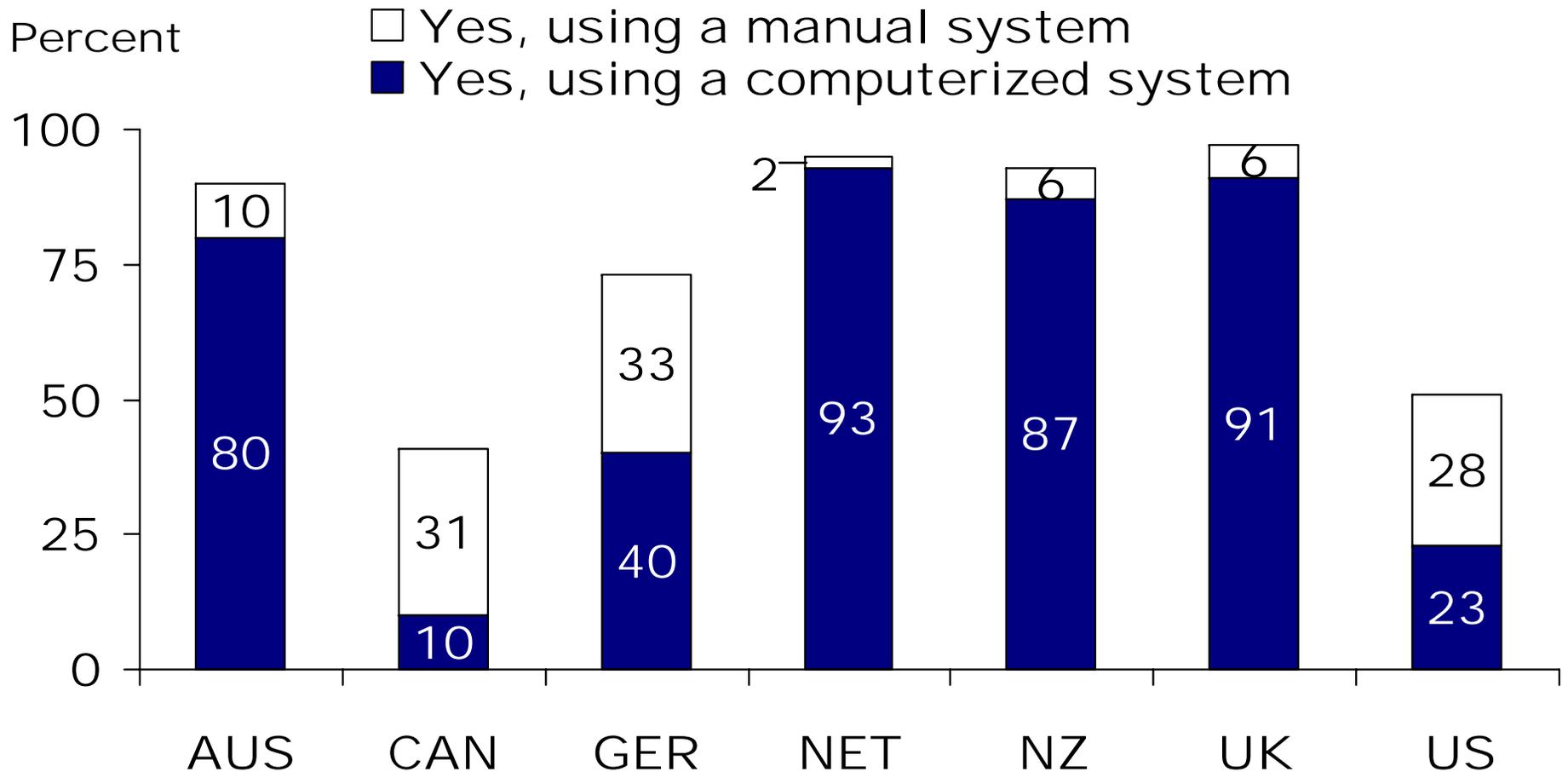
Figure 16. Patients Routinely Sent Reminder Notices for Preventive or Follow-Up Care

Percent report yes, using a computerized system



Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

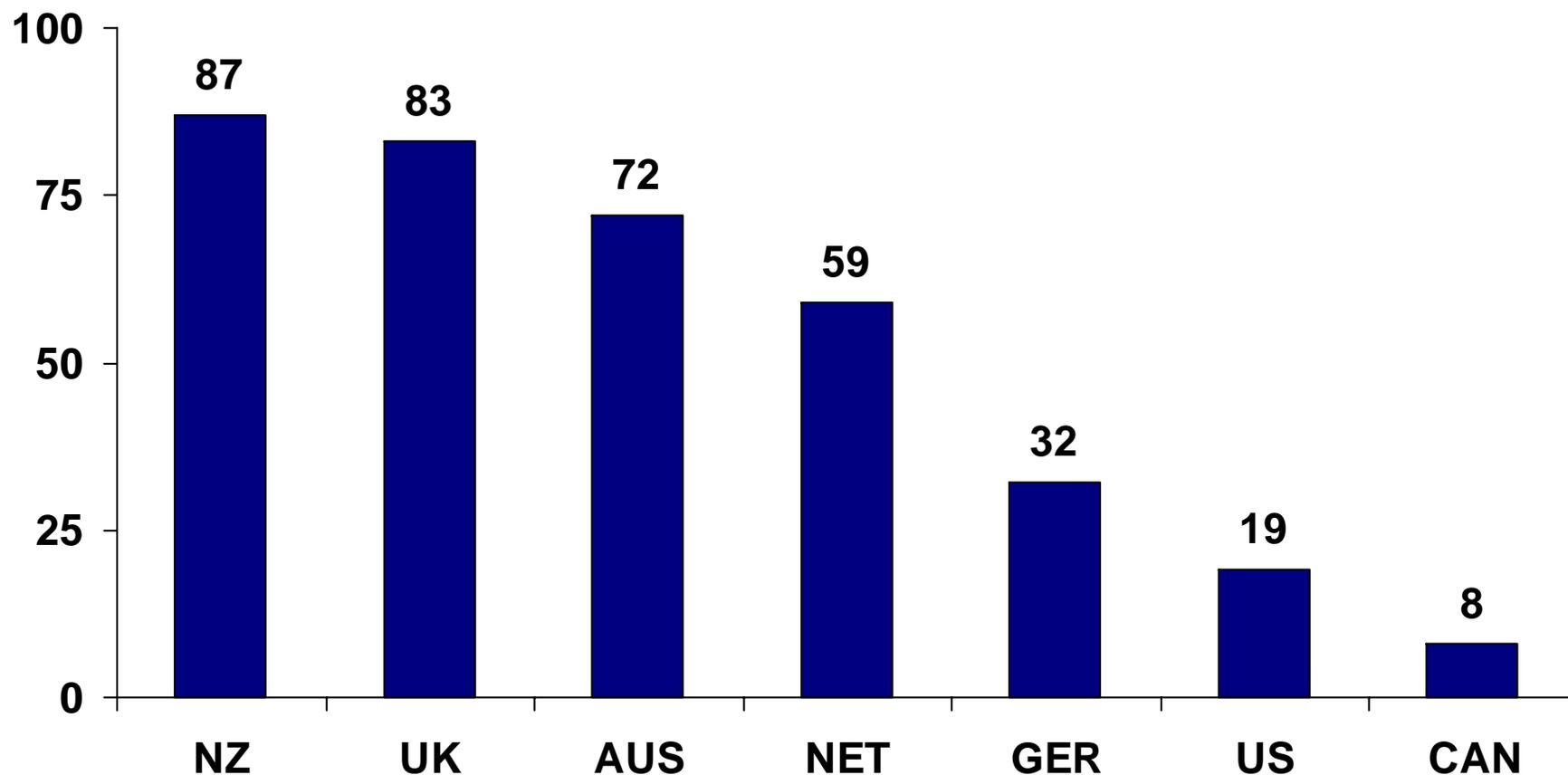
Figure 17. Doctor Routinely Receives Alert about Potential Problem with Drug Dose/Interaction



Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

Figure 18. Primary Care Practices with Advanced Information Capacity

Percent reporting 7 or more out of 14 functions*

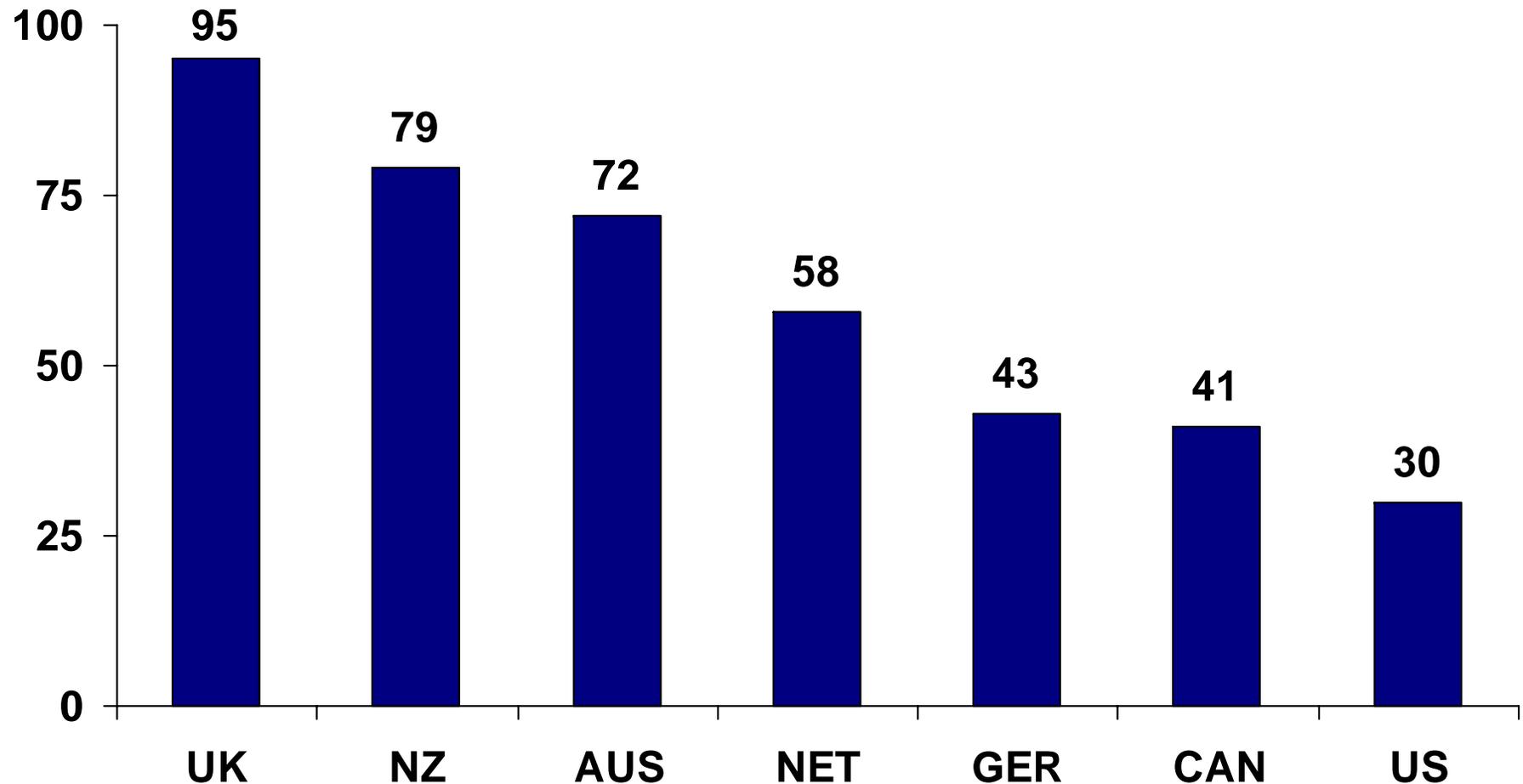


*Count of 14: EMR, EMR access other doctors, outside office, patient; routine use electronic ordering tests, prescriptions, access test results, access hospital records; computer for reminders, Rx alerts, prompt tests results; easy to list diagnosis, medications, patients due for care.

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

Figure 19. Primary Care Doctors' Reports of Any Financial Incentives Targeted on Quality of Care

Percent reporting any financial incentive*

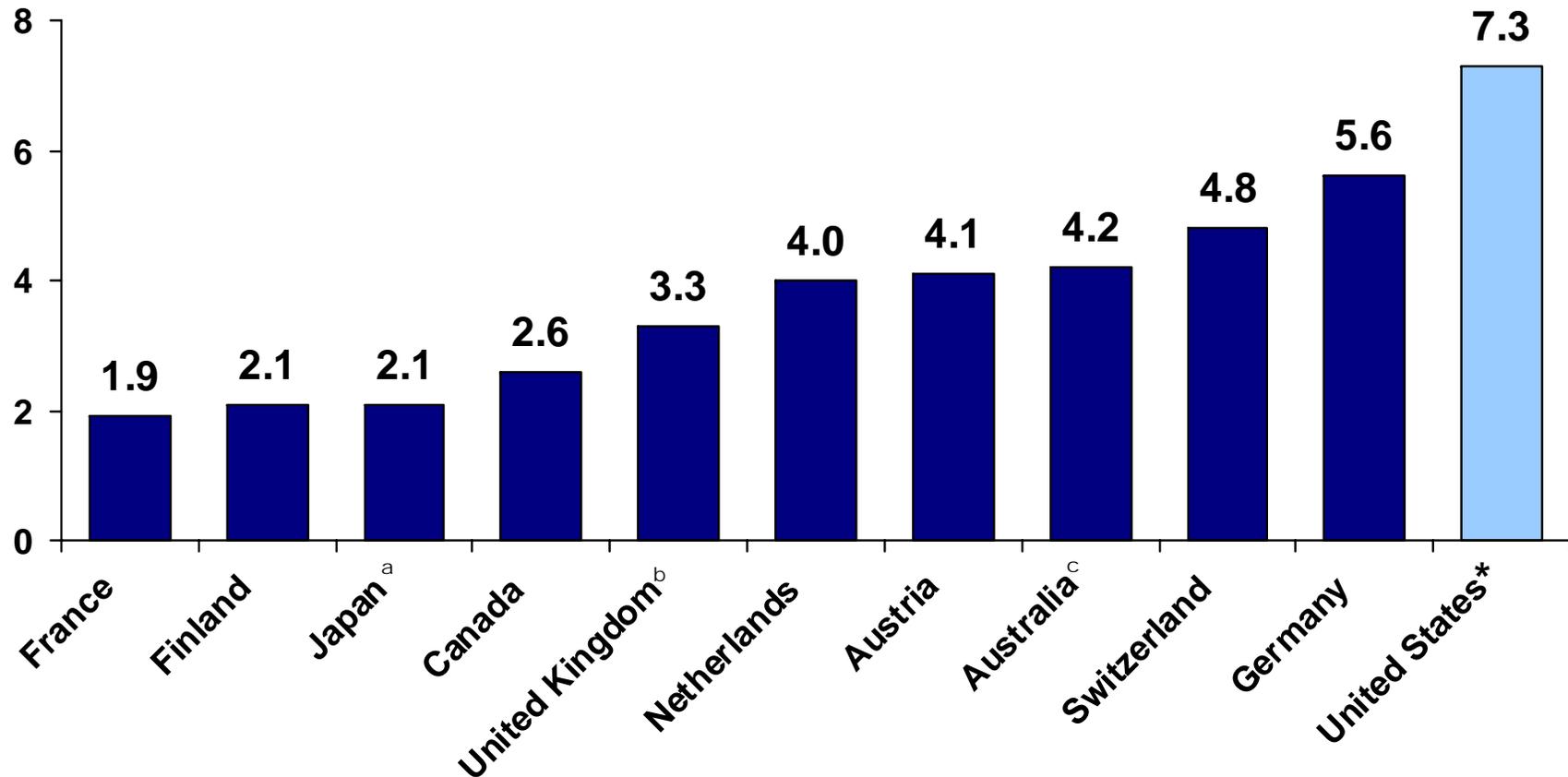


* Receive of have potential to receive payment for: clinical care targets, high patient ratings, managing chronic disease/complex needs, preventive care, or QI activities

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

Figure 20. Percentage of National Health Expenditures Spent on Health Administration and Insurance, 2003

Net costs of health administration and health insurance as percent of national health expenditures



^a 2002 ^b 1999 ^c 2001

* Includes claims administration, underwriting, marketing, profits, and other administrative costs; based on premiums minus claims expenses for private insurance.

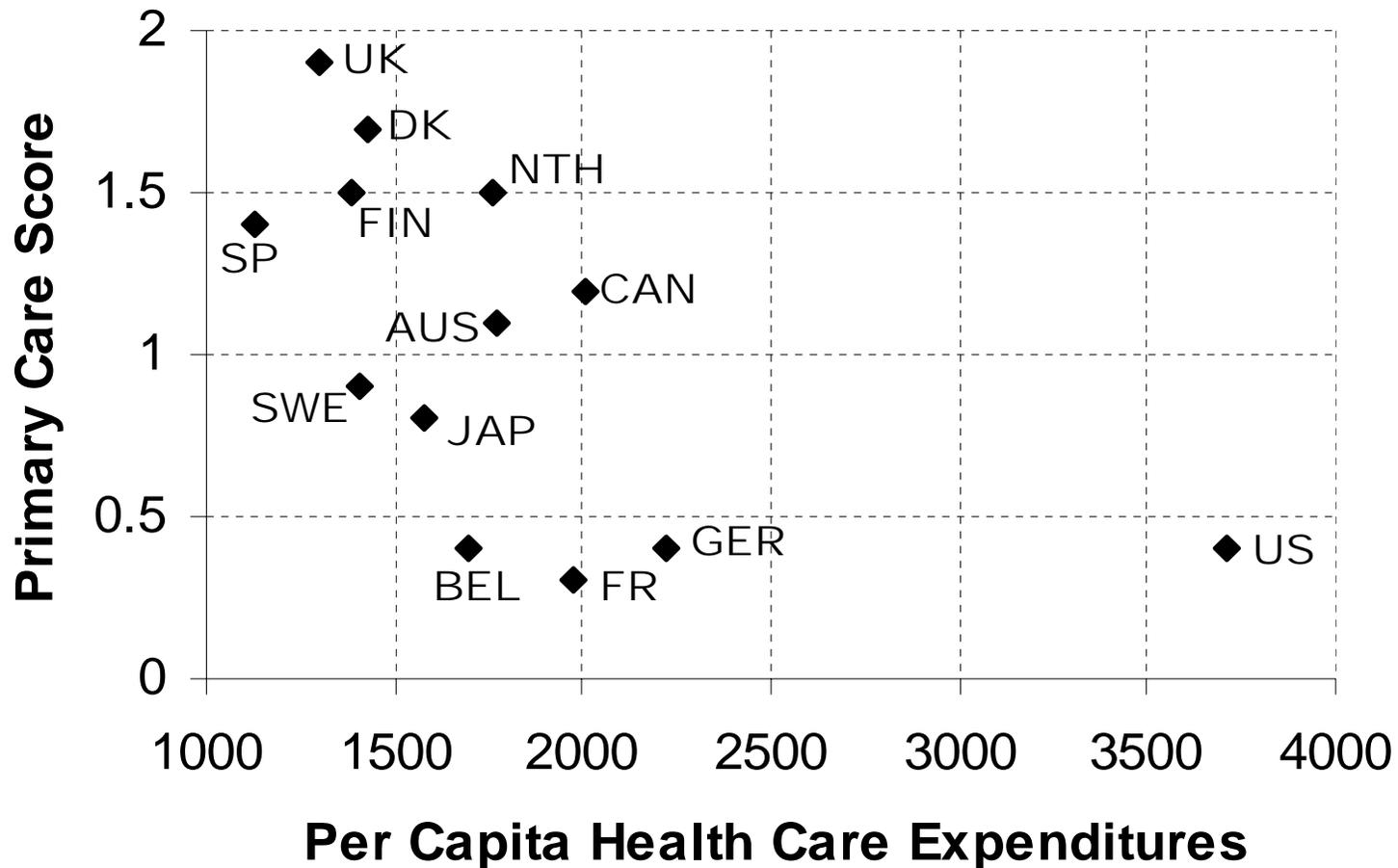
Data: OECD Health Data 2005.

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Figure 21. Denmark Leads the Way in Patient-centered Primary Care

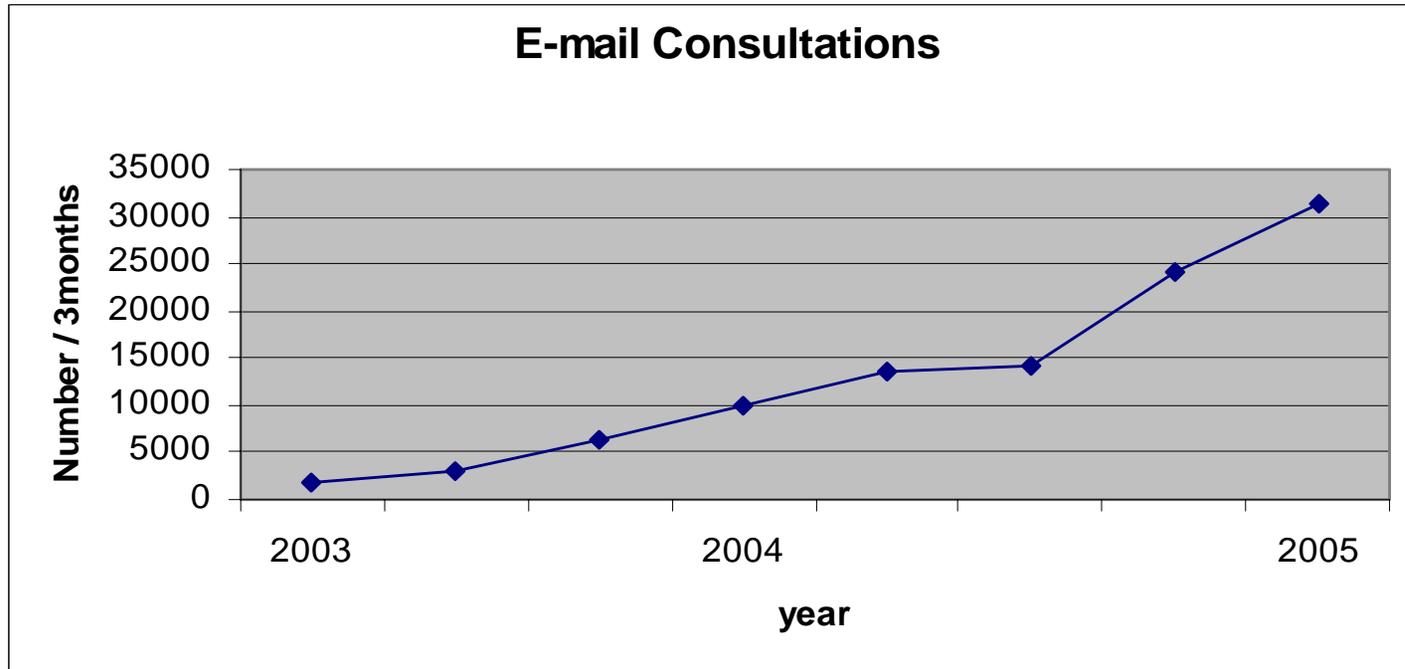
- Blended primary care payment system
 - Fee for service
 - Medical home monthly fee per patient
- Organized off-hours service
 - Physicians staff phone banks nights and weekends with computerized access to patient information; paid for telephone consultations
 - Physicians staff evening and weekend clinics, and
 - Off-hours service physicians do home visits
- Health information technology and information exchange
 - 98% of primary care physicians totally electronic health records and e-prescribing
 - Paid for e-mail with patients
 - All prescriptions, lab and imaging tests, specialist consult reports, hospital discharge letters flow through a single electronic portal (MedComm – a nonprofit organization) accessible to patients, physicians, and home health nurses

Figure 22. Primary Care Score vs. Health Care Expenditures, 1997



Source: B. Starfield, "Why More Primary Care: Better Outcomes, Lower Costs, Greater Equity," Presentation to the Primary Care Roundtable: Strengthening Adult Primary Care: Models and Policy Options, October 3, 2006. According to Starfield, good primary care is defined as high levels of first contact accessibility, patient-focused care over time, a comprehensive package of services, and coordination of services when services have to be provided elsewhere.

Figure 23. Danish E-Mail Contacts with Patients



Payment for telephone call from pt.: 25 DKR or \$4

Payment for E-mail from/to pt.: 50 DKR or \$8

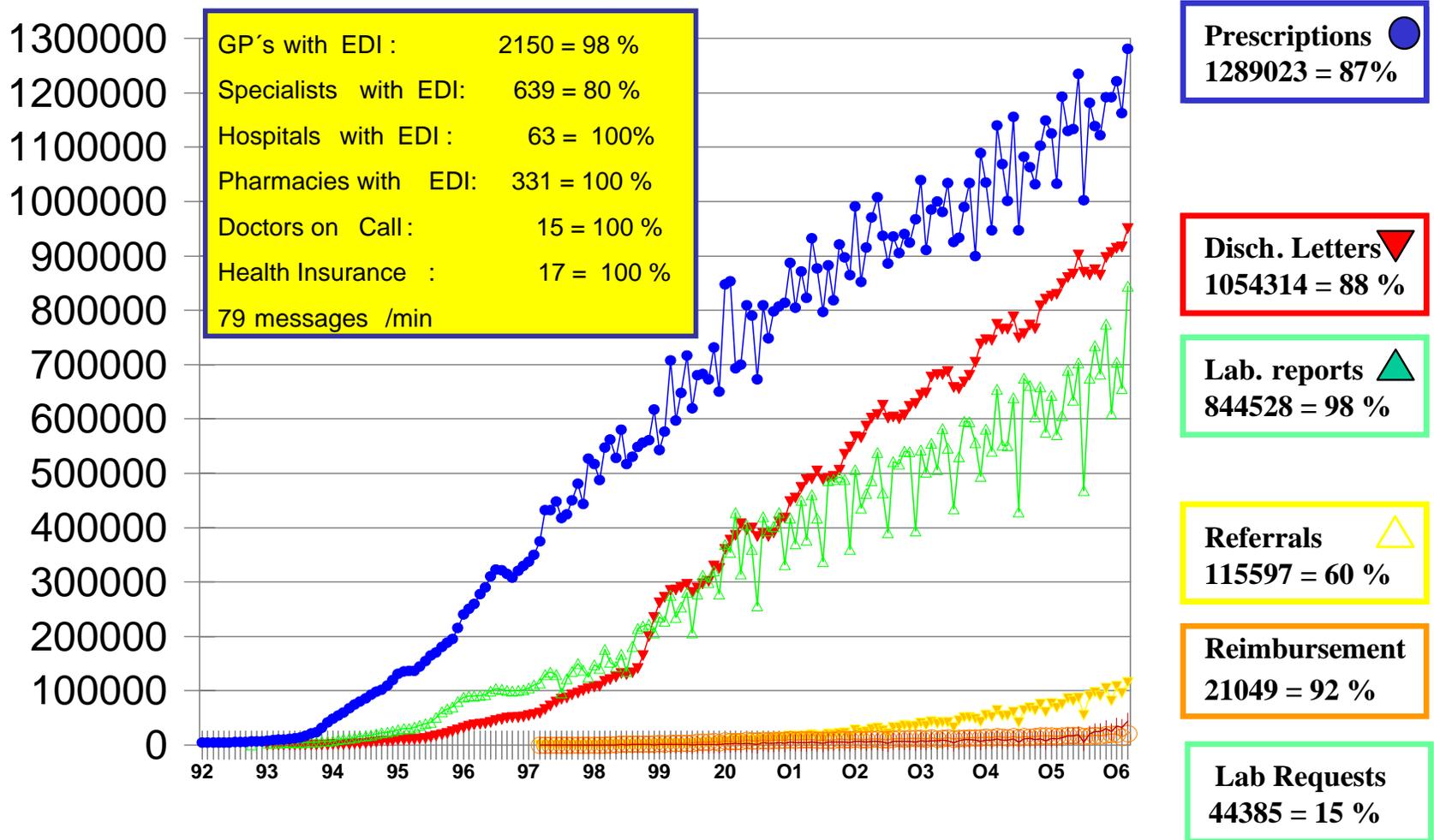
Source: I. Johansen, "What Makes a High Performance Health Care System and How Do We Get There? Denmark," Presentation to the Commonwealth Fund International Symposium, November 3, 2006.

Figure 24. Countries with a Single Unifying Organization Have Higher Rates of HIT

- Denmark
 - nonprofit organization, arms length from government
- New Zealand
 - a private company
- Scotland
 - the department of health
- *The lack of a unifying organization is seen to be a limiting factor in a number of countries*
- Culture and tradition; standards (e.g. communications); structured data (e.g. Read codes in England & Scotland, ICPC in Norway); and size may also be contributing factors

Source: D. Protti, "A Comparison of Information Technology in General Practice in Ten Countries," Presentation to the Commonwealth Fund International Symposium, November 3, 2006.

Figure 25. MedCom -The Danish Health Data Messages/Month



Source: I. Johansen, "What Makes a High Performance Health Care System and How Do We Get There? Denmark," Presentation to the Commonwealth Fund International Symposium, November 3, 2006.

Figure 26. National Quality Benchmarking in Germany

Size of the project:

- 2,000 German Hospitals (> 98%)
- 5,000 medical departments
- 3 Million cases in 2005
- 20% of all hospital cases in Germany
- 300 Quality indicators in 26 areas of care
- 800 experts involved (national and regional)

Ideas and goals:

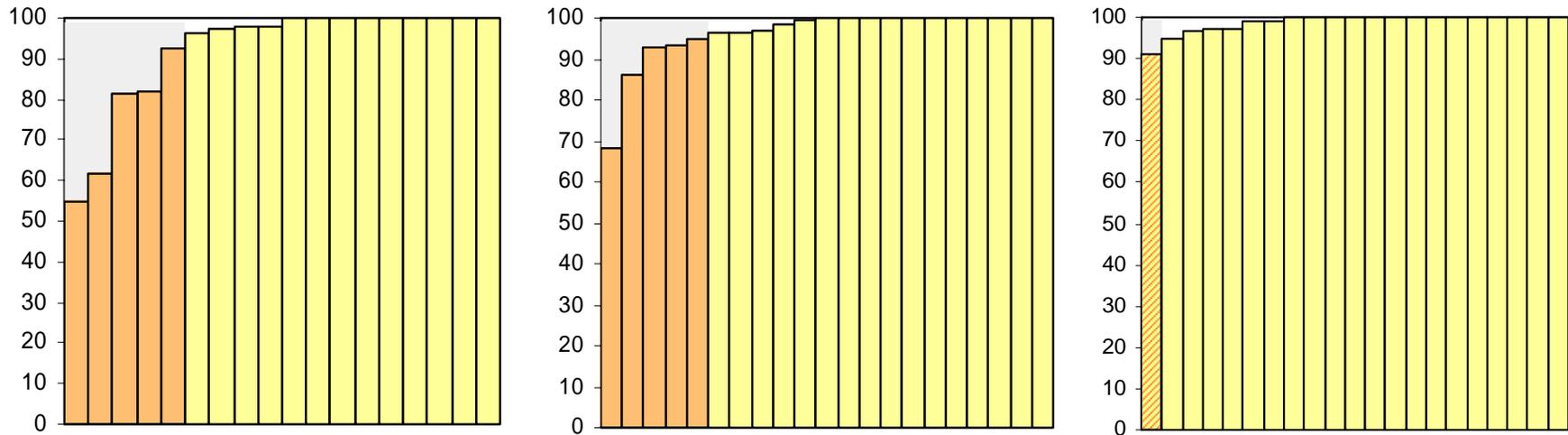
- define standards (evidence based, public)
- define levels of acceptance
- document processes, risks and results
- present variation
- start structured dialog
- improve and check

Source: Christof Veit, "The Structured Dialog: National Quality Benchmarking in Germany," Presentation at AcademyHealth Annual Research Meeting, June 2006.

Figure 27. Improvement:

Hamburg: Antibiotic Prophylaxes in Hip-Replacement.

2003: 95,6% → 2004: 98,5% → 2005: 99,3%



Source: Christof Veit, "The Structured Dialog: National Quality Benchmarking in Germany,"
Presentation at AcademyHealth Annual Research Meeting, June 2006.

Figure 28. Disease Management Programs for Chronic Diseases in Germany

- Conditions:
 - Diabetes type I and II
 - COPD
 - CHD
 - Breast cancer
- Specific regulations for care targets, drugs, quality management and documentation
- 1.6 million enrolled patients (August 2006)
- Preliminary data show positive effects on quality
- Cost reductions unlikely

Source: Michael Hallek, "Typical problems and recent reform strategies in German health care - with emphasis on the treatment of cancer," Presentation to the Commonwealth Fund International Symposium, November 2, 2006.

Figure 29. German Global Payment for Integrated Oncology: Key Elements

- Treatment according to evidence-based guidelines
- Detailed treatment pathways and standard operating procedures (SOPs)
 - Define multi-disciplinary cooperation
 - Assign responsibilities between hospital and office-based sectors
 - Avoid inconsistent or redundant medical procedures
- New cancer-specific quality indicators
- Innovative financing (1-year package, global fee)
 - Stage-adapted global fees for 12 months from diagnosis
 - Fees include diagnostics, surgery, radiotherapy, chemotherapy, follow up and palliative care
 - Additional payments for outliers (example: early relapse)
 - Remuneration of office-based physicians by the oncology center

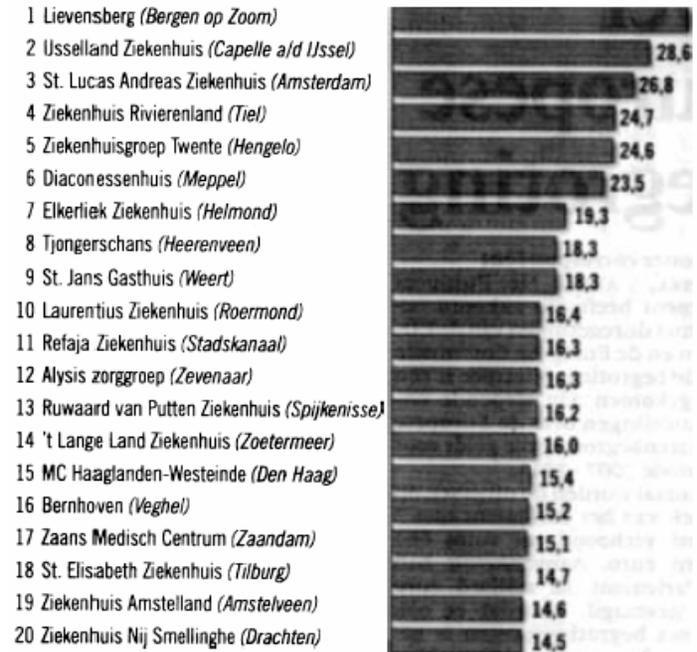
Source: Michael Hallek, "Typical Problems and Recent Reform Strategies in German Health Care - With Emphasis on the Treatment of Cancer," Presentation to the Commonwealth Fund International Symposium, November 2, 2006.

Figure 30. Improve Quality Transparency: The Netherlands

- Collect comparative data: (quality indicators)
- Inspectorate examines care providers with different quality indicators
- Make quality differences visible through the internet

Top-20 sterfgevallen na herseninfarct

Percentage patiënten dat binnen 180 dagen na een herseninfarct is overleden, per ziekenhuis



Source: Hans Hoogervorst, Minister of Health, Netherlands,, "A Vision for Health Care in the 21st Century," Presentation to the Commonwealth Fund International Symposium, November 2, 2006.

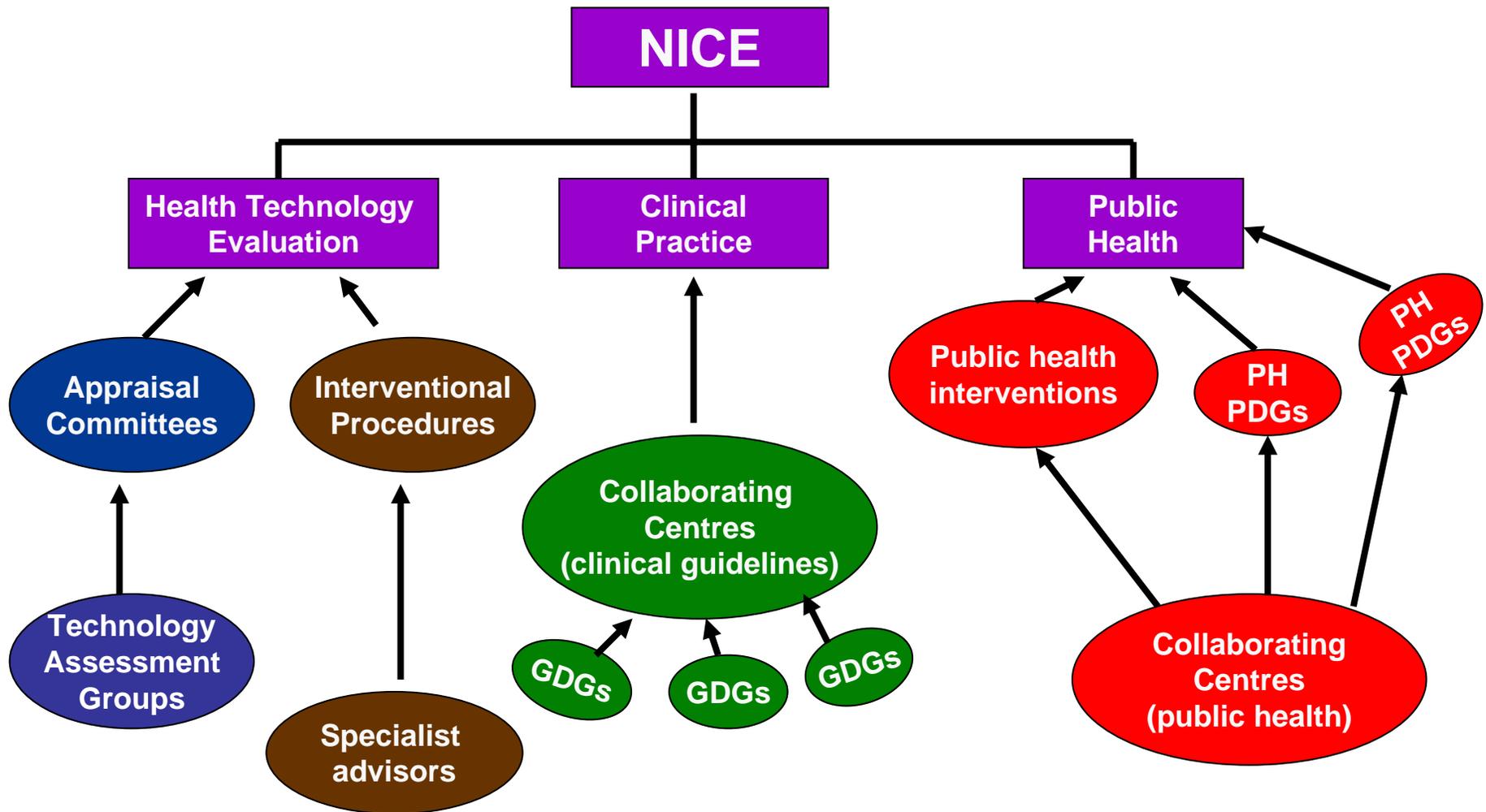
Figure 31. Primary Care Organization in Netherlands

- After hours care arrangements
 - Nurse and physician call banks
- Most are solo practices yet organized to support each other with nurse and doctor cooperative
- Integrated electronic medical records
- Widespread use of registries

Figure 32. UK: First Year Performance

- Practice by practice results for the Quality and Outcome Framework for England were published on August 31, 2005
- Average score for practices in England in the first year was 959 out of a possible 1050. The maximum score of 1,050 points was achieved by 222 practices (2.6%)
- 8,486 practices in England took part, covering 99.5% of NHS registered patients
- Some of higher performance may have been improved documentation

Figure 33. The UK's National Institute for Health and Clinical Excellence (NICE): "Virtual" Institute



Source: Peter Littlejohns, "Using evidence to drive pharmaceutical policy: a NICE experience," Presentation to the Commonwealth Fund International Symposium, November 2, 2005.

- Homepage
- Survival rates**
- Information for patients
- Media centre
- About this site

[Home](#) / [Survival rates](#) / [About coronary artery bypass graft operations](#) / [Cardiac unit](#) / [Surgeon](#)

W. Andrew Owens
The James Cook University Hospital

About W. Andrew Owens

Specialties

Adult cardiac surgery
Adult thoracic surgery

Qualified

Queen's University, Belfast, 1990

Trained

Royal Victoria Hospital, Belfast 1994-1995
Papworth Hospital, Cambridge, 1995-1996
Freeman Hospital, Newcastle upon Tyne, 1996-1999
St Vincent's Hospital, Sydney, Australia, 1999-2001
James Cook University Hospital, Middlesbrough 2001-2002
Freeman Hospital, Newcastle upon Tyne, 2002

Previous consulting posts

Royal Victoria Hospital, Belfast 1994-1995
Papworth Hospital, Cambridge, 1995-1996

Address:

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Middlesbrough,
TS4 3 BW

Tel: 030 7 899 988

Email:

aowens@CTSnet.com

[Webpage](#)



Practice profile for the 3 years ending March 2005

Total number of operations performed

■ Isolated coronary bypass operations performed

■ Isolated valve operations performed

■ Combined and other operations performed

140



Source: Roger Boyle, "National Strategies to Improve Quality and Healthcare Delivery: Heart Disease," Presentation to the Commonwealth Fund International Symposium, November 3, 2005.

Figure 35

Survival rates after selected types of heart operation

How you can use this information

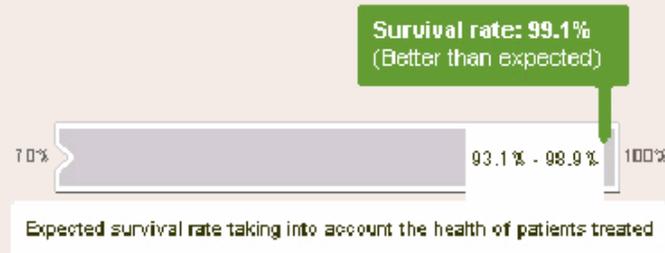
Patients who are going to have certain heart surgery may find it useful to look up survival rates for surgeons or units they are considering and discuss this information with their GP or their surgeon.

What it can't tell you

Your own chances of surviving a heart operation

Coronary artery bypass graft operations

Operations over 3 years ending March 2005



129 operations performed
Statistics calculated from all first time patients

Survival rates for all kinds of surgery

Operations over 3 years ending March 2005



140 operations performed
Statistics calculated from all first time patients

Source: Roger Boyle, "National Strategies to Improve Quality and Healthcare Delivery: Heart Disease," Presentation to the Commonwealth Fund International Symposium, November 3, 2005.

Figure 36. Take-Away Messages

- U.S. should assess innovations leading to high performance within the U.S. and internationally
- Universal health insurance is one key to improved access, quality, and efficiency
- Transparency and public reporting help identify high performance and spread best practices
- Strong primary care system with supporting information technology and health information exchange contributes to high performance
- Rewarding quality and efficiency realigns financial incentives

Thank You!



Stephen C. Schoenbaum, M.D., Executive Vice President and Executive Director, Commission on a High Performance Health System



Cathy Schoen, Senior Vice President for Research and Evaluation



Robin Osborn, Vice President, International Health Policy and Practice



Alyssa L. Holmgren, Research Associate

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Proposed Scope of Work for Consultants for VHCIP Care Models and Care Management Work Group

January 7, 2014

1. Collect information for Vermont Care Management Inventory, using template developed by work group and information previously provided by organizations engaging in care management activities in Vermont.
2. Summarize inventory information as accurately and concisely as possible, capturing key information (including information about service gaps and redundancies, and opportunities for improved coordination). Represent information using easily digestible tools; for example, tables, figures, maps or graphics.
3. Conduct research on best practices in care management in Vermont and elsewhere. Areas of particular focus could include integration of mental health and substance abuse care with other health care, social and community services; care management for people living with disabilities; relationship between care management of social issues and resulting medical expenditures; or other priority areas identified by the work group.
4. Assist the Work Group in identifying characteristics of ideal care management in Vermont.
5. Assist the Work Group in developing a strategic plan that includes recommendations on how to invest resources to improve care management.
6. Assist Work Group in identifying implementation needs for new or improved care management activities.
7. Develop recommendations for coordinating and aligning Work Group activities with activities of other VHCIP Work Groups.

DRAFT 1/7/14 – Work Plan for Care Models and Care Management Work Plan

Objectives	Supporting Activities	Target Date	Responsible Parties	Status of Activity	Measures of Success
Group logistics: charter, membership, meeting schedule, etc.	<ul style="list-style-type: none"> Review and refine draft charter Review membership list for gaps Develop 2013-2014 meeting schedule Identify resource needs 	December 2013	Staff; co-chairs; work group members	<ul style="list-style-type: none"> Draft charter in SIM Operational Plan Membership list developed 	<ul style="list-style-type: none"> Final Charter Comprehensive membership list 2013-14 meeting schedule Resources are adequate to accomplish objectives
Obtain consultants to assist with selected work group activities	<ul style="list-style-type: none"> Identify activities that could benefit from consultant expertise Develop scope of work and RFP Issue Engage in RFP <u>process if needed</u> Review bids Select vendor Execute contract <u>or contract amendment</u> 	March 2014	Staff; co-chairs; work group members; Core Team		<ul style="list-style-type: none"> Contract <u>or contract amendment</u> in place
Coordinate and collaborate with other work groups	<ul style="list-style-type: none"> Identify activities led by other work groups that relate to activities of the Care Models and Care Management Work Group Develop mechanisms for reporting about related activities to other work groups, and for obtaining information about related activities from other work groups 	Ongoing	Staff; co-chairs; work group members; other work groups		<ul style="list-style-type: none"> Well-coordinated and aligned activities among work groups
Develop understanding of current landscape of care management activities, including processes for collaboration.	<ul style="list-style-type: none"> Identify entities that conduct care management activities Identify data elements related to those activities (including processes for collaboration) Collect written information on data elements As requested by work group, ask selected entities to attend work group meetings <u>and webinars</u> to describe their activities in greater detail Use information collected to develop detailed care management inventory 	January February 2014	Staff; co-chairs; work group members; organizations engaging in care management; <u>consultant</u>	<ul style="list-style-type: none"> Initial list completed Data collection tool developed but being revised Data obtained from several organizations 	<ul style="list-style-type: none"> Comprehensive Care Management Inventory Work group members indicate understanding of current care management landscape

Objectives	Supporting Activities	Target Date	Responsible Parties	Status of Activity	Measures of Success
Identify redundancies, gaps, and opportunities for coordination.	<ul style="list-style-type: none"> Based on written and verbal information, identify gaps Based on written and verbal information, identify redundancies Based on written and verbal information, identify opportunities for coordination 	February 2014	Staff; co-chairs; work group members; organizations engaging in care management; consultant		<ul style="list-style-type: none"> Written description of gaps, redundancies, opportunities for coordination
Research, summarize, and review best practices in care management.	<ul style="list-style-type: none"> Review literature Review best practices in other states Review best practices in Vermont 	February 2014; concurrent with landscape work	Staff, co-chairs, consultant ; CMMI Technical Assistance Staff?		<ul style="list-style-type: none"> Description of promising best practices
Identify characteristics and goals of ideal care models/care management activities for Vermont.	<ul style="list-style-type: none"> Based on review of best practices, discuss and identify Vermont's care model/care management goals Based on review of best practices, discuss and identify characteristics of ideal model(s) 	March 2014	Work group members		<ul style="list-style-type: none"> Description of characteristics and goals for Vermont
Develop strategic plan with recommendations on how to invest resources to improve care management to support Vermont's goals (e.g., reinforcement, extension and/or adaptation of existing care models, and/or adoption of additional care management activities), to support Vermont's goals.	<ul style="list-style-type: none"> Discuss and develop plan to meet goals and develop ideal model(s), including: <ul style="list-style-type: none"> Proposals to address gaps in services Proposals to eliminate duplication Proposals to reinforce, extend or adapt existing models Proposals for new models 	May 2014	Staff; co-chairs; work group members; consultant		<ul style="list-style-type: none"> Written strategic plan adopted by work group
Identify implementation needs (e.g., learning collaboratives, electronic	<ul style="list-style-type: none"> Review strategic plan to identify implementation needs Identify mechanisms and resources to meet 	June 2014	Staff; co-chairs; work group members; consultant		<ul style="list-style-type: none"> Written implementation plan, including proposed learning collaboratives,

Objectives	Supporting Activities	Target Date	Responsible Parties	Status of Activity	Measures of Success
and other information, communication, provider engagement) and potential resources to meet those needs.	implementation needs		consultant		HIE needs, communication mechanisms, provider engagement activities, implementation resources

Vermont Health Care Innovation Project
2014 Meeting Schedule for Care Models and Care Management Work Group

In-Person Meetings: Second Tuesday of Each Month from 10:00 AM to 12:00 Noon

Webinars: Third Tuesday of Each Month from 10:00 AM to 12:00 Noon

- January 14, 2014 (In-Person; presentation from Designated Agencies)
- January 21, 2014 (Webinar; presentations by Allan Ramsay, MD on Care Models for Supportive Care of the Seriously Ill and from the Vermont Assembly of Home Health Agencies)
- February 11 (In-Person; presentation from Blueprint CHT Leaders)
- February 18 (Webinar; presentation from VCHIP on Blueprint Network Analysis)
- March 11, 2014 (In-Person)
- March 18, 2014 (Webinar)
- April 8, 2014 (In-Person)
- April 15, 2014 (Webinar)
- May 13, 2014 (In-Person)
- May 20, 2014 (Webinar)
- June 10, 2014 (In-Person)
- June 25, 2014 (Webinar)
- July 8, 2014 (In-Person)
- July 15, 2014 (Webinar)
- August 12, 2014 (In-Person)
- August 19, 2014 (Webinar)
- September 9, 2014 (In-Person)
- September 16, 2014 (Webinar)
- October 14, 2014 (In-Person)
- October 21, 2014 (Webinar)
- November 18, 2014 (In-Person)
- November 25, 2014 (Webinar)