

Project Title	Advancing and Improving Measurement and Value in Primary Care (The AIM-PC Starfield Summit)
Principal Investigator and Team Members	<ul style="list-style-type: none"> <input type="checkbox"/> Beth A. Bortz, MPP (Principal Investigator, Virginia Center for Health Innovation) <input type="checkbox"/> Andrew Bazemore, MD, MPH (co-Investigator, American Board of Family Medicine) <input type="checkbox"/> Jill Shuemaker, RN, CPHIMS (co-Investigator, Center for Professionalism and Value in Health Care) <input type="checkbox"/> Michael E. Chernew, PHD (Harvard Medical School) <input type="checkbox"/> Mark Fendrick, MD (University of Michigan, VBID Center) <input type="checkbox"/> Larry A. Green, MD (University of Colorado & the American Board of Medical Specialties Chair-Elect) <input type="checkbox"/> Stephen A. Horan, PhD (Community Health Solutions) <input type="checkbox"/> Alex Krist, MD, MPH (Virginia Commonwealth University and USPSTF Chair) <input type="checkbox"/> Robert Phillips, MD, MSPH (Center for Professionalism and Value in Health Care) <input type="checkbox"/> Christina Stasiuk, DO (Cigna) <input type="checkbox"/> Kara Odom Walker (EVP and Chief Population Health Officer, Nemours Children's Health)
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1. Structured Abstract

Purpose. The Starfield Summit V project engaged a national Advisory Committee in a collaborative effort to advance and improve measurement and value in primary care.

Scope. The chosen focus was low-value care (LVC) reduction, and the initial objectives included framing primary care LVC in the context of overall payment reform, and exploring potential to identify and disseminate a concise set of LVC recommendations specific to primary care.

Methods. Summit staff and faculty engaged Advisory Committee members in a collaborative process of learning, discovery, and advisory guidance. Perspectives and advisory guidance were gathered through four virtual meetings and four member surveys conducted between meetings.

Results. The Summit affirmed the importance of identifying and reducing LVC services in primary care within the evolving landscape of patient-centered care, value-based payment, and equity. It also documented concerns related to evidence and feasibility that must be addressed if LVC reduction strategies are to be implemented in a systematic manner at the practice level. Recognizing the significance of these concerns, it was not possible to reach final consensus on a set of already-published recommendations for reducing LVC services (such as Choosing Wisely and USPSTF). Instead, the Advisory Committee reviewed and recommended further work with a newly developed working list of LVC recommendations recently developed by ALTARUM (the No Value List), and provided feedback on the next steps to further advance use of this list.

Keywords: Starfield Summit, primary care, low-value care

2. Purpose

The purpose of Starfield Summit V was to engage a national Advisory Committee in a collaborative effort to advance and improve measurement and value in primary care. The chosen focus was low-value care (LVC) reduction, and the initial objectives included framing primary care LVC in the context of overall payment reform, and exploring potential to identify and disseminate a concise set of LVC recommendations specific to primary care.

The rationale for this purpose is multifaceted. In recent decades, the U.S. health care system has performed poorly despite unparalleled per capita investment, due in part to underinvestment in high-performing primary care. This poor performance is manifest in many health indicators, ranging from low life expectancy, high chronic disease burden, a high suicide rate, a high number of hospitalizations for preventable causes, and a high rate of avoidable deaths. Access to quality primary care is essential for improving health and health care and changing the trajectory of deeply concerning population health measures. Meaningful measurement is fundamental for guiding the work of primary care, yet the struggle continues to produce a measurement framework capable of focusing primary care delivery on value based indicators that are clinically relevant and administratively feasible.

It is in this context that Starfield Summit V was designed to advance a timely conversation about shifting quality measurement in primary care to better focus on relevance, parsimony, and feasibility, with a particular focus on reduction of low value care.

- This focus was chosen because overuse of low-value medical tests and procedures can put patients at risk of physical, emotional and financial harm.
- Equity is an associated concern, as reducing use of low-value care, starting with services that provide no clinical benefit in particular patient populations, is central to reducing disparities and improving health equity.¹
- In addition, the cost to the system is substantial, with spending for low-value care estimated at more than \$345 billion annually.²

Primary care is responsible for doing its part to reduce low-value care, and this vital work should be supported by a measurement framework that is meaningful and manageable for primary care providers.

In considering the options for designing this project, we chose the “Starfield Summit” format as the most appropriate vehicle to advance our effort. Initiated in 2016, the Starfield Summits, with their focus on primary care research and catalyzing health care reform, provide an excellent vehicle for achieving primary care measurement consensus around the provision of LVC. Previous Starfield Summits addressed: I) advancing primary care research, policy, and patient care; II) primary care’s role in achieving health equity; III) meaningful measures for primary care; and IV) reforming family medicine graduate education. In Starfield Summit V our goal was to build upon and advance the Starfield Summit vision by focusing on advancing and improving measurement and value in primary care.³

¹See for example: [For Selected Services, Blacks And Hispanics More Likely To Receive Low-Value Care Than Whites](#) William L. Schpero, Nancy E. Morden, Thomas D. Sequist, Meredith B. Rosenthal, Daniel J. Gottlieb, and Carrie H. Colla Health Affairs 2017 36:6, 1065-1069

² [Center for Value-Based Insurance Design](#), citing: Shrank WH, Rogstad TL, Parekh N. [Waste in the US Health Care System: Estimated Costs and Potential for Savings](#). JAMA. 2019;322(15):1501–1509. doi:10.1001/jama.2019.13978.

³ <http://www.starfieldsummit.com/>

3. Scope

As shown in **Exhibit 1**, Starfield Summit V was convened and supported by a Planning Committee led by the Virginia Center for Health Innovation, American Board of Family Medicine’s Center for Professionalism and Value in Health Care, and the University of Michigan VBID Center. Additional planning support and expertise was provided by leaders from academia, government, and health care organizations.

Exhibit 1 Starfield Summit V Planning Committee
<ul style="list-style-type: none"> • Beth A. Bortz, MPP (Principal Investigator, Virginia Center for Health Innovation) • Andrew Bazemore, MD, MPH (co-Investigator, American Board of Family Medicine & Center for Professionalism and Value in Health Care) • Jill Shuemaker, RN, CPHIMS (co-Investigator, Center for Professionalism and Value in Health Care) • Michael E. Chernew, PHD (Harvard Medical School) • Mark Fendrick, MD (University of Michigan, VBID Center) • Larry A. Green, MD (University of Colorado & the American Board of Medical Specialties Chair-Elect) • Stephen A. Horan, PhD (Community Health Solutions) • Alex Krist, MD, MPH (Virginia Commonwealth University and USPSTF Chair) • Robert Phillips, MD, MSPH (Center for Professionalism and Value in Health Care) • Christina Stasiuk, DO (Cigna) • Kara Odom Walker (EVP and Chief Population Health Officer, Nemours Children’s Health)

The planning partners came together to address the overall purpose of advancing and improving measurement and value in primary care, based on the rationale outlined in Section 2. The planning partners further refined the scope of the project to include five initial objectives.

1. Frame LVC in the context of overall payment reform
2. Review current LVC recommendations and develop criteria for evaluating LVC measures
3. Establish feasibility for LVC measure implementation
4. Achieve consensus on a concise set of LVC indicators specific to primary care**
5. Disseminate the selected measure set for widescale implementation**

(**Note that objectives four and five were subsequently adjusted in response to feedback from the Advisory Committee, as described in more detail within the following sections.)

A. Participants

The key participants in the project included a 50-member **Advisory Committee (AC)** with representatives from: health services research; quality measure development, endorsement and use; organized medicine; practicing primary care clinicians; pharmacy and laboratory services; health plans; business; health policy; and patient advocates. The Advisory Committee members are listed in **Exhibit 2**.

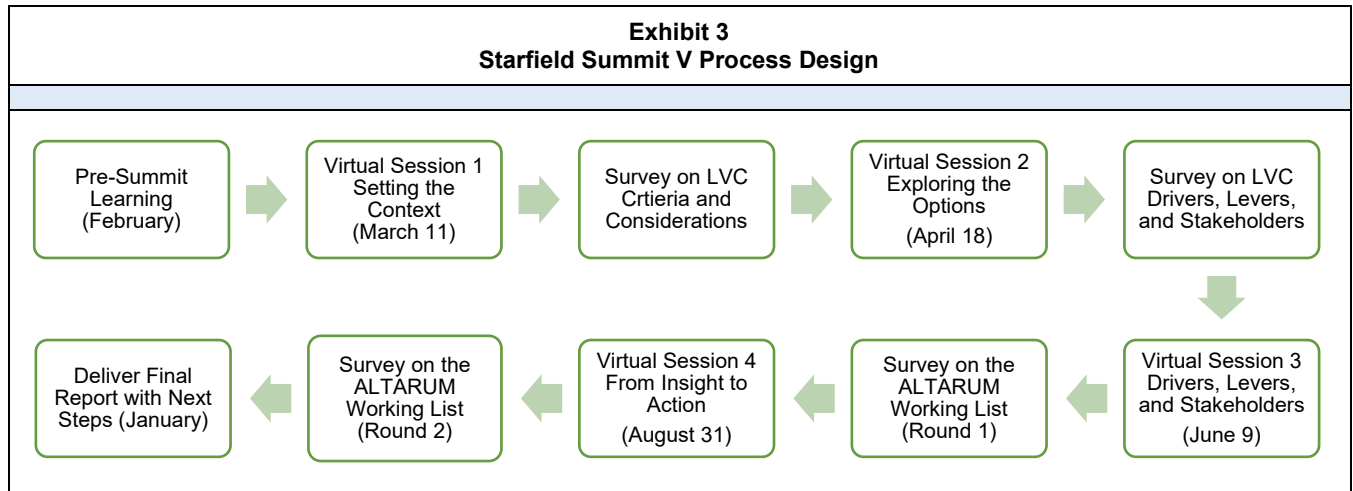
Exhibit 2 Advisory Committee Members
<ul style="list-style-type: none"> <input type="checkbox"/> Joel Andress, PhD ESRD Measures Development Lead, Division of Quality Measurement, CMS <input type="checkbox"/> Derek Baughman, MD Chief Resident, WellSpan Good Samaritan Hospital Family Medicine <input type="checkbox"/> Howard Beckman, MD, FACP, FACH, FNAP Clinical Professor of Medicine, Family Medicine and Public Health Science, URMC; Senior Consultant, Common Ground Health <input type="checkbox"/> Susannah M. Bernheim, MD, MHS Associate Professor; Director, Quality Measurement Programs (CORE); Assistant Clinical Professor, Section of General Internal Medicine; Core Faculty, Robert Wood Johnson Clinical Scholars Program <input type="checkbox"/> Beth Beudin-Seiler, PhD Health Care Research Analyst, Systems Research and Initiatives Group, Altarum <input type="checkbox"/> Arlene Bierman, MD, MS Director, Center for Evidence and Practice Improvement, AHRQ <input type="checkbox"/> Roger Bush, MD Primary Care Provider, Pike Market Medical Clinic, ABIM and ABFM Board Member <input type="checkbox"/> Daniel Carey, MD, MHCM Senior Vice President & Chief Medical Officer of the Physician Enterprise, Providence <input type="checkbox"/> Adrienne Casebeer, PhD, MPP, MS Director, Clinical Analytics and Trend, Humana

Exhibit 2
Advisory Committee Members

- Michael Chernew, PhD | Leonard D. Schaeffer Professor of Health Care Policy, Department of Health Care Policy, Harvard Medical School; Director, Healthcare Markets and Regulation Lab, Harvard Medical School
- Marcos Dachary | Principal, SVP of Sales & Growth, Milliman MedInsight
- Gwen Darien | Executive Vice President for Patient Advocacy and Engagement, National Patient Advocate Foundation
- Adam Elshaug, MPH, PhD | Director, Centre for Health Policy & Chair, Melbourne School of Population and Global Health (MSPGH) and Melbourne Medical School (MMS), University of Melbourne
- Ishani Ganguli, MD, MPH | Assistant Professor, Harvard Medical School; Internal Medicine, Brigham and Women's Hospital
- Rick Glazier | Senior Core Scientist, Institute for Clinical Evaluative Sciences, Canada
- Neeta Goel, MD | Chief Medical Officer, Ambulatory Services, Inova Health System
- Larry A. Green, MD | Distinguished Professor of Family Medicine & Epperson-Zorn Chair for Innovation in Family Medicine and Primary Care, University of Colorado; Chair-Elect, ABMS Board of Directors
- Diane Harper, MD, MPH, MS | Professor, University of Michigan; NAPCRG; President, Board of Directors, NAPCRG
- Aparna Higgins | Senior Policy Fellow, Duke-Margolis Center for Health Policy
- Lauren S. Hughes, MD, MPH, MSc, FAAP | State Policy Director, Farley Health Policy Center, University of Colorado Anschutz Medical Campus; Associate Professor of Family Medicine, Department of Family Medicine, University of Colorado; Chair, ABFM
- Karen Johnson, PhD | Vice President, Division of Practice Advancement, AAFP
- John Keats | Market Medical Executive, Cigna Health Care
- Reid Kiser, MS | Director, Division of Quality Measurement, CMS
- Alex Krist, MD, MPH | Professor & Associate Professor, Family Medicine and Population Health, VCU Health; Co-Director, Virginia Ambulatory Care Outcomes Research Network (ACORN); Director, Community Engaged Research, Center for Clinical and Translational Research
- Bruce E. Landon, MD, MBA, MSc | Professor of Health Care Policy, Department of Health Care Policy, Harvard Medical School; Professor of Medicine and Practicing Internist, Beth Israel Deaconess Medical Center
- Cheryl Larson | President & CEO, Midwest Business Group on Health
- Wendy Levinson, MD | Chair, Choosing Wisely Canada
- John Mafi, MD, MPH | Associate Professor of Medicine, Division of General Internal Medicine and Health Services Research, David Geffen School of Medicine, UCLA; Affiliated Adjunct Physician Policy Researcher in Health Policy, RAND Corporation
- Silas Martin | Senior Director, Market Access Scientific and External Strategy, Johnson & Johnson
- Ibe Mbanu, MD, MBA, MPH | Senior Medical Director, Advocate Aurora Health
- Mark McClellan, MD, PhD | Robert J. Margolis Professor of Business, Medicine, and Policy, & Founding Director, Duke-Margolis Center for Health Policy, Duke University
- David Mirkin, MD | Chief Medical Officer, Milliman MedInsight; Principal, Physician Healthcare Management Consultant, Milliman
- Nora Mueller, PhD, MAA | Staff Fellow, AHRQ
- Amy Mullins, MD, CPE, FAAFP | Associate Medical Director, Optum
- Warren P. Newton, MD, MPH | President & Chief Executive Officer, ABFM
- Patrick O'Malley, MD, MPH, MACP | Director, National Center for Excellence in Primary Care, AHRQ
- Denise Pavletic, MPH, RD | Deputy Director, Clinician Measures, The Center for Professionalism and Value in Healthcare
- Lars Peterson, MD, PhD | Vice President of Research, ABFM
- Robert L. Phillips, MD, MSPH | Executive Director, The Center for Professionalism and Value in Health Care
- Barbra Rabson, MPH | President and CEO, Massachusetts Health Quality Partners
- Eugene Rich, MD | Senior Fellow, Mathematica
- Michelle Rockwell, PhD, RD | Assistant Professor, Virginia Tech Carilion School of Medicine; Research Associate/Practice Facilitator, Carilion Clinic
- Dana Gelb Safran | President & CEO, National Quality Forum
- David Schmitz, MD | Professor and Chairman, Department of Family and Community Medicine, University of North Dakota School of Medicine and Health Sciences
- Michelle Schreiber, MD | Deputy Director for Quality and Value, Center for Clinical Standards and Quality, CMS
- Bruce Sherman, MD, FCCP, FACOEM | Medical Director, Employers Health Coalition
- Corinna Sorenson, PhD | Director, Margolis Scholars Program in Health Policy and Management
- Jason Spangler, MD, MPH, FACPM | Executive Director, Global HTA Policy Strategy & Engagement, Amgen
- Katy Spangler | Co-Director, Smarter Health Care Coalition; Principal, Spangler Strategies
- Christina Stasiuk, DO, FACOI | Market Medical Executive, Cigna Mid-Atlantic Region
- Lauren Vela | Director Health Care Transformation, Walmart
- Kara Odom Walker, MD, MPH, MSHS | Vice President & Chief Population Health Officer, Nemours Children's Health System
- Elizabeth Wolf, MD, MPH | Assistant Professor, Department of Pediatrics, Division of General Pediatrics and Emergency Care, VCU Health

B. Setting & Process

In designing the project approach, the planning partners faced the challenge of convening a national group of leaders to address a set of complex issues during pandemic restrictions. As outlined in **Exhibit 3**, the planning team responded by designing a 'virtual Starfield Summit' in which Advisory Committee (AC) members would be invited to participate in four working sessions, and also share their insights and ideas through topical surveys conducted between sessions. This virtual approach allowed us to engage the AC members in deeper and more wide-ranging exploration of the issues and options than would have been possible in a more conventional one-or-two day in-person convening.



4. Methods

The basic method applied in this project was to convene a national Advisory Committee of experts to engage in collaborative learning and advisory guidance. The Advisory Committee members are listed in **Exhibit 2**, and the project planning team facilitated a collaborative learning process as illustrated in **Exhibit 3**. Each step in the process is described below.

Pre-Summit Learning
<p>Work began with a pre-Summit Learning package distributed to Advisory Committee members in February of 2022. The package contained a set of links to resources with essential background including:</p> <ul style="list-style-type: none"> • Results from prior Starfield Summits; • Resources on measurement and low-value care (Choosing Wisely, US Preventive Services Task Force, Measures that Matter); and • Selected publications on reducing low-value care generally and within primary care settings in particular.

Virtual Session 1: Setting the Context (March 11, 2022)		
<p>The first Summit Session was focused on setting the context and engaging members in sharing initial insights. In setting the context, Mark Fendrick, MD and Michael Chernew, PhD reviewed insights from the field on payment reform and associated implications for reducing low-value care. With this context in mind, Advisory Committee members divided into small groups to discuss opportunities and challenges for measuring low-value care. Andrew Bazemore, MD facilitated a full-group report-out via polling, and discussion of results. Poll responses were captured in a qualitative database for subsequent analysis.</p>		
Segment	Topics	Facilitators
Opening	Welcome, introductions, purpose and workplan	Beth Bortz, MPP Andrew Bazemore, MD, MPB
Setting the Context	Insights from the field on addressing low-value care (LVC) in primary care settings	Mark Fendrick, MD Michael Chernew, PhD
Small Group Discussion	Members were invited to participate in small-group discussions about opportunities and challenges for measuring LVC in primary care settings.	Team
Full-Group Sharing	Members were invited to share their insights with the full group using a group polling method	Team
Reaction and Reflection	Facilitated discussion of reaction and reflection on the LVC measure conversation in the context of Center for Professionalism & Value in Health Care efforts to advance Measures that Matter and a parsimonious MVP suite for Primary Care	Andrew Bazemore, MD, MPB
Summary and Next Steps	Summary of key take-aways from the day, and preview of next steps in the process.	Beth Bortz, MPP

Survey on LVC Criteria & Considerations
<p>As preparation for Virtual Session 2, Advisory Committee members were invited to share their guidance about a working draft set of criteria and considerations for identifying viable low-value care measures. Survey topics included:</p> <ol style="list-style-type: none"> 1. Impact criteria for LVC measures 2. Technical criteria for LVC measures 3. Implementation criteria for LVC measures <p>Sixteen members completed the survey, and the results were used to inform proceedings for Virtual Session 2.</p>

Virtual Session 2: Exploring the Options (April 18, 2022)		
<p>The second virtual session was focused on exploring existing options for identifying and measuring low-value care in primary care settings. The opening segment was followed by a presentation of the pre-meeting survey results, including a set of working criteria for selecting viable measures. The next segment featured a review of existing sources including recommendations from Choosing Wisely and the US Preventive Services Task Force. The subsequent segments included small-group and full-group sharing about potential pros and cons of existing sources, including concerns about the evidence base and feasibility of implementing many of the recommendations on the existing lists. These results were captured as key takeaways and used as information to guide the next member survey as well as planning of the third session.</p>		
Segment	Topics	Facilitators
Opening	Welcome, introductions, and overview of the meeting	Beth Bortz, MPP Andrew Bazemore, MD
Survey Results	A working set of criteria for identifying viable LVC measures, based on Advisory Committee survey responses	Stephen Horan, PhD
Existing Options	Insight from the field on existing options for identifying LVC measures	Alex Krist, MD John Keats, MD Stephen Horan, PhD
Initial Reactions	Some initial reactions on potential pros and cons of existing options	Andrew Bazemore, MD with facilitated commentary from selected group members
Small-Group Discussion	A deeper dive into potential pros and cons of existing options	Team
Full-Group Sharing	Full-group report out (via polling) on pros, cons, followed by discussion of implications for next steps	Andrew Bazemore, MD Beth Bortz, MPP Stephen Horan, PhD
Summary and Next Steps	Summary of key take-aways from the day, and preview of next steps in the process.	Beth Bortz, MPP

Survey on LVC Drivers, Levers, and Stakeholders
<p>Based on feedback received from the Advisory Committee in Virtual Session 2, the planning team refocused the learning plan to gain a better understanding of the drivers, levers, and stakeholders affecting low-value care. Advisory Committee members were invited to share their insights and ideas in response to three survey questions:</p> <ol style="list-style-type: none"> 1. What do you see as the most important drivers of low-value care for primary care patients? 2. What do you see as the most important levers for systematically identifying and reducing low-value care? 3. Who are the key stakeholders that should be engaged in shifting levels to reduce low-value care? <p>Nineteen Advisory Committee members shared their responses, and the results were used to inform proceedings for Virtual Session 3.</p>

Virtual Session 3: Drivers, Levers, and Stakeholders (June 9, 2022)		
<p>The third virtual session was focused on identifying the key drivers, levers, and stakeholders affecting LVC delivery in primary care. After the opening orientation, Dr. Bazemore presented a vision for a course adjustment in response to Advisory Committee feedback that existing sources of LVC recommendations (such as those listed by Choosing Wisely and USPSTF) need further analysis to resolve concerns about relevance and feasibility for primary care. The planning team then facilitated a group learning process in which Advisory Committee members exchanged insights and ideas drivers, levers, and stakeholders. The meeting closed with a segment to discuss a reasonable scope of accountability for primary care providers, and the beginnings of a research and development agenda to further explore some of the identified issues.</p>		
Segment	Topics	Facilitators
Opening	Welcome, Introductions, and Overview of the Meeting	Beth Bortz, MPP Andrew Bazemore, MD
Charting the Course	A Proposed Course Adjustment for Sessions 3 and 4	Andrew Bazemore, MD
Drivers, Levers, and Stakeholders	Summary of Survey Results Small Group Discussion / Full Group Sharing	Team
Scope of Accountability and Research Agenda	Small Group Discussion / Full Group Sharing	Team
Summary & Next Steps	Wrap-Up and Next Steps	Beth Bortz, MPP

Survey on the ALTARUM Working List (Round 1)

At this stage in the process, the Summit results had affirmed the importance of identifying and reducing LVC services in primary care within the evolving landscape of value-based payment, patient-centered care, and equity. However, it was not possible to reach consensus on already-published recommendations for reducing LVC services (such as Choosing Wisely and USPSTF) due to substantial concerns about feasibility of implementation for multiple recommendations on the lists.

In response to these concerns, the Advisory Committee was presented with a working list of LVC recommendations recently developed by ALTARUM. The ALTARUM working list included 35 recommendations for avoiding care thought to be of potentially 'no value.' Almost all of the recommendations were aligned with Choosing Wisely, USPSTF, or both. In developing the list, the ALTARUM team subjected the recommendations to extensive vetting independent of the Summit Advisory Committee. In this survey, Advisory Committee members were invited to share their insights about the viability of the 35 recommendations on the list. Twenty-one Advisory Committee members responded, and the results were summarized and used to inform the proceedings for Virtual Meeting 4.

Virtual Session 4: From Insight to Action (August 31, 2022)

Virtual Session 4 was focused on reviewing the Advisory Committee's feedback on the ALTARUM working list of LVC recommendations. The Advisory Committee members reviewed the pre-meeting survey results, and discussed various reasons why some recommendations on the list of 35 should be excluded or subject to further research before they would be included on a consensus list of LVC recommendations. The members also shared ideas for topics that could be included in a research & development agenda that could be pursued beyond Starfield Summit V.

Segment	Topics	Facilitators
Opening	Welcome and Roundtable Greetings	Beth Bortz, MPP
Refresher	Refresher on Objectives and Workplan	Beth Bortz, MPP
The ALTARUM LVC List	Toward a Consensus List of LVC Indicators (Group discussion and feedback)	Steve Horan, PhD Beth Beaudin-Seiler, PhD (Guest) Andrew Bazemore, MD
R&D Agenda	Toward a Research & Development Agenda (Group discussion and feedback)	Beth Bortz, MPP Andrew Bazemore, MD
Summary & Next Steps	Wrap-Up and Next Steps	Beth Bortz, MPP

Survey on the ALTARUM Working List (Round 2)

Based on feedback from Advisory Committee members, the ALTARUM working list was reduced from 35 to 31 recommendations, with four recommendations excluded because they were assessed to be not fully relevant for primary care providers. The resulting list of 31 recommendations was incorporated into a second survey of Advisory Committee members. In this survey, members were invited to share particular concerns about the evidence based and feasibility of implementation for each of the 31 recommendations. The results provide a more detailed assessment of each recommendation, and a richer knowledge base to support next steps in defining and disseminating a vetted set of recommendations for reducing low-value care in primary care settings.

5. Results

The Summit was designed to address five objectives as outlined below. In this section we present the results of each Virtual Session with respect to each of these objectives.

Exhibit 4 Objectives Matrix				
Objectives	Virtual Session 1: Setting the Context	Virtual Session 2: Exploring the Options	Virtual Session 3: Drivers, Levers, and Stakeholders	Virtual Session 4: From Insight to Action
1. Frame LVC in the context of overall payment reform	*	*	*	*
2. Review current LVC recommendations and develop criteria for evaluating LVC measures		*	*	*
3. Establish feasibility for LVC measure implementation		*	*	*
4. Achieve consensus on a concise set of LVC indicators specific to primary care		*	*	See next steps
5. Disseminate the selected measure set for widescale implementation				See next steps

To summarize the results:

- The Summit experience affirms the importance of identifying and reducing LVC services in primary care within the evolving landscape of patient-centered care, value-based payment, and equity.
- However, there are considerations relating to evidence and feasibility that must be addressed if LVC reduction strategies are to be implemented in systematic fashion at the practice level. Consequently, it was not possible to reach a final consensus on a set of already-published recommendations for reducing LVC services (such as Choosing Wisely and USPSTF).
- In response to these concerns, the Advisory Committee was presented with a newly developed working list of LVC recommendations recently developed by ALTARUM, including selected recommendations aligned with Choosing Wisely and the USPSTF.
- Based on the Advisory Committee’s review of the ALTARUM list, there is potential to further refine and disseminate elements of the ALTARUM list as part of a post-Summit research and development agenda.

A. Virtual Session 1: Setting the Context

The primary focus of Virtual Session 1 was to set the context for the Summit by framing LVC in the context of payment reform in alignment with Objective 1. Payment reform was addressed at the first Virtual Session and this focus continued through the project. In this section we review results from two expert presentations and a subsequent group discussion by the Advisory Committee members.

Presenter Insights on LVC and Payment Reform

Mark Fendrick, MD delivered an opening presentation titled *Setting the Context: Addressing Low-Value Care in Primary Care Settings*. This was followed by a presentation from Michael Chernew, PhD, who expanded the lens on payment reform with a presentation **titled *Eliminating Low-Value Care through Payment Policy***. The key points from these presentations are outlined in **Exhibit 5**.

Exhibit 5 Presenter Insights on LVC and Payment Reform	
Setting the Context: Addressing Low-Value Care in Primary Care Settings (Mark Fendrick, MD)	
<ul style="list-style-type: none"> <input type="checkbox"/> Health care costs are a top issue for patients, purchasers, and policymakers. Experience shows that politically viable solutions must protect consumers, reward providers, and preserve innovation. <input type="checkbox"/> One strategic option is to focus on reducing spending on low-value care, and in the process, create 'head room' for delivering more high-value care within the context of more generous health coverage. Key starting points include identifying and measuring low-value care across settings, including primary care. <input type="checkbox"/> At the macro level, a growing body of research shows that low-value care accounts for billions in spending across Medicare, Medicaid, and private sector health coverage. The challenge (and opportunity) for innovation is how to systematically identify, measure, and address low-value care at the actionable level of individual health systems. Primary care can play a key role in these efforts to reduce low-value care and increasing high-value care at the practice level. 	
Eliminating Low-Value Care through Payment Policy (Michael Chernew, PhD)	
<ul style="list-style-type: none"> <input type="checkbox"/> Pay-for-performance approaches may include 'carrot approaches' that reward providers for meeting LVC performance targets, or 'stick approaches' that withhold payment subject to meeting LVC targets. Among the specific considerations for primary care providers is whether the payment model focuses strictly on LVC delivered by primary care providers, or the full scope of LVC services provided for the provider's panel of patients. <input type="checkbox"/> Insurer withholds/performance guarantees could be explored through the experience of large employers that impose performance guarantees on insurers, often in the form of reductions in fees. For example, employers could incorporate LVC measures into performance guarantees with appropriate incentives for reducing LVC services. Considerations for primary care would include how these types of guarantees are translated into performance measures and incentives at the primary care practice level. <input type="checkbox"/> Alternative payment models (APMs) can be structured in various ways, including bonuses for less LVC, and penalties for more LVC. Details matter in model design, including how much savings is shared, whether there is any 'downside risk,' and whether there are any structures and incentives to reduce LVC delivered by other providers who also treat patients in the primary care panel. 	

Advisory Committee Insights on LVC Measurement

With the presentations described above as context, the Advisory Committee members engaged in small group and full group discussion around three questions as outlined below. The questions were focused on the importance of measuring LVC, as well as pitfalls, unintended consequences, and implications for design. Key thematic insights arising from the discussion are summarized for each question in **Exhibit 6**.

Exhibit 6 Advisory Committee Insights on LVC Measurement	
Discussion Question	Key Thematic Insights
Q1. Why is it important to identify and measure LVC in primary care?	<ul style="list-style-type: none"> <input type="checkbox"/> To inform and optimize practice <input type="checkbox"/> To gauge the scope of LVC <input type="checkbox"/> To optimize use of limited resources <input type="checkbox"/> To reduce harm, improve outcomes, and address equity <input type="checkbox"/> To be transparent
Q2. What are the pitfalls and unintended consequences that might lead some PCPs to resist engaging in identifying and measuring LVC?	<ul style="list-style-type: none"> <input type="checkbox"/> Concerns about autonomy, attribution, and accountability <input type="checkbox"/> Concerns about alert fatigue and measurement burden <input type="checkbox"/> Concerns about patient experience & provider relationship <input type="checkbox"/> Concerns about lack of consensus on measures and recommendations <input type="checkbox"/> Concerns about conflicting payment incentives <input type="checkbox"/> Concerns about gaps in system supports <input type="checkbox"/> Concerns about provider wellness and morale

Exhibit 6 Advisory Committee Insights on LVC Measurement	
Discussion Question	Key Thematic Insights
Q3. How might we use measure design to mitigate these pitfalls and unintended consequences?	<input type="checkbox"/> Focus on harm reduction, positive outcomes, and savings for patients <input type="checkbox"/> Use LVC measures that are relevant for PCPs <input type="checkbox"/> Engage health care organizations as accountable partners <input type="checkbox"/> Create aligned incentives for PCPs <input type="checkbox"/> Equip PCPs with effective supports <input type="checkbox"/> Use benchmarking with a panel/population perspective
Example Comments	
<input type="checkbox"/> "It's important to measure low value because it raises awareness for improvement. Without an accurate and clear scoreboard, it is difficult to identify the need and focus for intervention." <input type="checkbox"/> "Avoiding low value care takes more time than delivering low value care (e.g. giving an antibiotic for URI symptoms to the patient that came expecting such) and leads to lower measures of patient satisfaction. U.S. health seeking culture is a 'more is better' culture." <input type="checkbox"/> "Create a patient-centered scoreboard that generates physician pride, linking recognition to quality of care. Pride for physicians is different pending career stage."	

B. Virtual Session 2: Exploring the Options

Having affirmed the importance of addressing LVC in the context of payment reform in Virtual Session 1, the next objective was to review current LVC recommendations with the aid of specific criteria for evaluating LVC measures. A set of criteria (and related considerations) was developed by engaging the Advisory Committee in a survey process prior to Virtual Session 2, and a discussion process that continued throughout the Summit. The Advisory Committee then proceeded to review sources of existing LVC recommendations with these criteria in mind. The relevant results are described in subsections A and B below.

Insights from the Pre-Session Survey

Advisory Committee members were invited to participate in a survey designed to elicit their insights about key criteria and related considerations for evaluating LVC measures and recommendations. The results yielded a working set of impact criteria, technical criteria, and considerations for implementation. These results are shown in **Exhibit 7**, along with a cross-section of respondent comments in their own words.

Exhibit 7 Advisory Committee Insights on Criteria and Related Considerations	
Focus	Key Thematic Insights
Impact Criteria	LVC measures should inform care decisions that results in these impacts: <ul style="list-style-type: none"> <input type="checkbox"/> Reduce patient harm <input type="checkbox"/> Facilitate patient savings <input type="checkbox"/> Optimize use of limited resources <input type="checkbox"/> Inform quality improvement <input type="checkbox"/> Improve patient outcomes <input type="checkbox"/> Inform efforts to advance health equity <input type="checkbox"/> Demonstrate transparency and value <input type="checkbox"/> Reduce clinician burden
Technical Criteria	LVC measures should be: <ul style="list-style-type: none"> <input type="checkbox"/> <i>Relevant</i>. The measure is relevant for its purpose of reducing low-value care. <input type="checkbox"/> <i>Actionable</i>. The measure is produced in a format and timetable that can be used to prompt action by PCPs. <input type="checkbox"/> <i>Accurate</i>. The measure is based on accurate data and a credible methodology. <input type="checkbox"/> <i>Feasible</i>. The measure is feasible to produce from existing data sources.

Exhibit 7 Advisory Committee Insights on Criteria and Related Considerations	
Focus	Key Thematic Insights
Implementation Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Supported by internal practice systems, policies, and procedures <input type="checkbox"/> Based on credible data and measures <input type="checkbox"/> Focused on harm reduction, positive outcomes, and savings for patients <input type="checkbox"/> Viewed as clinically relevant by PCPs <input type="checkbox"/> Based on shared accountability for performance with the health care organization and downstream providers <input type="checkbox"/> Presented to individual providers in ways that reflect performance with respect to peers while respecting provider autonomy <input type="checkbox"/> Aligned with practical incentives for PCPs
Example Comments	
<ul style="list-style-type: none"> <input type="checkbox"/> "I'm a fan of measures that promote a culture of reducing waste and LVC rather than overfocused on specific tests and procedures. I believe it's important to include measures of outcomes important to patients and clinicians...not sure to what extent that's feasible with existing data sources...would require surveys or other creative methods of assessment." <input type="checkbox"/> "Be careful with making LVC an incentive...People are afraid of making it seem like patients cannot get care. This is a challenge with moving forward and requires a unique approach compared to how we do quality measures for care we want to give people." <input type="checkbox"/> "Ongoing work: is measuring low value care more important than alternative measures focused on access, equity, comprehensiveness, continuity, primary care? Are you assuming low value care can and will be monitored digitally/AI and run in the background and be invisible to most folks most of the time?" <input type="checkbox"/> "The metrics are important, but they need not be perfect if the work is done locally at the ground level, led by clinician champions. The metrics can never be 100% accurate. Only the clinician champions can wield influence in such a way that is clinically nuanced to improve quality of care." <input type="checkbox"/> "Measures don't necessarily have to be based on currently available current measures. Respecting provider autonomy is up to the group involved. I have observed groups that share data among providers unblinded. Bring reduction of LVC into the quality paradigm. Lowering cost, especially to employers and health plans, is not compelling." <input type="checkbox"/> "The only concept I didn't see reflected in the meeting one summary, or here, is the notion of malpractice. To what extent do we think LVC results from physicians wanting to protect themselves from that threat?" 	

Insights from the In-Session Discussion

After reviewing the working list of criteria and related considerations, the Advisory Committee members engaged in a facilitated panel discussion to review existing sources of LVC recommendations. Existing sources presented for review included:

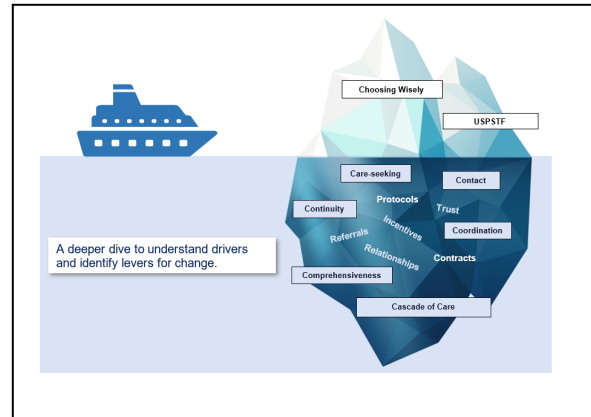
- Choosing Wisely recommendations;
- U.S. Preventive Services Task Force recommendations; and
- Other example approaches utilized by health plans.

After hearing presentations on each of these approaches, the Advisory Committee members engaged in small-group and full-group discussion about the possibilities. Group polling was used to elicit initial reactions, and set the stage for full group discussion via voice. To summarize Advisory Committee insights from polling and discussion:

- Recommendations from Choosing Wisely and the USPSTF provide a logical starting point for identifying a consensus set of LVC recommendations and measures. However, multiple members noted concerns about the evidence base and feasibility of implementation in practice for a significant number of recommendations on these lists.

- In addition, multiple members noted there are contextual factors embedded in systems of payment, policies, and protocols that influence clinical decision making about LVC. These factors should be explicitly identified and considered in the process of generating consensus on a set of LVC recommendations.

- To illustrate these dynamics graphically, Choosing Wisely and USPSTF recommendations are important, but they represent what is visible on the surface of primary care, without fully acknowledging the deeper connections between primary care and the rest of the health system.



- The Starfield '4C's' of primary care (comprehensiveness, first contact access, coordination and continuity) certainly influence the patient journey and scope of care provided. But patient care-seeking also plays a role, and PCP decisions can influence a cascade of care involving other providers across the system. All of these care decisions may be affected to some degree by the surrounding protocols, contracts, referral relationships, and payment incentives.

C. Virtual Session 3: Drivers, Levers, and Stakeholders Affecting LVC

Our original objective for Session 3 was to identify via consensus a core set of measures that matter for reducing LVC in primary care settings. With wisdom gained from the Advisory Committee Members participating in Sessions 1 and 2, it became apparent that an authentic approach to reducing low-value care should go deeper than identifying a set of low-value care measures from Choosing Wisely, the USPSTF, or some other ready source. With this context in mind, the planning team invited Advisory Committee members to share their insights about system drivers, levers, and stakeholders via a pre-meeting survey and facilitated discussion during Virtual Session 3.

A pre-meeting survey was conducted to invite Advisory Committee members to share their insights about levers, drivers, and stakeholders influencing LVC in primary care settings. The results were surprisingly detailed, and illuminate the complex array of factors that may influence decision making by primary care providers. The Advisory Committee reviewed the survey results during Virtual Session 3, and shared additional insights about these influencing dynamics. The results are summarized in **Exhibit 8**, in order of stakeholders, drivers of LVC, and levers that could be used to reduce LVC. Within the categories of drivers and levers, responses are classified as patient-focused, payment-focused, or system/culture focused.

Exhibit 8 Advisory Committee Insights on Drivers, Levers, and Stakeholders	
Stakeholders	
<ul style="list-style-type: none"> □ PCPs □ Specialists □ Health systems □ Patients and families □ Patient advocacy groups □ Insurers □ Health plans □ Payers □ Purchasers □ Pharmacy benefit managers □ Drug makers □ Key professional organizations / societies □ Standards setters (e.g., ABFM, ABP, ABIM) □ State and federal policy makers (including legislators) 	<ul style="list-style-type: none"> □ Accreditation agencies □ Educators □ Researchers and academicians □ Journalists □ Those who design benefits and communicate with patients regarding how to maximize the value of care they receive □ Decision-makers regarding office-based workflows, including the role of the EMR □ Specialists doing LVC procedures – treating the specialist / PCP team as the unit of analysis □ Healthcare executive leadership □ Stakeholders with the data (health plans, health systems) □ Stakeholders paying the bills (purchasers) (deploy VBID wherever possible)

Exhibit 8
Advisory Committee Insights on Drivers, Levers, and Stakeholders

Potential Drivers of LVC	
<p>Patient focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lack of patient/PCP relationship <input type="checkbox"/> Lack of understanding of patient beliefs <input type="checkbox"/> Patient preference <input type="checkbox"/> Lack of patient education and decision tools <input type="checkbox"/> OTC advertisements, lack of accurate health information in popular media (e.g., cooking shows) <input type="checkbox"/> Poor training and skills in how to respond to patient demand for services that are low value <p>Payment focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Adverse incentives of FFS payment <input type="checkbox"/> Contractual incentives and expectations to make referrals within the hospital system <input type="checkbox"/> Incentives embedded in meeting HEDIS requirements 	<p>System/culture focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lack of time, lack of trust <input type="checkbox"/> Complexity of the system <input type="checkbox"/> Time constraints and workflows that make it easier to simply order the test <input type="checkbox"/> Ready availability of advanced imaging tests and invasive procedures <input type="checkbox"/> Lack of confidence and / or fear of malpractice <input type="checkbox"/> Culture of more is better <input type="checkbox"/> Culture of care dominated by specialty care <input type="checkbox"/> Low research, numeracy, and economic literacy among healthcare professionals <input type="checkbox"/> Inadequate systems for measuring and evaluating health care in general <input type="checkbox"/> Specialty-driven workforce subordinating master primary care clinicians <input type="checkbox"/> Hospital-centered system administration <input type="checkbox"/> Primary care clinicians' propensity to order services (routine labs) at physicals
Potential Levers for Reducing LVC	
<p>Patient focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A learning culture for patients and families <input type="checkbox"/> Encourage patients to communicate with PCPs <input type="checkbox"/> Placing warning labels stating this product has no evidence to support its claims <input type="checkbox"/> For patients, provide point of care information on medical testing limits <p>Payment focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Move away from FFS <input type="checkbox"/> Move greater percent of health care spend to primary care <input type="checkbox"/> Robust incentives for PCPs to deliver care that is high in interpersonal continuity and comprehensiveness <input type="checkbox"/> Payment based on quality rather than volume <input type="checkbox"/> Shared savings / provider-liable payment penalties for LVC use <input type="checkbox"/> Payment reform to prioritize community-based primary care <input type="checkbox"/> Restructure payment models to incentivize value <input type="checkbox"/> Provider training and value-based reimbursement models that include the appropriate transfer of financial risk to providers <p>System / culture focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Administrative workflows that remove low-value care <input type="checkbox"/> Address workflows and decision supports in employed settings where compensation arrangements do not necessarily align with incentives of the health plan contract in place 	<p>System / culture focused:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A culture of high emotional intelligence and empathy of providers <input type="checkbox"/> Changes in education of trainees nationally <input type="checkbox"/> Enhance PCP knowledge and skills <input type="checkbox"/> Teach against LVC practices at the training level <input type="checkbox"/> Shifting culture from problem-oriented care to goal-oriented care <input type="checkbox"/> Create incentives for specialists / health systems to coordinate with PCPs before ordering / delivering potentially low-value services <input type="checkbox"/> Monitor and update metrics to reflect current examples of low-value services <input type="checkbox"/> Having adherence to pathways and reporting of pathway adherence <input type="checkbox"/> Team structures to promote non-medical treatments of conditions responsible for majority of LVC <input type="checkbox"/> Leadership and systems that invest in the capacity to measure, monitor, and improve value across the entire spectrum of care, not just in primary care <input type="checkbox"/> Alerts in EMRs that provide information on most recent evidence <input type="checkbox"/> Prior authorization efforts focused on LVC <input type="checkbox"/> Individual physician benchmarking that indexes LVC across peers, coupled with value-based contracts <input type="checkbox"/> Immediate availability of results of prior care to sustain care plans <input type="checkbox"/> Technical assistance to help clinicians make appropriate choices through EMR notices, letters/feedback, and education <input type="checkbox"/> Develop point of care tools that enable PCPs to refer to higher value specialists <input type="checkbox"/> Partner with new market entrants to supplant the current systems. <input type="checkbox"/> Enable more comprehensive care within primary care

D. Virtual Session 4: From Insight to Action with the ALTARUM Working List

In the first three Virtual Sessions, the Advisory Committee framed LVC in the context of overall payment reform; developed criteria for reviewing existing LVC measures; and engaged in extensive discussion about feasibility concerns related to implementing existing recommendations from Choosing Wisely and the USPSTF. In noting the implementation concerns, the conclusion was not that the existing sources could not be used at all, but that careful vetting would be required to select recommendations that are evidence-based and feasible for implementation.

In response to these concerns, the Summit planning team was presented with a working list of LVC recommendations recently developed by ALTARUM, including selected recommendations aligned with Choosing Wisely and the USPSTF. The Advisory Committee members were invited to review the list and share their insights, with results as described in the following sections.

The ALTARUM Working List

The ALTARUM working list included 35 recommendations for avoiding care thought to be of low value, and potentially 'no value.' Almost all of the recommendations were aligned with Choosing Wisely, USPSTF, or both. In developing the list, the ALTARUM team had subjected the recommendations to extensive vetting independent of the Summit Advisory Committee. The recommendations on the list were described as having the following three characteristics:

1. Rigorous scientific evidence that demonstrates no clinical benefit for a service in a specific clinical scenario. *Example: antibacterial agents for viral infection. There is no clinical evidence that demonstrates antibacterial agents will provide clinical benefit to individuals with viral infections.*
2. Clinical services that have no/low variability in patient preferences. *Example: Imaging for ankle injury for which the individual does not meet criteria for imaging using the Ottawa Ankle Rules. Evidence supports the Ottawa ankle rules as an accurate instrument for excluding fractures of the ankle and mid-foot. The instrument has a sensitivity of almost 100%. A patient who presents with 0 of the symptoms is less than 1% likely to have a fracture. The possibility of patient demand for this no value service - despite rigorous evidence demonstrating no clinical benefit of ankle imaging in certain patients with an injury - led to its exclusion from a no value care designation.*
3. Clinical services that have no/low variability in net clinical benefits based on patient characteristics or clinical scenario. *Example: Performing cervical cancer screening before the age of 21 years. There are extremely rare clinical situations where the delivery of this service would be deemed of no value.*

Advisory Committee Review of the ALTARUM Working List

Considering the level of vetting and trimming the ALTARUM list had already received, the Summit planning team decided to invite the Advisory Committee to review the ALTARUM list as part of its work. This was accomplished through a four-stage review process:

- An initial (round 1) survey inviting Advisory Committee members to identify recommendations on the ALTARUM list that could be ready for inclusion on a consensus list of LVC recommendations for future dissemination.
- Discussion of the ALTARUM in terms of evidence base and feasibility of impact at Virtual Session 4 held on August 31, 2022.
- A post-meeting review of the 35 recommendations on the ALTARUM list by two clinician members of the Summit planning team to identify any recommendations that might need refined phrasing, or that might not be fully relevant for primary care settings.⁴ This review resulted in four recommendations being

⁴ Review conducted by Alex Krist, MD and Andrew Bazemore, MD

removed from further consideration due to lack of relevance for primary care, leaving 31 recommendations on the list.

- A post-meeting survey (round 2) inviting Advisory Committee members to identify specific concerns about feasibility of implementation for specific recommendations on the list.

Results of the Advisory Committee Review

Exhibit 9 shows the results of the round 2 survey in which Advisory Committee members were asked to identify any significant concerns about implementation for each of the 31 recommendations on the list. A total of 21 Advisory Members completed the survey, and the recommendations are listed by the cumulative number of concerns noted about each. To illustrate, only one concern was identified about the first recommendation listed (USPSTF recommendation on COPD screening). By comparison, a cumulative total of 22 concerns were identified for the last item on the list (prescribing of NSAIDs). The results are further discussed after the exhibit in the Next Steps section.

Exhibit 9 Advisory Committee Insights about ALTARUM Working List									
Recommendations listed by cumulative number of concerns identified, in order of least to most.	Cumulative number of concerns identified	Patient Resistance	Clinical implementation in daily practice	Data and measurement	Payment incentives	Malpractice risk	Policy maker resistance	Other factors (describe below)	
The USPSTF recommends against screening for chronic obstructive pulmonary disease (COPD) in asymptomatic adults	1	0	0	0	0	0	0	1	
Don't screen for carotid artery stenosis (CAS) in asymptomatic adult patients	2	1	0	0	1	0	0	0	
The USPSTF recommends against screening for thyroid cancer in asymptomatic adults	2	0	0	1	0	0	0	1	
The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion (i.e., cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer	3	0	1	0	1	0	0	1	
The USPSTF recommends against screening for pancreatic cancer in asymptomatic adults	3	0	1	2	0	0	0	0	
Don't perform voiding cystourethrogram (VCUG) routinely in first febrile urinary tract infection (UTI) in children aged 2-24 months	3	1	1	0	0	0	0	1	
Don't perform MRI of the peripheral joints to routinely monitor inflammatory arthritis	3	1	0	0	2	0	0	0	
The USPSTF recommends against screening for testicular cancer in adolescent or adult men	4	0	1	2	0	1	0	0	
The USPSTF recommends against routine serologic screening for genital herpes simplex virus (HSV) infection in asymptomatic adolescents and adults, including those who are pregnant	5	1	1	1	0	1	1	0	
The USPSTF recommends against screening for ovarian cancer in asymptomatic women who are not known to have a high-risk hereditary cancer syndrome	6	2	0	3	0	0	0	1	
USPSTF recommends against screening for bacterial vaginosis (BV) in pregnant persons who are not at increased risk for preterm delivery	6	1	2	2	0	1	0	0	
Don't order annual electrocardiograms (EKGs) or any other cardiac screening for low-risk patients without symptoms	6	0	2	1	2	0	1	0	
Don't order unnecessary cervical cancer screening (Pap smear and HPV test) in all women who have had adequate prior screening and are not otherwise at high risk for cervical cancer	6	1	2	2	0	0	0	1	
Don't use coronary artery calcium scoring for patients with known coronary artery disease (including stents and bypass grafts)	6	0	1	2	1	1	0	1	
The USPSTF recommends against screening for cervical cancer in women younger than 21 years	7	2	1	1	1	0	1	1	
The USPSTF recommends against the use of estrogen alone for the primary prevention of chronic conditions in postmenopausal women who have had a hysterectomy	7	3	2	2	0	0	0	0	

**Exhibit 9
Advisory Committee Insights about ALTARUM Working List**

Recommendations listed by cumulative number of concerns identified, in order of least to most.	Cumulative number of concerns identified	Patient Resistance	Clinical implementation in daily practice	Data and measurement	Payment incentives	Malpractice risk	Policy maker resistance	Other factors (describe below)
Don't obtain baseline diagnostic cardiac testing (trans-thoracic/esophageal echocardiography - TTE/TEE) or cardiac stress testing in asymptomatic stable patients with known cardiac disease (e.g. CAD, valvular disease) undergoing low or moderate risk non-cardiac surgery	7	1	1	0	2	0	0	3
Don't perform population based screening for 25-OH-Vitamin D deficiency	8	3	1	0	1	1	0	2
Don't use dual-energy x-ray absorptiometry (DEXA) screening for osteoporosis in women younger than 65 or men younger than 70 with no risk factors	8	2	2	2	0	0	0	2
The USPSTF recommends against screening with resting or exercise electrocardiography (ECG) to prevent cardiovascular disease (CVD) events in asymptomatic adults at low risk of CVD events	8	0	3	2	2	0	1	0
Don't use inferior vena cava (IVC) filters routinely in patients with acute VTE.	8	0	2	1	0	2	0	3
Don't perform unproven diagnostic tests, such as immunoglobulin G (IgG) testing or an indiscriminate battery of immunoglobulin E (IgE) tests, in the evaluation of allergy	8	0	2	2	1	0	0	3
The USPSTF recommends against the use of combined estrogen and progestin for the primary prevention of chronic conditions in postmenopausal women	9	6	2	1	0	0	0	0
Don't perform advanced sperm function testing, such as sperm penetration or hemizona assays, in the initial evaluation of the infertile couple	9	3	2	1	1	0	0	2
Avoid echocardiograms for preoperative/perioperative assessment of patients with no history or symptoms of heart disease	10	0	2	1	2	1	2	2
The USPSTF recommends against screening for cervical cancer in women older than 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer	11	3	3	3	1	0	1	0
Don't obtain baseline laboratory studies in patients without significant systemic disease (ASA I or II) undergoing low-risk surgery - specifically complete blood count, basic or comprehensive metabolic panel, coagulation studies when blood loss (or fluid shifts) is/are expected to be minimal	11	1	3	1	1	2	0	3
Don't obtain EKG, chest X rays or Pulmonary function test in patients without significant systemic disease (ASA I or II) undergoing low-risk surgery	11	0	2	2	3	1	1	2
Don't perform PSA-based screening for prostate cancer in men over 70	17	5	4	0	1	2	2	3
Don't recommend screening for breast, colorectal or prostate cancer if life expectancy is estimated to be less than 10 years	18	4	3	4	0	3	1	3
Don't prescribe nonsteroidal anti-inflammatory drugs (NSAIDs) in individuals with hypertension or heart failure or CKD of all causes, including diabetes	22	6	8	3	0	0	1	4

E. Next Steps

The Advisory Committee review of the ALTARUM working list of LVC recommendations illustrates both challenges and potential for next steps. Focusing on challenges, the survey results shown in Exhibit 9 illustrate the importance of considering implementation factors when considering LVC recommendations in general, and in particular if the goal is to generate a consensus list. The implementation factors shown in the exhibit include patient resistance, clinical implementation, data and measurement, payment incentives, malpractice risk, and policy-maker resistance. Additional contextual factors include the practice setting, the volume of services provided, agility of clinical information systems, and appropriate allocation of accountability for services that may be recommended by one provider and delivery by another.

Even with all of these considerations, there is strong potential for continuing the work of identifying, measuring, and reducing low-value services in primary care. Near the top of the list in Exhibit 9 are some LVC recommendations with relatively minor feasibility concerns that could be implemented in many if not all settings. There are other recommendations that may require minor, moderate, or substantial attention to resolve implementation concerns. Much of this would depend on the setting, and the willingness to provide leadership commitment for system change. This type of commitment would be needed from multiple stakeholders including primary care providers.

With this potential in mind, summit participants recommended moving forward with two action items: the establishment of an R&D agenda for reducing low-value care in primary care settings and the recommendation of a No Value List for Primary Care.

Exhibit 10 shows a research and development agenda that could be pursued through various partnerships.

Exhibit 10 An R&D Agenda for Reducing Low-Value Care in Primary Care Settings	
Improving LVC Measure Development	
<ol style="list-style-type: none"> 1. For each LVC measure that is under consideration, can we specify the harm, costs (including downstream) and degree of clinical nuance involved? 2. What can be done to better incorporate the patient voice in measure development? 3. Can we develop LVC measures related to appropriate location of care? 4. Could we do a set of recommendations focused specifically on low-value prescribing? 5. Can we better connect avoiding LVC services to avoided downstream utilization? 6. How can we extract more LVC data from all EHRs, given claims data is insufficient for some of the clinical nuance needed? 	
Understanding LVC Influencers	
<ol style="list-style-type: none"> 1. How is LVC impacted by health equity factors? 2. How are patient out of pocket costs impacted by LVC? 3. Do continuity, comprehensiveness, small panels, and robust teams reduce LVC? 4. Are malpractice concerns really impacting LVC, and if so, to what degree? 5. Does limited appointment time lead to increases in LVC? 6. What is the impact of media and advertising on LVC? 7. What is the impact of misdiagnosis on LVC? How do we measure misdiagnosis? How do we best address it? 8. What factors contribute to wide local variations in LVC? 9. How does the provision of LVC differ for hospital-owned PCPs versus independent? 10. How does primary care leakage impact LVC delivery? 11. How does LVC provision differ, if at all, when clinicians are operating under TCoC incentive contracts? 12. How do patients' beliefs about the benefits/risks of preventive screening impact LVC and what can be done to respectfully modify wasteful behaviors? 	
Making LVC Actionable	
<ol style="list-style-type: none"> 1. How do we translate LVC measures into clinical decision support? 2. Can we create three measure buckets for LVC in primary care: a) harmful practices that can be measured and stopped; b) measures of what should be stopped at the system and payment level to enable primary care clinicians to stop doing them; and c) measures of primary care functions that lower LVC in downstream cascades? 3. Is it feasible to create a LVC index score that could be used by health plans, employers, and referring physicians to inform network development? 4. What tools exist and what tools can be created to help primary care providers best steer patients to the highest value specialists? 5. Where can clinicians achieve the most improvement with the least effort? 6. What are the best administrative workflows that remove LVC? 	

Exhibit 10 An R&D Agenda for Reducing Low-Value Care in Primary Care Settings	
7.	What are the critical characteristics of facilitators and champions who have demonstrated reduction of LVC within delivery systems?
8.	How can we demonstrate how LVC follow-up by clinicians impacts time and burnout?
Additional Challenges to Address	
1.	Need a neutral entity to review the Choosing Wisely measures and to hold specialties accountability for the strength of their choices
2.	Need to improve interoperability of data systems so that PCPs can access information about services received at other locations of care
3.	Need to improve EHR design to focus on optimal ordering and prescribing, rather than optimal billing
4.	Need a standardized reporting system on LVC so that PCPs can see how they compare to their peers

Work on advancing a No Value List for Primary Care could take place simultaneously. Next steps would be to:

- Complete vetting of the 35 tests and procedures on the current No Value List for Primary Care, using medical literature and stakeholder surveys and interviewing, to refine and narrow the list as appropriate.
- Develop and pilot tracking methods, by working with Milliman MedInsight to develop the methodology for tracking the provision of these No Value List items with the Health Waste Calculator and run initial data reports with a select number of pilot states. Each state would utilize data from their All Payer Claims Database.
- Evaluate cost savings by documenting the financial impact of eliminating the No Value List items and selecting a final set for a national demonstration project.
- Create a scaling strategy.
- Grow the No Value List participants beyond primary care by surveying the association leadership of five medical specialties (Cardiology, Emergency Medicine, Obstetrics & Gynecology, Ophthalmology & Eye Surgeons, and Orthopedic Surgery) to add specialty specific measures to the No Value List.
- Ensure sustainability. Seek funding to launch the primary care no value list national demonstration project with 15-25 states. Additional funding may be possible through the provision of the federal No Surprises Act, which dedicated up to \$1M each for up to 25 states, through the State APCD Grant Program (<https://docs.house.gov/meetings/AP/AP00/20220630/114968/HMKP-117-AP00-20220630-SD003.PDF>, p.190)

We look forward to the challenge of continuing this work in partnership with the amazingly talented and knowledgeable Starfield V advisory board.