MEASURE APPLICATIONS PARTNERSHIP

CONVENED BY THE NATIONAL QUALITY FORUM

MEETING MATERIALS

for

IN-PERSON MEETING OF THE DUAL ELIGIBLE BENEFICIARIES WORKGROUP

JULY 25-26, 2011

NATIONAL QUALITY FORUM

MEASURE APPLICATIONS PARTNERSHIP

Dual Eligible Beneficiaries Workgroup: In-Person Meeting #2
July 25-26, 2011

Embassy Suites Washington DC – Convention Center
900 10th Street NW, Washington, DC 20001

Please use the following information to access the conference call line:

Dial-in Number for Members of the Public: (888) 312-9858, Confirmation Code 9497646

Web Streaming: http://www.MyEventPartner.com/QualityForum147

AGENDA

Meeting Objectives:
- Finalize vision, guiding principles, and strategic approach to performance measurement
- Discuss strengths and weaknesses of current applications of measures
- Identify current measures that apply to high-leverage opportunities for improvement
- Develop themes, recommendations, and questions for public comment to include in interim report to HHS

Day 1—July 25

9:00 am **Welcome and Review of Meeting Objectives**
Alice Lind (Workgroup Chair)
Senior Clinical Officer and Director of Long-Term Supports and Services, Center for Health Care Strategies, Inc.
- Introductions
- Review project context and meeting objectives
- Review interim report draft outline

9:30 am **Opportunities for Alignment**
Wendy Vernon, Senior Director, Strategic Partnerships, NQF
Aisha Pittman, Senior Program Director, Strategic Partnerships, NQF
- National Quality Strategy
- Multiple Chronic Conditions Measurement Framework
- Discussion and questions

10:15 am **Synthesize Strategic Approach to Performance Measurement**
Alice Lind
- Vision for high-quality care
- Guiding principles
- Finalize approach and begin to draft recommendations
- Discussion and questions
- Opportunity for public comment

11:00 am **Break**

11:15 am **Defining High-Need Population Subgroups**
Alice Lind
- Results from web meeting homework
- Discussion and questions
- Opportunity for public comment

Noon **Working Lunch**

12:30 pm **Applications of Quality Measurement: Medicare**
Edward Garcia, Health Policy Analyst, Quality Measurement and Health Assessment Group, Office of Clinical Standards and Quality, CMS
Shari Ling, Medical Officer, Quality Measurement and Health Assessment Group, Office of Clinical Standards and Quality, CMS
Elizabeth Goldstein, Director, Division of Consumer Assessment and Plan Performance, CMS
- Medicare FFS
- Medicare Part D
- Medicare Advantage
- Discussion and questions

1:30 pm **Applications of Quality Measurement: Medicaid**
Karen Llanos; Technical Director; Division of Quality, Evaluation, and Health Outcomes; Children and Adult Health Program Group; CMCS; CMS
Anita Yuskauskas, Technical Director for HCBS Quality, Disabled and Elderly Health Programs Group, CMS
DEB Potter, Agency for Healthcare Research and Quality
David Polakoff, American Medical Directors Association
- Proposed Medicaid adult core measures
- Medicaid home and community-based services (HCBS) measures
- Discussion and questions
- Opportunity for public comment

2:30 pm **Break**

2:45 pm **Applications of Quality Measurement: Integrated Models**
Marsha Davenport, MD, MPH, FACPM, Chief Medical Officer, Medicare Drug and Health Plan Contract Administration Group, Division of Policy, Analysis and Planning; Acting Director, Division of Medicare Advantage Operations; CMS
Adam Burrows, National PACE Association
Rich Bringewatt, President, National Health Policy Group; Chair, Special Needs Plan Alliance
Larry Gottlieb, Commonwealth Care Alliance
- PACE
- D-SNPs and Fully Integrated SNPs
- Discussion and questions

3:45 pm **Data Sources and Alignment of the Data Platform**

Floyd Eisenberg, Senior Vice President, Health Information Technology, NQF

- Navigating from current state to desired state
- Data sources for desired measures
- Discussion and questions
- Opportunity for public comment

4:30 pm **Summary of Day 1 and Look Forward to Day 2**

Alice Lind

- Workgroup decisions and themes
- Expectations for Day 2 activities

4:45 pm **Adjourn for the Day**

Day 2—July 26

9:00 am **Recap of Day 1**

Alice Lind

- Review first day's themes and draft recommendations
- Discussion and questions

9:30 am **NQF-Endorsed Measures for High-Leverage Quality Improvement Opportunities**

Heidi Bossley, Vice President, Performance Measures, NQF

- Care coordination
- Quality of life
- Assessment and screening
- Mental health and substance use
- Discussion and questions

10:30 am **Small Group Activity: Assessing Available Measures**

Workgroup Members

- Care coordination
- Quality of life
- Assessment and screening
- Mental health and substance use

11:30 am **Report Out from Small Groups**

Workgroup Members

- Discussion and questions
- Opportunity for public comment

12:30 pm **Working Lunch**

1:00 pm **Looking Beyond Endorsed Measures**
Alice Lind and NQF Staff
- Endorsement development and endorsement gaps
- Opportunities to fill gaps
  - Mental health and substance abuse measures
  - Screening and assessment measures
  - Quality of life measures
- Discussion and questions
- Opportunity for public comment

2:15 pm **Break**

2:30 pm **Refine Recommendations and Path Forward**
Alice Lind and Workgroup Members
- Input to MAP Coordinating Committee
  - Final strategy and overarching recommendations
  - Exemplar measures and measure sets
- Questions to pose for public comment in report
- Discussion and questions
- Opportunity for public comment

3:30 pm **Summation**
Alice Lind

3:45 pm **Adjourn**

MAP Dual Eligible Beneficiaries Workgroup - Interim Report Outline

Interim Report Due to HHS on October 1, 2011

Submission will be followed by a public comment period

- I. Preface
- II. Introduction
    - a. Charge/Purpose
    - b. Terminology
- III. Overarching Frameworks
    - a. National Quality Strategy
    - b. NQF-Endorsed Patient Focused Episode of Care
    - c. Multiple Chronic Conditions Measurement Frameworks
- IV. Population Background
- V. Proposed performance measurement strategy
    - a. Vision for quality care
    - b. Highest-need population subgroups
    - c. Guiding principles
- VI. Opportunities for quality improvement with greatest impact
    - a. Care coordination by multi-disciplinary team, including medication management
    - b. Screening and assessment for specific risks
    - c. Quality of life beyond clinical aspects
    - d. Other opportunities specific to high-need subgroups and improving affordability of care
- VII. Current performance measurement landscape for this population
    - a. Existing Medicare measurement
    - b. Existing Medicaid measurement
    - c. Existing integrated models
    - d. Strengths/weaknesses of current measure applications
- VIII. Measures associated with quality improvement opportunities (see VI, above)
- IX. Recommendations
    - a. Preliminary recommendations
    - b. Measures appropriate for consideration for use with dual eligible population
    - c. Discussion
        - i. Health IT and data source considerations
        - ii. Caveats and noted policy/program complexities
        - iii. Potential endorsement and/or development gaps
    - d. Related themes across the Measure Applications Partnership
- X. Next phase of work (due June 2012)
    - a. Refined recommendations regarding existing metrics
    - b. Measure development and endorsement gaps
    - c. Suggested modifications to existing metrics and new measure concepts for future development
- XI. Issues for Public Comment

Clinical Practice Guidelines and Quality of Care for Older Patients With Multiple Comorbid Diseases

Implications for Pay for Performance

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Context Clinical practice guidelines (CPGs) have been developed to improve the quality of health care for many chronic conditions. Pay-for-performance initiatives assess physician adherence to interventions that may reflect CPG recommendations.

Objective To evaluate the applicability of CPGs to the care of older individuals with several comorbid diseases.

Data Sources The National Health Interview Survey and a nationally representative sample of Medicare beneficiaries (to identify the most prevalent chronic diseases in this population); the National Guideline Clearinghouse (for locating evidence-based CPGs for each chronic disease).

Study Selection Of the 15 most common chronic diseases, we selected hypertension, chronic heart failure, stable angina, atrial fibrillation, hypercholesterolemia, diabetes mellitus, osteoarthritis, chronic obstructive pulmonary disease, and osteoporosis, which are usually managed in primary care, choosing CPGs promulgated by national and international medical organizations for each.

Data Extraction Two investigators independently assessed whether each CPG addressed older patients with multiple comorbid diseases, goals of treatment, interactions between recommendations, burden to patients and caregivers, patient preferences, life expectancy, and quality of life. Differences were resolved by consensus. For a hypothetical 79-year-old woman with chronic obstructive pulmonary disease, type 2 diabetes, osteoporosis, hypertension, and osteoarthritis, we aggregated the recommendations from the relevant CPGs.

Data Synthesis Most CPGs did not modify or discuss the applicability of their recommendations for older patients with multiple comorbidities. Most also did not comment on burden, short- and long-term goals, and the quality of the underlying scientific evidence, nor give guidance for incorporating patient preferences into treatment plans. If the relevant CPGs were followed, the hypothetical patient would be prescribed 12 medications (costing her $406 per month) and a complicated nonpharmacological regimen. Adverse interactions between drugs and diseases could result.

Conclusions This review suggests that adhering to current CPGs in caring for an older person with several comorbidities may have undesirable effects. Basing standards for quality of care and pay for performance on existing CPGs could lead to inappropriate judgment of the care provided to older individuals with complex comorbidities and could create perverse incentives that emphasize the wrong aspects of care for this population and diminish the quality of their care. Developing measures of the quality of the care needed by older patients with complex comorbidities is critical to improving their care.

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The aging of the population and the increasing prevalence of chronic diseases pose challenges to the development and application of clinical practice guidelines (CPGs). In 1999, 48% of Medicare beneficiaries aged 65 years or older had at least 3 chronic medical conditions and 21% had 5 or more.[1] Health care costs for individuals with at least 3 chronic conditions accounted for 89% of Medicare's annual budget.[1] Comorbidity is associated with poor quality of life, physical disability, high health care use, multiple medications, and increased risk for adverse drug events and mortality.[2-4] Optimizing care for this population is a high priority.[5]

Clinical practice guidelines are based on clinical evidence and expert consensus to help decision making about treating specific diseases.[6] Clinical practice guidelines help to define standards of care and focus efforts to improve quality.[7,8] Most CPGs address single diseases in accordance with modern medicine's focus on disease and pathophysiology.[9] However, physi-

For editorial comment see p 741.

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cians who care for older adults with multiple diseases must strike a balance between following CPGs and adjusting recommendations for individual patients' circumstances. Difficulties escalate with the number of diseases the patient has.[10]

The limitations of current single-disease CPGs may be highlighted by the growth of pay-for-performance initiatives, which reward practitioners for providing specific elements of care.[8] Because the specific elements of care are based on single-disease CPGs, pay-for-performance may create incentives for ignoring the complexity of multiple comorbid chronic diseases and dissuade clinicians from caring for individuals with multiple comorbid diseases. Quality-of-care standards based on these CPGs also may lead to unfair and inaccurate judgments of physicians' care for this population.

We examined how CPGs address comorbidity in older patients and explored what happens when multiple single-disease CPGs are applied to a hypothetical 79-year-old woman with 5 common chronic diseases. We discuss the results in the context of incentives that are created by pay for performance and related health care initiatives.

METHODS

CPGs Included in the Review

To identify the diseases most prevalent in older individuals in the United States, we reviewed data from the National Health Interview Survey and a nationally representative sample of Medicare beneficiaries (5% of the Standard Analytic File).[1,11] We defined a chronic disease as being present when a patient had 2 outpatient claims or 1 inpatient claim for the disease during 1999.

From the 15 most common chronic diseases, we selected 9 that are usually managed in primary care: hypertension, chronic heart failure, stable angina, atrial fibrillation, hypercholesterolemia, diabetes mellitus, osteoarthritis, chronic obstructive pulmonary disease, and osteoporosis. We excluded depression and dementia to focus on patients who would be most likely to adhere to recommendations and understand health information.[12,13] Among the 5% sample in 2001, half of the beneficiaries had at least 2 of these 9 chronic diseases and 80% had at least 1 other condition.[1] We identified the most recently released (as of March 1, 2005) evidence-based CPGs promulgated for each chronic disease by national and international medical organizations using the National Guideline Clearinghouse.[14-42]

Data Abstraction

Our review was based on standards for developing and rating the quality of CPGs.[43-48] Indications of high quality included describing the target population, grading the quality of evidence supporting recommendations, discussing therapeutic goals, addressing quality of life, and incorporating patient preferences. We examined the concepts of competing risks and burden of treatment for patients and caregivers because these issues are central in the care of older adults with multiple diseases.[49,50]

Two investigators (C.M.B. and J.D.) independently abstracted data from each CPG about applicability to individuals aged 65 years or older with multiple comorbid diseases and the quality of evidence for this population; indications for treatment, feasibility of treatment, or modified goals for treating the index disease in the setting of comorbid diseases; and duration of therapy necessary to achieve benefit in the context of life expectancy. We reviewed CPGs for discussion of patient-centered aspects of medical decision making including effects on quality of life defined as explicit discussion of quality of life, physical function, or symptoms such as pain and dyspnea; differentiation between short- and long-term effects, goals of treatment (eg, cure, arresting progression of disease, preventing complications, or managing symptoms); incorporation of patient preferences or shared decision making; and burden of following recommendations on patients and their unpaid caregivers defined as explicit discussion of burden, or of the aggregate weight or intensity of therapy to either patients or caregivers. Of 117 abstraction decisions, investigators disagreed on 22. All were resolved by consensus after discussion between reviewers. Most disagreements involved statements that appeared ambiguous to the reviewers; some explanation is provided in the tables and additional details are available on request from the authors.

Hypothetical Patient

We examined the feasibility of combining the treatment recommendations from relevant CPGs for a hypothetical 79-year-old woman with osteoporosis, osteoarthritis, type 2 diabetes mellitus, hypertension, and chronic obstructive pulmonary disease, all of moderate severity. We abstracted the recommendations (medications, self-monitoring, tests, environmental change, diet, exercise, involvement of specialists and other clinicians, and frequency of follow-up) from the relevant CPGs and assembled a comprehensive treatment plan using explicit instructions from CPGs whenever possible.[19-40] We attempted to develop a treatment plan as simple and inexpensive as possible. When several options existed, we selected generic medications with the least frequent daily dosing and least potential for adverse effects. To reduce complexity of treatment, when possible we chose medications recommended for more than 1 condition and combined self-care activities whenever possible. We identified conflicts that emerged when relevant CPGs were applied (eg, potential adverse effects on other diseases when treating the target disease, interactions between recommended medications, and interactions between food and medications).

We tabulated the number of medications and medication doses per day. We quantified the complexity of the medication regimen by summing the number of different dosage schedules, weighted for dosing frequency (eg, once per day = 1; 3 times per day = 3).[51] A regimen with 7 different medications consisting of 4 drugs taken once per day and 3 drugs taken twice per day generates a complexity score of 3 (1 + 2).

A regimen with 1 drug taken once per day (nightly), 2 drugs taken twice per day, and 1 drug taken 3 times per day has a complexity score of 6 (1 + 2 + 3). We estimated the cost of the regimen and calculated anticipated out-of-pocket costs with coverage by Medicare's Part D.[52]

RESULTS

Applicability of CPGs to Older Adults With Comorbid Illness

Although 7 of the 9 CPGs discussed older adults or comorbid diseases, only 4 CPGs (diabetes, osteoarthritis, atrial fibrillation, and angina) addressed older individuals with multiple comorbidities (TABLE 1 and TABLE 2).[15-42] The CPGs addressing osteoarthritis, osteoporosis, and chronic obstructive pulmonary disease did not discuss the quality of evidence underlying recommendations for older patients. Only the CPGs addressing diabetes and atrial fibrillation discussed the quality of evidence for older persons with several chronic diseases (Table 1 and Table 2). The diabetes CPG notes the absence of evidence favoring tight glycemic control for older patients and suggests that looser control may be appropriate for older adults or individuals with a limited life expectancy.

Seven CPGs made recommendations for treating the target disease in conjunction with a single other chronic disease (Table 1 and Table 2). Discussing possible adverse effects of following the recommendations, the osteoarthritis CPG recommended gastroprotective agents in older patients taking certain anti-inflammatory drugs and mentioned that clinical trials excluded patients at high risk of bleeding. Only the CPGs for diabetes, chronic heart failure, angina, and hypercholesterolemia gave general guidance about treatment in the presence of several chronic diseases (Table 1 and Table 2). The CPGs addressing chronic heart failure and hypercholesterolemia discussed treatment in the setting of other cardiac diseases but not of noncardiac diseases.

Only the diabetes CPG discussed the relationship between life expectancy and the time needed to treat to achieve ben-

Table 1. Relevance of Clinical Practice Guidelines for the Treatment of Older Patients With Diabetes Mellitus, Hypertension, Osteoarthritis, Osteoporosis, and Chronic Obstructive Pulmonary Disease (COPD)

	Chronic Disease Addressed by Guideline				
	Diabetes Mellitus[19-32]	Hypertension[39]	Osteoarthritis[33-36]	Osteoporosis[40]	COPD[37,38]
Guideline addressed treatment for type of patient?	Older: yes Multiple comorbidities: yes Both: yes	Older: yes Multiple comorbidities: no Both: no	Older: yes Multiple comorbidities: yes Both: yes†	Older: no Multiple comorbidities: no Both: no	Older: no Multiple comorbidities: no Both: no
Quality of evidence discussed for type of patient?	Older: yes Multiple comorbidities: yes Quality of evidence poor, requires extrapolation for nutrition recommendations	Older: yes Multiple comorbidities: no Quality of evidence good for treating hypertension in older patients	Older: no Multiple comorbidities: no	Older: no Multiple comorbidities: no	Older: no Multiple comorbidities: no
Specific recommendations for patients with 1 comorbid condition?	Yes Diseases: hypercholesterolemia, hypertension, congestive heart failure, chronic kidney disease, cardiovascular disease, peripheral vascular disease, benign prostatic hypertrophy	Yes Diseases: coronary artery disease, diabetes mellitus, metabolic syndrome, sleep apnea, chronic kidney disease, gout, left ventricular hypertrophy, erectile dysfunction, peripheral vascular disease, congestive heart failure, stroke, dementia,* renal transplantation, renal artery stenosis, urinary outflow obstruction	Yes Diseases/drugs: anticoagulants, glucocorticoids, peptic ulcer disease, chronic kidney disease, hypertension, congestive heart failure	No	No
Specific recommendations for patients with several comorbid conditions?	Yes	No	No	No	No
Time needed to treat to benefit from treatment in the context of life expectancy discussed?	Yes	No	No	No	No

*Limited to the possible effects of antihypertensive treatment on preventing cognitive decline, not management of hypertensive patients with mild cognitive impairment or dementia.
†Limited to patients at highest risk of gastrointestinal tract bleeding with certain therapies.

efit (Table 1). The angina CPG discussed life expectancy in the context of interventions that could lead to invasive procedures but did not address duration of treatment required to achieve benefit.

Inclusion of Patient-Centered Domains in CPGs

None of the CPGs discussed the burden of comprehensive treatment on patients or caregivers. Three (hypertension, angina, and hypercholesterolemia) acknowledged patients' financial burden; the diabetes CPG mentioned the discomfort and inconvenience of self-monitoring blood glucose. The atrial fibrillation CPG noted that quality of life can be affected by drug interactions and the need for frequent blood tests in patients taking warfarin. None discussed balancing short- and long-term goals, such as when short-term quality of life is better without a treatment that provides long-term benefits. The osteoporosis and hypercholesterolemia CPGs did not discuss quality of life. Seven of the CPGs discussed patients' preferences about medical care, but this was often without guidance for incorporating preferences. Only the chronic heart failure CPG explicitly discussed preferences for end-of-life treatment.

Applying CPGs to a Hypothetical Patient

Applying the relevant CPGs to the hypothetical 79-year-old patient, we generated a possible treatment schedule that would result if all the recommendations in the CPGs were followed (TABLE 3 and BOX). The patient would take 12 separate medications with a medication complexity score of 14.[51] This regimen requires 19 doses per day, taken at 5 times during a typical day, assuming that albuterol "as needed" is taken twice daily, plus weekly alendronate.

Some nonpharmacological recommendations apply to more than 1 disease. Fourteen nonpharmacological activities are recommended for this patient if all nutritional recommendations are pooled into one. The CPGs also recommend one-time educational and rehabilitative interventions, and monitoring of the patient's chronic diseases from daily to biennial intervals depending on the type of monitoring. It theoretically would be possible to compress all monitoring into 2 to 4 primary care visits and 1 ophthalmologic visit per year. However, patients often have several clinicians,[53] although in some regions and managed care settings most care may be provided by a primary care team.[54] All elements of the treatment plan cannot easily be addressed in a 15-minute office visit.[55,56]

Interactions that could result from concurrent adherence to all 5 CPGs (TABLE 4) include between a medica-

Table 2. Relevance of Clinical Practice Guidelines for the Treatment of Older Patients With Atrial Fibrillation, Chronic Heart Failure, Angina, and Hypercholesterolemia

	Chronic Disease Addressed by Guidelines			
	Atrial Fibrillation[15]	Chronic Heart Failure[18]	Angina[16,17]	Hypercholesterolemia[41,42]
Guideline addressed treatment for type of patient?	Older: yes Multiple comorbidities: yes Both: yes	Older: yes Multiple comorbidities: yes Both: no	Older: yes Multiple comorbidities: yes* Both: yes*	Older: yes Multiple comorbidities: yes† Both: no
Quality of evidence discussed for type of patient?	Older: yes Multiple comorbidities: yes Average age of patients in clinical trials younger than population average, trials excluded those at high risk for bleeding	Older: yes Multiple comorbidities: no Absence of older persons in large clinical trials	Older: yes Multiple comorbidities: no Few older patients were included in clinical trials for 1 possible intervention	Older: yes‡ Multiple comorbidities: no
Specific recommendations for patients with 1 comorbid condition?	Yes Diseases: congestive heart failure, hypertension, diabetes mellitus, angina, left ventricular hypertrophy, Wolff-Parkinson-White syndrome, hypertrophic cardiomyopathy, hyperthyroidism, pregnancy, chronic obstructive pulmonary disease	Yes Diseases: hypertension, diabetes mellitus, hypercholesterolemia, angina, atrial fibrillation, chronic obstructive pulmonary disease	Yes Diseases: hypertension, diabetes mellitus, hypercholesterolemia, congestive heart failure, aortic valve stenosis, valvular heart disease, asthma, heart block, hypertrophic cardiomyopathy, atrial fibrillation, peripheral vascular disease, hyperthyroidism, chronic kidney disease, depression, migraines	Yes Diseases: hypertension, diabetes mellitus, cardiovascular disease
Specific recommendations for patients with several comorbid conditions?	No	Yes: only for combination of cardiovascular diseases	Yes*	Yes: only for combination of diabetes mellitus and cardiovascular disease†
Time needed to treat to benefit from treatment in the context of life expectancy discussed?	No	No	No	No

*Limited to weighing severe comorbidity likely to limit life expectancy when considering treatment procedures that would lead to revascularization; asking patients in follow-up about presence of new comorbid illnesses; and the effect of severity of or treatment for comorbidities on angina. Older patients with severe angina and several comorbid illnesses may be satisfied with a reduction in symptoms that enables an improvement in physical disability.

†Limited to multiple comorbid conditions that increase cardiovascular risk (no discussion of comorbidities other than combination of diabetes mellitus and cardiovascular disease).

‡Secondary prevention trials included older persons. Guideline reports that PROSPER authors state that statin use can be extended to older persons. Conflicting data on cancer risk with statins; statins have no effect on cognition or progression of disability.

tion and a disease other than the target disease, between medications for different diseases, and between food and medications. Recommendations may also contradict one another. If the hypothetical osteoporotic, diabetic patient has peripheral neuropathy, the osteoporosis CPG recommends that she perform weight-bearing exercise, while the diabetes CPG cautions that some patients with advanced peripheral neuropathy should avoid weight-bearing exercise.

The patient's medications would cost her $406.45 per month, or $4877 annually, assuming no prescription drug coverage (TABLE 5).[52] Beginning in 2006, she would be able to purchase drug insurance under Medicare's new Part D. If her income is above 150% of the federal poverty level (as it was for more than 60% of Medicare beneficiaries), she would pay an out-of-pocket premium of about $420, a $250 deductible, $500 of the next $2000, and 100% of the next $3000 (in her case, $2627). Thus, assuming current prices, with drug insurance, she would pay $3797 per year plus $373 for any future drug expenses for that year.[57] The nonpharmacological interventions recommended involve additional expenses to patients, informal caregivers, Medicare, and other insurers.

Table 3. Treatment Regimen Based on Clinical Practice Guidelines for a Hypothetical 79-Year-Old Woman With Hypertension, Diabetes Mellitus, Osteoporosis, Osteoarthritis, and COPD*

Time	Medications†	Other
7:00 AM	Ipratropium metered dose inhaler 70 mg/wk of alendronate	Check feet Sit upright for 30 min on day when alendronate is taken Check blood sugar
8:00 AM	500 mg of calcium and 200 IU of vitamin D 12.5 mg of hydrochlorothiazide 40 mg of lisinopril 10 mg of glyburide 81 mg of aspirin 850 mg of metformin 250 mg of naproxen 20 mg of omeprazole	Eat breakfast 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
12:00 PM		Eat lunch 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
1:00 PM	Ipratropium metered dose inhaler 500 mg of calcium and 200 IU of vitamin D	
7:00 PM	Ipratropium metered dose inhaler 850 mg of metformin 500 mg of calcium and 200 IU of vitamin D 40 mg of lovastatin 250 mg of naproxen	Eat dinner 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
11:00 PM	Ipratropium metered dose inhaler	
As needed	Albuterol metered dose inhaler	

Abbreviations: ADA, American Diabetes Association; COPD, chronic obstructive pulmonary disease; DASH, Dietary Approaches to Stop Hypertension.

*Clinical practice guidelines used: (1) Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure VII.[39] (2) ADA[19-32]; glycemic control is recommended; however, specific medicines are not described. (3) American College of Rheumatology[33-36]; recent evidence about the safety and appropriateness of cyclooxygenase inhibitors, particularly in individuals with comorbid cardiovascular disease, led us to omit them from the list of medication options, although they are discussed in the reviewed clinical practice guidelines. (4) National Osteoporosis Foundation[40]; this regimen assumes dietary intake of 200 IU of vitamin D. (5) National Heart, Lung, and Blood Institute and World Health Organization.[37,38]

†Taken orally unless otherwise indicated. The medication complexity score of the regimen for this hypothetical woman is 14, with 19 doses of medications per day, assuming 2 as needed doses of albuterol metered dose inhaler plus 70 mg/wk of alendronate.

‡DASH and ADA dietary guidelines may be synthesized, but the help of a registered dietitian is specifically recommended. Eat foods containing carbohydrate from whole grains, fruits, vegetables, and low-fat milk. Avoid protein intake of more than 20% of total daily energy; lower protein intake to about 10% of daily calories if overt nephropathy is present. Limit intake of saturated fat (<10% of total daily energy) and dietary cholesterol (<200-300 mg). Limit intake of *trans*unsaturated fatty acids. Eat 2 to 3 servings of fish per week. Intake of polyunsaturated fat should be about 10% of total daily energy.

COMMENT

This review provides evidence that CPGs do not provide an appropriate, evidence-based foundation for assessing quality of care in older adults with several chronic diseases. Although CPGs provide detailed guidance for managing single diseases, they fail to address the needs of older patients with complex comorbid illness. While some recommend interventions for specific pairs of diseases, CPGs rarely address treatment of patients with 3 or more chronic diseases—a group that includes half of the population older than 65 years.[1] When we developed a treatment plan for a hypothetical patient using a conservative regimen created in accordance with CPGs, she was treated with multiple medications with high complexity, with the attendant risks of medication errors, adverse drug events, drug interactions, and hospitalization.[4,58-60] The recommended regimens may present the patient with an unsustainable treatment burden, making independent self-management and adherence difficult.[12,13,50,51,61-63]

It is evident that CPGs, designed largely by specialty-dominated committees for managing single diseases, provide clinicians little guidance about caring for older patients with multiple chronic diseases. The use of single-disease CPGs as a basis for evaluating the quality of care and determining physician reimbursement through pay-for-performance measures could create inappropriate incentives in the care of older adults with multiple diseases.[7,8]

Payment to physicians in pay-for-performance programs is frequently based in part on their meeting quality-of-care standards created for single diseases according to a calculated rate of adherence to the standard within an eligible population.[64,65] While these standards are not explicitly taken directly from CPGs, they are often derived from CPG recommendations. The Medicare Payment Advisory Commission recommended that Medicare adopt pay for performance for physician reimbursement.[66] The Commission suggests a trial period during which physician reimbursement would be based on adoption of information technology measures, with feedback to individual physicians on performance on condition-specific claims-based process measures, followed by a "date certain" when condition-specific claims-based process measures would be included in physician pay for performance.[66] Medicare initiatives and demonstrations incorporating pay for performance are becoming increasingly common.[67]

The CPGs are not designed for use in quality assessment, so transforming CPGs into performance standards and applying these standards to the care of older patients with complex comorbidity is problematic.[8] These guidelines are recommendations based on varying levels of evidence and assume application of clinical judgment and patient preferences, both of which would be difficult to measure in a pay-for-performance scheme.[15,17,18,30,33,38-41] Quality indicators must balance scientific evidence against what is practical and feasible to measure rather than what is a higher priority (eg, assessing yearly screening for retinopathy rather than aggressive blood pressure control in diabetics).[56] Many indicators have upper age limits (eg, <75 years), thereby excluding a large percentage of Medicare beneficiaries and removing incentives to focus on these patients. Most indicators do not address burden of comorbid disease. While it would be feasible to omit "sick" patients from computations for reporting purposes, this would remove the pay-for-performance incentive for improving care for such patients.[68,69]

Assessing physicians on the basis of the care they provide for individual diseases obscures the complexity of treating real, and particularly older, patients with several chronic diseases.

Box. Recommendations Based on Clinical Practice Guidelines for a Hypothetical 79-Year-Old Woman With Hypertension, Diabetes Mellitus, Osteoarthritis, Osteoporosis, and COPD*

Patient Tasks

- Joint protection
- Energy conservation
- Exercise
  - Non–weight-bearing if severe foot disease present or weight-bearing for osteoporosis
  - Aerobic exercise for 30 min on most days
  - Muscle strengthening
  - Range of motion
- Avoid environmental exposures that might exacerbate chronic obstructive pulmonary disease (COPD)
- Wear appropriate footwear
- Limit intake of alcohol
- Maintain normal body weight (body mass index of between 18.5 and 24.9)

Clinician Tasks

- Administer vaccine
  - Pneumonia
  - Influenza annually
- Check blood pressure at all clinician visits and sometimes at home†
- Evaluate self-monitoring of blood glucose
- Foot examination at all clinician visits if neuropathy present; otherwise check feet for protective sensation, structure, biomechanics, vascular status, and skin integrity annually
- Laboratory tests
  - Microalbuminuria annually if not already present
  - Creatinine level and electrolytes at least 1 to 2 times per year
  - Cholesterol levels annually
  - Liver function biannually
  - Glycosylated hemoglobin level biannually to quarterly, depending on level of control
- Referrals
  - Physical therapy
  - Ophthalmologic examination
  - Pulmonary rehabilitation
  - Dual-energy x-ray absorptiometry scan every other year
- Patient education
  - High-risk foot conditions, foot care, and foot wear
  - Osteoarthritis
  - COPD medication and delivery system training
  - Diabetes mellitus

*See asterisk footnote in Table 3 for a list of the clinical practice guidelines used.

†Ambulatory blood pressure monitoring is helpful if "white coat hypertension" is suspected and no target organ damage, apparent drug resistance, hypotensive symptoms with antihypertensive medication, or episodic hypertension.

Table 4. Potential Treatment Interactions for a Hypothetical 79-Year-Old Woman with 5 Chronic Diseases

		Type of Interaction		
Type of Disease	Medications With Potential Interactions	Medication and Other Disease	Medications for Different Diseases	Medication and Food
Hypertension	Hydrochlorothiazide, lisinopril	Diabetes: diuretics increase serum glucose and lipids*	Diabetes medications: hydrochlorothiazide may decrease effectiveness of glyburide	NA
Diabetes	Glyburide, metformin, aspirin, and atorvastatin	NA	Osteoarthritis medications: NSAIDs plus aspirin increase risk of bleeding Diabetes medications: glyburide plus aspirin may increase the risk of hypoglycemia; aspirin may decrease effectiveness of lisinopril	Aspirin plus alcohol: increased risk of gastrointestinal tract bleeding Atorvastatin plus grapefruit juice: muscle pain, weakness Glyburide plus alcohol: low blood sugar, flushing, rapid breathing, tachycardia Metformin plus alcohol: extreme weakness and heavy breathing Metformin plus any type of food: medication absorption decreased
Osteoarthritis	NSAIDs	Hypertension: NSAIDs: raise blood pressure†; NSAIDs plus hypertension increase risk of renal failure	Diabetes medications: NSAIDs in combination with aspirin increase risk of bleeding Hypertension medications: NSAIDs decrease efficacy of diuretics	NA
Osteoporosis	Calcium, alendronate	NA	Diabetes medications: calcium may decrease efficacy of aspirin; asprin plus alendronate can cause upset stomach Osteoporosis medications: calcium may lower serum alendronate level	Alendronate plus calcium: take on empty stomach (>2 h from last meal) Alendronate: avoid orange juice Calcium plus oxalic acid (spinach and rhubarb) or phytic (bran and whole cereals): eating these foods may decrease amount of calcium absorbed (>2 h from last meal)
Chronic obstructive pulmonary disease	Short-acting β-agonists	NA	NA	NA

Abbreviations: NA, no interaction is known; NSAIDs, nonsteroidal anti-inflammatory drugs.
*Thiazide-type diuretics may worsen hyperglycemia, but effect thought to be small and not associated with increased incidence of cardiovascular events.
†This interaction is noted to be particularly relevant for individuals with diabetes; no recommendation for treatment is given.

Table 5. Cost of Medications to Patient*

Disease and Medication	Monthly Cost, $
Hypertension	
Hydrochlorothiazide	13.99
Lisinopril	24.99
Diabetes mellitus	
Glyburide	24.00
Metformin	51.99
Enteric-coated aspirin	1.21
Lovastatin	62.99
Osteoarthritis	
Naproxen	10.99
Omeprazole	93.99
Osteoporosis	
Alendronate	65.99
Calcium plus vitamin D	4.33
Chronic obstructive pulmonary disease	
Ipratropium	37.99
Albuterol	13.99
Total	**406.45**

*Assuming no prescription drug coverage.

Patients in whom single-disease standards cannot or should not be attained, but who are eligible to be in the population base for a given standard may become "medical hot potatoes" if their physician receives lower pay-for-performance scores as a result.[70] Current pay-for-performance initiatives can create financial incentives for physicians to focus on certain diseases and younger or healthier Medicare patients. These initiatives perpetuate the single-disease approach to care and fail to reward physicians for addressing the complex issues that confront patients with several chronic diseases. Standards that define quality of patient care regardless of a patient's health status and preferences by placing emphasis on attaining high rates of adherence to CPGs rather than the more difficult task of weighing burden, risks, and benefits of complex therapies in shared decision making could ultimately undermine quality of care.[68,71] If quality assessment focuses on younger or healthier patients, there is additonal risk that these problems will go unnoticed.

Quality-of-care standards are needed for older individuals with several chronic diseases. Critical but currently unreimbursed processes of high-quality care for this population include care coordination, patient and caregiver education, empowerment for self-management, and shared decision making that incorporates individual preferences and circumstances. These processes should be incorporated into quality-of-care standards in pay-for-performance initiatives.[49,68,72]

Standards for developing CPGs note the importance of identifying the target population and incorporating quality of life and patient preferences to improve adherence of both physicians and patients.[6,43,47,73,74] The CPGs we examined do not give explicit guidance on how to do this. Providing optimal care, as defined by several CPGs, for the patient with comorbid conditions quickly becomes difficult in terms of cost, medication complexity, and the magnitude of the task. Practicing physicians adjust CPG recommendations for individual patients, judging risks and reacting to patient preferences, but best practices for making these adjustments remain undefined.[61,75] Coexisting diseases may increase or decrease the benefit of an intervention for a target disease.[49] Future CPGs that address how to incorporate quality of life and the risks, benefits, and burden of recommended treatments for older adults with comorbidity would be more useful than currently existing CPGs, but training physicians to use CPGs while incorporating these principles is also critical.[8] The guidelines could address common comorbidities, but more obscure comorbidities would be difficult to address. Clinical practice guidelines addressing several combinations of comorbid diseases would be more unwieldy and based on scant evidence. To provide evidence for optimal care of older patients with several chronic diseases, future trials should include older patients with representative comorbidities and should investigate shared decision making among those patients, their caregivers, and physicians.[76,77]

A few noteworthy efforts address these issues. A recent CPG for older adults with diabetes discusses the quality of evidence and gives practical advice about geriatric syndromes and prioritizing care for older persons with several chronic diseases.[78] The Assessing Care of Vulnerable Elders Project proposes quality-of-care markers for chronic diseases and geriatric syndromes in frail older adults and recognizes that goals of care and preferences affect definitions of quality.[79] Patient-reported measures of quality of care address access, continuity, coordination, communication, and empowerment for patient and family involvement.[80] Some pay-for-performance standards include provision of educational resources and measures of patient experience.[64,81]

Our analysis has several limitations. First, we did not attempt to examine all CPGs. Instead, we selected CPGs generated by prominent professional organizations and published in widely read journals, which are likely to have a high impact on clinical practice. There may be less well-known CPGs that provide better guidance for the care of older adults with multiple chronic diseases. Second, in designing the treatment regimen for our hypothetical patient, we used our clinical judgment when the CPGs were not explicit in their recommendations—a task clinicians face daily. While other clinicians might arrive at slightly different regimens, we believe they would have similar complexity.

For the present, widely used CPGs offer little guidance to clinicians caring for older patients with several chronic diseases. The use of CPGs as the basis for pay-for-performance initiatives that focus on specific treatments for single diseases may be particularly unsuited to the care of older individuals with multiple chronic diseases. Quality improvement and pay-for-performance initiatives within the Medicare system should be designed to improve the quality of care for older patients with multiple chronic diseases; a critical first step is research to define measures of the quality of care needed by this population, including care coordination, education, empowerment for self-management, and shared decision making based on the individual circumstances of older patients.

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REFERENCES

1. Anderson G, Horvath J. *Chronic Conditions: Making the Case for Ongoing Care*. Princeton, NJ: Robert Wood Johnson Foundation's Partnership for Solutions; 2002.
2. Gijsen R, Hoeymans N, Schellevis FG, Ruwaard D, Satariano WA, van den Bos GA. Causes and consequences of comorbidity: a review. *J Clin Epidemiol*. 2001;54:661-674.
3. Hoffman C, Rice D, Sung HY. Persons with chronic conditions: their prevalence and costs. *JAMA*. 1996;276:1473-1479.
4. Field TS, Gurwitz JH, Harrold LR, et al. Risk factors for adverse drug events among older adults in the ambulatory setting. *J Am Geriatr Soc*. 2004;52:1349-1354.
5. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: Institute of Medicine; 2001.
6. Hayward RS, Wilson MC, Tunis SR, Bass EB, Guyatt G; Evidence-Based Medicine Working Group. Users' guides to the medical literature, VIII: how to use clinical practice guidelines, A: are the recommendations valid? *JAMA*. 1995;274:570-574.
7. Standard outcome metrics and evaluation methodology for disease management programs. Paper presented at: Second Annual Disease Management Outcomes Summit; November 2002; Palm Desert, Calif.
8. Garber AM. Evidence-based guidelines as a foundation for performance incentives. *Health Aff (Millwood)*. 2005;24:174-179.
9. Tinetti ME, Fried T. The end of the disease era. *Am J Med*. 2004;116:179-185.
10. Tinetti ME, Bogardus ST Jr, Agostini JV. Potential pitfalls of disease-specific guidelines for patients with multiple conditions. *N Engl J Med*. 2004;351:2870-2874.
11. Current estimates from the National Health Interview Survey, 1994. *Vital Health Stat 10*. 1995;193:1-116.
12. Gray SL, Mahoney JE, Blough DK. Medication adherence in elderly patients receiving home health services following hospital discharge. *Ann Pharmacother*. 2001;35:539-545.
13. Schmader KE, Hanlon JT, Fillenbaum GG, Huber M, Pieper C, Horner R. Medication use patterns among demented, cognitively impaired and cognitively intact community-dwelling elderly people. *Age Ageing*. 1998;27:493-501.
14. National Guideline Clearinghouse Web site . Available at: http://www.ahrq.gov/clinic/ngcfact.htm. Accessed October 21, 2002.
15. Fuster V, Ryden LE, Asinger RW, et al; American College of Cardiology, American Heart Association, and European Society of Cardiology Board. ACC/AHA/

ESC guidelines for the management of patients with atrial fibrillation. *J Am Coll Cardiol*. 2001;38:1231-1266.

16. Snow V, Barry P, Fihn SD, et al. Primary care management of chronic stable angina and asymptomatic suspected or known coronary artery disease: a clinical practice guideline from the American College of Physicians. *Ann Intern Med*. 2004;141:562-567.

17. Gibbons RJ, Abrams J, Chatterjee K, et al. ACC/AHA 2002 guideline update for the management of patients with chronic stable angina. Available at: http://www.acc.org/clinical/guidelines/stable/stable.pdf. Accessed April 18, 2005.

18. Hunt SA, Baker DW, Chin MH, et al. ACC/AHA guidelines for the evaluation and management of chronic heart failure in the adult. Available at: http://www.acc.org/clinical/guidelines/failure/hf_index.htm. Accessed April 18, 2005.

19. Arauz-Pacheco C, Parrott MA, Raskin P. Hypertension management in adults with diabetes. *Diabetes Care*. 2004;27(suppl 1):S65-S67.

20. Colwell JA. Aspirin therapy in diabetes. *Diabetes Care*. 2004;27(suppl 1):S72-S73.

21. Fong DS, Aiello L, Gardner TW, et al. Retinopathy in diabetes. *Diabetes Care*. 2004;27(suppl 1):S84-S87.

22. Franz MJ, Bantle JP, Beebe CA, et al. Nutrition principles and recommendations in diabetes. *Diabetes Care*. 2004;27(suppl 1):S36-S46.

23. Goldstein DE, Little RR, Lorenz RA, Malone JI, Nathan DM, Peterson CM. Tests of glycemia in diabetes. *Diabetes Care*. 2004;27(suppl 1):S91-S93.

24. Haffner SM. Dyslipidemia management in adults with diabetes. *Diabetes Care*. 2004;27(suppl 1):S68-S71.

25. Haire-Joshu D, Glasgow RE, Tibbs TL. Smoking and diabetes. *Diabetes Care*. 2004;27(suppl 1):S74-S75.

26. Mayfield JA, Reiber GE, Sanders LJ, Janisse D, Pogach LM. Preventive foot care in diabetes. *Diabetes Care*. 2004;27(suppl 1):S63-S64.

27. Molitch ME, DeFronzo RA, Franz MJ, et al. Nephropathy in diabetes. *Diabetes Care*. 2004;27(suppl 1):S79-S83.

28. Zinman B, Ruderman N, Campaigne BN, Devlin JT, Schneider SH. Physical activity/exercise and diabetes. *Diabetes Care*. 2004;27(suppl 1):S58-S62.

29. Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care*. 2000;23(suppl 1):S4-S19.

30. Standards of medical care in diabetes. *Diabetes Care*. 2005;28(suppl 1):S4-S36.

31. American Diabetes Association Clinical Practice Recommendations 2001. *Diabetes Care*. 2001;24(suppl 1):S1-S133.

32. Evidence-based nutrition principles and recommendations for the treatment and prevention of diabetes and related complications. *Diabetes Care*. 2002;25:202-212.

33. American College of Rheumatology Subcommittee on Osteoarthritis Guidelines. Recommendations for the medical management of osteoarthritis of the hip and knee: 2000 update. *Arthritis Rheum*. 2000;43:1905-1915.

34. Schnitzer TJ. Update of ACR guidelines for osteoarthritis: role of the coxibs. *J Pain Symptom Manage*. 2002;23(4 suppl):S24-S30.

35. Hochberg MC, Altman RD, Brandt KD, et al; American College of Rheumatology. Guidelines for the medical management of osteoarthritis, part I: osteoarthritis of the hip. *Arthritis Rheum*. 1995;38:1535-1540.

36. Hochberg MC, Altman RD, Brandt KD, et al; American College of Rheumatology. Guidelines for the medical management of osteoarthritis, part II: osteoarthritis of the knee. *Arthritis Rheum*. 1995;38:1541-1546.

37. Pauwels RA, Buist AS, Ma P, Jenkins CR, Hurd SS. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. *Respir Care*. 2001;46:798-825.

38. Global Initiative for Chronic Obstructive Lung Disease . Available at: http://www.goldcopd.com/. Accessed December 1, 2004.

39. The Seventh Report of the Joint National Committee on Prevention. Detection, Evaluation, and Treatment of High Blood Pressure (JNC VII). Available at: http://www.nhlbi.nih.gov/guidelines/hypertension/jnc7full.htm. Accessed June 18, 2005.

40. National Osteoporosis Foundation. Physician's guide to prevevention and treatment of osteoporosis. Available at: http://www.nof.org/physguide/index.htm. Accessed February 28, 2005.

41. Third Report of the Expert Panel on Detection. Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) Full Report. Available at: http://www.nhlbi.nih.gov/guidelines/cholesterol/atp3_rpt.htm. Accessed December 1, 2004.

42. Grundy SM, Cleeman JI, Merz CN, et al. Implications of recent clinical trials for the National Cholesterol Education Program Adult Treatment Panel III guidelines. *Circulation*. 2004;110:227-239.

43. Shiffman RN, Shekelle P, Overhage JM, Slutsky J, Grimshaw J, Deshpande AM. Standardized reporting of clinical practice guidelines: a proposal from the Conference on Guideline Standardization. *Ann Intern Med*. 2003;139:493-498.

44. Greer AL, Goodwin JS, Freeman JL, Wu ZH. Bringing the patient back in: guidelines, practice variations, and the social context of medical practice. *Int J Technol Assess Health Care*. 2002;18:747-761.

45. Cluzeau FA, Littlejohns P, Grimshaw JM, Feder G, Moran SE. Development and application of a generic methodology to assess the quality of clinical guidelines. *Int J Qual Health Care*. 1999;11:21-28.

46. Appraisal of Guidelines for Research and Evaluation (AGREE) Instrument . Available at: http://www.agreecollaboration.org/. Accessed June 18, 2005.

47. Shaneyfelt TM, Mayo-Smith MF, Rothwangl J. Are guidelines following guidelines? the methodological quality of clinical practice guidelines in the peer-reviewed medical literature. *JAMA*. 1999;281:1900-1905.

48. Graham ID, Calder LA, Hebert PC, Carter AO, Tetroe JM. A comparison of clinical practice guideline appraisal instruments. *Int J Technol Assess Health Care*. 2000;16:1024-1038.

49. Walter LC, Covinsky KE. Cancer screening in elderly patients: a framework for individualized decision making. *JAMA*. 2001;285:2750-2756.

50. Townsend A, Hunt K, Wyke S. Managing multiple morbidity in mid-life: a qualitative study of attitudes to drug use. *BMJ*. 2003;327:837.

51. Kroenke K, Pinholt EM. Reducing polypharmacy in the elderly: a controlled trial of physician feedback. *J Am Geriatr Soc*. 1990;38:31-36.

52. Individual drug prices. Available at: http://www.drugstore.com. Accessed October 8, 2004.

53. Partnership for Solutions. Medicare: costs and prevalence of chronic conditions. Available at: http://www.partnershipforsolutions.com/DMS/files/Medicare_fact_sheet.pdf. Accessed June 7, 2005.

54. Sperl-Hillen J, O'Connor PJ, Carlson RR, et al. Improving diabetes care in a large health care system: an enhanced primary care approach. *Jt Comm J Qual Improv*. 2000;26:615-622.

55. Yarnall KS, Pollak KI, Ostbye T, Krause KM, Michener JL. Primary care: is there enough time for prevention? *Am J Public Health*. 2003;93:635-641.

56. Hofer TP, Zemencuk JK, Hayward RA. When there is too much to do: how practicing physicians prioritize among recommended interventions. *J Gen Intern Med*. 2004;19:646-653.

57. Goulding M. *Trends in Prescribed Medicine Use and Spending by Older Americans, 1992-2001.* Hyattsville, Md: National Center for Health Statistics; 2005.

58. Juurlink DN, Mamdani M, Kopp A, Laupacis A, Redelmeier DA. Drug-drug interactions among elderly patients hospitalized for drug toxicity. *JAMA*. 2003;289:1652-1658.

59. Flaherty JH, Perry HM III, Lynchard GS, Morley JE. Polypharmacy and hospitalization among older home care patients. *J Gerontol A Biol Sci Med Sci*. 2000;55:M554-M559.

60. Gurwitz JH, Field TS, Harrold LR, et al. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. *JAMA*. 2003;289:1107-1116.

61. Gurwitz JH. Polypharmacy: a new paradigm for quality drug therapy in the elderly? *Arch Intern Med*. 2004;164:1957-1959.

62. Mojtabai R, Olfson M. Medication costs, adherence, and health outcomes among Medicare beneficiaries. *Health Aff (Millwood)*. 2003;22:220-229.

63. Fried TR, Bradley EH, Towle VR. Assessment of patient preferences: integrating treatments and outcomes. *J Gerontol B Psychol Sci Soc Sci*. 2002;57:S348-S354.

64. Pay for performance measurement set. Available at: http://www.iha.org/p4pcms.htm. Accessed March 14, 2005.

65. NCQA. The Health Plan Employer Data and Information Set (HEDIS). Available at: http://www.ncqa.org/Programs/HEDIS/. Accessed April 6, 2005.

66. MedPAC. Report to the Congress: Medicare payment policy. Available at: http://www.medpac.gov/publications/congressional_reports/Mar05_Ch04.pdf. Accessed June 18, 2005.

67. Medicare begins performance-based payments for physician groups. Available at: http://www.cms.hhs.gov/researchers/demos/PressRelease1_31_2005.pdf. Accessed March 14, 2005.

68. Walter LC, Davidowitz NP, Heineken PA, Covinsky KE. Pitfalls of converting practice guidelines into quality measures: lessons learned from a VA performance measure. *JAMA*. 2004;291:2466-2470.

69. American College of Physicians Web site. Market forces now pushing pay-for-performance. Available at: http://www.acponline.org/journals/news/may05/pm.htm. Accessibility verified July 11, 2005.

70. Hofer TP, Hayward RA, Greenfield S, Wagner EH, Kaplan SH, Manning WG. The unreliability of individual physician "report cards" for assessing the costs and quality of care of a chronic disease. *JAMA*. 1999;281:2098-2105.

71. Outcomes-based compensation: pay-for-performance design principles. Paper presented at: Fourth Annual Disease Management Outcomes Summit; November 11-14, 2004; Rancho Mirage, Calif.

72. Wagner EH, Austin BT, Von Korff M. Organizing care for patients with chronic illness. *Milbank Q*. 1996;74:511-544.

73. Findley LJ, Baker MG. Treating neurodegenerative diseases. *BMJ*. 2002;324:1466-1467.

74. Protheroe J, Fahey T, Montgomery AA, Peters TJ. The impact of patients' preferences on the treatment of atrial fibrillation: observational study of patient based decision analysis. *BMJ*. 2000;320:1380-1384.

75. Glynn RJ, Monane M, Gurwitz JH, Choodnovskiy I, Avorn J. Aging, comorbidity, and reduced rates of drug treatment for diabetes mellitus. *J Clin Epidemiol*. 1999;52:781-790.

76. Elwyn G, Edwards A, Britten N. What information do patients need about medicines? "doing prescribing": how doctors can be more effective. *BMJ*. 2003;327:864-867.

77. Masoudi FA, Havranek EP, Wolfe P, et al. Most hospitalized older persons do not meet the enrollment criteria for clinical trials in heart failure. *Am Heart J*. 2003;146:250-257.

78. Brown AF, Mangione CM, Saliba D, Sarkisian CA. Guidelines for improving the care of the older person with diabetes mellitus. *J Am Geriatr Soc*. 2003;51(5 suppl):S265-S280.

79. Wenger NS, Solomon DH, Roth CP, et al. The quality of medical care provided to vulnerable community-dwelling older patients. *Ann Intern Med*. 2003;139:740-747.

80. Safran DG, Kosinski M, Tarlov AR, et al. The Primary Care Assessment Survey: tests of data quality and measurement performance. *Med Care*. 1998;36:728-739.

81. Summary of physician practice connections modules. Available at: http://www.ncqa.org/ppc. Accessed April 13, 2005.

Rethinking MCH: The Life Course Model as an Organizing Framework

Concept Paper

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Rethinking MCH: The Life Course Model as an Organizing Framework

Purpose of this Concept Paper

This concept paper is a first step in assisting the Health Resources and Services Administration, Maternal and Child Health Bureau explore how life course theory (LCT) might be used as a strategic planning framework, guiding the work of MCHB, its grantees, and partners over the next 5 years.

While there is a substantial and growing literature and research on life course theory, the translation of theory and research into practice is far less developed, and much of this translation has focused on particular points in the life course (e.g., pregnancy or early childhood). What MCHB is trying to achieve is a framework – and eventually an action plan – that promotes optimal health and healthy development across the lifespan, as well as across generations, and that promotes equity in health across communities and populations. While these are fairly straight-forward goals the translation of life course theory into new and innovative practices, programs and policies is challenging. To achieve its promise, this transformation will likely take several iterations and an ongoing, collaborative effort by a broad "MCH learning community". This paper argues that while obtaining high quality health care is very important in maintaining and improving heath, achieving optimal health for all goes beyond medical/clinical care and beyond current public health practice. Four core life course concepts are identified – timeline, timing, environment and equity – that can be used to redirect public health practice for greater impact. The paper briefly introduces the implications of these concepts for MCHB strategic planning. Further, it proposes that in order to effectively advance a life course approach, MCHB will need to develop a strategic agenda for change, working simultaneously in three broad arenas: (1) knowledge base, (2) program and policy strategies, and (3) political will. Finally, examples provided throughout the paper highlight how a shift to a life course framework might be applied in each of these areas.

Section I: Introduction to Life Course Theory

Key Concepts

Life course theory (LCT) is a conceptual framework that helps explain health and disease patterns – particularly health disparities – across populations and over time. Instead of focusing on differences in health patterns one disease or condition at a time, LCT points to broad social, economic and environmental factors as underlying causes of persistent inequalities in health for a wide range of diseases and conditions across population groups. LCT is population focused, and firmly rooted in social determinants and social equity models. Though not often explicitly stated, LCT is also community (or "place") focused, since social, economic and environmental patterns are closely linked to community and neighborhood settings.

While LCT has developed in large part from efforts to better understand and address disparities in health and disease patterns, it is also applied more universally to understand factors that can help everyone attain optimal health and developmental trajectories over a lifetime and across generations. For the field of Maternal and Child Health, LCT addresses two separate but related questions:

- Why do health disparities persist across population groups, even in instances where there has been significant improvement in incidence, prevalence and mortality rates for a specific disease or condition across all groups?

- What are the factors that influence the capacity of individuals or populations to reach their full potential for health and well-being?

Based on growing and converging scientific evidence from reproductive health sciences, developmental and neurosciences, and chronic disease research, LCT offers several key concepts to address these two fundamental questions:

- ***Pathways or Trajectories*** – Health pathways or trajectories are built – or diminished – over the lifespan. While individual trajectories vary, patterns can be predicted for populations and communities based on social, economic and environmental exposures and experiences. A life course does not reflect a series of discrete steps, but rather an integrated continuum of exposures, experiences and interactions.
- ***Early Programming –*** Early experiences can "program" an individual's future health and development. This includes prenatal programming (i.e. exposure in utero), as well as intergenerational programming (i.e., the health of the mother prior to conception) that impact the health of the baby and developing child. Adverse programming can either result directly in a disease or condition, or make an individual more vulnerable or susceptible to developing a disease or condition in the future.
- ***Critical or Sensitive Periods –*** While adverse events and exposures can have an impact at any point in a person's life course, the impact is greatest at specific critical or sensitive periods of development (e.g., during fetal development, in early childhood, during adolescence, etc.).
- ***Cumulative Impact –*** Cumulative experiences can also "program" an individual's future health and development. While individual episodes of stress may have minimal impact in an otherwise positive trajectory, the cumulative impact of multiple stresses over time may have a profound direct impact on health and development, as well as an indirect impact via associated behavioral or health service seeking changes. (This concept of cumulative impact is also referred to as "weathering"or "allostatic load".)
- ***Risk and Protective Factors*** – Throughout the lifespan, protective factors improve health and contribute to healthy development, while risk factors diminish health and make it more difficult to reach full developmental potential. Thus, pathways are changeable. Further, risk and protective factors are not limited to individual behavioral patterns or receipt of medical care and social services, but also include factors related to family, neighborhood, community, and social policy. Examples of protective factors include, among others: a nurturing family, a safe neighborhood, strong and positive relationships, economic security, access to quality primary

care and other health services, and access to high quality schools and early care and education. Examples of risk factors include, among others: food insecurity, homelessness, living in poverty, unsafe neighborhoods, domestic violence, environmental pollution, inadequate education opportunities, racial discrimination, being born low birthweight, and lack of access to quality health services.

Stated more simply, key life course concepts can be summarized as follows:

- Today's experiences and exposures influence tomorrow's health. (Timeline)
- Health trajectories are particularly affected during critical or sensitive periods. (Timing)
- The broader community environment–biologic, physical, and social –strongly affects the capacity to be healthy. (Environment)
- While genetic make-up offers both protective and risk factors for disease conditions, inequality in health reflects more than genetics and personal choice. (Equity)

These four key concepts – reflecting timeline, timing, environment, and equity – are fundamental to understanding and applying LCT.

Critiques of Life Course Theory

While there is both growing evidence and enthusiasm for LCT, critiques have also been voiced. Two critiques in particular stand out. First, the current framing can be interpreted as being fatalistic or excessively deterministic: that is, holding out little or no hope that individuals who have experienced adverse events or exposures early on might attain optimal health and well-being. A second related critique is that the concepts of early programming and critical or sensitive periods lead to "front loading" of interventions around pregnancy and early childhood, and that LCT tells us little about the value of interventions with other age groups, at different life stages.

As LCT continues to evolve, one way of addressing these critiques is to place greater emphasis on the concept that the development of health over a lifetime is an ongoing, interactive process and that pathways are changeable. More specifically, an individual's health status results from the interaction throughout life of genes, experiences and exposures, and individual choices. It is possible, therefore, to intervene to improve protective factors and reduce risk factors throughout life. Thus, it would be useful to add to the above, two more concepts:

- ***Interactive processes*** – The development of health over a lifetime is an interactive process, combining genes, environments and behaviors.

- ***Lifelong development/lifelong intervention*** – Throughout life and at all stages, even for those whose trajectories seem limited, risk factors can be reduced and protective factors enhanced, to improve current and subsequent health and well-being.

Section II: Implications of Life Course Theory for MCH Public Health

Public health is a logical home for LCT since the mission of public health includes improving and protecting the health of the population, eliminating health disparities and promoting health equity across population groups, and building healthy communities (to better promote health and prevent disease). Historically, some branches of public health – including Maternal and Child Health (MCH) – have been leaders in addressing social and environmental factors that affect health, a focus very much in keeping with LCT.

Despite this broader historical focus on social and environmental roots of illness and disability, however, currently, much of public health practice seeks to improve health by: increasing access to medical care, improving the quality of health care services (while reducing costs), changing individuals' behaviors, and building health service systems that can meet the growing need for treatment of chronic illness and other health conditions, even among the young. In addition, a substantial portion of the funding for public health is targeted to specific illnesses, injuries, or conditions (e.g., HIV/AIDS, traumatic brain injury, autism, obesity, etc.). Further, while MCH includes a focus on promoting healthy development, there is limited focus on health trajectories across the lifespan, or on continuities from child to adult to aging adult. Instead, much of MCH public health practice today utilizes a stage-of-life framework; that is, discrete programs for women of reproductive age and for children at different ages and stages.

While all of these approaches are important and clearly impact health, they also have their limitations. More access to medical care alone will not address the social, economic and environmental factors that lead to disparities in the onset and prevalence of disease; disease-by-disease funding makes it more difficult to focus on and address common causal pathways across conditions; and stage-by-stage services can result in missed opportunities and inefficient use of resources. In short, LCT suggests that new approaches are needed.

LCT posits that interventions that reduce risks and increase protective factors can change the health trajectory of individuals and populations. This theory of change is not inconsistent with the current practice of medicine and of public health. However, LCT greatly expands the opportunities (and some would say, the obligations) for intervention to include a much broader set of venues and partners, over a much longer timeline, and it suggests the need to rethink and revise some of the current strategies. More specifically, LCT suggests the need to: refocus resources and strategies for a greater emphasis on early ("upstream") determinants of health; incorporate earlier detection of risks coupled with earlier intervention; and promote protective factors while reducing risk factors at the individual, family and community levels. It also suggests the need to shift from discrete and episodic services to developing integrated, multi-sector service systems that become lifelong "pipelines" for healthy development.

Web Meeting Homework Results

Suggested Measures and Measure Concepts for High-Impact Areas

Items marked with an asterisk (*) are related to a currently endorsed measure.

Care Coordination

- ✓ Primary care visit within two weeks (and/or 30 days) of hospital discharge*
- ✓ CAHPS ® Clinician Group Survey to Measure the Medical Home*
- ✓ POLST / Advance directives*
- ✓ Medication reconciliation/review*
- ✓ Improving or maintaining physical health (HOS)
- ✓ Access to primary care
- ✓ Integrated bio-psycho-social supports
- ✓ Established care team
- ✓ Notification of Medicaid case manager within two days of hospital admission
- ✓ Shared problem list/plan of care with joint decision-making and frequent review
- ✓ Interagency discharge planning/Transitions
- ✓ Connection to informal caregiver
- ✓ Caregiver counseling and support with financial, legal, medical affairs
- ✓ Pharmacist consult to increase adherence, reduce polypharmacy and drug-drug interactions
- ✓ Transportation access

Quality of Life

- ✓ Depression remission at 6 and 12 months*
- ✓ Change in daily activity function*
- ✓ Long-stay residents whose need for help with ADLs has increased*
- ✓ CAHPS ® Nursing Home Survey*
- ✓ Palliative care / Pain management *
- ✓ Patient experience of care*
- ✓ World Health Organization Quality of Life module for persons with disability (WHOQOL-DIS)
- ✓ SNF master patient index MPI 3.0
- ✓ Timeliness of services
- ✓ Tracking functional status at home
- ✓ Economic indicators
- ✓ Unplanned hospital or psych admissions
- ✓ Stress
- ✓ Ability for surrogate decision-making
- ✓ Safety
- ✓ Community integration
- ✓ Ability to have choice /self-determination
- ✓ Person-centered planning and goal-setting
- ✓ Quality-Adjusted Life Years
- ✓ Access to community-based treatment and recovery services
- ✓ Mobility
- ✓ Living in the least restrictive/most independent environment
- ✓ Reduced delirium

Screening and Assessment

- ✓ Fall risk screening (HRA/SF-12) and management*
- ✓ Bio-psycho-social needs (MDS 3.0)
- ✓ Screening and brief intervention for substance use at least annually*
- ✓ PHQ-2 or PHQ-9 (depression)*
- ✓ Advance directives*
- ✓ Screening for peritoneal dialysis and/or kidney transplant in ESRD population*
- ✓ GAD-7 (anxiety)
- ✓ Improving or maintaining mental health (HOS)
- ✓ Supports Intensity Scale (SIS) for ID/DD
- ✓ Screening and assessment for medical conditions, including preventive care
- ✓ HIV Screening
- ✓ Family and community support
- ✓ Adaptive behavior scales
- ✓ Reduced need for crisis intervention and/or ER visits
- ✓ Access to medication
- ✓ Medication side effects
- ✓ Treatment preferences
- ✓ Routinely assess skin condition and hydration for institutional residents
- ✓ Assess institutional residents for possible HCBS placement
- ✓ Screen for dementia in older adults
- ✓ Literacy screening for ability to understand written directions

Other Suggested Measures and Measure Concepts

- ✓ Diabetes management*
- ✓ Annual flu shot*
- ✓ CAHPS ® for Medicaid HCBS
- ✓ ACOVE for vulnerable older adults
- ✓ Skilled workforce
- ✓ Maintenance of outcomes
- ✓ Absence of medical and psychiatric adverse events
- ✓ Review of medical history for signs of abuse or negligence
- ✓ Use of "Project RED" concepts
- ✓ Home visits
- ✓ Effective care – USPSTF A and B recommendations
- ✓ Use of telemedicine and emerging technologies to promote self-care
- ✓ Chronic disease self-management
- ✓ Social services contacts/referrals
- ✓ Availability of caregiver respite
- ✓ Certification of provider ability to offer 'Health Care Services for Individuals with Disabilities'
- ✓ Employment
- ✓ Cultural competence

MAP “Working” Measure Selection Criteria

Rating Scale for <u>Individual Measure Review</u> – contribution to a comprehensive measure set for accountability

1. **Measure addresses National Quality Strategy priorities and high-leverage measurement areas**
   Demonstrated by addressing the priorities in National Quality Strategy (Table 1) and high-leverage measurement areas which address conditions of the greatest cost, prevalence, burden and potential improvement for patients and the population (Tables 2 and 3: High Impact Conditions represents high-leverage measurement areas for Medicare and children as determined by NQF’s Measure Prioritization Advisory Committee)
   Rating:
      Low: measure does not address any of the priorities in the NQS nor represent a high-leverage measurement opportunity
      Medium: measure represents one of the priorities of the NQS or a high-leverage measurement opportunity
      High: measure represents multiple (more than one) priorities of the NQS and a high-leverage measurement opportunity

2. **Measure meets NQF endorsement criteria**
   Measures meeting NQF endorsement criteria are determined to be important to measure and report, have scientifically acceptable measure properties, usable, and feasible.
   Rating:
      Low: measure development required or measure under development
      Medium: measure development completed, measure not submitted to NQF or in pipeline for endorsement
      High: measure is endorsed by NQF

3. **Measure promotes parsimony through applicability to multiple populations and providers**
   Demonstrated by applicability to multiple types of providers, levels of analysis, care settings, and conditions
   Rating:
      Low: measure is limited to one subset of providers, levels of analysis, care settings, or conditions
      Medium: measure is applicable to a narrow subset of providers, levels of analysis, care settings or conditions
      High: measure is applicable to multiple types of providers, levels of analysis, care settings, or conditions

4. **Measure enables longitudinal assessment of patient-focused episode of care**
   Demonstrated by assessing care across time or with the patient as the unit of analysis (across settings and time)
   Rating:
      Low: measure is focused on a narrow phase of an entire episode of care (e.g., point in time, single encounter, acute care stay)
      Medium: measure provides an assessment of care across some settings of care or time
      High: measure provides an assessment of care across a broad range of settings of care and time

5. **Measure is ready for implementation in the context of a specific program**
   Demonstrated by prior operational use in the specific context or specified and tested for the setting and level of analysis needed for the specific program
   Rating:
      Low: measure has not been in use, nor is it specified and tested for the setting and level of analysis needed for the program
      Medium: measure is specified and tested for the setting and level of analysis needed for the program
      High: measure has been tested and is in operational use in the specific context or specified for the setting and level of analysis needed for the specific program

6. **Measures is proximal to outcomes**
   Demonstrated by focusing on outcomes, composites of all necessary interventions, and processes most proximal to desired outcomes, or with strong evidence chain from distal processes to desired outcomes
   Rating:
   - Low: Measures a distal structure or process that requires additional steps to influence desired outcomes (e.g., the frequency of assessing a lab value)
   - Medium: Process proximal to desired outcome (e.g., administering flu vaccine); or strong evidence chain for links to desired outcome (e.g., mammography screening)
   - High: Outcome or composite of all required interventions

Rating Scale for Measure Set Review – final check review of the entire set as a whole

1. **Measure set provides a comprehensive view of quality - NQS**
   Demonstrated by measures within the set addressing all of the NQS priorities
   Rating:
   - Low: measure set addresses less than 1-2 of the NQS priorities
   - Medium: measure set addresses at least 3-4 of the NQF priorities
   - High: measure set addresses 5-6 of the NQS priorities

2. **Measure set provides a comprehensive view of quality – high leverage opportunities**
   Demonstrated by measures within the set addressing high leverage opportunities identified for the intended accountable entities
   Rating:
   - Low: measure set addresses a few of the identified high leverage opportunities
   - Medium: measure set addresses some of the identified high leverage opportunities
   - High: measure set addresses most of the identified high leverage opportunities

3. **Measure set is appropriate for all intended accountable entities**
   Demonstrated by a measure set which is applicable to the intended providers, care settings, and levels of analysis relevant to the program
   Rating:
   - Low: measure set is limited to a few of the intended providers, care settings, and levels of analysis
   - Medium: measure set is applicable to some of the intended providers, care settings, and levels of analysis
   - High: measure set is applicable to all of the intended providers, care settings, and levels of analysis

4. **Measure set promotes parsimony**
   Demonstrated by a measure set which supports efficient use of resources for data collection, measurement, and reporting through the smallest number of measures need to address the National Quality Strategy, high leverage opportunities and all intended accountable entities
   Rating:
   - Low: measure set utilizes many measures that distinctly address one or two aspects of the NQS, high leverage opportunities, or intended accountable entities
   - Medium: measure set utilizes many measures with some that distinctly address one or two aspects of the NQS, high leverage opportunities, or intended accountable entities and some that address multiple aspects of the NQS, high leverage opportunities, or intended accountable entities
   - High: measure set utilizes fewer measures that address multiple aspects of the NQS, high leverage opportunities, or intended accountable entities

5. **Measure set avoids undesirable consequences**
   Demonstrated by a measure set in which the measures avoid undesirable consequences or have a method for detecting undesirable consequences
   Rating:
   - Low: concern for unintended undesirable consequences and detection would require additional data collection
   - Medium: some concern for unintended undesirable consequences which could be detected with additional analysis of existing data (e.g., analysis of patient case mix); or incentives for potential undesirable consequences are balanced within the set of measures (e.g., incentive to drop caring for certain types of patients balanced with incentives to provide care for that same group of patients)
   - High: little concern for unintended undesirable consequences; or the set includes measures to detect potential unintended consequences

6. **Measure set has a balance of measure types**
   Demonstrated by a measure set which has a balance of clinical process, outcomes, patient experience and cost measures
   Rating:
   Low: measure set has predominately one type of measure
   Medium: measure set includes two types of measures
   High: measure set address all three or four types of measures

7. **Measure set includes considerations for health care disparities**
   Yes/No: A measure set can address this category by doing one of the following:
   - *Including measures that directly address health care disparities (e.g. health literacy)*
   - *Includes measures that have been tested for stratification (by race, ethnicity, SES)at the level of analysis appropriate for the program*

Table 1: National Quality Strategy Priorities:

1. Making care safer by reducing harm caused in the delivery of care.
2. Ensuring that each person and family is engaged as partners in their care.
3. Promoting effective communication and coordination of care.
4. Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
5. Working with communities to promote wide use of best practices to enable healthy living.
6. Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models.

Tables 2 and 3: High-Impact Conditions:

Medicare Conditions
1. Major Depression
2. Congestive Heart Failure
3. Ischemic Heart Disease
4. Diabetes
5. Stroke/Transient Ischemic Attack
6. Alzheimer's Disease
7. Breast Cancer
8. Chronic Obstructive Pulmonary Disease
9. Acute Myocardial Infarction
10. Colorectal Cancer
11. Hip/Pelvic Fracture
12. Chronic Renal Disease
13. Prostate Cancer
14. Rheumatoid Arthritis/Osteoarthritis
15. Atrial Fibrillation
16. Lung Cancer
17. Cataract
18. Osteoporosis
19. Glaucoma
20. Endometrial Cancer

Child Health Conditions and Risks
1. Tobacco Use
2. Overweight/Obese (≥85th percentile BMI for age)
3. Risk of developmental delays or behavioral problems
4. Oral Health
5. Diabetes
6. Asthma
7. Depression
8. Behavior or conduct problems
9. Chronic Ear Infections (3 or more in the past year)
10. Autism, Asperger's, PDD, ASD
11. Developmental delay (diag.)
12. Environmental allergies (hay fever, respiratory or skin allergies)
13. Learning Disability
14. Anxiety problems
15. ADD/ADHD
16. Vision problems not corrected by glasses
17. Bone, joint or muscle problems
18. Migraine headaches
19. Food or digestive allergy
20. Hearing problems
21. Stuttering, stammering or other speech problems
22. Brain injury or concussion
23. Epilepsy or seizure disorder
24. Tourette Syndrome

Executive Summary

SNP Gold Standards Framework

The Gold Standards Framework for Specialized Managed Care was developed by The SNP Alliance's Medical Director Leadership Group to provide guidance to Special Need Plans (SNPs), consumers, health policy leaders and other SNP stakeholders for advancing SNPs as ***the*** vehicle of choice in high-risk care. Our goal is not to recommend new minimum SNP requirements, but to use the strengths of managed care principles and the best of what we know about clinical practice for persons with serious chronic conditions ***to help SNP policy and practice leaders reengineer usual payment, regulatory and care management practices.***

In implementing these recommendations, The SNP Alliance assumes the current fragmented, acute care oriented, medical model established and maintained under traditional fee-for-service and Medicare Advantage financing structures ***causes*** significant and unnecessary confusion, medical complications and costs for persons with complex care needs. We believe implementation of the proposed gold standards can reduce medical errors, iatrogenic illnesses and other system failures and significantly improve clinical and cost outcomes. Some SNPs already have embraced many of the principles identified in the Gold Standards Framework. Other SNPs have built their programs on more traditional Medicare Advantage (MA), disease management and/or fee-for-service structures.

The SNP Alliance assumes that no one size fits all. All SNPs must be afforded the opportunity to establish their own operating methods, in light of its SNP type and prevailing State and community conditions. As a result, the SNP Gold Standards Framework is offered as a lens for consumers, policy-makers and SNPs to use in analyzing and changing SNP policy and practice to be more consistent with the needs of Medicare's most frail, disabled and chronically ill beneficiaries. It draws upon evidence-based guidelines, to the extent available, recognizing that chronic care systems research is frequently inconclusive and incomplete. It also draws upon the knowledge and insights of health care professionals with extensive experience in and peer recognition for their skills in high-risk care.

Chronic illness care is a *systems* problem and requires a *systems solution*. All aspects of our health care system need changing. Since all stakeholders play a role in reinforcing the status quo, all stakeholders must work together to find new ways to improve total quality and cost performance in high-risk care. They must assess the adequacy of existing practices, in light of these standards, and work together to reengineer payment methods, oversight structures, plan administration and care management processes to be more consistent with the special care needs of frail elders, adults with disabilities and other persons with severe or disabling chronic conditions.

We offer this framework as a stimulus for discussion about ways to improve the total quality and cost performance of SNPs and welcome suggestions from all those who share our vision and values.

Consumer Empowerment

Goal: *To enable persons with serious chronic conditions and their family caregivers to optimize their health and well being within the limits of their prevailing condition, with full recognition of the values and preferences of plan enrollees.*

- Simplify and facilitate member enrollment and communications.
- Enhance self-care capabilities.
- Improve access to needed benefits and services.
- Provide family caregiver support.

- CONTINUED -

SNP Gold Standards Framework Continued

Specialized Care System Expertise

Goal: *To ensure that benefits and services are designed, implemented and maintained according to the unique needs of the high-risk group(s) being targeted, and in accordance with evidence-based guidelines, to the extent they are available and appropriate.*

- Address co-morbid illnesses.
- Manage beneficiary use of multiple medications.
- Integrate mental, behavior and physical health.
- Respond to the volatile, complex and ongoing nature of frailty.
- Manage illnesses within the context of disability.
- Address the unique needs at the end of life.

High-Risk Screening, Assessment and Care Management Processes

Goal: *To identify high-risk beneficiaries and help them and their family caregivers get access to and receive the right care, at the right time, in the right place, given the nature of their condition, the trajectory of their illness, and their care preferences, with emphasis on preventing, delaying and/or minimizing disease and disability progression.*

- Identify high-risk beneficiaries for specialized care.
- Advance interdisciplinary care teams.
- Provide comprehensive assessment and reassessment.
- Establish principal care management leadership and support.

Aligned Care Providers

Goal: *To ensure that provider arrangements are aligned in accordance with the volatile, multidimensional, interdependent and ongoing care needs of high-risk beneficiaries as a person's care needs evolve across time, place and profession.*

- Establish and maintain *enhanced* medical homes.
- Establish and maintain integrated care networks.
- Partner with community programs.
- Employ specialty care protocols and advance practice methods.
- Ensure safe and effective transitions.
- Increase continuity of care.

System Management Methods

Goal: *The goal of system management is to enable the spectrum of Medicare and Medicaid programs, disease management initiatives and care providers serving a common group of high-risk beneficiaries to work together to optimize total quality and cost performance for high-risk beneficiaries.*

- Align Medicare and Medicaid.
- Align financial incentives.
- Advance inter-provider communication.
- Align medical records and informatics.
- Provide ongoing training and support.
- Monitor and document total quality and cost performance.

Selected SNP Alliance Comments

2012 Advance Notice and Call Letter: Proposed Policies On Quality and Integration

March 4, 2011

SNP Alliance Comments on 2012 Advance Notice and Call Letter Comments on Quality and Integration Provisions

CMS Initiative on Fully Integrated SNPs

The Call Letter proposed a new initiative for SNPs to advance enrollment of dual eligible beneficiaries in fully integrated SNPs.

> **<u>SNP Alliance Position</u>:** The SNP Alliance is strongly supportive of the proposed integration initiative. The stand-alone efforts of Medicare and Medicaid programs unintentionally cause significant and unnecessary confusion, medical complications and waste in care of dual beneficiaries. We applaud the commitment of CMS staff to actively engage in efforts to realign and modify payment methods, program policy, and oversight requirements to better serve dual beneficiaries.
>
> In these efforts, we caution against being too rigid in defining expectations and policies in advance of implementation in order to allow states and plans to evolve integrated programs within the context of local and state circumstances. We suggest that CMS not restrict this initiative to D-SNPs but include C-SNPs, and I-SNPs where they meet the specified criteria for a fully integrated plan.
>
> With reference to specific questions posed in the Call Letter, we offer the following recommendations. More detail on these recommendations, including examples, is provided in Attachment 2. We would welcome the opportunity to meet with CMS staff to discuss further our ideas in this area.
>
> **a. What criteria should be used for a SNP to be considered high quality?**
>
> We recommend that CMS use the following combination of SNP-specific measures, outcome measures, and descriptive information regarding a specific set of specialty care gold standard criteria for determining high-quality performance.

<u>Recommended SNP-specific measures:</u>

Structure and Process Measures

- Complex Care Management
- Coordination of Medicare and Medicaid Benefits
- Care Transitions

HEDIS Measures

- Annual Medication Review
- Re-hospitalization within 30 days (being developed)
- Care of Older Adults (for I-SNPs and D-SNPs specializing in care of frail elders)

We suggest that CMS take into account: 1) the importance of accounting for key differences related to the characteristics of populations and problems being targeted, 2) problems that exist for small plans with limited data for specific measures, and 3) that a plan's limited experience in data collection, recordkeeping, and chart review can adversely affect a plan's score, regardless of the quality of their practice.

Recommended Outcome Measures

- Hospital admission and re-admissions
- Primary care visits, including use of interdisciplinary care teams and physician extenders
- Long-term nursing home use

We suggest benchmarking rates in relation to FFS for a comparable subgroup. We again stress the importance of adjusting for the specific population served.

Specialty Care Gold Standard Criteria: As a complement to quantitative data we recommend that CMS look at how plans address the following issues, with an eye toward advancing high performance.

- **Consumer empowerment**. To enable persons with serious chronic conditions and family caregivers to optimize health and well-being within the limits of their prevailing condition.
- **Specialized care system expertise**. To ensure that benefits and services are tailored according to the unique needs of the high-risk group(s) being targeted.
- **High-risk screening, assessment and care management processes**. To ensure beneficiaries and their family caregivers are able to access the right care, at the right time, in the right place, given the nature of their condition, the stage and trajectory of their illness, and their care preferences.
- **Aligned care providers**. To ensure that providers serving many of the same beneficiaries work together to optimize total quality and cost performance, as their needs evolve over time and across care settings, including aligned relationship among primary, acute and long-term care providers, as well as among health, mental health, and social service staff.
- **System management methods**. To optimize efficiency in the ongoing administration of Medicare and Medicaid benefits as well as in managing *total* quality and cost performance.
- **Beneficiary related program functions**. To better align Medicare and Medicaid enrollment, member communication, and grievance and appeals.

State Evaluation of SNPs: In cases where states conduct performance reviews of special needs plans, CMS should consider working with states to obtain SNP evaluation reports and ratings to avoid duplicating the same reporting, evaluation and oversight functions.

b. What specific plan design flexibilities would promote improved care delivery and streamlined administration?

To promote improved care delivery and streamlined administration, we recommend that CMS provide SNPs with flexibility in advancing care and program integration for the following components.

To advance CARE INTEGRATION, we recommend flexibility in aligning policies and procedures for:

- *High-risk screening*

- *Complex care management*
- *Care transitions*
- *Chronic care network relationships*

To advance PROGRAM INTEGRATION, we recommend flexibility in aligning policies and procedures for:

- *Eligibility determination*
- *Plan application and contracting*
- *Member communication and material*
- *Payment methods*
- *Model of care requirements*
- *Performance evaluation*
- *Grievance and appeals*

In the attached review, we provide specific examples for where flexibility is needed for each of these components.

c. What incentives (such as seamless enrollment transitions) would best promote plan participation in this initiative?

We believe the above efforts would significantly promote plan participation. We also believe it would be helpful for CMS to: (1) work with SNPs and State Medicaid agencies to publicize the existing authority that SNPs have to enroll Medicaid enrollees who become eligible for Medicare; and (2) inform State Medicaid agencies of the flexibility that they have to inform Medicaid beneficiaries of the opportunities to enroll in SNPs. Other incentives include:

- Eliminating duplication and inconsistencies between Medicare and Medicaid.
- Restructuring payment methods in a way that responds to issues of unique importance for plans specializing in care of high-risk populations, with appropriate compensation for services and functions of central importance to successful care and program management.
- Modifying marketing and member communication requirements to permit beneficiaries and their primary caregivers to more fully engage their primary care physician and/or care manager to review and discuss specific plan options and make recommendations in their best interest.
- Reducing the growing and burdensome array of reporting, validation, recordkeeping, and auditing requirements and replacing them with a set of outcome measures that are fundamental to achieving overall outcomes of unique importance in specialized managed care.
- Enabling SNPs to participate in cost savings, rather than have all cost savings accrue to the state and/or federal government.
- Making a federal/state commitment to long-term program stability for plans that demonstrate viability in care of dual beneficiaries.

There are those within the SNP Alliance that believe auto-enrollment policies will increase plan participation. Others advocate for an opt-out alternative. Still others believe it is important to preserve the right for beneficiaries to make a proactive decision to enroll in a particular plan, and that preserving such rights will increase beneficiary interest in, and support for, a product that is demonstrated to be a preferred product, in advance of their review and consideration. Because of these differences within the Alliance, the Alliance does not have a position on this particular “inducement” for participation.

d. What additional care coordination or beneficiary protection requirements would be appropriate for participating SNPs?

We believe the following principles would strengthen care coordination efforts and help maintain beneficiary protections.

- Simplify and facilitate member enrollment and communication, using methods that enable beneficiaries to receive information about benefits and services that are accurate, easily understandable, and using materials that address language and cultural differences, as well as any limitations related to physical and visual deficits.
- Enhance self-care capabilities through provision of up-to-date information about their condition, best practices for addressing their concerns, conditions surrounding how they can access and receive what is most important to them.
- Improve access to the full array of needed benefits and services that does not discriminate and enables them to receive care in the least restrictive and safe environment.
- Provide support for family caregivers using methods that help their loved one best address issues of importance to them and is complementary to their needs and interests.

MIPPA DSNP Contracting Requirements

CMS proposes aligning the DSNP contract submission date with the SNP application submission date in February. This requirement would create an extreme hardship on plans that currently do not have either multi-year contracts that auto-renew or single year contracts that would require minimal updating and renewal. Many SNPs have faced significant challenges in negotiating MIPPA contracts for numerous reasons, such as: (1) states are overburdened with fiscal crises and do not have time and resources for new initiatives; (2) states overestimate the commitment needed to contract with SNPs (fully capitated long-term care benefits, sec. 438 oversight, etc.); (3) inconsistent information from CMS central and regional offices about MIPPA contract requirements; (4) SNPs have had difficulty in identifying appropriate state staff to do MIPPA contracting, rate negotiations, etc. and getting Medicaid benefit information from states at all or in a timely fashion; and (5) some states appear to be using MIPPA contracts to leverage plans into providing greater coverage of Medicaid benefits with Medicare dollars. These and other challenges have resulted in a lengthy contract negotiation process and difficulty in obtaining the information needed to be MIPPA compliant (e.g. developing comprehensive summaries of Medicaid benefits for which enrollees are eligible vs. which benefits are covered by the plans).

SNP Alliance Position:

- CMS should offer plans maximum flexibility in submitting their state Medicaid contracts and use the existing state upload document as the vehicle for assessing SNP progress toward contract execution with states.
- CMS should permit plans with multi-year or evergreen contracts to submit existing contracts as evidence of compliance with MIPPA contracting requirements unless states have notified plans of their intent to non-renew. This approach is consistent with existing CMS policy permitting evergreen contracts to suffice even though payment amounts have not been finally agreed upon.
- For all other plans, plans should be required to report to CMS on progress toward contract development or execution through the state upload document.

- If CMS adopts an earlier date than July 1, we request that CMS establish an exceptions process that is sufficiently flexible to avoid unnecessary and inappropriate impediments to the offering of a dual SNP product because of a delay in contract execution.
- CMS should take steps to support and help facilitate timely execution of DSNP contracts with states by:
  - Taking steps to ensure consistent communication among CMS central and regional offices, states and SNPs.
  - Creating a DSNP contract webpage that has useful information, such as a list of all states' Medicaid benefits and waivers, state staff responsible for contract negotiation, rate setting, copies of exemplary DNSP contracts, etc.
  - Holding bi-monthly technical assistance calls for states and plans from mid-April to the end of June to support contract development, etc.
  - Establishing a standard communication vehicle for notifying CMS-SNP staff, ROs, states and plans about SNP-related matters or guidance (e.g., send same CMS memos at same time to all stakeholders to promote a timely, uniform understanding of CMS policy and expectations for SNPs.)
  - Developing an FAQ providing answers to commonly asked questions about SNPs and SNP contracting requirements.

1. **Involuntary Disenrollment of Disproportionate Share SNP Enrollees (p.79):** MAOs must disenroll members enrolled prior to 1/1/10 into a disproportionate share SNP if they no longer met the special needs criteria as of 12/31/09 and members who enrolled prior to 1/1/10 in a CSNP that no longer targeted the individual's chronic condition(s) as of 1/1/10. SNPs must notify each individual on or before October 1, 2011, that they will be disenrolled effective 1/1/12 and will need to enroll in another plan prior to that date if they want MA coverage for 2012.

   SNP Alliance Position: We request that CMS: (1) provide plans model beneficiary disenrollment letters on a timely basis to assist plans in preparing for the transition process and (2) provide plans the opportunity to comment on the model letters. It would be very helpful to receive the model letters by July 1 so that if plans wish to modify the letters, they have time to get CMS approval for modifications and notify beneficiaries by October 1. We note that plans are permitted to market other MA products by the parent MAO to these individuals and request that CMS clarify that plans can notify beneficiaries of these alternative options in the notification letter regarding disenrollment.

Improvements to Plan Ratings

The Call Letter describes in detail a number of steps CMS is considering to improve the Part C and D performance measurement system. Below are our general comments on this initiative as well as specific comments on the proposed changes.

SNP Position:

a. In General

- We strongly support and encourage the development of population specific measures that evaluate how well plans are performing in relation to the populations they serve. This is especially true for SNPs since they are required by law to limit enrollment to targeted groups of special needs individuals. Current MA plan ratings are not population specific and measurement is not risk adjusted to account for differences in expected utilization or outcomes in relation to a particular risk group.

- Specialized care programs will not be successful if performance measures and financial rewards are not aligned with the needs of the special needs populations targeted. Therefore, we appreciate CMS' willingness to consider potential enhancements to SNP ratings as well as a methodology for incorporating SNP specific measures in plan ratings.
- Because SNPs serve a high-risk, high-need population, it is more important than ever to identify a core set of 8 -10 outcome measures that evaluate how well SNPs perform in relation to enrollees' special needs. This could include a combination of utilization measures (e.g. re-hospitalization rates, preventable emergency room visits, long stay nursing home use), secondary or tertiary prevention measures (e.g. preventing adverse drug events), and satisfaction and/or quality of life measures. With clarity about the outcomes to be achieved, CMS, States and SNPs can more effectively evaluate, through multi-variant, rapid transfer evaluation methods, which Model of Care intervention or combination of interventions are most effective in achieving these results. CMS can also begin to (1) eliminate requirements that have little or no demonstrated value associated with the defined outcomes; and (2) create incentives and/or training support for requirements that do make a difference.
- We are very concerned about a growing list of additional SNP requirements that impose a greater and greater data burden on SNPs relative to other MA plans. Yet, to date, no reporting requirements have been eliminated as additional SNP-only reporting continues to be added.
- The SNP Alliance seriously questions the value proposition of a growing, voluminous and unaligned array of performance measurement efforts, most of which are not unique to SNPs or of unique importance in care of high-risk beneficiaries. We are extremely concerned that the financial viability of SNPs, as well as MAO interest in offering SNPs, may be in jeopardy. The SNP Alliance is strongly committed to evaluating the performance of SNPs and holding ourselves accountable for demonstrating added value. We believe CMS leadership is also interested in fair and appropriate measurement. In a common interest of improving outcomes for at-risk beneficiaries, we request that CMS assess the totality of performance measurement that SNPs are required to address, including new measures from multiple sources within both the Medicare and Medicaid programs, and the appropriateness of these efforts for high-risk beneficiaries, to determine if it is possible to reduce the data burden and improve the value proposition of performance measurement for Special Needs Plans.

b. **Principles of Improvement:** CMS identified several principles to guide the improvement of Part C and D performance measurement. We support many of the principles identified throughout, including the following interests (SNP Alliance clarifications regarding support are italicized):

- Moving quickly toward outcome measures.
- Aligning measures across Medicare and Medicaid public reporting and payment systems.
- Evolving a core set of measures appropriate to specific providers that reflects the level of care, and most important areas of service and measures, for specified providers.
- Minimizing the burden of information collection on providers.

- Using patient experience measures*, provided that the measures are aligned with the needs and capacities of beneficiaries. For example, the validity of data self-reported by persons who are mentally ill or cognitively impaired is highly questionable*.
- Scoring plans on their overall achievement relative to national benchmarks, *provided that benchmarks are risk adjusted in relation to health and other risks relevant to targeted special needs beneficiaries.*
- Scoring methods should consider improvement as an independent goal.
- Measures or measurement domains need not be given equal weight. In fact, we believe scoring methods should be weighted in relation to the needs of the targeted populations or risk groups.
- The use of functional status measures, *but not to the exclusion of other measures or with a heavier weighting than other measures that may be more appropriate for a specific population. For example, for a frail elderly patient that is bed bound and at the end of life, function status may be a low priority but pain management and comfort care very high priorities.*
- Scoring methods should be reliable and stable and enable meaningful distinctions among providers' performance.

Other important principles to note:

- For specialized managed care, it is not only important to apply risk adjustment to payment, but also to case mix performance measurement, particularly for difficult-to-serve populations, to account for such issues as geographic location, minority/ethnicity, institutional status, welfare status, HCC scores, and health conditions such as frailty, disability and behavioral health problems.
- Given the magnitude of measures being developed for providers, it also would be useful to align providers and plans on desired quality outcomes.

c. Additional Measures for 2012 Plan Ratings (page 88)

i. **All Cause Readmission Rates:** We support the use of a readmissions measure but suggest that measurement of SNP readmissions focus on specific ambulatory care sensitive chronic conditions or adverse events for which the targeted populations are at high-risk and which are likely to cause a readmission without appropriate management. These measures should be case mix adjusted, as is the all cause readmission measure.

ii. **SNP Plan Ratings:** CMS is considering a set of enhancements for 2012-2013 Plan Ratings, including the 4 ratings in Care of Older Adults HEDIS measures (percentage of members 66 and above that received pain screening, functional assessments, medication review, and advanced care planning during the measurement year).

SNP Alliance Position: The SNP Alliance believes that:

- We support the use of COA measures as performance metrics for seniors. In fact, some of these measures are likely to be effective quality indicators for special needs populations under age 66, even though the HEDIS specifications establish this upper age limit.

- One drawback of using this measure, in general, instead of one that applies to all SNP enrollees (e.g., the structure and process measure on complex case management), is that the measure would not offer opportunities for improved quality ratings for plans exclusively serving adults with disabilities under age 66 or plans with a significant proportion of such individuals.
- A drawback of using the COA measure for 2012 plan ratings is that CMS has not clarified how it would establish benchmarks and plan ratings for this metric in the absence of MA or FFS data. Since the COA is a new measure that has only been in place for a few years, and has not achieved the same degree of stability as other HEDIS measures, we recommend against using current SNP data for establishing the benchmarks for a 2012 plan rating.
- Consistent with CMS' intent to use two years of data for establishing 4-star thresholds, we recommend that CMS:
  - Use two years of data to establish COA benchmarks.
  - Use data from 2011 and 2012 to improve the stability of this new measure.
  - Delay use of this measure to enhance plan ratings until 2014.
  - Consider differences among different SNP types in establishing COA benchmarks.

iii. **Voluntary Disenrollment Rates:** We do not believe this is an appropriate measure for dually eligible beneficiaries since they have continuous open enrollment. This increases the likelihood of higher turnover rates that are unrelated to beneficiary concerns about quality. Non-duals, however, are locked into plan enrollment with the exception of annual open enrollment and special election periods. Since it is important to have a level playing field across MA plans on this metric, we recommend against adding this measure to plan ratings. If CMS chooses to use it, it would need to be case mix adjusted for duals.

d. Enhancements to Part C and D ratings (Page 89):

- The SNP Alliance does not have the information needed to evaluate whether SNPs would be helped or hurt by re-balancing plan ratings and assigning greater weighting to clinical measures. In concept, we support the idea of giving greater weight to clinical measures. Given the misalignment of many HEDIS, HOS and CAHPs measures with targeted special needs populations, we are concerned that the ratings may not be a fair representation of SNP quality in relation to specific special needs populations. At a minimum, we strongly urge CMS to case mix adjust clinical and administrative measures for SNPs.
- We support rewarding contracts for quality improvement.

e. Additional plan measures for 2013 plan ratings under consideration (page 89): We support:

- Survey methods of care coordination and care transitions. We seek clarification of the term "patient activation."
- Case mix adjustment of ALL measures, in relation to special needs beneficiaries, not just mortality rates.
- Preventable hospitalizations.
- Serious reportable adverse events, including hospital acquired conditions.
- MTM measures related to comprehensive medication reviews.

- CCIP and QIPs that include population-specific areas of focus for SNPs.

f. **Improvement to SNP Ratings (p.** 89): CMS seeks comments on the feasibility of creating a methodology to incorporate SNP specific measures into plan ratings, particularly in cases where CMS applies differential weighting to individual measures. The SNP Alliance is extremely grateful for CMS' recognition of the importance of measures specific to special needs individuals.

SNP Alliance Position: The SNP Alliance included an extensive discussion of the need for incorporating SNP-specific measures in the STARs quality bonus payment methodology in our comments on the NPRM on MA provisions in the Affordable Care Act. To address these concerns, we urge CMS to advance the following objectives for SNP quality bonus payments in 2012-2015 and beyond. The action steps below should be initiated in 2011 and included in the national payment demonstration on MA quality bonus payments to improve the measurement of SNP quality for payment years 2012 and beyond. In addition, we encourage CMS to consider not only ways to incorporate SNP-specific ratings into plan ratings, but to determine which measures of limited relevance to special needs beneficiaries can be eliminated to improve the value proposition of performance measurement for all stakeholders in the SNP arena.

For 2012 SNP Quality Bonus Payments

- Enhance SNP ratings for performance on NCQA SNP Structure and Process measures 1 and 6, Complex Case Management and Coordination of Medicare and Medicaid Coverage, and the HEDIS Annual Medication Reconciliation measure.
- In calculating quality bonus payments for SNP specific measures that only apply to SNPs, CMS should compute an "add-on" payment since the ratings would not apply to non-SNP plans that may be part of their MAOs overall H number.

Actions In 2011, for SNP Quality Bonus Payments for 2013 and Beyond:

Modify the 5-star rating system to more accurately reflect the quality of care delivered by SNPs. Work with the SNP Alliance, measurement experts and others to:

- Revise HEDIS specifications for certain measures to include exclusions for certain populations for measures that are inappropriate, irrelevant, potentially harmful and/or not validated in medical literature (e.g., mammograms for frail elderly ISNP members). See Attachment 3 for a preliminary list of exclusions for specified populations.
- Include specified SNP-specific measures developed by NCQA or SNP-related HEDIS measures in SNP Star ratings to reflect the quality of care in serving targeted populations. Provide for variability by target population (e.g., duals, diabetes, mental illness, institutional populations, AIDS, etc.).
- Resolve validity and reliability issues related to self-reported measures (e.g., CAHPS, HOS) such as the reliability of data reported by persons who are cognitively impaired or mentally ill.

- Establish case mix adjustment methods to account for differences in scores resulting from serving people with different levels and/or rates of disease intensity, comorbidity, condition complexity and other factors.

- Modify and rebalance weighting of measures in relation to targeted populations. For example, complex care management is important for all SNPs, drugs to be avoided by the elderly is important for ISNPs, but would be irrelevant for C-SNPs targeting disabled adults under 65 with severe mental illness. We also suggest the need to evaluate the appropriateness of current weights for clinical vs. administrative measures for purposes of bonus payments. Some measures that are important for consumer satisfaction may not be as relevant to clinical outcomes and quality.

Actions in 2011, for SNP Care of Older Adults Bonus Payments in 2014 and Beyond

- Enhance SNP ratings using Care of Older Adults Measures.
- Use 2 years of data from 2011 and 2012 to establish benchmarks.
- Use plan benchmarks to establish benchmarks, understanding that expectations will be lower in the early years and that the benchmarks can be modified upwards in later years as SNPs gain experience with this measure and the measure becomes more stable.
- Consider differences among different SNP types in establishing COA benchmarks.

Actions in 2011, for SNP Quality Bonus Payments in 2015 and Beyond

- Develop a core set of risk-adjusted outcome measures for care delivered to high-risk, high-need beneficiaries (e.g., re-hospitalization rates, ER visits, adverse drug events).

- Identify alternative survey methods for persons with mental illness and/or cognitive impairment.

- Eventually, we would like to see a special star rating system for plans serving high-risk populations that would replace the current star system. This core set of 8 -10 outcome measures could include a combination of utilization measures (e.g. re-hospitalization rates, preventable emergency room visits, long stay nursing home use), secondary or tertiary prevention measures (e.g. preventing adverse drug events), and satisfaction and/or quality of life measures.

Attachment 1

Detailed SNP Alliance Comments for Integration Initiatives to Promote Enrollment in Fully Integrated SNPs

The SNP Alliance is strongly supportive of the proposed integration initiative. The stand-alone efforts of Medicare and Medicaid programs unintentionally cause significant and unnecessary confusion, medical complications and waste in care of dual beneficiaries. We applaud the commitment of CMS staff to actively engage in efforts to realign and modify payment methods, program policy, and oversight requirements to better serve dual beneficiaries.

We understand the initiative would test the impact of certain plan design flexibilities in the 2013 contract year. To qualify, we understand that a SNP would have to be an existing plan in the 2011 and 2012 plan years. We also understand that to qualify, the SNP would have to demonstrate they are "high quality" and that they offer a truly integrated product, e.g., a capitated contract for the full array of Medicaid services, including primary, acute, behavioral, and long term.

We offer the following comments for your consideration with an interest in doing what we can to strengthen the potential for success for: 1) reducing costs without reducing quality, 2) improving quality without increasing cost, or 3) reducing costs and improving quality.

A. Overall Comments

The SNP Alliance believes that in order to effectively advance the integration of care for persons dually eligible for Medicare and Medicaid, it is important to first have clarity about what we are trying to accomplish, for whom, and to what effect. Once there is clarity about these issues, it is possible to more easily identify criteria, targets and priorities for advancing integration without getting entangled in related clinical, administrative, and oversight complexities. As a result, we recommend:

The overall goal for advancing Medicare/Medicaid integration should be to prevent, delay and/or minimize the progression of chronic disease and disability, as a dual beneficiary's care needs evolve over time and across care settings. Key objectives should be to:

a. Simplify consumer access to benefits and services
b. Improve care continuity among related providers
c. Eliminate inappropriate cost shifting between providers and between Medicare and Medicaid
d. Eliminate regulatory and oversight conflicts
e. Improve "total" quality and cost performance, including concerns for consumer satisfaction

Within the context of caring for dual eligible beneficiaries, we believe that *special regard* should be given to addressing the special care needs of frail elders, adults with disabilities, and persons with complex medical conditions, such as AIDS; co-morbid conditions, such as diabetes, CHF, and COPD; and late-stage chronic conditions.

We also believe it is important to make a distinction between "care integration" and "program integration," with "care integration" focused primarily on aligning interests of related providers in serving a common patient, resident, or member; and with "program integration" focused primarily on aligning Medicare and Medicaid payment methods, policy and oversight in support of a common constituency, namely persons dually eligible for Medicare and Medicaid. Both should be supported in this initiative.

Key elements for advancing CARE INTEGRATION are:

a. Annual assessment and risk stratification
b. Care planning/care management
c. Care transitions management
d. Chronic care network relationships

Key elements for advancing Medicare and Medicaid PROGRAM INTEGRATION are:

a. Eligibility determination
b. Plan application and contracting
c. Member enrollment
d. Member communication and material
e. Payment methods, including bookkeeping and accounting requirements
f. Model of care requirements
g. Performance evaluation
h. Grievance and appeals

We also suggest that CMS not restrict this initiative to D-SNPs but include C-SNPs and I-SNPs where they meet the criteria specified by CMS for participation. The vast majority of Institutional SNP beneficiaries are dually eligible for Medicare and Medicaid and many C-SNPs provide special benefits and services to a significant number of dual beneficiaries, including some with the vast majority of their enrollees being dually eligible for Medicare and Medicaid, such as the Chronic SNPs targeting care to persons with severe and persistent mental illness and/or persons with AIDS.

We also want to note that it is not possible for SNPs to establish fully integrated programs without active engagement from federal and state officials, in aligning payment methods, program policy and oversight requirements and addressing a host of issues where standard Medicare or Medicaid policies impede the ability to provide effective care for high-risk beneficiaries. Both programs are deeply rooted in antiquated policies for serving people that require the spectrum of primary acute and long-term care services and interventions that are different from standard, stand-alone, Medicare or Medicaid approaches.

We caution CMS about being too rigid in defining expectations and policies in advance of implementing the initiative in order to allow for plans and states to evolve integrated programs, consistent with CMS interests, but within the context of local and state circumstances. As discussed below, given the complexities of developing and implementing a fully integrated system, states and plans need a pathway or roadmap that helps them get from where they stand to a fully integrated program.

Finally, we want to suggest that CMS think about fully integrated SNPs as specialized integrated care organizations (ICOs) with special skills and capabilities for addressing the spectrum of needs for frail elders, adults with disabilities, and/or complex medical conditions, using integrated, managed care financing methods. The assumption is that fully integrated SNPs would offer a full array of Medicare and Medicaid benefits under single/unified federal/state authority, using enriched medical home capabilities and aligned care networks of primary, acute and long-term care by using compatible clinical methods in support of a common plan of care. The focus would be on optimizing *total* quality and cost performance, regardless of where the specific cost savings is accrued, using interventions designed to prevent, delay or minimize disease and disability progression as a person's care needs evolve over time and across settings. Also, while we view efforts as part of this initiative within the context of Integrated Care Organization activity, we do not see SNPs as the exclusive domain of ICO efforts and include organizations such as PACE, and other non-SNP state and/or federal initiatives focused on the same issues as part of an overall ICO strategy.

B. What Criteria should be used for a SNP to be Considered High Quality?

The most logical starting point using existing performance measurement methods are the SNP-specific Structure and Process Measures and SNP-specific HEDIC measures. Within this set, we believe the following measures are most relevant to the integration initiative:

Structure and Process Measures

- Complex Care Management
- Coordination of Medicare and Medicaid Benefits
- Care Transitions

HEDIS Measures

- Annual Medication Review
- Re-hospitalization within 30 days (being developed)
- Care of Older Adults (for I-SNPs and D-SNPs specializing in care of frail elders)

In analyzing SNP data, we want to emphasize: 1) the importance of accounting for key differences in the characteristics of populations and problems being targeted, 2) problems that exist for small plans with limited data for specific measures, and 3) that a plan's limited experience in data collection, recordkeeping, and chart review can adversely affect a plan's score, regardless of the quality of practice.

CMS may wish to consider HOS and CHAPS in measuring consumer satisfaction, but we're concerned about how the population they serve adversely affects scores for some plans. For example, while it is possible for surrogates to answer questions on a member's behalf, some frail elders, persons with severe and persistent mental illness, etc. are compromised in their memory and cognitive ability, raising questions about the validity and reliability of their answers. This is also true for some surrogates speaking on behalf of members who are not sufficiently familiar with a person's care to really know the circumstances to which they are asked to speak. Moreover, HOS and CHAPS data, as well as HEDIS data, is collected at the contract level. As a result, data provided for a given SNP is influenced by non-SNP activities and may or may not be a true representation of a SNP's quality performance.

We also do not believe the SNP-specific measures fully capture the essence of specialized care and do not fully address issues of importance in advancing care and program integration. We therefore recommend that FCHCO complement their analysis with findings derived for a targeted set of health care utilization findings, and for other qualitative indicators of unique importance to the initiative, as outlined below.

Outcome Measures

- Hospital admission and re-admissions
- Primary care visits, including use of interdisciplinary care teams and physician extenders.
- Long-term nursing home use

In collecting data for these measures, we suggest benchmarking rates in relation to rates in FFS for a comparable population, with an assumption that the hospital and long-term nursing home rates should be lower than fee-for-service and primary care visits higher, again for a comparable population. We also caution against use of long-term nursing home rates for plans specializing in care of persons living in institutions. In addition, while benchmarking rates against rates in FFS, we want to stress again the importance of adjusting for the specific population served. For example, a plan specializing in care of frail elders will have very different rates from plans that specialize in care of adults with disabilities or a specific problem, such as persons with AIDS, or persons with severe and persistent mental illness.

Other Quality Indicators

We also recommend that CMS use caution in establishing a quality threshold, with an interest in advancing integration to improve quality rather than simply using quality as a threshold for determining eligibility for participation. As a result, we suggest that CMS look at how plans address the following issues, with an eye toward opportunities for advancing high performance integrated care organizations.

1. **Consumer empowerment**. To enable persons with serious chronic conditions and family caregivers to optimize their health and well-being within the limits of their prevailing condition.
2. **Specialized care system expertise**. To ensure that benefits and services are tailored according to the unique needs of the high-risk group(s) being targeted.
3. **High-risk screening, assessment and care management processes**. To ensure beneficiaries and their family caregivers are able to access the right care, at the right time, in the right place, given the nature of their condition, the stage and trajectory of their illness, and their care preferences.
4. **Aligned care providers**. To ensure that providers serving many of the same beneficiaries work together to optimize total quality and cost performance, as their needs evolve over time and across care settings, including aligned relationship among primary, acute and long-term care providers, as well as among health, mental health, and social service staff.
5. **System management methods**. To optimize efficiency in the ongoing administration of Medicare and Medicaid benefits and services as well as in monitoring and managing *total* quality and cost performance for frequent and ongoing users of both programs.
6. **Beneficiary related program functions**. To better align Medicare and Medicaid enrollment, member communication, and grievance and appeals.

In proposing this approach to determining high performance plans for purposes of defining eligibility for participation in the Integration initiatives, we want to be clear that these measures may or may not be the most important for determining SNP performance over time, whether they are fully integrated or not. At some point it becomes important for CMS and those involved in Special Needs Plans to establish clarity about what we want to achieve…over all…with no more that 5 to 10 outcome measures, such as reducing hospitalization admissions, preventable emergency room visits, long-term nursing home stays, adverse drug events and measures for improvement in a person's quality of life. Once there is clarity about this, then we can put structure in place to more clearly identify what interventions are most important for achieving these outcomes. At this point SNPs and government officials are drowning in a plethora of requirements that may have very little to do with what's really important in advancing the integration of care for high-risk populations.

C. What Specific Plan Design Flexibilities Would Promote Improved Care Delivery and Streamlined Administration?

We have identified a series of barriers and interventions in the attached Matrix for Advancing integration in care of dual beneficiaries (Attachment 4). Within this mix, we believe it is particularly important to provide SNPs participating in this initiative with a package of fully aligned Medicare and Medicaid payment methods, policies and procedures that will enable them to advance care integration and program integration to their optimum effect. This would include enabling SNPs to work with their respective state Medicaid agencies, in collaboration with CMS, to follow a uniform or aligned set of state-specific Medicare/Medicaid methods, as well as standardizing Medicare-related policy across states to the extent possible.

To advance CARE INTEGRATION, we recommend that CMS streamline and align policies and procedures for:

a. *High-risk screening* (including methods for triaging persons to services that are most appropriate for their prevailing condition.)
b. *Complex care management* (including required functions, composition and use of interdisciplinary care teams, role of primary care, designation of principal care managers, etc.)
c. *Care transitions* (governing referrals, sharing of demographic, patient goals, and care plan information; procedures for intake, care planning and discharge planning moving among related care providers within a defined network, etc.)
e. *Chronic care network relationships* (Policies governing ongoing relationships among primary, acute and long-term care providers…including home care services and social services…who serve many of the same persons, as their conditions evolve in relation to a specific care episode, such as a hip fracture or a stroke, or in addressing the multiple, complex and ongoing relationships in serving frail elders and persons with severe physical, developmental, behavioral, or mental disabilities.)

To advance PROGRAM INTEGRATION, we recommend that CMS streamline and align policies and procedures for:

a. *Eligibility determination*, with recognition of differences among states, but including allowing Medicaid beneficiaries who have been enrolled for at least a year to retain their eligibility via a presumptive eligibility process.
b. *Plan application and contracting*, with a single application, review and approval process.
c. Member enrollment, with support for a single point of contact and enrollment process and uniform periods of retroactivity between Medicare and Medicaid.
d. *Member communication and material*, with information, such as ANOC and EOC fully integrated using simplified description of benefits and services using consumer friendly language.
e. *Payment methods*, including a fully compatible risk adjustment methodology, including adjusted premium rates on the Medicaid side to account for variances in use among various populations including for frail elders and adults with disabilities, use of frailty and disability adjusters, maintaining diagnostic codes for chronic conditions for multiple years, elimination of the bidding process, uniform schedules, and common guidance governing allocation of costs for shared services such as case management services.
f. *Model of care requirements* that incorporate interests of the appropriate state agency and CMS interests into a single and/or fully aligned set of program requirements.
g. *Performance evaluation*, including governing HEDIS, Quality Improvement programs, and the collection of encounter data and permitting plans to provide CMS with state collected data on ADLs, when it is collected by the states using same ADL scale as HOS, instead of having to pay vendor to do separate draw of sample for HOS, as well as alignment of performance measures between Medicare and Medicaid, and modification of the HOS survey to address language and cultural differences, consideration of substituting HOSM for some populations, and problems related to a person's ability to self-report as well as the validity and reliability of surrogates.
h. *Grievance and appeals*, to the extent that state and federal policies and procedures can be aligned.

D. What Incentives Would Best Promote Plan Participation in this Initiative (e.g., seamless enrollment transitions)?

We believe that the above-mentioned efforts would significantly promote plan participation. Other issues of particular importance are:

1. Eliminating duplication and inconsistencies between Medicare and Medicaid policies and procedures.
2. Restructuring payment methods in a way that responds to issues of unique importance for plans specializing in care of high-risk populations, with appropriate compensation for services and functions of central importance to successful care and program management.
3. Modifying marketing requirements to permit beneficiaries and their primary caregivers to more fully engage their primary care physician and/or care manager to review and discuss specific plan options and make recommendations for referral to a program that best meets their interests and needs.
4. Reducing the growing and burdensome array of reporting, validation, recordkeeping, and auditing requirements for Stars, MA contracts, SNP Models of Care, QIPs, HEDIS, HOS, CHAPS, etc. for Medicare side; a host of different requirements for Medicaid; and a growing array of Conditions of Participation and reporting for SNP providers. We recommend replacing them with a set of measures and requirements that are of central importance in achieving an overall set of outcomes that are yet to be defined for high-risk care.
5. Aligning provider incentives with plan incentives when it comes to performance outcomes.
6. Enabling SNPs to participate in costs savings, rather than have all cost savings accrue to the state and/or federal government.
7. Making a federal/state commitment to long-term program stability for plans that demonstrate viability in care of dual beneficiaries.

There are those within the SNP Alliance that believe auto-enrollment policies will increase plan participation. Others advocate for an opt-out alternative. Still others believe it is important to preserve the right for beneficiaries to make a proactive decision to enroll in a particular plan, and that preserving such rights will increase beneficiary interest in and support for a product that is demonstrated to be a preferred product, in advance of their review and consideration. Because of these differences within the Alliance, the Alliance does not have a position on this particular “inducement” for participation.

E. What Additional Care Coordination or Beneficiary Protection Requirements Would be Appropriate for Participating SNPs?

The SNP Alliance recommends the following *principles* as guidance in advancing person-centered care, which we believe are complementary to existing care coordination functions and helpful in maintaining important beneficiary protections.

1. Simplify and facilitate member enrollment and communication, using methods that enable beneficiaries to receive information about benefits and services that are accurate, easily understandable, and using materials that address language and cultural differences, as well as any limitations related to physical and visual deficits.
2. Enhance self-care capabilities through provision of up-to-date information about their condition, best practices for addressing their concerns, conditions surrounding how they can access and receive what is most important to them.
3. Improve access to the full array of needed benefits and services that does not discriminate and enables them to receive care in the least restrictive and safe environment.
4. Provide support for family caregivers using methods that help their loved one best address issues of importance to them and is complementary to their needs and interests.

Attachment 2

Proposed HEDIS Exclusions for High-Risk Beneficiaries and Clinical Rationale for Proposed Exclusions

Several Star HEDIS measures are inappropriate for certain populations, maybe be harmful for others or there may be little or no evidence regarding the effectiveness of certain measures for specific Medicare subgroups. However, HEDIS methods do not establish non-report status for SNP types or population segments for which selected measures do not apply, requiring plans to "screen out" of measures that are irrelevant to the target population.

Given their special characteristics, beneficiaries living in an I-SNP, nursing home certifiable enrollees living in a community setting, beneficiaries who have dementia or chronic and persistent mental illness and those who are in palliative care or hospice programs should be excluded from the following measures:

- Breast Cancer Screening
- Colorectal Cancer Screening
- Spirometry Testing to Confirm COPD
- Glaucoma Screening
- Blood Pressure Control
- Glycemic Control
- Osteoporosis Testing in Older Women

Clinical Rationale for Exclusions

Breast Cancer Screening

- The age range recommended for screening (50-69) excludes virtually all nursing home residents and the large majority of nursing home certifiable beneficiaries.
- The need to follow-up with treatment for abnormal findings could lead to iatrogenic harm due to frail elders' intolerance of the attendant toxicity of chemotherapy. Some research recommends against mammograms for frail elders with life expectancy of less than five years since they are more likely to die of other causes. Nursing home residents have an average age of 83 and average length-of-stay prior to death of less than five years.

Colorectal Cancer Screening

- The age range recommended for screening already excludes approximately 85% of the Institutional membership.
- Frail elders and enrollees with ESRD poorly tolerate endoscopic procedures. One could substitute virtual colonography or FOBT; however, pursuing abnormal findings (which are frequent) could lead to iatrogenic harm. The issue of needing to follow up on abnormal findings is one reason why Medicare does not currently cover virtual colonography.

Spirometry Testing to Confirm COPD

- These tests require a significant level of participation and members with cognitive impairment and mental illness may not be able to participate. Administrative data are used to adjudicate this measure which would require that nursing home patients usually be sent out to a pulmonary laboratory for this testing.

Glaucoma Screening

- Enrollees with advanced dementia and mental illness may not be able to tolerate this procedure.
- Research shows that "Direct evidence of the benefit of glaucoma screening is limited, but shows that screening for impaired visual acuity in older adults in primary care settings is not associated with improved visual or other clinical outcomes and may be associated with unintended harms such as increased risk of falls and fractures."

Blood Pressure Control

- Goals for treating blood pressure in the very old need to be more individualized than in younger patients.
- Patients with strokes or vascular dementia may require higher perfusion pressures.
- There is a well-described "J-shaped" mortality curve associated with blood pressure where over-treating can lead to excess mortality.
- It is common for old patients to have 20 mm or greater postural drops in blood pressure when they stand up. Normalizing blood pressure in recumbancy leads to syncope and falls when patients try to be active.

Glycemic Control

- Preventing long-term microvascular effects with tight blood glucose control becomes less important an objective in the very old, and the more immediate dangers of mortality and cognitive loss related to bouts of hypoglycemia assume greater importance.

Osteoporosis Testing in Older Women

- Since, the vast majority of all women residing in a nursing home are likely to have osteoporosis; the requirement to screen all residents is not cost-effective. It would be more cost-effective to evaluate whether SNPs are providing appropriate treatment, such as Vitamin D or Foxamax for those who can tolerate it, and appropriate interventions to reduce falls and fractures and maintain as much member comfort as possible. It is important to note that, in selecting possible interventions, the use of the more common treatments for osteoporosis (bisphosphonates) are likely to be less tolerated by the very old. This may be especially true given the need to remain erect for 30 minutes after taking a bisphosphonate, and the rising frequency of dysphagia, achalasia, and other esophageal problems in the elderly.

National Framework for Quality Improvement in Behavioral Health Care

(DRAFT)

Substance Abuse and Mental Health

Services Administration (SAMHSA)

June 2011

Overview

> “SAMHSA can take advantage of a revitalized national interest in data activities and new technologies to establish a more robust behavioral health information and quality infrastructure for the Nation. Taking these steps now is critical to assure that those who are most vulnerable have access to high quality prevention, treatment and recovery services.”(SAMHSA, 2011)

As noted in SAMHSA’s most recent strategic plan, the agency has an opportunity to capitalize on current energies, and harness resources and commitments, in developing and implementing a comprehensive yet practical behavioral health quality framework to guide the collection, analysis and reporting of key information to promote improvements in the accessibility, quality, and outcomes of prevention, treatment, and recovery services for those with – or at risk for – mental and substance use disorders.

While a number of factors have converged to create this opportunity, the most significant of these may be the passage of national health reform. Efforts to successfully implement the various provisions of the Affordable Care Act will require an understanding of the current behavioral health status and needs of both populations and delivery systems, as well as the ability to anticipate the data and informational requirements necessary to adequately assess and monitor the law’s effects on these same populations and delivery systems over time.

Notably, the Affordable Care Act calls for the establishment of a National Strategy for Quality Improvement in Health Care to include national priorities and a strategic plan for improving the delivery of health care services, achieving better patient outcomes, and improving the health of the U.S. population. In much the same vein, SAMHSA is now advancing a National Framework for Quality Improvement in Behavioral Health Care (referred to henceforth as the National Behavioral Health Quality Framework), aimed at establishing national priorities – and goals and opportunities – for improving the delivery of behavioral health services, achieving better behavioral health outcomes, and improving the behavioral health of the U.S. population, especially those with mental illnesses and substance abuse.

By “behavioral health,” SAMHSA refers to a state of mental/emotional being and/or choices and actions that affect wellness. Behavioral health problems include substance abuse or misuse, alcohol and drug addiction, serious psychological distress, suicide, and mental and substance use disorders. This includes a range of problems from unhealthy stress to diagnosable and treatable diseases like serious mental illnesses and substance use disorders, which are often chronic in nature but from which people can and do recover. The term is also used to describe the service systems encompassing the promotion of emotional health, the prevention of mental and substance use disorders, substance use, and related problems, treatments and services for mental and substance use disorders, and recovery support.

The Federal government generally – and SAMHSA specifically – plays an important role in supporting and paying for the delivery of safe, high quality behavioral health care, monitoring quality and disparities, providing technical assistance, supporting research, and, in limited instances, directly providing care. However, achieving safe, high quality, affordable behavioral health care for all Americans will be the product of millions of local actions in local communities — actions taken by doctors and nurses, patients and family members, and systems put in place by health and behavioral care organizations, providers, payers, and care mangers to ensure high quality, effective and reliable care.

Purpose of the National Behavioral Health Quality Framework

The creation of a National Behavioral Health Quality Framework represents an important step in achieving the overarching purpose of SAMHSA's Strategic Initiative for Data, Outcomes and Quality; namely, "realizing an integrated data strategy and a national framework for quality improvement in behavioral health care that will inform policy, measure program impact, and lead to improved quality of services and outcomes for individuals, families, and communities." (SAMHSA, 2011) By outlining national behavioral health quality priorities, goals - and recommended measures for assessing progress toward identified priorities and goals - SAMHSA will provide both leadership and coordination to myriad efforts to improve the quality of services aimed at improving the lives of those with – or at risk for - behavioral health disorders. The first step of this process is seeking public input into the structure and content of this Framework, with particular emphasis on identifying recommended measures for assessing both SAMHSA's – and the nation's - progress in improving the quality of behavioral health services.

National Aims and Priorities

Similar to the National Quality Strategy, the National Behavioral Health Quality Framework will pursue three broad aims. These aims will be used to guide and assess national, State, local, Territorial and Tribal efforts to improve the quality of behavioral health care.

- **Better Care:** Improve the overall quality, by making behavioral health care more patient-centered, reliable, accessible, and safe.
- **Healthy People/Healthy Communities:** Improve the behavioral health of the U.S. population by supporting proven interventions to address behavioral, social and, environmental determinants of positive behavioral health in addition to delivering higher-quality behavioral health care.
- **Affordable Care:** Increase the value (cost-effectiveness) of behavioral health care for individuals, families, employers, and government.

To advance these aims, SAMHSA will initially focus on six priorities that generally parallel those of the National Quality Strategy. They are:

- Promote the most effective prevention, treatment and recovery practices for behavioral health disorders
- Assure behavioral health care is person- and family-centered
- Encourage effective coordination within behavioral health care, and between behavioral health care and other health care and social support services
- Assist communities to utilize best practices to enable healthy living
- Make behavioral health care safer by reducing harm caused in the delivery of care
- Foster affordable high quality behavioral health care for individuals, families, employers, and governments by developing and advancing new delivery models

While SAMHSA has proposed specific quantitative goals and measures for each of these priorities, as the National Behavioral Health Quality Framework is implemented, SAMHSA will work with stakeholders and partners to both advance and refine these efforts. Importantly, these priorities can only be achieved with the active engagement of clinicians, patients, provider organizations, and many others in local communities across the country, something the National Behavioral Health Quality Framework supports. Since different communities have different assets and different needs, they will likely take different paths to achieving the six priorities. This Framework will help to assure that these local efforts remain consistent with shared national aims and priorities. It is SAMHSA's hope that this National Behavioral Health Quality Framework creates a new level of cooperation among stakeholders seeking to improve behavioral health and behavioral health care for all Americans.

SAMHSA's Role

Guided by both the National Behavioral Health Quality Framework, and SAMHSA's Strategic Initiative for Data, Outcomes and Quality, SAMHSA will be positioned to pursue a systematic and comprehensive approach aimed at collecting and analyzing existing data on behavioral health status, care delivery and outcomes throughout the United States with the explicit goals of improving SAMHSA's ability to inform and guide policy-making and programmatic decisions regarding behavioral health by all entities that pay for or affect access to behavioral health care. This proposed approach would expand the breadth of SAMHSA's data collection and quality measurement activities beyond assessing the impact of its own grants and programs. The objectives of this expanded approach to measurement can be summarized as follows:

- To identify the nation's most pressing behavioral health issues;
- To track whether and how behavioral health care in the U.S. is responding to the behavioral health needs of the American people;
- To assess whether behavioral health care processes and outcomes prioritized by SAMHSA and the Department are improving; and

- To track the impact of SAMHSA's own programs and whether these and other federal policies and programs are responding to the identified trends in behavioral health status and needs.

The data collection, analysis and reporting approach highlighted here is admittedly ambitious, and will require further discussions with – and refinement by - relevant stakeholders and partners. Nevertheless, the limited and often piecemeal information and data generated by existing approaches does not provide the comprehensive array of information on behavioral health needed to adequately inform federal, state and local budget development, policy-making, and program operation and management. An initial step to address this challenge will be the release of a *Behavioral Health Barometer* later this year that will highlight key behavioral health indicators of national significance. Both the Barometer and the Framework will underscore SAMHSA's leadership and actions to advance behavioral health, and – in coordination and conjunction with other federal agencies, States, Territories, Tribes and the private sector - will improve the Nation's ability to adequately care for the health and behavioral health needs of many of its most vulnerable citizens.

The Path Forward

The National Behavioral Health Quality Framework is designed to be a living and evolving guide for the Nation as it continues its progress toward measuring and improving behavioral health and behavioral health care quality. The Framework explicitly recognizes that in the end, all behavioral health care is local. What local communities can expect is that the efforts of the Federal government, State governments, Territorial and Tribal governments, and the private sector are responsive to their circumstances and support them in efforts to deliver high quality behavioral health care and foster healthy communities. The National Behavioral Health Framework will be refined and updated on an ongoing basis - with progress toward meeting the aims and priorities, including both long-term and short-term goals- and will be reported periodically to the public.

Organization of National Behavioral Health Quality Framework

Similar to the National Quality Strategy for Health, the intent and design of the National Behavioral Health Quality Framework will spur common focus at the national and local levels to help all those interested in promoting better behavioral health and behavioral health care delivery reach high aspirations for improvement and foster collaboration and innovation.

The National Behavioral Health Quality Framework sets forth broad aims and initial priorities and goals. Reaching those goals, however, will be the product of the actions of many individuals and groups across the Nation. Many activities are already taking place in the public and private sectors that promote the quality improvement goals of the

Framework. In addition, SAMHSA will work with those within HHS responsible for the National Quality Strategy for Health to assure key measures are included in that plan.

The remainder of this document outlines how the Framework priorities are advanced through specific goals and opportunities for success. Currently, each priority area contains illustrative measures that can be used to assess progress in achieving identified goals and priorities. Important to note is that the measures currently identified are for illustrative purposes, with final measures to be developed with input from payers, providers, federal and non-federal partners, and other key stakeholders.

In order to enhance the utility of the Framework, progress in achieving goals and priorities – as reflected through the illustrative measures - can be assessed at three separate but related domains: 1) among SAMHSA-funded programs and activities; 2) among behavioral health systems (e.g., States and counties) and providers (e.g., networks, managed care vendors); and 3) among the general population, or subpopulations reflecting specific demographic and/or clinical characteristics.

Consistent with its philosophy regarding initiatives of this nature, SAMHSA welcomes the opportunity to engage with relevant federal (e.g., CMS, AHRQ, VA, DOD) and non-federal (e.g., NQF, States, advocates) entities and organizations as SAMHSA seeks to refine, assess, and finalize a core set of measures for each of the three domains within each of the six priority areas.

Reference

Substance Abuse and Mental Health Services Administration, *Leading Change: A Plan for SAMHSA's Roles and Actions 2011-2014.* HHS Publication No. (SMA) 11-4629. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011.

National Behavioral Health Quality Framework:
Priorities, Goals, Opportunities for Success and Illustrative Measures

<table>
<tr><th>Priority Statement</th><th colspan="3">Goal Statements and Illustrative Measures</th></tr>
<tr><td rowspan="2">#1 –
Promote the most effective prevention, treatment and recovery practices for BH disorders</td><td colspan="3">**Goal:**
Prevent and reduce the harm caused by mental illness and addictions

Opportunities for success:
• Reduce suicides
• Reduce underage and problem drinking
• Reduce binge drinking
• Reduce illicit drug use
• Reduce tobacco use
• Improve functioning
• Increase the number of individuals who achieve recovery goals of health, home, purpose, and community</td></tr>
<tr><td>**Illustrative Measure: SAMHSA**

Percentage of clients receiving services who report: improved functioning; improved living conditions; improved social supports</td><td>**Illustrative Measure: System/Provider**

Use of recovery measures</td><td>**Illustrative Measure: Population**

Percentage of youth/adults reporting binge drinking in the past 30 days</td></tr>
<tr><td rowspan="2">#2 –
Assure BH care is person- and family-centered</td><td colspan="3">**Goal:**
Structuring services in ways that meet individual and family needs and making patients centrally involved in decision-making about their care. Includes enhancing capacity to capture and act on patient-reported information, including preferences, desired outcomes, and experiences with behavioral health care

Opportunities for success:
• Integrate behavioral health consumer feedback on preferences and experiences of care into all care settings
• Increase use of electronic health records (EHRs) that capture the voice of the behavioral health consumer</td></tr>
<tr><td>**Illustrative Measure: SAMHSA**

Number of States adopting shared decision-making paradigms</td><td>**Illustrative Measure: System/Provider**

Percentage of facilities with functioning EHRs</td><td>**Illustrative Measure: Population**

Percentage of individuals receiving information to make informed decisions about treatment options</td></tr>
<tr><td>#3 –
Encourage effective coordination within BH care, and between</td><td colspan="3">**Goal:**
Create a less fragmented and more coordinated behavioral health care system, and improve coordination of this system with other health care and social support systems

Opportunities for success:</td></tr>
</table>

Priority Statement	Goal Statements and Illustrative Measures		
BH care and other health care and social support services	• Reduce preventable behavioral health hospital admissions and readmissions • Prevent and manage chronic illness and disability among behavioral health consumers • Ensure secure information exchange to promote efficient behavioral health care delivery		
	Illustrative Measure: SAMHSA Percentage of grantees that provide screening and/or assessments that are coordinated among or shared across agencies	**Illustrative Measure: System/Provider** Percentage of individuals with MH/SUD with an inpatient readmission within 30-, 60-, and 90-days of a previous admission for the same condition, as measured by diagnostic codes	**Illustrative Measure: Population** Percentage of individuals with severe mental illness who report social supports/social connectedness
#4 – Assist communities to utilize best practices to enable healthy living	**Goals:** Support every U.S. community as it pursues local behavioral health priorities and support individuals in achieving recovery **Opportunities for success:** • Increase the provision of preventive behavioral health services for children and adults • Increase the adoption of evidence-based behavioral health interventions to improve public health		
	Illustrative Measure: SAMHSA Percentage of service population receiving any evidence based practice	**Illustrative Measure: System/Provider** Percentage of adults screened for depression and receiving a documented follow-up plan, or screened for risky alcohol use and if positive, receiving brief counseling	**Illustrative Measure: Population** Percentage of adults with a behavioral health disorder who report stable housing
#5 – Make BH care safer by reducing harm caused in the delivery of care	**Goal:** Eliminate preventable and/or adverse behavioral health care induced consequences **Opportunities for success:** • Reduce adverse medication events • Eliminate abuse and neglect in psychiatric facilities		

Priority Statement	Goal Statements and Illustrative Measures		
	Illustrative Measure: SAMHSA Percentage of complaints of alleged abuse, neglect, and rights violations substantiated and not withdrawn by the client that resulted in positive change as a result of PAIMI involvement	**Illustrative Measure: System/Provider** Number of cases of abuse and neglect in psychiatric facilities	**Illustrative Measure: Population** Number of individuals with a behavioral health disorder reporting an emergency department visit for an adverse medication event
#6 – Foster affordable high quality BH care for individuals, families, employers and governments by developing and advancing new delivery models	**Goal:** Reduce behavioral health costs while improving service quality and efficiency for individuals, families, employers and government **Opportunities for success:** • Increase health insurance coverage • Improve access to behavioral health care • Reduce financial barriers to care		
	Illustrative Measure: SAMHSA Number of admissions to substance abuse treatment programs receiving public funding	**Illustrative Measure: System/Provider** Percentage of individuals enrolled in health insurance	**Illustrative Measure: Population** Percentage of individuals who report that financing and/or cost is a barrier to accessing ad/or receiving behavioral health services

Further Reading and Resources

Report to the Congress: Medicare and the Health Care Delivery System - Chapter 5: Coordinating Care for dual-eligible beneficiaries

Source: Medicare Payment Advisory Commission

http://www.medpac.gov/chapters/Jun11_Ch05.pdf

Managing the Care of Dual Eligible Beneficiaries: A Review of Selected State Programs and Special Needs Plans

Source: Mathematica Policy Research (Verdier, Au, Gillooly) for MedPAC

Report - http://www.medpac.gov/documents/Jun11_ManagingDualEligibles_CONTRACTOR.pdf

Summary slide deck - http://www.mathematica-mpr.com/publications/PDFs/Health/Dual_Eligibles_Verdier_071511.pdf

Centering on the Patient: How Electronic Health Records Enable Care Coordination

Source: eHealth Initiative

http://www.ehealthinitiative.org/index.php?option=com_dtregister&Itemid=0&eventId=16&controller=event&task=individualRegister

Ensuring Consumer Protection for Dual Eligibles in Integrated Models

Source: National Senior Citizens Law Center (Prindiville and Burke)

http://www.nsclc.org/areas/medicare-part-d/consumer-protection-for-dual-eligibles-important-in-new-integrated-care-models

Faces of Medicaid: Clarifying Multimorbidity Patterns to Improve Targeting and Delivery of Clinical Services for Medicaid Populations

Source: Center for Health Care Strategies, Inc.

http://www.chcs.org/publications3960/publications_show.htm?doc_id=1261201

SNP Alliance Recommendation

Proposed Definitional Framework for Medicare/Medicaid Integration

July 12, 2011

A Definitional Framework for Medicare/Medicaid Integration for Dual Beneficiaries

Introduction

The SNP Alliance greatly appreciates the leadership that CMS has provided in advancing integrated care strategies for dual beneficiaries. The work being done through the Innovation Center and the Medicare-Medicaid Coordination Office (MMCO), in collaboration with other CMS and state Medicaid offices, is extremely important to bending the cost curve of government financing while maintaining government's commitment to the health and wellbeing of healthcare's most vulnerable, high-cost, and fast-growing service group— the nine million persons who are dually eligible for Medicare and Medicaid.

In support of CMS efforts to advance the integration of Medicare and Medicaid for dual beneficiaries, the SNP Alliance recommends that CMS provide clarity about what it sees as the "endgame of integration". We understand and support the importance of providing states with flexibility in crafting their own approach and agree that not all integration strategies can or should look alike. However, while we believe the specific form and pathway to integration must vary from state to state, we also believe there are certain characteristics of integration that are critically important for the state and Federal governments to: 1) improve the experience of care; 2) improve the health of dual beneficiaries; and 3) reduce per capita costs, consistent with CMS' triple aim goals. This document offers a definitional framework for advancing integration that builds on the key components of the triple aim strategy.

Goals, Objectives and Key Operating Assumptions

Goals and Objectives

We believe the starting point for this framework should be the goals and objectives advanced through the triple aim strategy, where Dr. Berwick and his colleagues indicate that "*Improving the U.S. health care system requires simultaneous pursuit of three aims: improving the experience of care, improving the health of populations, and reducing the per capita cost of health care. Preconditions for this include the enrollment of an identified population, a commitment to universality for its members, and the existence of an organization (an "integrator") that accepts responsibility for all three aims for that population. The integrator's role includes at least five components: partnership with individuals and families, redesign of primary care, population health management, financial management, and macro system integration.*"

The Identifiable Population

We believe integration should be advanced for all dual categories, with overall priority given to the needs and interests of dual beneficiaries who are frail, disabled, and those with co-morbid conditions. According to MedPAC in its June 2011 Report to Congress, "*Many dual-eligible beneficiaries are frail, have disabilities, or have multiple chronic conditions, including some form of cognitive impairment. Their conditions often result in high* *program spending and many of these beneficiaries need coordinated care. Because dual-eligible beneficiaries qualify for benefits under Medicare and Medicaid, their care, in particular, needs to be coordinated so that their providers are aware of their acute and chronic medical, behavioral health, long-term care, and social service needs and the care they receive."*

Where a plan seeks to specialize in care of a specific population, e.g., frail elders, adults with serious and persistent mental illness, or AIDS, we believe Medicare-only or Medicaid-only beneficiaries with these characteristics also should be included in a care integration strategy.

The Concept of Universality

We believe full integration cannot occur without ALL Medicare and Medicaid funding, benefits and services integral to the integration design. The biological, physical, mental, social, financial, and environmental aspects of a person's overall condition are highly interdependent. With Medicare focused primarily on a person's medical problems through provision of hospital, physician, outpatient, and pharmacy benefits, a Medicare-only approach leaves significant elements of a person's overall condition unaccounted for and can easily, and unknowingly, impede care of a person's ongoing frailty and/or disability. With Medicaid focused primarily on addressing the ongoing functional, social and environmental aspects of care for people who are poor, frail, and disabled, a Medicaid-only approach can easily, and unknowingly, impede care of a person's ongoing medical problems.

Excluding any Medicare or Medicaid benefit or service from the integration strategy, such as excluding long-term care from the Medicaid benefit or narrowly restricting Medicare benefits to a segment of the Medicare program, as is contemplated under the ACO strategy, can also produce less than ideal results (be it cost or quality related), as a change in one aspect of a person's condition or related care can significantly influence the effectiveness of care or services being provided for another aspect of their care. Integrated care requires an "all-in" approach where all of a person's conditions and all benefits and services provided for dual beneficiaries are taken into account.

The Presence of an Integrator

According to the triple aim strategy outlined above, "the integrator's role includes at least five components: partnership with individuals and families, redesign of primary care, population health management, financial management, and macro system integration. We believe all of these components must be integral to any dual integration program design. Care integration cannot be provided without significant involvement of the individual and family. It requires redesign of primary care as traditional primary care is rooted in an incidence-based, medical model that does not fully account for the multiple, interdependent, and ongoing care needs of frail, disabled and chronically ill beneficiaries.

Effective quality and cost performance also requires special attention to population health where efforts are made to bend the morbidity curve and alter the natural trajectory of illness and/or disability. Payment methods and financial incentives must become more sensitive in adjusting for the financial risks associated with caring for frail elders and adults with disabilities. All parties must bust out of their policy, financing and care silos and focus more on the systemic nature of chronic conditions and the use of aligned incentives and shared decision-making in collaborative management of *total* quality and cost performance as a person's care needs evolve over time and across care settings.

The Interdependence of Care and Program Integration

A distinction should be made between "care integration" and "program integration" with "care integration" focused on those issues of greatest importance in integrating the *delivery of benefits and services* to individuals in need and "program integration" focused primarily on aligning *the legislative, financing, regulatory, and administrative functions* that makes integrated care possible.

Frequently, governments function as if care integration can occur without changing policy and financing; and plans and providers function as if care integration is wholly dependent on the integration of policy and financing. The SNP Alliance believes successful integration requires both. It requires a coordinated re-engineering of care methods AND program financing and administration methods as two interrelated parts of a unified, total quality approach to serving dual beneficiaries.

A Blending of Values

Medicare and Medicaid are imbedded in very different principles and values. Medicare is heavily rooted in a medical care model; Medicaid is heavily rooted in a social, functional and behavioral model. Medicare is rooted in values of consumer choice and the rights of all Americans to receive a core set of benefits. Medicaid is rooted in states rights and values held by different states regarding issues of individual vs. social responsibility. Any integrated program must come to terms with these fundamental differences, in deference to the respective authority and funding responsibilities of state and Federal governments.

A Collaborative Approach

State and Federal policymakers, health plans, providers, and consumers have different interests and concerns, yet share a common interest in providing the best value for the dollar. Under a fragmented care system, each of these stakeholders frequently compete for their own interests and sub-optimize quality and cost performance, with little awareness of or accountability for the confusion, medical complications and waste that results from ignoring the interdependence of their actions. In order for the endgame of integration to optimize *total* quality and cost performance, all stakeholders must invest in and find benefit from a collaborative approach to the ongoing financing, administration and delivery of care.

Key Elements of Definitional Framework

Lewis Carroll noted, “If you don’t know where you are going, any path will take you there.” It is critical to have clarity about the endgame of integration. The SNP Alliance believes that a fully integrated dual program, focused on the triple aim strategy outlined above, must include several key characteristics. These characteristics include a combination of principles contained in the *SNP Alliance Gold Standards Framework* and the experience and expertise of persons with decades of experience in advancing dual integration programs. Care integration and program integration characteristics are listed separately but are seen as interdependent in their ability to: 1) improve the experience of care; 2) improve the health of dual beneficiaries; and 3) reduce per capita costs for dual beneficiaries. We believe the characteristics noted below should be used as guideposts in making short-term decisions about dual financing, administration and oversight.

Characteristics of Care Integration

1. **Simplified enrollment and communication.**
    a. **Single, simple enrollment process.** All dual beneficiaries are provided an opportunity to receive all Medicare and Medicaid benefits and services through a single location using a single, simple enrollment process, including a uniform process for eligibility determination.
    b. **Single set of member materials.** All dual beneficiaries are provided a single, fully integrated set of materials about their benefits and services that is accurate, easily understandable and responsive to language, cultural differences, level of education, and any limitations related to physical and visual deficits.
    c. **Fully informed.** All dual beneficiaries are fully informed, prior to enrollment, of benefits and services available to them using common, simple, integrated methods of communication regarding:
        i. Medicare benefits and other supplemental benefits available under the plan.

    - **ii.** Medicaid benefits for which they are entitled in the state where they reside, and which are available under the plan.
    - **iii.** Any limitations on plan benefits and services as well as differences in the cost of benefits and services, including premiums, co-pays and deductibles.
  - **d.** **Centralized access to medical, behavioral and social services.** Beneficiaries are provided access to medical, behavioral and social services through a simple decentralized and standardized process. They are fully informed about the best way to access and use available benefits and services as well as information about cost, quality, and satisfaction with reference to providers offering benefits and services under the integrated benefit plan.

2. Specialized care system expertise.

  - **a.** **Specialized care.** Beneficiaries are able to get access to professional staff and programs with special expertise in frailty, disability, co-morbid illnesses, and other conditions of particular importance to a dual population, such as HIV/AIDS and severe and persistent mental illness and behavior health.
  - **b.** **Caregiver support.** The caregivers of beneficiaries are fully informed of care options and able to fully participate in making decisions about their care, with all parties appropriately accountable for decisions made.
  - **c.** **Use of multiple medications.** Beneficiaries are able to receive support in managing use of multiple medications, including monitoring and managing multiple drug usage, maximizing coordination among multiple prescribers and dispensers of medications, and improving the continuity of drug management for patients transitioning between care settings.
  - **d.** **Integrated mental, behavioral and physical health.** The plan has structures in place to facilitate communication among integrated network providers with mental, behavioral and physical health expertise in the ongoing care of frail elders, adults with disabilities and persons with severe and disabling chronic conditions, including use of shared data, while preserving patient confidentiality.
  - **e.** **Respond to the volatile, complex and ongoing nature of frailty**. Provide for the routine diagnosis and ongoing care of a person's frailty as uniquely different from disability and comorbidities, using protocols that help strengthen a person's health reserves while compensating for any weaknesses.
  - **f.** **Manage illnesses within the context of disability.** Disability factors are integral to all comprehensive assessment and care planning instruments; and disability is addressed within the context of a person's total care needs and interests.
  - **g.** **Address the unique needs at the end of life.** The plan offers special support for beneficiaries at the end of life in accordance with their values and preferences.

3. High-risk screening, assessment and care management practices.

  - **a.** **Risk identification.** The plan has methods to identify persons at risk of: 1) disease progression; 2) functional decline; 3) adverse drug events; 4) potential for treatment failure; and 5) acute events that may trigger hospitalization or re-hospitalization, sustained use of long-term nursing home care, high-cost or sustained high-costs; and 6) death.
  - **a.** **Interdisciplinary care teams.** Use interdisciplinary teams to provide periodic assessment and care planning support as well as, in some cases, ongoing management of beneficiary care for persons with: 1) co-morbid and/or medically complex conditions; 2) advanced or late-stage chronic conditions; 3) physical or mental impairments; 4) conditions associated with cognitive impairment; 5) frailty; and/or 6) conditions that qualify for institutional level of care.
  - **b.** **Comprehensive assessment and care planning.** Upon enrollment and at least annually, assess and reassess the medical, mental, psycho-social, functional, environmental and financial

circumstances of enrollees and develop and/or update a care plan in accordance with a person's assessed condition.

   c. **Principal care management leadership and support.** Plans have procedures in place for a principal care physician and/or care team to assume overall responsibility for the ongoing management of care for persons with complex and ongoing care needs and to work with patients and families in negotiating the system and making care decisions.

4. **Aligned care providers.**
   a. **Advanced medical home.** A primary care provider team assumes a central role in the ongoing, real-time monitoring of patient conditions and coordinating care among related network providers, as their care needs evolve over time and across care settings.
   b. **Integration of primary, acute and long-term care.** Primary, acute and long-term care providers that serve many of the same people, either at the same time or in sequence to one another, establish safe and effective care transitions and common care practices to ensure care continuity and work together around a common care plan to optimize total quality and cost performance.
   c. **Partner with community programs.** The integrated plan and related network providers work with other providers funded by the Older Americans Act, the Veterans Administration, etc. to offer a comprehensive and coordinated care arrangement of importance to all enrollees.

5. **System management methods.**
   a. **Defined populations and service areas.** The plan targets enrollment and defines service areas to optimize quality and cost for special needs persons.
   b. **Aligned contracting and incentives.** The plan recognizes the interdependence of Medicare and Medicaid expenditures and provides incentives and requirements to avoid inappropriate cost-shifting, ensure safe and effective care transitions, enable provider collaboration, and optimize total quality and cost performance in serving persons with conditions that involve multiple care providers.
   c. **Medical records and informatics.** The plan and related provider networks establish and maintain aligned medical records and reporting systems to enable the advancement of total quality and cost performance in serving dual beneficiaries.
   d. **Training, education and evaluation.** The plan and related care providers engage in ongoing training, education, and evaluation activities to ensure use of evidence-based guidelines and continuous quality improvement methods, recognizing limitations of available guidelines in serving frail elders, adults with disabilities and other persons with complex care needs.
   e. **Total quality and cost monitoring and control.** While recognizing the need for component-based monitoring and evaluation, the plan and related care providers actively engage in monitoring and analysis of *total* quality and cost performance and crafting future plan and provider efforts to increase *total* cost and quality performance in care of dual beneficiaries.

Characteristics of Program Integration

1. **Single administrative structure.** All guidance for expenditure of Medicare and Medicaid funds for dual beneficiaries is provided through one administrative structure that is either established at the Federal or state level, or a fully aligned structure of Federal/state authorities for implementing a single or unified vision and related set of program goals and objectives.
2. **Single plan authority.** Dual integration plans or other similar entities are responsible for the provision of all benefits and services for a defined population living within a defined service area.

3. **Single model of care requirement**. Each plan is required to follow one set of goals, objectives and related program guidance for the Federal/state dual program, using policies and program requirements that enable establishment of care integration processes as outlined above.
4. **Single risk-based payment method.** All Medicare and Medicaid funds for benefits and services to be provided by integrated plans are paid using capitated, risk-based financing methods that fully account for the illness and disability status and condition intensity of persons enrolled.
5. **Single performance evaluation measures and methods.** Dual integration plans and related providers are evaluated for *their collective* performance for quality, efficiency and satisfaction using a single, simplified, core set of performance measures. Priority is given to monitoring program outcomes, regardless of the intervention utilized, supported by flexible, ongoing, rapid-learning methods to help identify which intervention or combination of interventions appear to be most efficient and effective in meeting total quality and cost performance objectives.

The SNP Alliance

A National Health Policy Group Initiative Working to Change Policy and Practice for High-Risk Beneficiaries

Executive Summary

2010 SNP Alliance Profile and Advanced Practice Report

Report Demonstrates Evidence of Success

BACKGROUND

Medicare Special Needs Plans (SNPs) served 1,282,188 enrollees as of January 2011. In 2010, the National Health Policy Group (NHPG) engaged The Lewin Group to quantify the performance of Special Needs Plans participating in the SNP Alliance. Comparison statistics were also tabulated on the Medicare FFS population by Ingenix Consulting using the 2008 CMS 5% Sample database, the latest FFS data available at the time of the analysis.[1] This Report represents the third consecutive year of surveying SNP Alliance members and includes operational data from 2007, 2008 and 2009.

The survey includes data from 20 member organizations, including data on demographics, healthcare utilization, costs from the December Monthly Membership Report (MMR), the average number of HCCs from Model Output Reports (MOP), and cost data from Medicare Advantage Price Bid Submissions. The survey includes annualized utilization per 1,000 covered persons for: (1) inpatient admissions and days; (2) readmissions within 30 days; (3) emergency room visits; and (4) total physician office visits. The Report also includes comparisons of FFS data for each SNP type, including a subset of fully-integrated dual SNPs that were national integration demonstration sites prior to transitioning to SNPs. Survey highlights follow:

SNP Alliance health plans continue to serve persons with more complex care needs than beneficiaries in "standard" Medicare (MA) plans, with continued evidence of better health care utilization rates relative to comparable FFS beneficiaries.

- **All SNP Alliance plans reporting data had an average risk score above 1.00 in 2007, 2008 and 2009.** The average risk score for the fully-integrated legacy plans was 1.47, compared to an average risk score of 1.27 for dual beneficiaries in FFS. The average risk score was 2.04 for Institutional SNPs, compared to 1.84 for FFS beneficiaries living in institutions. The average risk score was 1.22 for Chronic SNPs compared to 1.00 in Medicare FFS and an estimated 0.97 for non-SNP MA plans.

- **SNP Alliance plans continue to demonstrate added value by achieving significant and growing reductions in inpatient hospitalization.** The fully-integrated legacy SNPs achieved an inpatient utilization rate of 2,788 days per 1,000, compared to a rate of 3,327 days per 1,000 for duals in FFS, even though their average risk score was 1.47 vs. 1.27. Dual SNPs that were not part of the legacy plan group had a similar risk score to those in FFS but also had a utilization rate well below the rate for duals in FFS (2,821 vs. 3,327). The rate for Institutional SNPs was 2,369 days per 1,000, compared with a rate of 7,497 days per 1,000 for institutional beneficiaries in FFS. The utilization rate for Chronic SNPs was 2,740 per 1,000 versus a rate of 2,063 days per 1,000 for all Medicare beneficiaries in FFS.

- **SNP Alliance health plans continue to demonstrate evidence of the importance of a strong primary care model in serving high-risk beneficiaries.** In 2008, beneficiaries in Medicare FFS had an office visit rate of 6,865 days per 1,000 persons per year. Physician rates for SNP Alliance plans were 8,453 for Chronic SNPs, 8,008 for dual SNPs that were not Legacy FIDESNPs, and 7,847 for the fully-integrated dual plans.

- CONTINUED-

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[1] The NHPG founded and manages the SNP Alliance. The SNP Alliance is the only national organization exclusively dedicated to improving policy and practice for Special Needs Plans. Membership is by invitation only, with all members required to provide evidence of a commitment to quality standards and shared policy objectives. SNP Alliance members serve approximately 650,000 beneficiaries representing approximately 50% of national SNP enrollment. This includes approximately 45% of Chronic SNP enrollees, 40% of Dual SNP enrollees, and 70% of Institutional SNP enrollees. The membership represents all major SNP types, organizational structures and regions of the United States, as well as involvement from leading State Medicaid Agencies advancing Medicare/Medicaid integration programs.

SNP Alliance Report Demonstrates Evidence of Success *(Continued)*

The survey offers strong evidence of the potential for fully-integrated programs.

- **Special Needs Plans are in a unique position to advance care for dual beneficiaries through integration.** Approximately nine million Americans are dually eligible for Medicare and Medicaid at a cost of more than $300 billion per year. With Medicare and Medicaid programs operating under two different sets of payment methods — rules and oversight structures — there is evidence that this fragmented approach causes significant and unnecessary confusion, medical complications and costs. SNPs are the only federal program, other than PACE, that is mandated to target and improve care for duals. More than 90% of all SNP costs relate to care for dual beneficiaries.

- **The 2010 Report profiles plans with decades of experience in advancing full program integration.** More than one-third of the organizations involved in the SNP Alliance participated in national integration demonstrations in Minnesota, Massachusetts and Wisconsin prior to becoming Special Needs Plans. In 2010, the SNP Alliance collected extensive information from these plans to ascertain quantitative evidence of this particular subgroup's performance.

- **The Report shows these fully-integrated legacy plans are serving a more complicated beneficiary population than what exists in FFS.** The average risk score for the plans' enrollees was 1.62, compared to a rate of 1.27 for Medicare FFS dual eligibles. More than 50% of the enrollees for these plans had at least one mental health diagnosis in 2009, compared with 23% for dual beneficiaries enrolled in Medicare FFS.

- **There is solid evidence of superior performance in managing health care utilization.** Even though the fully-integrated legacy plans' average risk score was 22% higher than dual beneficiaries in FFS, they averaged 2.5 to 3.1 inpatient days per person per year for 2007-2009, compared to 3.3 days per person for duals in FFS. The plans' average inpatient days per 1,000 was 2,778 days, compared with a FFS average of 3,327 days. Their average number and frequency of admissions were also both lower than among FFS duals. Part of the reduction can perhaps be attributed to more extensive use of care management and community-based services as well as more extensive involvement of primary care, where the number of physician visits per 1,000 for Legacy plans was 7,847 days vs. 6,865 days for FFS duals.

There is also strong evidence that all SNP types are targeting a more complex care population than what exists in FFS while achieving superior performance.

- **Excluding the FIDESNPs, D-SNPs averaged 2,821 days/1,000 during 2009, which is 15% below the FFS dual average of 3,327 days/1,000 (based on 2008 FFS data).** The average risk score among older enrollees of D-SNPs (who were not part of the legacy Sample) was 1.34, with 45% of their enrollees under 65, and with an average risk score of 1.05. They also provided evidence of continued improvement in lowering their hospital usage. Their average of 2,821days/1,000 in 2009 was 8% below the 2007 level and 12% below the 2008 level.

- **I-SNPs have achieved extraordinarily low inpatient usage rates compared with Medicare FFS.** Institutional Medicare beneficiaries in FFS have used inpatient care at the rate of 7.0-7.5 days per person per year. The I-SNP members averaged between 2.0 and 2.5 inpatient days per beneficiary per year throughout the 2007-2009 time frame. While I-SNPs serve both nursing home certifiable beneficiaries in the community and in institutions, and the FFS comparison group all live in institutions, the I-SNP members' average risk score of 2.04 is above the average risk score of 1.84 for institutional beneficiaries in FFS.

- **C-SNPs have also achieved superior performance, although benchmarking measures are more difficult to establish as these SNPs serve very different populations, such as persons with diabetes vs. care of persons with severe and persistent mental illness.** While establishing a comparable benchmark in FFS for C-SNPs as a whole is difficult, it is useful to note that inpatient usage for C-SNPs as a group has decreased by 20% from 2007 to 2009 during a time period when the average risk score did not change. The data suggests that C-SNPs are becoming increasingly proficient at reducing hospital usage as they mature.

The SNP Alliance

SNP Alliance Membership:

Changing Policy and Practice for High-Risk Beneficiaries

> "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed it's the only thing that ever has."
>
> --Margaret Mead

> "None of us is as smart as all of us."
>
> Kenneth H. Blanchard

> "Change is upon us, and we can neither run nor hide. The only answer is to create new — nimble — businesses capable of adroitly responding to the chaotic conditions produced by constant change. It won't be easy. Decades of deeply ingrained procedures, traditions, attitudes and cultural bias about managing change must be jettisoned. In their place, new perspectives and frameworks must be embraced."
>
> **Daryl Conners**
> *Leading at the Edge of Chaos*

The SNP Alliance is a national leadership organization for specialty health care plans and programs. Our mission is to advance specialty care for frail, disabled and chronically-ill persons.

Membership Criteria

The SNP Alliance invites others to join that:

- Demonstrate high-quality and cost performance in care of high-risk beneficiaries.
- Exhibit national leadership capabilities.
- Support The SNP Alliance's mission, vision, values and general business strategy.
- Are committed to the further transformation of health policy and financing, including integration of Medicare and Medicaid and related continuum providers.
- Are committed to working with plans, providers and regulators to improve long-term SNP business viability.

An Initiative of NHPG

The NHPG founded and manages The SNP Alliance. SNP Alliance leadership includes:

- Rich Bringewatt – *SNP Alliance Chair and NHPG President*
- Valerie Wilbur – *SNP Alliance co-Chair and NHPG Vice President*

Please visit our website at www.nhpg.org or contact The SNP Alliance or the National Health Policy Group at:

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Current Membership

- AIDS Healthcare Foundation - Los Angeles, CA
- Amerigroup – Virginia Beach, VA
- ArchCare Advantage – New York, NY
- BlueCross BlueShield of MN – St. Paul, MN
- Brand New Day – Signal Hill, CA
- CalOptima – Orange, CA
- CareMore Health Plan – Downey, CA
- Care Wisconsin – Madison, WI
- Commonwealth Care Alliance – Boston, MA
- Community Care, Inc. – Milwaukee, WI
- Community Health Partnership – Eau Claire, WI
- Elderplan – Brooklyn, NY
- Family Choice of New York – Buffalo, NY
- Gateway Health Plan – Pittsburgh, PA
- HealthPartners – Minneapolis, MN
- HealthSpring – Franklin, TN
- Highmark – Pittsburgh, PA
- Independent Care Health Plan (iCare) – Milwaukee, WI
- Kaiser Permanente – Oakland, CA
- Medica Health Plan – Minneapolis, MN
- Molina Health Care – Sacramento, CA
- On Lok Lifeways – San Francisco, CA
- Passport Advantage – Louisville, KY
- SCAN Health Plan – Long Beach, CA
- Senior Whole Health – Cambridge, MA
- UCare Minnesota – St. Paul, MN
- UnitedHealthcare – Minnesota, MN
- UPMC (University of Pittsburg Medical Center) Health Plan – Pittsburgh, PA
- XL Health – Baltimore, MD

Members Represent

- 29 MAOs offering over 200 SNPs serving more than 650,000 beneficiaries.
- Enrollees have higher rates of chronic and mental illnesses and higher risk scores than FFS.
- High-quality, diversified population-based benefits, services and care management interventions.
- Plans with substantially lower inpatient and SNF usage compared to FFS Medicare.

As of March 2011

Comprehensive Primary Care for Older Patients With Multiple Chronic Conditions: "Nobody Rushes You Through"

Chad Boult; G. Darryl Wieland

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Comprehensive Primary Care for Older Patients With Multiple Chronic Conditions

"Nobody Rushes You Through"

Chad Boult, MD, MPH, MBA
G. Darryl Wieland, PhD, MPH

Older patients with multiple chronic health conditions and complex health care needs often receive care that is fragmented, incomplete, inefficient, and ineffective. This article describes the case of an older woman whose case cannot be managed effectively through the customary approach of simply diagnosing and treating her individual diseases. Based on expert consensus about the available evidence, this article identifies 4 proactive, continuous processes that can substantially improve the primary care of community-dwelling older patients who have multiple chronic conditions: comprehensive assessment, evidence-based care planning and monitoring, promotion of patients' and (family caregivers') active engagement in care, and coordination of professionals in care of the patient—all tailored to the patient's goals and preferences. Three models of chronic care that include these processes and that appear to improve some aspects of the effectiveness and the efficiency of complex primary care—the Geriatric Resources for Assessment and Care of Elders (GRACE) model, Guided Care, and the Program of All-inclusive Care for the Elderly (PACE)—are described briefly, and steps toward their implementation are discussed.

JAMA. 2010;304(17):1936-1943 www.jama.com

PATIENT'S STORY

In late 2004, Ms N was a 77-year-old retiree. She had completed high school and worked for many years as a nursing assistant and a factory worker. Ms N lived alone in a modest senior housing apartment in a middle-class urban neighborhood. She received income from Social Security and support from her only child, a daughter who lived nearby. Her health insurance consisted of coverage by Medicare Parts A and B and her state's Medicaid program.

She had a history of hypertension with left ventricular hypertrophy, peripheral vascular disease with a left below-knee amputation, chronic obstructive pulmonary disease (COPD), glaucoma, keratitis, osteoarthritis with chronic right shoulder pain, and degenerative intervertebral disk disease. In conversation, she was alert, conversant, and oriented to time, place, and person. Physical examination did not detect abnormality of her heart, lungs, abdomen, nervous system, or skin. She had a well-healed left lower tibial stump and nonpalpable right dorsalis pedis and posterior tibial pulses. Her seated brachial blood pressure was 100/78 mm Hg; her intraocular pressures were 28 mm Hg (right eye) and 21 mm Hg (left eye). Her routine red and white blood cell counts, platelets, serum electrolytes, liver function studies, creatinine, and blood urea nitrogen values were normal.

Despite having a lower-leg prosthesis, she was nonambulatory and unable to shop, do housekeeping or laundry, drive, or use public transportation. She required assistance with food preparation, medication management, bathing, and transferring in and out of her wheelchair and bed. Her score on the Folstein Mini-Mental State Examination was 23 (out of a possible 30).

See also p 1948.

CME available online at www.jamaarchivescme.com and questions on p 1963.

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Ms N's prescribed medications included amlodipine, furosemide, potassium chloride, theophylline, albuterol, clopidogrel, enteric-coated aspirin, gabapentin, and quinine sulfate. She saw a primary care physician and an ophthalmologist regularly. She used a pill box to organize her medications, but she missed some doses nonetheless. She no longer smoked or used alcohol. She did not restrict her diet or engage in regular exercise or physical activity.

During 2002-2003, Ms N had been admitted to several hospitals and skilled nursing facilities for treatment of a ruptured lumbar intervertebral disk, *Clostridium difficile* colitis, an exacerbation of her COPD, and an ischemic foot ulcer that had become gangrenous. She had undergone a lumbar laminectomy, a left femoral-popliteal bypass procedure, a below-the-knee amputation, and prosthetic rehabilitation. She had received annual influenza vaccinations, but no screening tests. Her multiple chronic issues caused her daughter to refer her for eligibility evaluation to a local Program of All-Inclusive Care of the Elderly (PACE), where she was enrolled.

Ms N and her PACE primary care physician, Dr R, were interviewed by a Care of the Aging Patient editor in December 2009.

THE PATIENT'S NEEDS IN PERSPECTIVE

Ms N: *I had* [in 2004] *poor circulation, an amputation, emphysema, and arthritis in my right shoulder. I had a prosthesis, but it just wasn't working. It made my stump not sore but tender. I kept it off most of the time. I would only put it on if I had to go out.*

Dr R: *Her main thing was that she had severe peripheral vascular disease and a left below-knee amputation. Her stump was repeatedly breaking down, and she had very poor circulation in her right leg. Plus, she had several other chronic diseases, and she took 9 prescribed medications.*

Ms N is typical of the 10 million US residents who are older, living with 4 or more chronic health conditions, and in noninstitutional residences. Their lives (and sometimes their family caregivers' lives) are dominated by disease-related symptoms, disabilities, tests, treatments, and visits to health care clinicians. Their care is very costly, accounting for 80% of the Medicare program's annual expenditures.[1]

Good primary care physicians are often overwhelmed by the many needs for basic care in this population.[2] Medical school and residency training typically address provision of preventive services, care for acute illnesses and injuries, and diagnosis and treatment of 1 chronic disease at a time. However, many primary care physicians have not been trained to provide comprehensive care for patients with complex needs who have multiple chronic conditions, prescription medications, functional limitations, and a variety of health care professionals providing their care.[3]

Primary care physicians therefore face a perplexing dilemma—a steadily increasing number of chronically ill patients, but little opportunity to collaborate with the nurses, social workers, pharmacists, and rehabilitation therapists who could help meet the complex care needs of these patients. Underlying and exacerbating this crisis are 4 infrastructure deficiencies: (1) most primary care physicians and many other health professionals have not been trained to work in teams to provide complex chronic care; (2) sophisticated health information technologies, such as interoperative electronic health records, telemonitoring devices, and patient portals that could facilitate the essential processes of chronic care are not widely installed; (3) most current public and private health insurers' payment policies, which are based on fee-for-service payments, do not support the supplemental services provided by the newer models for providing complex chronic care; and (4) the payment for and the provision of medical and social services are separate and not integrated.

As a result, many primary care physicians cannot facilitate the essential components of high-quality, cost-effective, complex care for their chronically ill patients. Simply trying harder and working smarter cannot overcome these fundamental obstacles.

The consensus of experts, based on currently available evidence, indicates that high-quality, cost-effective health care for older patients with multiple chronic conditions is often associated with 4 concurrent, interacting processes that transcend and support the diagnosis and treatment of individual diseases.

- Comprehensive assessment of all of the patient's diseases, disabilities, cognitive abilities, medications, health-related devices, other treatments, self-care behaviors, health-related lifestyle habits, psychological conditions, environmental risks, family (or friend) supports, and other resources—plus the patient's relevant values and preferences for care.[4,5]
- Creation, implementation, and monitoring of a comprehensive, evidence-based plan of care that addresses all of the patient's health-related needs in the context of the patient's preferences.[5,6]
- Communication and coordination with all who provide care for the patient, including specialist physicians, hospital and emergency staff, rehabilitation therapists, mental health professionals, home care providers, social workers, and community-based agencies (eg, adult day health care facilities, exercise programs, and support groups)—especially during transitions between hospitals and other sites of care.[7]
- Promotion of the patient's (and caregiver's) active engagement in his or her health care—through self-management classes (when available) and ongoing encouragement, direction, and reinforcement.[8-11]

Unfortunately, mainstream primary care in the United States in 2010 rarely includes these 4 processes; therefore, patients with complex needs like Ms N often receive care that is noncomprehensive, nonevidence-based, fragmented, and inefficient.[12] Care is often further undermined by poor patient adherence[13,14] and limited assistance from families and friends.[15]

METHODS

The Evidence: The Effects of New Models of Primary Care

We searched MEDLINE for English-language articles published between September 1, 1999 and August 30, 2010, that reported the results of studies about the effects of US models of comprehensive primary care for older patients with multiple chronic conditions. We used the search terms: *primary health care*, *comprehensive health care*, *patient care team*, *care coordination*, *frail older adults*, *health services*, and *outcome assessment* (health care). From the articles identified, we selected those for which the abstract indicated that the reported analysis compared an intervention group with an equivalent concurrent control group to evaluate the effect of the intervention on quality of health care, quality of life or functional status, and the use or cost of health services. We excluded articles that reported the use of weak study designs (eg, historical controls), inadequate numbers of older participants with multiple chronic conditions, the use of unvalidated or unreliable measures, or inappropriate statistical analyses. We also searched the Web site of Mathematica Policy Research,[16] which contracted with the Centers for Medicare & Medicaid Services to evaluate the effect of PACE on the quality of care.

RESULTS OF EVIDENCE REVIEW

Complete results of the studies meeting the inclusion criteria are shown in the eTable (available at http://www.jama.com). A 12-month randomized controlled trial (RCT) measured the effects of home-based primary care among participants (N=1966) who were terminally ill and those who were not.[17] No effects on functional status (as measured by the Barthel Index or the Short Form-36 [SF-36]) were seen in either group. The nonterminally ill group had significantly better satisfaction with care on a number of parameters and better caregiver-rated SF-36 scores, compared with the control group. Caregivers in both groups reported significantly higher satisfaction with care. Total health care costs for participants who received home-based primary care were significantly higher than total costs for those who received usual care.

The Geriatric Resources for Assessment and Care of Elders (GRACE) model was evaluated in an RCT conducted over 2 years (N=951).[18] During the first year, participants receiving the GRACE intervention were significantly more likely than control participants to receive a flu shot (74% vs 67%), newly identify a primary care physician (81% vs 63%), have a follow-up primary care visit within 6 weeks of a hospital discharge (83% vs 54%), newly receive a medication list (58% vs 38%), and newly report having a health care representative or a living will (44% vs 17%).[19] Those receiving the GRACE intervention were also more likely to report the identification of, referral for, and receipt of information about geriatric conditions including difficulty walking or falls, urinary incontinence, depression, and hearing impairment (audiology or ear, nose, and throat clinic visits among individuals with baseline impairment).

After 2 years, there were no differences between the groups' performance of activies of daily living or instrumental activities of daily living, SF-36 Physical Component Summary scores, days spent in bed at home, or satisfaction with care, although the GRACE group's mean SF-36 Mental Component Summary score was significantly better (treatment effect [SE]=2.4 [10.5]).[20] Visits to emergency departments were reduced by 17% ($P=.03$), but the groups' admissions to hospitals and total health care costs were similar. In a preplanned analysis of a subgroup of participants at high risk of hospitalization (probability of repeated admission [PRA] score ≥ 0.4), the GRACE group had fewer hospital admissions in year 2, less cost related to hospitalization, more cost related to chronic and preventive care, no difference in total costs at 1 and 2 years, and lower total costs during year 3, at 1 year postintervention.[21]

Several effects of Guided Care were assessed in a cluster RCT (N=904). Boyd et al[22] used the Patient Assessment of Chronic Illness Care (PACIC) scale to measure care quality as experienced and reported by participants. After 18 months, participants were more likely to give high-quality ratings to Guided Care than to usual care (adjusted odds ratio [OR], 2.13; 95% confidence interval [CI], 1.30-3.50). In the same study, participants' family caregivers (N=196) also completed the PACIC in rating the quality of care provided to their care recipients.[23] Again, Guided Care was rated more highly on aggregate quality and most of the PACIC subscales; caregiver strain and depression did not differ between the groups. Using insurance claims from the first 8 months of this same cluster RCT (N=835), Leff et al[24] found trends toward reduced utilization and costs of health care by Guided Care patients, but the differences were not statistically significant. Marsteller et al[25] studied the effects of Guided Care on primary care physicians (N=49 physicians) during the first year of this same cluster RCT. This study found higher physician satisfaction with patient and family communication and better physician knowledge of patients' clinical characteristics, but no significant difference in physicians' ratings of other aspects of care.

PACE was evaluated in 1 cross-sectional time series and 3 cohort studies, each of which compared participants in the PACE group with control participants who were receiving different packages of medical and supportive services in their local communities. In the cross-sectional time series (N=1285; 20 107 person-months, comparisons unadjusted for any confounding),[26] PACE had significantly fewer hospital admissions and preventable hospital admissions per thousand patients per month (35.7 vs 52.8, and 8.6 vs 13.3, respectively), as well as fewer total and preventable emergency department visits, compared with a community-based analog of PACE in which medical care was provided by independent primary care physicians (eTable). Differences in the groups' hospital days and average length of hospital stay were not statistically significant.

A 6-year cohort study (N=1215) compared PACE participants with similarly disabled Medicaid enrollees who were receiving community-based supportive services.[27] The final survey (2½-6 years after enrollment) indicated that PACE participants had less pain and fewer unmet needs for assistance in bathing, dressing, and getting around; the 2 groups did not differ significantly in self-rated health, difficulty performing activities of daily living, recent falls, weight loss, unmet needs for help with toileting and getting out of bed, and most behavioral problems (reported by proxies) and depressive symptoms. Satisfaction with personal assistance and the overall quality of medical care was similar. During the year before the survey, PACE participants were less likely to have been hospitalized and were more likely to have had a hearing screening, a vision screening, an influenza vaccination, and an advanced directive. PACE participants were more likely to have had a nursing home stay—probably reflecting PACE's use of nursing homes for subacute, postacute, and respite care.

A 12-month cohort study compared the use of hospital and nursing home services by participants in PACE and those in a Medicaid-sponsored, managed long-term care plan (N=2679).[28] PACE enrollees had fewer hospitalizations, more nursing home stays, and shorter median lengths of stay than participants receiving nurse-provided case management in the managed care plan. Finally, a 5-year cohort study (N=2040) found longer median survival among individuals enrolled in PACE than in those who received case management and community services. The difference was statistically significant among patients with high mortality risk at baseline.[29]

Studies of other US models of comprehensive primary care for complex older patients reported isolated promising findings, but they did not evaluate the outcomes required for inclusion in this review.[30-32] Modest findings were also identified from studies of related models in 3 countries with global health budgets: Canada,[33] Great Britain,[34] and the Netherlands.[35] These studies did not offer additional insights of value to the US health care system.

ALTERNATIVE MODELS OF CARE

Based on the literature review, 3 comprehensive primary care models appear to have the greatest potential to improve quality of care and quality of life for older patients with complex health care needs, while reducing or at least not increasing the costs of their health care: the GRACE model, Guided Care, and PACE. Each represents a different approach to enacting the 4 primary care processes described previously, and each incorporates several of the structural elements of the chronic care model for improving health-related outcomes for patients with multiple chronic conditions.[36,37]

How the Alternative Models Work

All 3 models are based on care by teams of professionals–including primary care physicians, registered nurses, and other health professionals–that are based in primary care settings. Teams in all 3 models provide many of the same services to older patients with complex health care needs including

- Comprehensive assessment
- Development of a comprehensive care plan that incorporates evidence-based protocols
- Implementation of the plan over time
- Proactive monitoring of the patient's clinical status and adherence to the care plan
- Coordination of primary care, specialty care, hospitals, emergency departments, skilled nursing facilities, other medical institutions, and community agencies
- Facilitation of the patient's transitions from hospitals to postacute settings
- Facilitation of the patient's access to community resources, such as meals programs, handicapped-accessible transportation, adult day care centers, support groups, and exercise programs

These models differ significantly, however, in other aspects of their structures and operations.

How the Alternative Models Differ

GRACE. In the GRACE model, primary care physicians and on-site support teams provide comprehensive primary care for low-income older patients receiving care through community health centers (TABLE). The support teams meet with off-site geriatrics interdisciplinary teams to review each patient's clinical status at least quarterly.[38] Most of the services provided by the support team and the geriatrics interdisciplinary team (average cost ≈ $105/patient per month) are not covered by fee-for-service Medicare, Medicaid, or private health insurance. Thus, primary care physicians' opportunities to use the GRACE model are currently limited to geographic areas[39] where practices participating in regional pilot tests or demonstrations of the "medical home" or "advanced primary care" concepts might incorporate GRACE resources to improve their care. Most of these programs are being conducted and funded by Medicare Advantage plans, large employers, the Veterans Health Administration, or private payers.

Guided Care. In the Guided Care model (Table), 2 to 5 primary care physicians partner with a registered nurse practicing at the same site, to provide comprehensive primary care to 55 to 60 older patients who are at high risk for using extensive health services during the following year. This risk is estimated by computing each patient's hierarchical con-

Table. Models of Comprehensive Primary Care for Older Patients With Multiple Chronic Conditions

	GRACE	Guided Care	PACE
Year program began	2002	2006	1990
Primary care clinician	Established primary care physician	Established primary care physician	PACE staff physician[a]
Other team members	On-site advanced practice nurse and social worker; off-site geriatrician, physical therapist, mental health social worker, pharmacist, community liaison	Registered nurse	Registered nurse, social worker, physical therapist, occupational therapist, recreational therapist, pharmacist, dietitian, home care coordinator, personal care aide, driver, site manager
Service base	Community-based health center	Primary care office	Day health center
Patient eligibility	Low-income	Hierarchical condition category score in highest quartile[b]	Certified as requiring long-term care
Frequency of contact	Monthly	Monthly	1-5 days per week
Services covered by			
Medicare	No[c]	No	Yes
Medicaid	No	No	Yes

Abbreviations: GRACE, Geriatric Resources for Assessment and Care of Elders; PACE, Program of All-Inclusive Care for the Elderly.

[a] At some sites, PACE contracts with community-based physicians.

[b] Indicates risk of using extensive health services during the following year.

[c] Only home visits by advanced practice nurses are covered.

dition category (HCC) score from the diagnoses on all health insurance claims generated by the patient during the past year.[40]

Each Guided Care nurse completes a 40-hour online course, earns the Certificate in Guided Care Nursing from the American Nurses Credentialing Center, and is employed by the practice. The nurse encourages patients to engage in productive health-related behaviors by helping them to create personal action plans, referring them to 6-session chronic disease self-management courses,[41] and using motivational interviewing[42] during their monthly contacts with the patients. The nurse also assesses family caregivers and provides them with educational material, suggestions, referral to community agencies, and emotional support.[43] Details about the Guided Care model are available in print[44] and on the Internet.[45]

The services of Guided Care nurses (average cost ≈ $150/patient per month) are not reimbursable under the fee-for-service Medicare program, state Medicaid programs, or most private insurance plans. Thus, as with the GRACE model, primary care physicians' opportunities to adopt Guided Care are now limited to geographic areas where regional pilot tests or demonstrations of the medical home or advanced primary care concepts are being conducted.[39] Technical assistance for primary care practices, including an implementation manual, a patient education booklet, and online courses for nurses, practice leaders, and primary care physicians, is now available.[44,46]

PACE. PACE provides many of the same care processes as the GRACE and Guided Care models, although it differs in terms of patient population, scope of services, organization, and financing. Each PACE site serves local patients who are aged 55 years or older and state certified as eligible for nursing home care, but able (with PACE services) to continue living safely in the community. Like Ms N, most patients (89%) are medically complex, low-income, and enrolled in both Medicare and Medicaid (ie, "dual eligibles"); unlike Ms N, however, most have disabilities that are irreversible. Approximately half have dementia, and more than half are dependent on others to help them with at least 3 basic activities of daily living.[47]

Each PACE site provides to its patients, either directly or by contract, a comprehensive set of services: primary, specialty, emergency, hospital, home, palliative, and institutional long-term care; case management, prescription drugs, dentistry, laboratory tests, radiology, adult day care, transportation, prosthetics, durable medical equipment, meals; and for family caregivers, respite, education and support. PACE participants are transported by PACE vans from their homes to the PACE day health center several times each week for health care, education, and social activities. PACE clinicians provide care in the PACE day health center and in patients' homes, assisted living facilities, and nursing homes. The PACE interdisciplinary team, which is based in the PACE day health center, includes a wide range of health professionals (Table). The largest PACE organization currently serves nearly 2400 patients, but most serve fewer than 300.[48-50]

Each PACE site operates as a managed care plan that receives capitated payments from Medicare and Medicaid and uses these funds to pay for all of the health-related services required by its patients. Since 1997, PACE has been recognized as a "provider" (as in physicians and hospitals) by the Medicare program, and all state Medicaid programs have had the option to recognize and contract with PACE organizations to provide care for eligible individuals enrolled in both Medicare and Medicaid. Despite PACE's attractive features, operational challenges have limited its geographic reach (recognition by 29 states) and aggregate size (21 000 patients).[51-53] In contrast, 600 000 similarly complex, disabled persons receive supportive care at home through Medicaid "aged and disabled" service programs,[54] and 875 000 reside in nursing homes.[55,56]

THE PATIENT'S STORY, CONTINUED

Ms N met all of the local PACE program's requirements. She joined the local PACE in December 2004 and has received all of her care there for the past 6 years.

Ms N [in 2009]: *We are picked up from our homes. The drivers are patient and good with the seniors. The center has nice hot lunches, coffee, tea, and snacks. The doctors are patient. They have the time, and they give you the care you need. Nobody rushes you through. We also have music, brain words, drawing, sculpting, singing, exercise, and meditation. We are blessed to have all this.*

Dr R: *Ever since Ms N came to PACE in 2004, our physical therapist and I have paid close attention to her prosthesis; we've worked closely with a prosthetist. Now I forget that she has a prosthetic leg because she walks on it so well. We have also worked with her on her lipids, her emphysema, and her arthritis.*

The Process of Chronic Care

For the past 6 years, PACE has provided Ms N with all 4 of the concurrent, interacting processes needed to supplement the prevention and treatment of individual diseases to produce high-quality, cost-effective chronic care.

Comprehensive Assessment. Upon enrolling in PACE, Ms N underwent a multidisciplinary assessment by the PACE team: the medical director, a nurse practitioner, a nurse, a social worker, a pharmacist, a physical therapist, an occupational therapist, a dietician, and a nurse's aide. Besides clarifying her medical diagnoses, this assessment revealed previously undiagnosed depression, a poorly-fitting leg prosthesis, inadequately treated pain, suboptimal medication adherence, lack of exercise and social interaction, and excessive intake of dietary sodium and fat.

Evidence-Based Care Planning and Implementation. Beginning with published evidence-based guidelines, the PACE team collaborated in drafting a plan, consistent with Ms N's goals for care, for optimizing each of her conditions and health-related behaviors. Through the next several months, the team consulted a prosthetist for revision of her leg prosthesis and worked with Ms N and her daughter to rehabilitate the skin of her stump, begin physical therapy for her shoulder and back pain, reduce her intake of hydrocodone, improve her sleep, obtain a multidose medication box to organize her daily doses, recognize and treat the early signs of bacterial respiratory infection, begin a mild daily exercise routine, begin gradual reduction of sodium and fat in her diet, and join several ongoing social activities with other patients at the PACE day health center.

Coordination With Other Providers. Building on PACE's long-standing relationships with community providers, members of the PACE team collaborated with her ophthalmologist and her prosthetist in providing Ms N's ongoing care.

Patient and Family Engagement in Self-care. The PACE nurse helped Ms N to begin exercising, modifying her diet, and taking her medications consistently. The program nurse also provided Ms N's daughter with information about Ms N's health conditions and encouraged her to help her mother fulfill her crucial role in managing her health at home, eg, with proper diet, exercise, medication adherence, blood pressure checks, and early treatment of respiratory infections.

Ms N's Results

Ms N [in 2009]: *They got my prosthesis to fit so it's comfortable. It's no problem now. Most people don't even know I wear a prosthesis. I only take it off when I'm ready to go to bed. I love coming here. The nurses, the doctor, the physical therapists, everybody who works here, we are just one big family.*

Dr R: *I've been carefully treating her lipids to minimize progression of her peripheral vascular disease; it's been very stable since I met her 6 years ago. Her emphysema and shoulder arthritis have been well controlled, too. She's had zero hospitalizations since I've known her. At the first sign of trouble with her COPD or skin breakdown, we see her in clinic and start treatment right away.*

Six years after enrolling in PACE, Ms N continues to live independently, exercising 3 times each week, limiting the salt in her diet, and taking all of her doses of medication as prescribed.

The skin on her left leg stump and her right lower extremity is intact. Her blood pressure, serum lipid levels, and intraocular pressures are within the target ranges. The arthritic pain in her spine and right shoulder is well controlled, and her keratitis has resolved. She walks without assistance, performs most of her activities of daily living independently or with assistive devices, and receives assistance only with shopping, transportation, heavy chores, and bathing. She volunteers at the PACE center as a greeter for other patients.

During the 2 years before she enrolled in PACE, Ms N was admitted to hospitals several times for respiratory infections and 3 major nonelective surgical procedures, after which she spent many months receiving postacute wound care and prosthetic rehabilitation in skilled nursing facilities. During the 6 years after she enrolled in PACE, she has visited the hospital only once for an elective outpatient excision of a lipoma. Ms N's case is anecdotal but illustrates the ways in which the components of the PACE program addressed her multitude of issues in a systematic way—improving her independence and helping prevent hospital and nursing home admissions.

CHRONIC CARE IN PRIMARY CARE PRACTICE

Primary care physicians without access to GRACE and Guided Care options for their patients have a few alternatives. One is to refer eligible patients to a PACE site, if available,[57] but referred patients must usually transfer their medical care from their primary care physicians to PACE physicians. Another possible action for clinicians in states where PACE is a Medicaid-covered option is to support local coalitions that seek to establish local PACE sites. Those in other regions can urge their state Medicaid programs to designate PACE as a covered option.

Primary care physicians without these options can refer their chronically ill patients who need supportive services to local resources such as Area Agencies on Aging, state-sponsored home and community-based services (for Medicaid recipients), and other community-based voluntary and philanthropic service organizations. Unfortunately, such referrals seldom establish the bidirectional interactions between health care professions who provide medical and social services that are characteristic of GRACE, Guided Care, and PACE.[58]

Finally, some primary care clinicians may wish to transform their practices into medical homes, advanced primary care practices, or accountable care organizations that can provide cost-effective complex services to their chronically ill patients. However, such a transformation usually requires hiring new staff, acquiring health information technology, supplemental training of physicians and office staff, revamping workflows, and transient reductions in productivity. These costly changes generally are feasible only in the context of pilot programs or demonstrations that provide sufficient technical assistance and supplemental revenue to offset the costs of transformation and the practice's subsequent expanded clinical services. Many such pilot programs and demonstrations are in various stages of development or operation.[39]

As the United States implements new models of chronic care, such as the 3 described here, more research is needed to define the optimal methods for identifying the patients who will benefit most, for providing the essential clinical processes, for disseminating and expanding the reach of these models, and for paying for excellent chronic care. Also necessary will be significant advances in the education of health care professionals and the managerial infrastructure that underlies new models of care.[59,60]

As progress is made, in part through initiatives launched by the Patient Protection and Affordable Care Act of 2010, a growing cadre of US primary care providers will have new opportunities to care for their chronically ill patients more effectively and efficiently. They will more nearly meet the goals of maximizing patients' independence and function and reducing the need for admission to hospitals and nursing homes.

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REFERENCES

1. Wolff JL, Starfield B, Anderson G. Prevalence, expenditures, and complications of multiple chronic conditions in the elderly. *Arch Intern Med*. 2002;162(20):2269-2276.
2. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med*. 2003;348(26):2635-2645.
3. Darer JD, Hwang W, Pham HH, Bass EB, Anderson G. More training needed in chronic care: a survey of US physicians. *Acad Med*. 2004;79(6):541-548.
4. Wieland D. The effectiveness and costs of comprehensive geriatric evaluation and management. *Crit Rev Oncol Hematol*. 2003;48(2):227-237.
5. Chen A, Brown R, Archibald N, Aliotta S, Fox P. *Best Practices in Coordinated Care.* Princeton, NJ: Mathematica Policy Research, Inc; 2000.
6. Shea K, Shih A, Davis K. *Health Care Opinion Leaders' Views on Health Care Delivery System Reform: Commonwealth Fund Commission on a High Performance Health System Data Brief.* New York, NY: The Commonwealth Fund; 2008.
7. Phillips CO, Wright SM, Kern DE, Singa RM, Shepperd S, Rubin HR. Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis. *JAMA*. 2004;291(11):1358-1367.
8. Pinquart M, Sörensen S. Helping caregivers of persons with dementia: which interventions work and how large are their effects? *Int Psychogeriatr*. 2006;18(4):577-595.
9. Brodaty H, Green A, Koschera A. Meta-analysis of psychosocial interventions for caregivers of people with dementia. *J Am Geriatr Soc*. 2003;51(5):657-664.
10. Rabow MW, Hauser JM, Adams J. Supporting family caregivers at the end of life: "they don't know what they don't know". *JAMA*. 2004;291(4):483-491.
11. Chodosh J, Morton SC, Mojica W, et al. Meta-analysis: chronic disease self-management programs for older adults. *Ann Intern Med*. 2005;143(6):427-438.
12. Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century.* Washington, DC: National Academy Press; 2001.
13. Vermeire E, Hearnshaw H, Van Royen P, Denekens J. Patient adherence to treatment: three decades of research: a comprehensive review. *J Clin Pharm Ther*. 2001;26(5):331-342.
14. McDonald HP, Garg AX, Haynes RB. Interventions to enhance patient adherence to medication prescriptions: scientific review. *JAMA*. 2002;288(22):2868-2879.
15. DiMatteo MR. Social support and patient adherence to medical treatment: a meta-analysis. *Health Psychol*. 2004;23(2):207-218.
16. Mathematica Policy Research. The effect of the program of all-inclusive care for the elderly (PACE) on quality. http://www.mathematica-mpr.com/publications/SearchList2.aspx?jumpsrch=yes&txtSearch=PACE. Accessed September 21, 2010.
17. Hughes SL, Weaver FM, Giobbie-Hurder A, et al; Department of Veterans Affairs Cooperative Study Group on Home-Based Primary Care. Effectiveness of team-managed home-based primary care: a randomized multicenter trial. *JAMA*. 2000;284(22):2877-2885.
18. Counsell SR, Callahan CM, Clark DO, et al. Geriatric care management for low-income seniors: a randomized controlled trial. *JAMA*. 2007;298(22):2623-2633.
19. Shekelle PG, MacLean CH, Morton SC, Wenger NS. Acove quality indicators. *Ann Intern Med*. 2001;135(8 pt 2):653-667.
20. Counsell SR, Callahan CM, Tu W, Stump TE, Arling GW. Cost analysis of the Geriatric Resources for Assessment and Care of Elders care management intervention. *J Am Geriatr Soc*. 2009;57(8):1420-1426.
21. Boult C, Dowd B, McCaffrey D, Boult L, Hernandez R, Krulewitch H. Screening elders for risk of hospital admission. *J Am Geriatr Soc*. 1993;41(8):811-817.
22. Boyd CM, Reider L, Frey K, et al. The effects of guided care on the perceived quality of health care for multi-morbid older persons: 18-month outcomes from a cluster-randomized controlled trial. *J Gen Intern Med*. 2010;25(3):235-242.
23. Wolff JL, Giovannetti ER, Boyd CM, et al. Effects of guided care on family caregivers. *Gerontologist*. 2010;50(4):459-470.

24. Leff B, Reider L, Frick KD, et al. Guided care and the cost of complex healthcare: a preliminary report. *Am J Manag Care*. 2009;15(8):555-559.

25. Marsteller J, Hsu Y, Reider L, et al. Physician satisfaction with chronic care processes: a cluster-randomized trial of guided care. *Ann Fam Med*. 2010; 8(4):308-315.

26. Kane RL, Homyak P, Bershadsky B, Flood S. Variations on a theme called PACE. *J Gerontol A Biol Sci Med Sci*. 2006;61(7):689-693.

27. Beauchamp J. The effect of the program of all-inclusive care for the elderly [PACE] on quality: final report; Mathematica Policy Research, 2008. http://www.cms.gov/reports/downloads/Beauchamp_2008.pdf. Accessed: October 13, 2010.

28. Nadash P. Two models of managed long-term care: comparing PACE with a Medicaid-only plan. *Gerontologist*. 2004;44(5):644-654.

29. Wieland D, Boland R, Baskins J, et al. Five-year survival in a program of all-inclusive care for elderly compared with alternative institutional and home- and community-based care. *J Gerontol A Biol Sci Med Sci*. 2010;65(7):721-726.

30. Schraeder C, Shelton P, Sager M. The effects of a collaborative model of primary care on the mortality and hospital use of community-dwelling older adults. *J Gerontol A Biol Sci Med Sci*. 2001;56(2):M106-M112.

31. Stock R, Mahoney ER, Reece D, Cesario L. Developing a senior healthcare practice using the chronic care model: effect on physical function and health-related quality of life. *J Am Geriatr Soc*. 2008;56(7):1342-1348.

32. Dorr DA, Wilcox AB, Brunker CP, Burdon RE, Donnelly SM. The effect of technology-supported, multidisease care management on the mortality and hospitalization of seniors. *J Am Geriatr Soc*. 2008;56(12):2195-2202.

33. Béland F, Bergman H, Lebel P, et al. A system of integrated care for older persons with disabilities in Canada: results from a randomized controlled trial. *J Gerontol A Biol Sci Med Sci*. 2006;61(4):367-373.

34. Gravelle H, Dusheiko M, Sheaff R, et al. Impact of case management (Evercare) on frail elderly patients: controlled before and after analysis of quantitative outcome data. *BMJ*. 2007;334(7583):31.

35. Melis RJ, van Eijken MI, Teerenstra S, et al. A randomized study of a multidisciplinary program to intervene on geriatric syndromes in vulnerable older people who live at home (Dutch EASYcare Study). *J Gerontol A Biol Sci Med Sci*. 2008; 63(3):283-290.

36. Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness. *JAMA*. 2002;288(14):1775-1779.

37. Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness: the chronic care model, part 2. *JAMA*. 2002;288 (15):1909-1914.

38. Counsell SR, Callahan CM, Buttar AB, Clark DO, Frank KI. Geriatric Resources for Assessment and Care of Elders (GRACE): a new model of primary care for low-income seniors. *J Am Geriatr Soc*. 2006;54(7):1136-1141.

39. Patient Centered Primary Care Collaborative. Pilots & demonstrations. Washington, DC: Patient Centered Primary Care Collaborative; 2010. http://www.pcpcc.net/pcpcc-pilot-projects. Accessed September 21, 2010.

40. Pope GC, Kautter J, Ellis RP, et al. Risk adjustment of Medicare capitation payments using the CMS-HCC model. *Health Care Financ Rev*. 2004;25(4):119-141.

41. Lorig KR, Holman HR. Self-management education: history, definition, outcomes, and mechanisms. *Ann Behav Med*. 2003;26(1):1-7.

42. Bennett JA, Perrin NA, Hanson G, et al. Healthy aging demonstration project: nurse coaching for behavior change in older adults. *Res Nurs Health*. 2005; 28(3):187-197.

43. Wolff JL, Rand-Giovannetti E, Palmer S, et al. Caregiving and chronic care: the guided care program for families and friends. *J Gerontol A Biol Sci Med Sci*. 2009;64(7):785-791.

44. Boyd CM, Boult C, Shadmi E, et al. Guided care for multimorbid older adults. *Gerontologist*. 2007;47(5):697-704.

45. Johns Hopkins University. Care for the whole person, for those who need it most. Guided Care, http://www.guidedcare.org. Accessed September 21, 2010.

46. Johns Hopkins University. MedHomeInfo: Your resource for becoming a Medicare medical home;. http://www.medhomeinfo.org. Accessed September 21, 2010.

47. National PACE Association. PACE vital statistics. http://www.npaonline.org/website/download.asp?id=738. Accessed September 21, 2010.

48. National PACE Association. What is PACE? http://www.npaonline.org/website/article.asp?id=12. Accessed September 21, 2010.

49. Centers for Medicare & Medicaid Services. The Program of All-Inclusive Care for the Elderly [PACE]. https://www.cms.gov/pace/. Accessed September 21, 2010.

50. Wieland D. The Program of All-Inclusive Care for the Elderly [PACE]. In: Schulz R, Noelker LS, Rockwood K, Sprott R, eds. *The Encyclopedia of Aging*. 4th ed. New York, NY: Springer; 2006:973-975.

51. Weaver FM, Hickey EC, Hughes SL, et al. Providing all-inclusive care for frail elderly veterans: evaluation of three models of care. *J Am Geriatr Soc*. 2008; 56(2):345-353.

52. Irvin CV, Massey S, Dorsey T. Determinants of enrollment among applicants to PACE. *Health Care Financ Rev*. 1997;19(2):135-153.

53. Gross DL, Temkin-Greener H, Kunitz S, Mukamel DB. The growing pains of integrated health care for the elderly: lessons from the expansion of PACE. *Milbank Q*. 2004;82(2):257-282.

54. Beeber AS. Luck and happenstance: how older adults enroll in a program of all-inclusive care for the elderly. *Prof Case Manag*. 2008;13(5):277-283.

55. Harrington C, Ng T, Kaye SH, Newcomer R. *Home and Community-Based Services: Public Policies to Improve Access, Cost and Quality.* San Francisco, CA: University of California San Francisco Center for Personal Assistance Services; 2009.

56. Centers for Disease Control and Prevention. National Center for Health Statistics; 2004 National Nursing Home Survey—resident tables. http://www.cdc.gov/nchs/data/nnhsd/Estimates/nnhs/Estimates_PaymentSource_Tables.pdf. Accessed September 21, 2010.

57. National PACE Association. PACE service areas. http://www.npaonline.org/custom/programsearch.asp?id=209. Accessed September 21, 2010.

58. Leutz W, Nonnenkamp L, Dickinson L, Brody K. Utilization and costs of home-based and community-based care within a social HMO: trends over an 18-year period. *Int J Integr Care*. 2005;5:e25.

59. Institute of Medicine Committee on the Future of Health Care Workforce for Older Americans. *Retooling for an Aging America: Building the Health Care Workforce.* Washington, DC: National Academies Press; 2008.

60. Boult C, Counsell SR, Leipzig RM, Berenson RA. The urgency of preparing primary care physicians to care for older people with chronic illnesses. *Health Aff (Millwood)*. 2010;29(5):811-818.

The Purpose of the Chronic Heart Failure Model Practice

The 2008 PACE Chronic Heart Failure Model Practice provides relevant diagnostic and treatment recommendations to PACE primary care providers (PCPs). The Model Practice was adapted specifically for PACE participants from evidence-based published guidelines for older adults1,2 and offered with the belief that shared decision-making between individual PCPs and participants/caregivers is optimal. This Model Practice is not intended to replace the clinical judgment of the individual provider or establish a standard of care.

PACE participants are a heterogeneous group, with differing health profiles, prognoses, preferences, and goals of care. Life expectancy and quality of life issues require an individualized context within which to apply practice guidelines that may have been developed from and for a population of non-frail adults. We recommend that whether a PCP follows any of the summary recommendations for an individual participant will depend upon factors specific to that participant, including the participant's preferences, prognosis and life expectancy, co-morbid conditions, functional status, and goals of care.

This Model Practice assumes that the goals of care for PACE participants can be divided into three broad categories: promoting longevity, optimizing function, and palliative care3. Accordingly, the Model Practice suggests different approaches to interpreting the 2006 American College of Cardiology CHF recommendations,2 depending on whether the goal is life-extension, function, or palliative care. The PCP will need to determine which recommendations are appropriate for each individual participant, considering the participant's preferences, life-expectancy, and the expected benefit versus burdens of specific interventions.

Definitions:

ACC-AHA Stages of Heart Failure[1]:

<u>Stage A</u>: High risk for heart failure with no structural damage or heart failure symptoms
<u>Stage B</u>: Structural damage without heart failure symptoms
<u>Stage C</u>: Structural damage with previous or current heart failure symptoms
<u>Stage D</u>: Refractory heart failure, specialized intervention

Goals of Care[3]:

<u>Longevity</u>: Participant expresses a preference for life-prolonging treatment. A participant with a goal of longevity typically desires unrestricted use of medically-indicated treatments, including CPR, invasive procedures and life-sustaining treatments (ACLS, surgery, ventilator support, dialysis, IV fluids and tube feedings).

<u>Function</u>: Participant's main goal is to maintain function. Participant makes individualized choices to limit some invasive procedures that are not consistent with that goal. Limited procedures may include CPR, mechanical ventilation, and other life-sustaining treatments.

<u>Palliative Care</u>: Participant desires treatments aimed at providing comfort only. Treatment choices focus on relieving pain and other symptoms and limiting invasive, life-sustaining treatments such as CPR, mechanical ventilation, dialysis and surgery.

NPA Primary Care Committee
2008 Chronic Heart Failure Model Practice

ACC-Recommended Intervention for CHF[1]	Goal: Longevity	Goal: Function	Goal: Palliative	Who?	When?
Diagnostic Evaluation:				PCP	Initially
• Echocardiogram/determine EF	Yes	Yes	Consider		
• Identify etiology (CAD, HTN, PVD, DM, valvular, cardiomyopathy)	Yes	Yes	No		
• Identify AHA stage	Yes	Yes	Yes to guide rx		
Recommended Medications for Systolic CHF (EF<40%)*:				PCP/ PharmD	Re-assess q 6 mos
• Aspirin	Yes	Yes	No		
• ACEI/ARB	Yes, If Cr<3, no allergy, ADR	Yes, If Cr<3, no allergy, ADR	Consider		
• Hydralazine and Isosorbide	Yes, If unable to take ACEI/ARB	Yes, If unable to take ACEI/ARB	Consider		
• Diuretics	Yes	Yes	Yes		
• Beta-blocker if not contraindicated	Yes, as pulse and BP permit	Yes	Consider		
• Spironolactone (AHA Stage D)	Yes if indicated	Consider	No		
• Digoxin (for symptom relief in advanced CHF)	Yes if indicated	Consider	Consider		
• Amlodipine (if need Ca channel blocker for angina, BP control)	Yes if indicated	Consider	Consider		
• Antiarrhythmic rx (if indicated)	Yes if indicated	Consider	Consider		
• Warfarin (if atrial fibrillation, INR 2-3)	Yes if indicated	Consider	No		
Other Recommended Medical Interventions:				PCP	q 6-12 months
• Tobacco cessation counseling	Yes	Consider	No		
• Oxygen (if indicated)	Yes	Yes	Yes		
• BP goal ≤130/80	Yes	Consider	No		
• AICD (if indicated)	Yes	No	No		
• Dual chamber pacer (if indicated)	Yes	No	No		
Participant/Caregiver Education				RN	At diagnosis and as status changes
• Cause/prognosis of CHF	Yes	Yes	Yes		
• Warning signs – when to call nurse (swelling, SOB, fatigue, weakness, anorexia, chest pain, nausea, lightheadedness)	Yes	Yes	Yes		
• Effects of meds, diet, activity	Yes	Yes	Yes		
• Weigh weekly, notify RN	Yes	Consider	No		
Monitoring of Fluid Status				RN PCP	Weekly-monthly
• Record weekly weights	Yes	Yes	Consider		
• Weight gain/loss of 3 lb in one week reported to PCP immediately (PCP evaluates/adjusts medications if needed)	Yes	Yes	Consider		
Diet				RD PCP	When diagnosed, then review annually
• Diet counseling with participant and caregiver	Yes	Consider	No		
• Low salt diet: Mild: 3-4 gm/Day *or* Severe: 2 gm/Day	Consider	Consider	No		
• Fluid restriction: 2 L/Day	Consider	Consider	No		
Exercise/Cardiac Rehab	Yes	Consider	No	PT	
Potential Quality Indicators				Quality Manager Medical Director	Selected measures quarterly-annually
• Assessment of LV function	Yes	Consider	No		
• ACEI/ARB use unless contraindicated	Yes	Yes	No		
• Cessation assistance offered to smokers	Yes	Consider	No		
• Prt/CG education on CHF	Yes	Yes	Yes		
• Advance planning	Yes	Yes	Yes		
• Decreased admissions for CHF	Yes	Yes	Yes		
• No 30-Day re-admissions for CHF	Yes	Yes	Yes		

***** In the absence of evidence from randomized controlled trials, recommendations for the management of chronic heart failure with preserved systolic function aim to control factors associated with ventricular relaxation and precipitation of heart failure symptoms. These recommendations include treating hypertension, controlling ventricular rate when participants have atrial fibrillation, and treating pulmonary congestion or peripheral edema with diuretics. Use of ACE inhibitors, beta-blockers, or calcium channel blockers (in the absence of hypertension) are recommended with reservation.[5]

References:

[1] Hunt, SA, et al. ACC/AHA 2005 Guideline Update for the Diagnosis and Management of Chronic Heart Failure in the Adult. Circulation 2005;112;154-235.
[2] Heidenreich PA, Fonarow GC. Quality indicators for the care of heart failure in vulnerable elders. J Am Geriatrics Soc 2007, 55:S340-S346.
[3] Schamp R, Tenkku L. Managed death in a PACE: Pathways in present and advance directives. JAMDA 2006;7:339-344
[4] American Geriatrics Society. AGS Guidelines for improving the care of the older person with diabetes mellitus. JAm Geriatrics Soc 2003 May;51 (Suppl 5):S265-78.
[5] Ahmed A. American College of Cardiology/American Heart Association Chronic Heart Failure Evaluation and Management Guidelines: Relevance to the Geriatric Practice. J Am Geriatr Soc 2003;51:123-126.

NPA Primary Care Committee
Chronic Kidney Disease Model Practice, 2011

Purpose of the Model Practice

The 2011 National PACE Association's "Chronic Kidney Disease Model Practice" provides relevant diagnostic and management recommendations to PACE primary care providers (PCPs). The Model Practice was adapted specifically for PACE participants from evidence-based published guidelines for older adults and is offered with the belief that shared decision-making between individual PCPs and participants/caregivers is optimal. This Model Practice is not intended to replace the clinical judgment of the individual provider or establish a standard of care.

PACE participants are a heterogeneous group, with differing health profiles, prognoses, preferences, and goals of care. Life expectancy and quality of life issues require an individualized context within which to apply practice guidelines that may have been developed from and for a population of non-frail adults. We recommend that whether a PCP follows any of the summary recommendations for an individual participant will depend upon factors specific to that participant, including the participant's preferences, prognosis and life expectancy, co-morbid conditions, functional status, and goals of care.

This Model Practice assumes that the goals of care for PACE participants can be divided into three broad categories: promoting longevity, optimizing function, and palliative care. Accordingly, the Model Practice suggests different approaches depending on whether the goal is life-extension, function, or palliation. The PCP will need to determine which recommendations are appropriate for each individual participant, considering the participant's preferences, life-expectancy, and the expected benefit versus burdens of specific interventions.

Goals of Care:

Longevity: Participant expresses a preference for life-prolonging treatment. A participant with a goal of longevity typically desires unrestricted use of medically-indicated treatments, including CPR, invasive procedures and life-sustaining treatments (ACLS, surgery, ventilator support, dialysis, IV fluids and tube feedings) and agrees to try to comply with all medically indicated treatments including testing, dietary restrictions, medication regimens, and activity prescriptions.

Function: Participant's main goal is to maintain function. Participant makes individualized choices to limit some invasive procedures that are not consistent with that goal. Limited procedures may include CPR, mechanical ventilation, and other life-sustaining treatments. They will often limit some testing, dietary, medication, and activity interventions.

Palliative Care: Participant desires treatments aimed at providing comfort only. Treatment choices focus on relieving pain and other symptoms and limiting invasive, life-sustaining treatments such as CPR, mechanical ventilation, dialysis and surgery. In addition, limiting testing, dietary, medication, and activity interventions is usual.

Definitions:

1. ? = data is not available and expert opinion is not consistent
2. ACEI = Angiotensin converting enzyme inhibitor drug
3. ARB = Angiotensin receptor blocker drug
4. CKD = Chronic Kidney Disease
5. Consider = do the intervention if you will act on the information
6. CVD = Cardiovascular Disease
7. D2 = ergocalciferol
8. D3 = cholecalciferol
9. ESA = erythropoiesis stimulating agent
10. ESKD (ESRD) = End Stage Kidney (Renal) Disease
11. Hgb = hemoglobin
12. KDOQI = Kidney Disease Outcomes Quality Initiative
13. No = Do not do the intervention
14. NRT = nicotine replacement therapy
15. RLS = restless leg syndrome
16. ROD = Renal Osteodystrophy
17. RRT = Renal replacement therapy (dialysis or transplant)
18. SHPT = Secondary Hyperparathyroidism
19. Va/DoD = Veterans Administration/Department of Defense
20. X = pertains to this stage
21. Yes = do the intervention

References used for this Model Practice:

1. National Kidney Foundation KDOQI: http://www.kidney.org/professionals/KDOQI
2. Va/DoD CKD guideline: http://www.healthquality.va.gov/ckd/ckd_v478.pdf
3. Michigan Quality Improvement Consortium: http://www.mqic.org/guid.htm
4. NEJM 2010; 362:56-65 "Stage IV Chronic Kidney Disease"
5. NEJM 2010; 362:1312-24 "Oral Phosphate Binders in Patients with Kidney Failure."
6. Ann Intern Med. 2010; 153:23-33 "Meta-analysis: Erythropoiesis-Stimulating Agents in Patients with Chronic Kidney Disease."
7. "KIDGO Clinical Practice Guidelines etc": Kidney International, Vol.76 Supplement115: Aug. 2009. (www.Kidney-International.org)

Recommended Intervention	**CKD Stages**					**Standard (KDOQI) Intervention**	**KDIGO Intervention**	**Interval of Intervention**	**Goal: Longevity**	**Goal: Functional**	**Goal: Palliative**	**By Whom**
	1	**2**	**3**	**4**	**5**							
General Management												
Determine if further w/u of etiology is needed	X	X	X			On initial presentation or identification		Once	Yes	Yes	No	PCP
Measure GFR (see comment)	X	X	X	X		Calculated from serum creatinine. The MDRD formula is preferred except in the old-old with low BMI (then use the Cockcroft-Gault formula). MDRD may be valid only up to GFR of 60.		Every 6-12 months for stages 1-3;every 1-3 months for stage 4	Yes	Yes	Consider	PCP order
Review medicines for dose adjustments (see comment)	X	X	X	X	X	Review		Every 6 months	Yes	Yes	Yes	PCP, Pharmacist
Review medications for therapeutic levels (see comment)	X	X	X	X	X	Review		Every 6 months	Yes	Yes	Consider	PCP, Pharmacist
Measure Vitamin D level and replace if deficient (see comment)		X	X	X		Measure 25 hydoxy Vitamin D and prescribe D2 or D3 supplement if deficient. Deficiency in stages 3 and 4 may require treatment with active Vitamin D sterol (e.g. calcitriol) if D2 or D3 does not resolve 25 OH D deficiency	Stage 3-5: Measure and treat with Calcitriol or analog. Repeat test based on value last obtained.	KDOQI:Annually KDIGO: Measure 25-OH Vitamin D once, then frequency based on level and treatment	Yes	Yes	Consider	PCP order
CKD Education	X	X	X	X	X	Educate about CKD and interventions to slow progression and treat complications		Annually	Yes	Yes	No	Nursing, PCP, Pharmacist
Oral Protein Restriction			X	X		Oral Protein restriction to 0.8-1.0 grams/kg body weight		Yearly dietitian review stage 3; every 6 month dietitian review stage 4	Yes	Yes	No	RD
Dietician Consultation		X	X	X	X	To instruct in sodium and protein restrictions. Provide instruction, as needed, for potassium and phosphorus restrictions and calcium use	In Stage 3-5D, restrict dietary Phosphorus. Not otherwise specified..	Annually and more often if needed	Yes	Yes	Consider	RD
RRT Education				X	X	Educate about benefits, risks, and types of RRT and alternatives to RRT		Every 6 months	Yes	Yes	No	PCP, Nursing
Referral to a Nephrologist				X		Refer when eGFR is <30 ml/min/1.73 sqm but also if there is a rapid deterioration of GFR in earlier stages or if the etiology is unclear		Initial consultation then follow-up regularly during stages 4 and 5	Yes	Consider	No	PCP order

Vascular surgery consult at Stage 4				X		To establish fistula if hemodialysis planned		Once then prn	Yes	Consider	No	PCP order
Hepatitis B vaccine if RRT contemplated				X		Vaccine Series		Once at stage 4 if RRT planned	Yes	Yes	No	PCP order

Recommended Intervention	CKD Stages					Standard (KDOQI) Intervention	KDIGO Intervention	Interval of Intervention	Goal: Longevity	Goal: Functional	Goal: Palliative	By Whom
	1	2	3	4	5							
Initiate RRT					X	Dialysis and consider for transplant list		Once when symptoms warrant and in consultation with the Nephrologist	Yes	Consider	No	Nephrologist
Aspirin Use (see comment)		X	X	X	X	Aspirin for secondary prevention of CVD		Annual Review	Yes	Yes	Consider	PCP, Pharmacist
Evaluation for Neuropathy: presence of paresthesia, sleep disturbance, RLS			X	X	X	History and exam		Every 6 months	Yes	Yes	Consider	PCP
Interventions to slow the rate of progression of CKD												
Blood Pressure monitoring and treatment to achieve target (see comment)	X	X	X	X	X	Goal is <130/80 (but consider goal <125/75 if significant proteinuria (>1000 mg protein/day)	Guidelines being developed	Every 6 months; more often if not at target	Yes	Consider	No	PCP, Nursing
Glycemic control in diabetics to decrease rate of progression (see comment)	X	X	X	X	?	hgbA1c goal <7-8		Every 6 months; more often if not at target	Yes	Consider	No	PCP
ACEI or ARB for proteinuria	X	X	X	X		Titrate to maximum recommended dose of ACEI or ARB if tolerated; use lower dose only if necessary		Every 6 months	Yes	Yes	No	PCP
Management of Associated Disorders												
CVD												
LDL monitoring and goal (see comment)	X	X	X	?		Goal <100 (goal <70 if diabetes or existing CVD present)		annually if at goal; every 3-6 months if not at goal	Yes	Consider	No	PCP, Pharmacist
Smoking cessation education in smokers	X	X	X	X	X	Ask, Counsel, Consider NRT		Every 6 months	Yes	Yes	No	PCP, Nursing, Pharmacist
ROD (see comment)												
Measure serum PTH level			X	X	X	Suppress to <70 in stage 3; 70-110 in stage 4; 150-300 in stage 5 using Vit D2 or D3 in stages 3 and 4 and an active Vit D Sterol (e.g. calcitriol) in stage 5. Calcitriol may be needed in Stages 3 and 4 if PTH goal is not met with D2 or D3	Use Calcitriol or analogs for treatment. Stage 3-5: Optimal target level not known. If PTH rising or high, treat with Calcitriol or Analogs. Stage 5D: With increased or rising PTH, maintain PTH 2-9 times upper limit of normal. Treat with Calcitriol or Analogs and Calcimimetics	KDOQI: Stage3: Every 12 months; Stage 4: Every 3-6 months Stage 5:Every 3-6 months KDIGO: Stage 3: Base frequency on baseline and CKD progression. Stage 4: Every 6-12 months Stage 5: Every 3-6 months	Yes	Consider	No	PCP

Recommended Intervention	CKD Stages					Standard (KDOQI) Intervention	KDIGO Intervention	Interval of Intervention	Goal: Longevity	Goal: Functional	Goal: Palliative	By Whom
	1	**2**	**3**	**4**	**5**							
Measure serum Phosphorus level			X	X	X	Treat with phosphate binders and diet to >2.7 to 4.6 in stages 3 and 4; to 3.5 to 5.5 in stage 5	Stage 3-5: Suggest keeping PO4 in the normal range. Stage 5D: Lower PO4 toward the normal range. In treating Hyperphosphatemia, in the presence of arterial calcification, adynamic bone disease, or persistently low PTH, restrict the use of Calcium based Phosphate binders.	KDOQI: Stage 3: Every 12 months Stage 4: Every 3-6 months Stage 5: Every 1 month KDIGO: Stage 3: Every 6-12 months Stage 4: Every 3-6 months Stage 5: Every 1-3 months	Yes	Consider	No	PCP
Measure serum calcium level and calculate calcium-phosphorus product				X		Calcium level target should be within normal range (per laboratory); Optimize calcium-phosphorus ratio to <55	Stage 3-5D: Maintain Ca in the normal range. Evaluate Ca and PO4 separately. No need to measure or treat Ca*PO4 product. In presence of hypercalcemia, restrict calcium based phosphate binders and/or Vitamin D analogs.	KDOQI: Stage 3:Every 12 months Stage 4: Every 3-6 months Stage 5: Every1 month KDIGO: Stage 3: Every 6-12 months Stage 4: Every 3-6 months Stage 5: Every 1-3 months	Yes	Consider	No	PCP
Anemia												
Monitor hgb (see comment)			X	X	X	hgb goal is 10-12	Practice Guideline under development.	Every 6-12 months; more often after iron or ESA treatment initiated	Yes	Consider	No	PCP
Measure iron		X	X	X	X	Replace with oral or IV iron to achieve ferritin level between 100-800 and transferrin saturation between 20 and 50%	Practice Guideline under development.	Annually in stage 2; every 6 months in stage 3-5	Yes	Consider	No	PCP
Institute ESA (see comment)			X	X	X	When hgb is less than 10 with hgb goal of 10-12	Practice Guideline under development.	With finding of persistently low hgb and at target iron levels	Consider	Consider	No	PCP

Comments:

1. The model practice assumes we have diagnosed CKD and assumes evaluation and management of comorbid conditions, specifically diabetes, urinary tract obstruction, and cardiovascular disease.
2. The primary goal of intervention in CKD is to slow progression to ESKD (ESRD)
3. The MDRD is the preferred equation to estimate GFR for most older adults. CKD Epi is a newer calculation. The MDRD is less accurate in: extremes of age and body size; severe malnutrition or obesity; diseases of skeletal muscle; paraplegia and quadreplegia; vegetarian diet; rapidly changing kidney function. The Cockcroft-Gault equation might be used in the old-old with low BMI. GFR calculators can be found at www.nephron.org
4. A decrease in GFR of 60 to 89 mL/min/1.73 m2 is chronic kidney disease only if accompanied by a marker of kidney damage. GFR declines with age in normal individuals; therefore, it can be difficult to distinguish age-related decrease in GFR from chronic kidney disease in the elderly. Other causes of chronically decreased GFR in normal individuals without chronic kidney disease include a habitually low protein intake and unilateral nephrectomy.
5. A LDL lowering benefit has not been documented in stage 4 and statin therapy in stage 5 did not result in a significant reduction in CVD events. ((NEJM 362;1(pages 56-65)
6. Vitamin D supplements (ergocalciferol and cholecalciferol) are less active in advanced kidney disease and a Vitamin D analog (calcitriol and others) should be considered.
7. Glycemic control has a known benefit in prevention of CKD but data are inconclusive for the benefit of glycemic control in established disease.
8. Measuring bone-specific alkaline phosphatase activity has been recommended by some to enhance the sensitivity of detecting ROD but is not a routine recommendation of KDOQI.
9. ACEI or ARB is preferred antihypertensive. While they may be used together, there are limited data of its benefit and the risk of hyperkalemia is increased.
10. See Appendix D-2 in the Va/DoD guideline for drugs that require monitoring and dose adjustment in CKD.
11. Hypercalcemia is a concern in all patients with CKD stages 3-5 receiving Vitamin D therapy.
12. Protein restriction may impair wound healing and needs to be considered in the broad context of the patient’s nutritional needs.
13. The evidence for the benefit of correction of anemia via monitoring hgb and initiating ESA is primarily for improved Quality of Life and reduction of the need for transfusion as discussed in KDOQI guideline 2.2.
14. Aspirin is recommended for the secondary prevention of recurrent CV events but insufficient evidence (per the Va/DoD guideline) exists to recommend use as primary prevention in all participants with CKD as there is an increased bleeding risk. Primary prevention with aspirin is addressed in the *NPA Preventive Care Guideline 2010.*
15. Influenza and pneumococcal vaccines are considered in the Preventive Care Guideline and not here.
16. To manage phosphorus: see drug therapy review in: NEJM 362;14 pages 1312-1324; April 8, 2010
17. To manage elevated PTH: See KDOQI Guideline 8.
18. The known benefit of ESA therapy is to decrease transfusion needs as it has not been shown to decrease cardiovascular or other mortality. It might be used when the patient is symptomatic and when the hgb is below 10 and also to avoid the need for transfusion.
19. KDIGO divides Class 5 into Class 5 no dialysis and 5D on dialysis

NPA Primary Care Committee
2009 Diabetes Mellitus Model Practice

Purpose of the Model Practice

The 2009 National PACE Association's "Diabetes Mellitus Model Practice" provides relevant diagnostic and management recommendations to PACE® primary care providers (PCPs). The Model Practice was adapted specifically for PACE® participants from evidence-based published guidelines for older adults and is offered with the belief that shared decision-making between individual PCPs and participants/caregivers is optimal. This Model Practice is not intended to replace the clinical judgment of the individual provider or establish a standard of care.

PACE® participants are a heterogeneous group, with differing health profiles, prognoses, preferences, and goals of care. Life expectancy and quality of life issues require an individualized context within which to apply practice guidelines that may have been developed from and for a population of non-frail adults. We recommend that whether a PCP follows any of the summary recommendations for an individual participant will depend upon factors specific to that participant, including the participant's preferences, prognosis and life expectancy, co-morbid conditions, functional status, and goals of care.

This Model Practice assumes that the goals of care for PACE® participants can be divided into three broad categories: promoting longevity, optimizing function, and palliative care. Accordingly, the Model Practice suggests different approaches depending on whether the goal is life-extension, function, or palliation. The PCP will need to determine which recommendations are appropriate for each individual participant, considering the participant's preferences, life-expectancy, and the expected benefit versus burdens of specific interventions.

Goals of Care:

Longevity: Participant expresses a preference for life-prolonging treatment. A participant with a goal of longevity typically desires unrestricted use of medically-indicated treatments, including CPR, invasive procedures and life-sustaining treatments (ACLS, surgery, ventilator support, dialysis, IV fluids and tube feedings).

Function: Participant's main goal is to maintain function. Participant makes individualized choices to limit some invasive procedures that are not consistent with that goal. Limited procedures may include CPR, mechanical ventilation, and other life-sustaining treatments.

Palliative Care: Participant desires treatments aimed at providing comfort only. Treatment choices focus on relieving pain and other symptoms and limiting invasive, life-sustaining treatments such as CPR, mechanical ventilation, dialysis and surgery.

Clinical Practice Guidelines used for "Standard Therapy":

- "Guideline for Improving the Care of the Older Person with Diabetes Mellitus", California Healthcare Foundation/American Geriatrics Society Panel of Improving Care for Elders with Diabetes, JAGS 51:S265-S280, 2003. http://www.americangeriatrics.org/products/positionpapers/JAGSfinal05.pdf
- "Standards of Medical Care in Diabetes 2009", American Diabetes Association. http://care.diabetesjournals.org/cgi/reprint/32/Supplement_1/S13

Definitions:

Consider = Perform if the result will be used to adjust treatment
Yes = Follow Standard Care practice
No = Do not follow the Standard Care practice
Goal = Target of the intervention
Initially = the first 6 months of enrollment of the patient who has known Diabetes Mellitus or the 6 months after a new diagnosis of DM
Microalbuminuria = ≥ 2 of 3 urine samples 30-300 for microalbuminuria/creatinine
High Risk for Eye Disease = Symptoms of eye disease present; evidence of retinopathy, glaucoma, or cataracts in the past two years;
A1c ≥ 8; Type 1 DM; B/P ≥ 140/80
SMBG = Self monitor blood glucose
CVD = Cardiovascular Disease
PVD = Peripheral Vascular Disease
ABI = Ankle Brachial Index

NPA Primary Care Committee
2009 Diabetes Mellitus Model Practice

Recommended Intervention	"Standard therapy"	Goal: Longevity	Goal: Functional	Goal: Palliative	By Whom
Glycemic Management					
• HbgA1C	Measure every 6 months. Goal < 7-8	Measure every 6 month. More often if not at goal. Goal < 7-8	Measure every 6 months. Goal less < 8-9	Consider	PCP
• Self monitor blood glucose (SMBG)	Daily (1-4 times)	Daily (0-4 times) (see comment 3)	If on short acting insulin: before dose. Otherwise with symptoms or medication changes	Consider if adjusting medications or if symptoms	Participant or Caregiver
Lipid Management					
• LDL assessment	Measure initially then every 6-12 months if ≥100. Measure every 2 years if less than 100 on initial. LDL goal less than 100 (less than 70 if known CVD)	Yes Goal < 70-100.	Consider (see comment 6)	No	PCP
• Triglyceride assessment	Measure initially then every 6-12 months if > 150. Treat to Goal < 150	Yes	Consider	No	PCP
• HDL assessment	Measure initially then every 6-12 months if ≤ 40; Goal is > 40	Yes	Consider	No	PCP
Blood Pressure (B/P) Management	Measure every 6 months. Goal is ≤ 130/80	Yes Goal ≤ 130/80	Yes Goal ≤ 140/90	No	PCP
Medications					
• Aspirin 75-325 mg/day	Yes, if not on anticoagulation therapy and no contraindications	Yes, if not on anticoagulation therapy and no contraindications	Yes, if not on anticoagulation therapy and no contraindications	Consider	PCP
• ACEI or ARB for micro-albuminuria) or nephropathy	Yes	Yes	Consider	Consider	PCP
Smoking cessation assistance	Initial assessment for tobacco use and if using, counsel and assist to quit every 6 months	Yes	Yes	No	PCP
Dietitian Consultation for Medical Nutrition Therapy (MNT) (see comment 11)	Initial instruction than as needed	Annually and more often if needed	Annual Assessment	Annual Assessment	RD
Eye care: dilated-eye exam by eye-care specialist					
• Annual screen if at high risk (see definition)	Yes	Yes	Yes	No	Optometrist or Ophthalmologist
• Bi-annual screen if at low risk	Yes	Yes	Consider	No	Optometrist or Ophthalmologist
Foot examination					

• to screen for neuropathy, bony deformity, PVD	Annually. (Consider ABI)	Yes	Yes	Yes	PCP
• if neuropathy, bony deformity, or PVD present	At each chronic care visit	Yes	Yes	Yes	PCP and/or Podiatrist
Laboratory testing					
• Detection of Nephropathy by measurement of urine micro-albumin/creatinine ratio	Initially then annually if micro- or macro-albuminuria not previously present	Yes	Consider	No	PCP
• Monitoring of participants with Nephropathy by urine microalbumin/creatinine ratio or albumin/creatinine ratio	Annual measure to assess effectiveness of treatment and to determine progression	Consider if not on ACEI or ARB	No	No	PCP
• Creatinine and potassium	With initiation and with each increase in ACEI or ARB dose than annually	Yes	Yes	Consider	PCP
• Creatinine and GFR calculation	Annually	Yes	Yes	No (Consider if on metformin)	PCP
• Electrolytes	With initiation or increase of a diuretic than yearly while on the diuretic	Yes	Yes	Consider	PCP
• ALT	within 12 weeks of initiation or dose increase of statin or niacin, or fibrate, than annually	Yes	Yes	No	PCP
Screen for Cardiovascular Autonomic Neuropathy by signs and symptoms	Initially than annually	Yes	Yes	No	PCP
Education					
• Education re signs/symptoms of hyperglycemia and hypoglycemia	Initially and annually	Yes	Yes	Yes	Nurse
• Teach/review SMBG	Initially and annually	Yes	Yes	Yes	Nurse
• Exercise education	Initially than regularly	Yes	Consider	Consider	Nurse
• Medication education	Initially than with every new medication	Yes	Yes	Yes	Nurse
• Foot ulcer and amputation education	Initially than as needed(for those with PVD or Neuropathy)	Yes	Yes	Yes	Nurse
Potential Quality Indicators					
• Measurement of HgbA1c		Yes	Yes	No	
• Measurement of LDL Cholesterol		Yes	No	No	
• Attention to Nephropathy (see comment 14)		Yes	No	No	
• Eye Exam		Yes	No	No	
• Foot exam		Yes	Yes	Yes	

Comments:

1. 8 years post intervention are needed before the benefits of glycemic control are reflected in a reduction in micro-vascular complications such as retinopathy or nephropathy
2. 2-3 years are required post intervention to see benefits from better control of b/p and lipids on macro-vascular complications related to atherosclerosis such as CAD/ACS, PVD, Stroke
3. There is little evidence of a benefit of scheduled SBGM in DM Type 2 but it may be helpful to manage drug therapy changes
4. Moderate glycemic control may enhance wound healing, reduction of polyuria and fatigue, and possibly maximization of cognitive function
5. risks of glycemic drug therapy include: hypoglycemia, polypharmacy, drug-drug interactions, drug-disease interactions
6. LDL management decisions in those choosing a functional path might include an estimate of life expectancy as an intervention to lower LDL to <100 may prevent stroke or MI and thus might maintain function, but studies show this benefit only after 2 years.
7. risks of anti-hypertensive drug therapy include: hypotension
8. 12% of older persons with DM smoke
9. Antihypertensive medications showing reduced cardiovascular morbidity and mortality: diuretics, ACEI, Beta-blockers, CCBs, ARBs
10. B/P should be lowered gradually in those above their goal due to reduced tolerance for b/p reduction
11. PACE regulations require an annual dietitian evaluation (460.104) but the diet advice should match the participant's goal
12. A referral to a certified diabetic educator can be considered for education deficits or in those not meeting their goals of care.
13. Education about hypo- and hyper-glycemia includes: precipitating factors, prevention, symptoms and monitoring, treatment, and when to notify a nurse or clinician
14. Attention to Nephropathy includes: measurement of urine microalbumin or albumin, or use of ACEI or ARB
15. Screening for common co-morbid conditions (Depression, Polypharmacy, Cognitive Impairment, Urinary Incontinence, Falls, Pain), and administration of influenza and pneumococcal vaccines are recommended in the AGS guideline but not included here as they are standard PACE interventions.
16. Pharmacologic treatment is not addressed in this model practice but some cautions to be noted:
    - Some consider metformin to be contraindicated if serum creatinine is 1.5 or greater in men or 1.4 or greater in women; if GFR is less than 60/ml/min/1.73m^2; if age over 80; or with CHF
    - Thiazolidinediones are contraindicated in patients with CHF
    - Glyburide, in some reviews, has a high incidence of hypoglycemia in the elderly thought due to its long half-life

NPA Primary Care Committee
Preventive Care Guideline 2010

General	**Longevity**	**Functional**	**Palliative**	**Interval**	**By Whom**
Medications Review	Y	Y	Y	Initial and semiannually on return from inpatient stay	PCP or pharmacist
Health Care Directives	Y	Y	Y	Initial, annually, and with changes in status	PCP, SW
Alcohol and Drug Screen	Y	Y	N	Initially and annually if initial is positive	PCP, SW, Nursing
Tobacco screen, Cessation Counseling	Y	Y	N	Initially and counsel semiannually if initial screen is positive	PCP, Nursing, Pharmacist
Pain Screen	Y	Y	Y	Screen initially and annually and if positive, as needed	PCP, Nursing, Pharmacist
Injury Prevention; Safety/Driving	Y	Y	Y	Initially and annually for: fall prevention, seatbelts, cooking, firearms in house, driving	Home Care, Rehab, Nursing, PCP
Functional Assessment	Y	Y	Y	Initially then annually and with changes in status	PCP, Nursing, Rehab
Immunization	**Longevity**	**Functional**	**Palliative**	**Interval**	**By Whom**
Tetanus	Y	Y	N	Every 10 years. May need primary series	PCP or Nursing via standing orders
Influenza	Y	Y	Y	Annually	PCP or Nursing via standing orders
Pneumococcal	Y	Y	Y	Initially then repeat at age 65 if initial given when less than 65 and >5 years since last.	Nursing via standing orders
Zoster	Y	Consider	N	Once age 60-69	via PCP order
Disease or Injury Prevention	**Longevity**	**Functional**	**Palliative**	**Interval**	**By Whom**
Calcium and Vitamin D Use	Y	Y	Consider if LE > 6 mos.	Initially then annually	PCP, RD
Assess Risk of Falls	Y	Y	Y	Initially and annually using standardized tool	Nursing, Rehab, PCP
Assess Risk of Skin Ulcer	Y	Y	Y	Initially and annually using standardized tool	Nursing
Nutrition Evaluation	Y	Y	Y	Initially then annually per PACE regulation (460.104)	RD
Aspirin for Primary Prevention	Consider	Consider	N	Daily in men age 55-79 when the potential benefit due to a reduction in MI outweighs the potential harm due to an increase in GI hemorrhage. Daily in women age 55-79 when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in GI Hemorrhage	via PCP order
Examinations	**Longevity**	**Functional**	**Palliative**	**Interval**	**By Whom**
Dental Status	Y	Y	Y	Initially by PACE regulation (460.104)	PCP or dentist
Physical Exam	Y	Y	Y	Complete physical examinations have not been found to be effective but an inperson assessment is indicated semiannually per PACE regulation (460.104(a and c))	PCP
Height	Y	Y	N	Initially	Nursing
Weight	Y	Y	N	Initially then monthly	Nursing
Blood Pressure screen for HTN	Y	Y	N	Initially then semiannually	Nursing
Depression Screen	Y	Y	Y	Initially then as needed	PCP or SW
Assessing Cognitive Function	Y	Y	Y	Initially then annually	PCP, Nursing, SW
Cancer Screening	**Longevity**	**Functional**	**Palliative**	**Interval**	**By Whom**
Stool for occult Blood	Yes if LE>10 yrs and age<76, Consider age 76-85 if LE>10 yrs	N	N	Annually if colonoscopy will be done if the test is positive; Not needed if screening colonoscopy is done instead	PCP order
Flexible Sigmoid/ Colonoscopy	Yes if LE>10 yrs and age<76, Consider age 76-85 if LE>10 yrs	N	N	Every 10 years	PCP referral
Cervical (PAP)	Consider if no previous negative PAPs	Consider if no previous negative PAPs	N	Annually until 3 negative results. Stop at age 65 if two negative results.	PCP or woman's health specialist
Prostate Digital Rectal Exam (DRE)	Consider if LE >10 years and age < 76	N	N	Initially and annually for high risk men less than age 76	PCP

Endorsed by NPA's Primary Care Committee on 04/20/2010

Prostate Specific Antigen (PSA)	Consider if LE >10 years and age < 76	N	N	Initially and annually for high risk men less than age 76	PCP order
Breast Clinical Exam	Y	Consider	N	Initially then annually	PCP
Mammogram	Yes for ages 55-74 if LE > 5 years	Consider for ages 55-74 if LE > 5 years	N	Every one to two years	PCP order
Testing	**Longevity**	**Functional**	**Palliative**	**Interval**	**By Whom**
Lipids	Y	Consider	N	Initially then every 5 years if initial is at goal	PCP order
Fasting Plasma Glucose	Yes if Hypertensive or Hyperlipidemic	Consider	N	Annually for persons with Hypertension or Hyperlipidemia	PCP Order
Tuberculin skin test (PPD)	Y	Y	Y	Initially then only if needed per State Board of Health	Nursing via standing order
Osteoporosis screen via Dexa	Y	Consider if LE > 2 years	N	Initially if not previously done; Consider treating for OP if fractures without Dexa	PCP
Aortic Aneurysm Screening by ultrasound	Consider if LE > 5 years and male age 65-75 who had ever smoked	N	N	One time if participant will have a repair	PCP Referral
Vision: Visual Acuity and Intraocular Pressure	Y	Y	Consider	Initially then every 2 years.	Optometry or Opthalmology
Hearing: Office Evaluation	Y	Y	Consider	Annual screening with questionnaire to see if hearing loss affects Quality of Life (QOL)	Nursing, PCP

Definitions:
Consider- do the test or intervention if you will act on the result
N-no, do not follow the test or intervention
Y- yes, do the test or intervention at the interval noted
Initially- the first 6 months of enrollment of the patient
LE- life expectancy
Nursing- Registered Nurse or under the direction of a RN
PACE regulations- the federal regulations for PACE found in Federal Regulations, Title 42, Chapter IV, Subchapter E
PCP- Primary Care Provider, usually a physician, NP, or PA
RD- Registered Dietician or Masters in Nutrition
RN- Registered Nurse
Screening- look for disease or findings that are not previously known to be present
SW- Social Worker

Purpose of the Preventive Care Guideline

The 2010 National PACE Association's "Preventive Care Guideline" (PCG) provides relevant diagnostic and management recommendations to PACE® primary care providers (PCPs). The PCG was adapted specifically for PACE® participants from evidence-based published guidelines for older adults using the collective review of experienced PACE® Medical Directors and Primary Care Physicians and is offered with the belief that shared decision-making between individual PCPs and participants/caregivers is optimal. This PCG is not intended to replace the clinical judgment of the individual provider or establish a standard of care.

PACE® participants are a heterogeneous group, with differing health profiles, prognoses, preferences, and goals of care. Life expectancy and quality of life issues require an individualized context within which to apply practice guidelines that may have been developed from and for a population of non-frail adults. We recommend that whether a PCP follows any of the summary recommendations for an individual participant will depend upon factors specific to that participant, including the participant's preferences, prognosis and life expectancy, co-morbid conditions, functional status, and goals of care. PACE® enrollment starts at age 55, as does this guideline.

This PCG assumes that the goals of care for PACE® participants can be divided into three broad categories: promoting longevity, optimizing function, and palliative care. Accordingly, the PCG suggests different approaches depending on whether the goal is life-extension, function, or palliation. The PCP will need to determine which recommendations are appropriate for each individual participant, considering the participant's preferences, life expectancy, and the expected benefit versus burdens of specific interventions.

Goals of Care:

Longevity- Participant expresses a preference for life-prolonging treatment. A participant with a goal of longevity typically desires unrestricted use of medically-indicated treatments, including CPR, invasive procedures and life-sustaining treatments (ACLS, surgery, ventilator support, dialysis, IV fluids and tube feedings).

Functional- Participant's main goal is to maintain function. Participant makes individualized choices to limit some invasive procedures that are not consistent with that goal. Limited procedures may include CPR, mechanical ventilation, and other life-sustaining treatments.

Palliative- Participant desires treatments aimed at providing comfort only. Treatment choices focus on relieving pain and other symptoms and limiting invasive, life-sustaining treatments such as CPR, mechanical ventilation, dialysis and surgery.

Recommendations Reviewed from: Advisory Committee on Immunization Practices (ACIP), American Cancer Society, Assessing Care of Vulnerable Elders (ACOVE), American College of Obstetrics and Gynecology, American College of Physicians, American Gastroenterology Association, American Geriatrics Society, American Medical Directors Association, American Urology Association, Canadian Task Force on Preventive Health Care, United States Preventive Service Task Force (USPSTF)

Notes:
PACE® regulations stipulate the PCP to be a physician.

Tetanus is given as Td to those age 65 and older and Tdap to those under age 65.

The recommendation to offer Herpes Zoster vaccine to some under age 70 is based on the observed decreased efficacy of Zoster vaccination at preventing illness as age increases, falling to an efficacy of 41% over age 70, and to 18% for those >80 years. (NEJM. 2005 June 2: 352 (22) A Vaccine to Prevent Herpes Zoster and Postherpetic Neuralgia in Older Adults). Zoster might be considered for others as the primary endpoint in the study was the burden of illness due to herpes zoster (a severity measure of the total pain and discomfort associated with herpes zoster) and the use of the zoster vaccine reduced the burden of illness by 61.1 percent in all age groups.

Aspirin may be used for secondary prevention of cardiovascular events in other PACE® participants in addition to the primary prevention addressed.

Endorsed by NPA's Primary Care Committee on 04/20/2010

MEASURE APPLICATIONS PARTNERSHIP
DUAL ELIGIBLE BENEFICIARIES WORKGROUP
Convened by the National Quality Forum

Summary of Web Meeting: July 6, 2011

A web meeting of the Measure Applications Partnership (MAP) Dual Eligible Beneficiaries Workgroup was held on Wednesday, July 6, 2011. You may access an online archive of the web meeting at http://www.myeventpartner.com/NQFwebinar/E951D8868248

The next meeting of the Dual Eligible Beneficiaries Workgroup will take place on July 25-26, 2011 in Washington, DC.

Workgroup Members in Attendance at the July 6, 2011 Web Meeting:

Alice Lind (Chair)	Patrick Murray, Better Health Greater Cleveland
Adam Burrows, National PACE Association	Patricia Nemore, Center for Medicare Advocacy
Jennie Chin Hansen, American Geriatrics Society	Margaret Nygren, American Association on Intellectual and Development Disabilities
Henry Claypool, HHS Office on Disability	Juliana Preston, Subject Matter Expert: Measure Methodologist
Steven Counsell, National Association of Public Hospitals and Health Systems	David Polakoff, American Medical Directors Association
Leonardo Cuello, National Health Law Program	D.E.B. Potter, Agency for Healthcare Research and Quality
James Dunford, Subject Matter Expert: Emergency Medical Services	Cheryl Powell, CMS Medicare-Medicaid Coordination Office
Thomas James, Humana, Inc.	Susan Reinhard, Subject Matter Expert: Home and Community-Based Services
Daniel Kivlahan, Veterans Health Administration	Rhonda Robinson Beale, Subject Matter Expert: Mental Health
Joan Levy Zlotnik, National Association of Social Workers	Patricia Santora, Substance Abuse and Mental Health Services Administration (substitute for Rita Vandivort)
Laura Linebach, L.A. Care Health Plan	Gail Stuart, Subject Matter Expert: Nursing
Samantha Meklir, Health Resources and Services Administration	Sally Tyler, American Federation of State, County and Municipal Employees

The primary objectives of the web meeting were to:

- review the Dual Eligible Beneficiaries Workgroup progress to date;
- discuss and refine the workgroup's early outputs;
- react to guidance from MAP Coordinating Committee;
- consider high-need population subgroups and opportunities to improve affordability;
- coordinate with ongoing work of other MAP groups; and
- prepare for the July 25-26 in-person meeting of the workgroup.

Alice Lind, Workgroup Chair, welcomed participants to the meeting and offered introductory remarks. Alice provided the workgroup with an overview of the progress to date, including the initial vision for high-quality care, high-leverage improvement opportunities and the feedback received from the MAP Coordinating Committee. Alice asked for workgroup members' feedback on the draft outputs in order to ensure that all concepts were captured accurately. She underscored that the initial input from the Coordinating Committee was largely supportive and affirmed the workgroup's early outputs. The Coordinating Committee also offered additional areas for exploration and emphasis, such as improving the affordability of care.

Workgroup members responded with comments and questions.

- Susan Reinhard commented that the use of the term 'inter-professional' instead of multi-disciplinary would align with recent work from HRSA. Susan further discussed the importance of not only screening for the availability of family and community supports, but also assessing the family caregiver's own needs, especially if they're an essential part of the care plan.
- Jennie Chin Hansen mentioned that the workgroup may want to emphasize individuals with multiple chronic conditions and who have multiple medications as a potential high need population subgroup.
- Henry Claypool commented that the workgroup could think of stratification approaches for the population that differ from an individual being older or younger than 65. He elaborated that an age-based approach may not be as reflective of the service needs of the population segments. Henry also discussed the importance of the data and resource sharing between community-based and clinical providers.
- Patrick Murray then posed a question to the workgroup members about considering measures of community support services that are not funded by Medicaid, such as state aging and developmental disability services.
- Alice Lind supported the notion of including services which are important from the vantage point of the dually eligible beneficiary and his/her family. Alice also communicated comments from the Coordinating Committee regarding the need to have a realistic measurement framework that considers current Medicare and Medicaid program boundaries as well as data availability.
- Rhonda Robinson Beale and Adam Burrows affirmed that they would like to include measures in the framework that push toward desired models of care and further integration.
- Diane Stollenwerk, Vice President, Community Alliances, NQF, offered a step-wise approach that the workgroup may take in order to acknowledge the short- and long-term goals of measurement.

Following the discussion, Diane Stollenwerk provided an explanation of the workgroup's homework assignment. This exercise was a response to the Coordinating Committee's recommendation that the Dual Eligible Beneficiaries Workgroup more directly address the affordable care aspect of the National Quality Strategy. Workgroup members were asked to identify the highest-need subgroups within the dual eligible population and provide areas for quality improvement through measurement which are specific to each sub-group. Results from the assignment will be used to guide future work.

Sarah Lash, Program Director, NQF, presented on the ongoing progress across the MAP workgroups including the Clinician, Ad Hoc Safety, and Post-Acute/Long-Term Care Workgroups and how each workgroup considered the unique needs of the dual eligible population within their work. The presentation also underscored some cross-cutting themes that have emerged across the Measure Applications Partnership to date.

Tom Valuck, Senior Vice President, Strategic Partnerships, NQF, provided a progress update on the development of the MAP Measure Selection Criteria. As a part of the criteria development, the following considerations were raised with regard to measuring the dual eligible population:

- Recognizing, as part of deciding whether care delivery is efficient, that the care must first be appropriate, taking into account patient preferences and prognosis.
- Recognizing that patient experience and preferences may be difficult to obtain in patients with cognitive impairment. This could be addressed by use of surrogates.
- Recognizing that measures of care quality across sites have specific importance to dually eligible patients.

Tom finished by presenting next steps for finalizing the measure selection criteria. The NQF staff is in the process of operationalizing the Coordinating Committee's proposal, anticipating final review and approval at the next Coordinating Committee meeting in August.

In response, workgroup members commented on the fragmented nature of the current system and the importance of having a set of measures that will capture the total picture of care for the dual eligible population. A workgroup member also inquired about using a standard definition of "affordable care." It was determined that a follow-up discussion on this topic will take place at the next in-person meeting.

The meeting concluded with a discussion of next steps and objectives for the upcoming in-person meeting. The next meeting of the MAP Dual Eligible Beneficiaries Workgroup is July 25-26 in Washington, DC.