March 15, 2012

Dr. Joe Selby
Executive Director
Patient-Centered Outcomes Research Institute
1701 Pennsylvania Avenue, NW
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Washington, DC 20006

Dear Dr. Selby:

The West Health Policy Center (www.westhealthpolicy.org) is an independently-funded nonprofit, nonpartisan organization, located in Washington, D.C., whose mission is to lower health care costs. We appreciate the opportunity to comment on the draft National Priorities for Research and Research Agenda proposed by the Patient-Centered Outcomes Research Institute (PCORI).

We recognize the importance of PCORI's mission to fund research that offers patients and caregivers the information they need to make health care decisions, and appreciate the inherent challenges in balancing competing needs as the opportunities for funding far exceed the resources that PCORI has to allocate. To that end, we believe it is essential to frame any discussion of research funding in the context of our nation's unsustainable and growing burden of health care costs. By 2020, national health spending is expected to reach $4.6 trillion and comprise 19.8 percent of GDP[1]. According to the Centers for Medicare and Medicaid Services (CMS), per capita national health expenditures will reach $13,709 in 2020, a 70 percent increase over 2009 levels of $8,087[2], with the Centers for Disease Control and Prevention reporting that more than 75 percent of health care costs are due to chronic conditions[3].

Concerning the priority, Assessment of Prevention, Diagnosis, and Treatment Options, the severity of our nation's health care cost crisis compels us to encourage PCORI to focus on those

[1] https://www.cms.gov/NationalHealthExpendData/downloads/proj2010.pdf
[2] *Ibid.*
[3] http://www.cdc.gov/chronicdisease/resources/publications/AAG/chronic.htm

areas that drive the greatest health care spending. The major illnesses afflicting the 5 percent highest-cost Medicare beneficiaries in 2010 include[4]:

Condition	% of All Beneficiaries	% of High-Cost Beneficiaries
Ischemic Heart Disease	32%	68%
Heart Failure	17%	59%
Chronic Kidney Disease	13%	53%
Diabetes	27%	51%
Chronic Obstructive Pulmonary Disease	11%	37%
Depression	13%	35%
Rheumatoid Arthritis/Osteoarthritis	21%	35%
Alzheimer's or related Dementia	11%	32%
Stroke/Transient Ischemic Attack	4%	19%
Osteoporosis	12%	18%
Cancers (colorectal, lung, endometrial, breast, prostate)	6%	15%

The most common chronic diseases are costing the U.S. more than $1 trillion per year-- which is expected to increase to $6 trillion by the middle of the century[5]. For example, in 2010, the total costs of cardiovascular diseases in the United States were estimated to be $444 billion (or about $1 of every $6 spent on health care) [6]. The national economic burden of pre-diabetes and diabetes reached $218 billion in 2007 ($153 billion in higher medical costs and $65 billion in reduced productivity)[7]. In 2008 dollars, the medical care costs of obesity totaled about $147 billion[8].

Other high-cost conditions include end-stage renal disease (ESRD) and Alzheimer's disease. In 2005, Medicare spent $91 billion on patients diagnosed with Alzheimer's disease, and this amount is expected to more than double to $189 billion in 2015, and increase to over $1 trillion by 2050[9]. Overall spending on ESRD, often caused by diabetes or hypertension, was $33.6 billion in 2006; recent data predicts a 150% increase in the number of patients undergoing

[4] Presented at Care Innovations Summit on January 26, 2012. Washington, DC. Accessible at http://a4.g.akamai.net/f/4/79192/30s/smb2.download.akamai.com/79192/4000/5735/5736/7436/2012Archive2_KeynoteSessions/default.htm

[5] DeVol, Ross, Armen Bedroussian, Anita Charuworn, Anusuya Chatterjee, In Kyu Kim, Soojung Kim, and Kevin Klowden. An Unhealthy America: The economic burden of chronic disease. The Milken Institute. October 2007.

[6] http://www.cdc.gov/chronicdisease/resources/publications/AAG/dhdsp.htm

[7] http://content.healthaffairs.org/content/29/2/297.abstract

[8] Finkelstein, EA, Trogdon, JG, Cohen, JW, and Dietz, W. Annual medical spending attributable to obesity: Payer- and service-specific estimates. Health Affairs 2009; 28(5): w822-w831.

[9] http://healthcarecostmonitor.thehastingscenter.org/kimberlyswartz/projected-costs-of-chronic-diseases/

hemodialysis and kidney transplantation in the next decade, which will continue the upward trend in treatment costs[10].

Prioritizing research funding across conditions is a difficult task. We believe that U.S. economic realities require an initial focus on high-prevalence, high-cost conditions and co-morbidities, as well as the epidemic of predisposing risk factors such as obesity and hypertension, recognizing that the further upstream solutions are targeted, the greater potential impact they may have.

We applaud PCORI for including Improving Healthcare Systems among its national priorities for research. The importance of finding better, innovative ways to deliver care should not be underestimated, especially against the backdrop of today's financially and logistically unsustainable system. In 2020, the population age 65 years and older is projected to be 54.2 million (16% of total)[11]. According to the Association of American Medical Colleges, there will be a shortage of 91,500 physicians by 2020, with the deficit most critical for primary care and family practice physicians[12]. That we will have to care for an aging population with greater burden of chronic disease and fewer clinicians only increases the urgency to improve health care systems, and that our U.S. health care delivery system is outstanding in its costs (#1 per capita spending in the world), but not similarly outstanding in its outcomes provides ample evidence of the opportunity for dramatic improvement.

Fostering "infrastructure independent[13]" care is one means of improving the delivery system. The infrastructure-independent model of care entails providing patients with the right care, at the right time, wherever they are, whenever they need it. It extends health care delivery on a foundation of wireless health technologies - enabled by new models of care coordination that are powered by smart technology - to become preventive, continuous, supportive and ubiquitous. This stands in sharp contrast to the current health care delivery system, in which chronic diseases are episodically diagnosed and intermittently treated, consuming enormous resources driven by exacerbations, clinical decompensations and complications. In the future state, chronic diseases will be met with coordinated and continuous care, iterative course corrections, prediction and prevention of acute presentations. The path to infrastructure-independent care includes near, on, or in-body sensor technology that provides actionable diagnostic information, linked to learning systems and titratable therapies, thereby enabling continuously-tailored, feedback-controlled treatment. The infrastructure-independent model

[10] *Ibid.*
[11] https://www.cms.gov/NationalHealthExpendData/downloads/proj2010.pdf
[12] https://www.aamc.org/download/150584/data/physician_shortages_factsheet.pdf
[13] http://www.westwirelesshealth.org/index.php/wireless-health/infrastructure-independence

enables us to replace costly intermittent rescue with coordinated, continuous and cost-effective care.

We believe that efforts to increase price transparency and appropriate care utilization may advance the priority of Improving Healthcare Systems, as well as Communication and Dissemination. Lack of information and the inability to obtain timely, easily accessible, understandable and actionable price data prohibit consumers and providers from fully understanding the costs associated with often routine, sometimes critical, and always economically impactful health care choices. This imbalance makes informed decision-making impossible as it deprives decision makers of the information required to make value-based decisions, resulting in higher than necessary costs to both individuals and the health care system.

Additionally, inappropriate utilization of health care resources, including needless repetition of different elements of clinical care, is wasteful and costly. Patients and other care decision-makers often don't understand the limitations and capabilities of diagnostic and treatment options, leading to broadly held and irrational expectations for care. This, coupled with the practice of defensive medicine and other perverse incentives, drives medical overuse.

Price transparency and utilization concerns have been noted by the Institute of Medicine, which found that $765 billion of the $2.5 trillion spent on health care is wasteful: $210 billion in unnecessary services, $190 billion in excessive administrative costs, $130 billion in inefficiently delivered services, $105 billion in prices that are too high, $75 billion in fraud and $55 billion in missed prevention opportunities[14].

We support Communication and Dissemination as a priority. Absent these factors, evidence-based solutions cannot be implemented. To expedite implementation of research findings and augment credibility for the program, we recommend that PCORI consider near-term execution in its initial funding decisions. We also note that as large portions of PCORI's funding are derived from self-insured health plans[15], it might aim to incorporate costly conditions relevant to these groups.

PCORI has great potential to advance health care transformation. We recommend that funding decisions be guided by economic realities and emphasize high-prevalence, high-cost conditions and services. We appreciate your dedication to improving our nation's health care system and invite you to call on us if we may be of assistance.

[14] http://resources.iom.edu/widgets/vsrt/healthcare-waste.html
[15] http://www.pcori.org/assets/PCORI_EstablishingLeg.pdf

In summary, in recognition that our current health care system is unsustainable from both an economic and logistical perspective, we advise that PCORI focus its efforts and resources on:

1) Diseases and conditions that disproportionately drive U.S. health care costs;

2) Improving Healthcare Systems (health care process improvement), and in particular, foster the development of infrastructure-independent care; and,

3) Communication and Dissemination, and in particular, communication and dissemination of the cost and value information required to create an efficient medical marketplace.

We welcome the opportunity to work with you on the further elaboration and implementation of PCORI's National priorities.

Respectfully,

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