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Chapter 1 : Syllabus | University of Washington Global Health E-learning

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ICLEI is a democratically governed membership association of cities, towns, counties, metropolitan governments, and local government associations. Montreal Process This organization is the result of an initiative launched in June among non-European temperate and boreal countries to develop and implement internationally agreed criteria and indicators for sustainable forest management. The 12 member countries are: Argentina, Australia, Canada, Chile, China, Japan, Republic of Korea, Mexico, New Zealand, Russian Federation, United States of America, and Uruguay The focus of the group is to advance the development and implementation of internationally agreed criteria and indicators for the conservation and sustainable management of temperate and boreal forests outside Europe at the national level. Move Beyond Green Sponsored by the U. Army Environmental Policy Institute, the mission of Move Beyond Green is to enable conversation, connection, and exchange of ideas on the topic of sustainability and to build relationships and interaction between interested and informed parties around the world. It is their goal to connect a wide range of bodies of knowledge that can inform discussion and to provide a forum to facilitate that discussion as part of a robust community of interest around the topic of sustainability. NRDC has 6 main priorities: Partnership for Sustainable Communities This is a partnership between the U. Environmental Protection Agency EPA to help communities nationwide improve access to affordable housing, increase transportation options, and lower transportation costs while protecting the environment. The partnership was formed on June 16, Sustainable Purchasing Leadership Council This council is a non-profit organization whose mission is to support and recognize purchasing leadership that accelerates the transition to a prosperous and sustainable future. Sustainable Sites Initiative The intent of this initiative is to provide standards and guidelines for measuring the sustainability of designed landscapes, including commercial and public sites, residential landscapes, parks and recreation centers, campuses, roadsides, and utility corridors. Participating stakeholder organizations include: The group includes over members representing 20 major and a number of independent Federal agencies. Main ISWG functions include: Identifying and proposing solutions to barriers for adoption of sustainable design in the Federal sector. The site posts bi-monthly meeting reports, presentations, a listing of pending Federal sustainable design projects culled from the Commerce Business Daily , a listing of future events, and other informational resources. The International Development Research Centre IDRC IDRC is a Canadian public corporation created to help developing countries use science and technology to find practical, long-term solutions to the social, economic, and environmental problems they face. Support is directed toward developing an indigenous research capacity to sustain policies and technologies that developing countries need to build healthier, more equitable, and more prosperous societies. The International Institute for Sustainable Development The IISD contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change, measurement and assessment, and natural resources management. The Institute is in the business of promoting change towards sustainable development. Through research and effective communication of IISD findings, the IISD engages decision-makers in government, business, NGOs and other sectors to develop and implement policies that are simultaneously beneficial to the global economy, the global environment and to social well-being. EPA - Arizona State University partnership formed to bring together researchers of various disciplines in developing the next generation of urban materials to reduce the dependence on non-renewable energy and adverse impacts to the urban climate. The National Center of Excellence will be the leading national research and outreach laboratory in supporting regional governments and industry in meeting the needs of rapid urbanization and infrastructure. The Commission is responsible for reviewing progress in the implementation of Agenda 21 and the Rio Declaration on Environment and Development; as well as providing policy guidance to follow up the

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Johannesburg Plan of Implementation JPOI at the local, national, regional and international levels. The United Nations Forum on Forests Established in to provide a forum that would address all issues related to forests in a coherent and comprehensive manner and a forum that would facilitate the exchange of experiences in the implementation of sustainable forest management practices by Governments and stakeholders. UNFF meets annually for two weeks and all Member States of the United Nations and States members of specialized agencies participate in the annual sessions. It promotes sustainable development as the substantive secretariat to the UN Commission on Sustainable Development CSD and through technical cooperation and capacity building at international, regional and national levels. Its mandate is to coordinate the development of environmental policy consensus by keeping the global environment under review and bringing emerging issues to the attention of governments and the international community for action.

Chapter 2 : III PROVISIONAL DISCUSSION ELEMENTS

Buy National forum to discuss impediments to the implementation of waste programs final report, February (SuDoc EP F 76/4) by U.S. Environmental Protection Agency (ISBN:) from Amazon's Book Store.

The scope of the problem is substantial, with an estimated nearly 87, individuals experiencing chronic homelessness in The report addresses a fundamental question: To what extent have permanent supportive housing programs improved health outcomes and affected health care costs in people experiencing homelessness? The report also describes policy and program barriers that affect the ability to bring the permanent supportive housing programs and other housing models to scale to address housing and health care needs. This report will stimulate research and federal action to move the field forward and advance efforts to address chronic homelessness and improved health in this country. Advancing the Scientific Foundation: In June , the STS program convened a workshop on using landscape-based approaches and multi-resource analysis to better inform federal decision making for the sustainable management of natural resources. Measuring Progress Toward Sustainability: Panelists examined examples of select social and economic indicators and metrics that incorporated various disciplines, particularly those being used to inform policy and action related to sustainability practice and research. The purpose of the session was to assess what indicators and metrics have been found to be the most useful for promoting sustainability as well as identify knowledge gaps related to developing indicators that integrate across the ecological, social, and economic sciences. Sustainability Concepts in Decision-Making: Using specific case studies, this report considers the application of analytic and scientific tools, methods, and approaches presented in the NRC report Sustainability and the U. Sustainability for the Nation: The report also recommends priority areas for interagency cooperation on specific sustainability challenges; identifies impediments to interdisciplinary, cross-media federal programs; and highlights scientific research gaps as they relate to these interdisciplinary, cross-media approaches to sustainability. Partnerships, Science, and Innovation for Sustainability Solutions: Sustainable Considerations for Procurement Tools and Capabilities: Sustainability and the U. The framework, which was requested by EPA, is intended to help the agency better assess the social, environmental, and economic impacts of various options as it makes decisions. The recommended sustainability approach both incorporates and goes beyond an approach based on assessing and managing the risks posed by pollutants that has largely shaped environmental policy since the s. It was also intended to help clarify the scope and limitations of the scientific knowledge that might contribute to the economic success of certified products. This volume summaries the presentations and discussions from the workshop. Enhancing the Effectiveness of Sustainability Partnerships: Linking Knowledge with Action for Sustainable Development: Workshop discussions explored a wide variety of experiments in harnessing science and technology to goals of promoting development and conserving the environment. Participants reflected on the most significant challenges that they have faced when trying to implement their programs and the strategies that they have used to address them successfully. The report also identifies the greatest threats to sustainability â€" in areas such as human settlements, agriculture, industry, and energy â€" and explores the most promising opportunities for circumventing or mitigating these threats. Urban Sustainability Pathways to Urban Sustainability: The study will provide a paradigm that incorporates the many systems that exist in metropolitan regions, such as ecosystems, the urban center, manufacturing, and other relevant social, economic, and environmental systems critical in the transition to sustainable metropolitan regions. Homelessness and Urban Sustainability: Pathways to Urban Sustainability: The workshop featured invited presentations and group discussion and was patterned after similar workshops held in on research and development on urban systems and in on urban sustainability in the Atlanta metropolitan region. To discuss the opportunities and challenges in deploying sustainable energy during transitions, the National Academies of Sciences, Engineering, and Medicine convened a workshop in Washington, DC, on January 30, This publication summarizes the presentations and discussions from the workshop Sustainable

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Materials and Manufacturing for Renewable Energy Technology Development to The goals were examining the sustainability implications of material demands and manufacturing processes associated with renewable energy technologies; mobilizing, encouraging, and catalyzing the use of scientific knowledge; and stimulating additional research. This publication briefly summarizes the presentations and discussions from the workshop. Addressing the Energy-Water Nexus: This volume compiles the Meetings in Brief for the four events, highlighting the main topics discussed at each meeting. As the fourth and final session of this initiative, the December meeting featured panel discussion on improved data for water use, decision-support tools, and frameworks for local and regional decision making. The panels examined research needs for optimizing current technologies, addressing existing barriers and emerging technology innovations, and advancing the integrative field of the energy-water nexus to address key challenges. This report summarizes discussions held during the two workshops. The meeting examined the data and research needs for assessing the energy-water linkages with the reuse and recycling of waste streams and materials, and the technologies and approaches needed to further recycling and reuse strategies. Sustainable Energy and Materials: The June meeting was developed in coordination with staff from the Cynthia and George Mitchell Foundation, who were actively involved in engaging foundations to call attention to the issue and to gain their perspective on how to move forward. Presentations explored approaches to building a sustainable and resilient energy future as well as major policy, research, and technological gaps that need to be addressed. Critical Materials for Energy Sustainability and Technology: The workshop included participants from federal agencies, academia, the private sector, and nongovernmental organizations involved in sustainability issues in Japan and the United States. The one-day workshop examined the strategies, research and technology needed to achieve sustainable energy solutions in both countries. The June meeting of the Roundtable included a session that provided an overview of the landscape of efforts underway on sustainable energy and materials, such as identifying any key policy, research, and technological gaps. The purpose of the meeting was to foster a focused discussion on opportunities to increase the use of waste heat; the technical, economic, and regulatory barriers in the U. Sustainability and the Transition to Advanced Biofuels: The three states supported policies to promote the development of the biofuels industry, focused on both the supple side as well as the demand side. The forum discussed sustainability research and development activities related to ecosystem services and biofuels. The study committee calls for revitalization of animal science research and research infrastructure to respond to the anticipation of a sharp increase in the demand for animal products by mid-century. View a Science Unscrambled video , where Dr. The first workshop, Measuring Food Insecurity and Assessing the Sustainability of Global Food Systems, explored the availability and quality of commonly used indicators for food security and malnutrition; poverty; and natural resources and agricultural productivity. The second workshop, Exploring Sustainable Solutions for Increasing Global Food Supplies, focused specifically on assuring the availability of adequate food supplies.

Chapter 3 : FedCenter - Sustainability

implementation of a policy is the most vital phase in the policy process as it is at this stage that the success or failure of a policy is determined. Ikelegbe () and Nweke (), in this respect too.

Manager burn-out is a constant problem in the most effective and fast-moving programs. Information Sharing and Coordination Effective communication is clearly important in any cooperative venture. Several workshop participants suggested that communication has been a challenge for cooperation on nuclear nonproliferation between the United States and Russia, but that some programs have devised mechanisms for encouraging effective communication. The International Nuclear Safety Program INSP was cited as a good example of successful efforts to communicate effectively in a joint technical program, for several reasons. The program managers believed strongly in transparency, and that belief was reflected in the highly detailed nature of the information that they shared. The information was shared on a regular basis. Program managers took pains to ensure that everyone who needed information received it, via both the Internet and paper reports. Secrecy and access to classified information can complicate efforts at information sharing, but useful information, similar to that described for INSP, can be shared, even for programs that require some secrecy. One Russian participant argued that the United States and Russia should establish a mechanism for sharing sensitive information that is of mutual interest but should not be made public. An American participant disagreed, pointing out that such mechanisms exist already and that the cooperative nuclear nonproliferation programs fail to use them. Informal Discussion Meetings Several participants in the meeting from both countries expressed a belief that similar informal meetings would be useful in the future. They found it beneficial to interact with their counterparts without being restrained by negotiation guidelines, outside of the protocols which govern official meetings, and without concern that their comments would later be used against them or their programs. By facilitating open dialogue and exchanges of views, such meetings may be useful in helping to identify problems, solutions, and opportunities. Exchanges of Personnel as Confidence-Building Measures A number of Russian participants predicted that, despite some mistrust between the sides which was inherited from the past, the long-term strategic interests of the United States and Russia in nuclear nonproliferation meet and will prevail over the short-sighted subjective considerations and interests of some managers. To this end, one of the priorities of bilateral programs should be the education, training, and promotion of specialists and managers belonging to the new generation of people who are relatively free of the negative heritage and capable of working efficiently in realities of the changed world. In particular, expanded and more balanced exchanges between the students of military and civil universities and colleges, groups of officers, Page 43 Share Cite Suggested Citation: Overcoming Impediments to U. Report of a Joint Workshop. The National Academies Press. Bi- and multi-lateral scientific conferences and workshops on nuclear nonproliferation should therefore be conducted on a systematic and regular basis. Some workshop participants also suggested that the need to take responsibility for the risks inherent in cooperation on nuclear nonproliferation can be eased through such general confidence-building activities that improve the bilateral relationship over time. Military-to-military contacts between the United States and Russian Federation were cited as an important example, and it was noted that they have played an important role over the past decade in developing the policy environment that has enabled threat reduction cooperation to advance in both the Ministry of Defense MOD in Moscow and the Department of Defense DOD in Washington. It seems possible that some of the difficulties encountered in implementing the MOD-DOD programs have come about because of the reduction in military-to-military cooperation that occurred after disagreements over the conflict in the former Yugoslavia. Restoring military-to-military contacts to the level that they enjoyed earlier in the s might thus enable an acceleration in the defense threat reduction programs. Both American and Russian workshop participants suggested that there are several types of exchanges that build cultural understanding, professional competence, and relationships between individuals, all of which can contribute both directly and indirectly to

the quality and efficiency of cooperation on nuclear nonproliferation. Exchanges by students of military schools and colleges. Such exchanges could be very useful in helping to educate a new generation of specialists who are capable of understanding the positions of their partners on negotiations and whose ability to compromise is not weakened by latent Cold War attitudes. The importance of achieving a balanced exchange of people and information was noted. Regular exchanges by groups of officers for short-term training at institutions responsible for nuclear nonproliferation Exchanges by undergraduate and graduate students for education on relevant subjects Exchanges by groups of scientists for advanced training at research centers studying issues related to national and international security Enhanced exchanges involving individual scientists to give lectures on topical problems related to nuclear nonproliferation Organization of regular bilateral conferences and workshops on nuclear nonproliferation It was suggested that development of new joint programs on training exchanges would contribute to the establishment of closer contacts and mutual understanding between the specialists of the United States and Russia involved in the implementation of bilateral projects on nuclear nonproliferation. Inter-laboratory programs between the nuclear weapons laboratories in the United States and Russia, so-called lab-to-lab cooperation programs, were touched upon briefly in the workshop. Page 44 Share Cite Suggested Citation: Such umbrella agreements do not require that general conditions of interactions be stipulated within every contract as regards specific activities and, thus, facilitate the contract consent processes both at DOE and Minatom. The Russian background paper suggested that these interactions so far have been mainly a one-way street, with funds moving from the United States to Russia and information moving from Russia to the United States. According to some Russian workshop participants, possibilities for a more balanced cooperation have begun to emerge. For instance, the Russian background paper, and most of the Russian participants, heavily emphasized the potential role of cooperation on commercial nuclear energy in the international nuclear nonproliferation regime, suggesting that the goal of nuclear nonproliferation will only be realized when the burden of obtaining and possessing nuclear weapons substantially outweighs the perceived benefits. In other words, the political and economic costs of entering the nuclear club should be made high enough to render entrance too expensive and therefore unjustifiable. They argued that, as an alternative, the United States and Russia should cooperate with the international community to adopt a more positive approach, one which facilitates the adoption of commercial nuclear energy in ways that strengthen rather than weaken the international nuclear nonproliferation regime. A range of potential collaborative projects was proposed: International development of advanced and innovative nuclear energy technologies that are capable of ensuring proliferation resistance by an optimum combination of predominantly intrinsic features technologies and materials and extrinsic measures IAEA safeguards, nuclear material protection, control and accounting, export control Expanded use of permanent instrumental monitoring systems to eliminate unauthorized modifications in reactors or fuel-cycle facilities Cooperation between the United States and Russia to develop a methodology for assessing the resistance of specific nuclear energy technologies and facilities to nuclear proliferation, especially via theft. This methodology would be internationally acknowledged and implemented. The development of international standards on nuclear nonproliferation which would operate within the NPT framework. Such standards could comprise an agreed classification of nuclear facilities, taking the national security concerns of collaborating Page 45 Share Cite Suggested Citation: They could also specify comprehensive, symmetrical data sets on such facilities, which participating countries could agree to provide. The creation of a mechanism for ensuring fair competition by the United States, Russia, and other nuclear countries in the markets of non-nuclear countries to support this expanded nuclear nonproliferation complex. The Russian background paper cited several steps that have already been taken toward a more positive approach to nuclear nonproliferation, including the HEU Purchase Agreement, cooperation on disposition of weapons-grade plutonium, and ongoing multilateral efforts to develop proliferation-resistant nuclear technologies. A number of Russian participants pointed out that the failure of the United States and Russia to cooperate on the development of nuclear energy, and disagreements between the United States and Russia on these issuesâ€”particularly with regard to Iranâ€”constitute

impediments to cooperation. These disagreements and failures to cooperate are hindering the expansion of joint bilateral research and development on advanced nuclear reactors and fuel cycle technologies which are resistant to nuclear proliferation. It was suggested that the collaborative measures cited above might be able to simultaneously help overcome these obstacles and bolster the international nuclear nonproliferation regime. For that reason, pursuit of new laws has not been a frequent mechanism used to speed or ease implementation of nuclear nonproliferation programs. More frequent have been steps worked out on a bilateral basis within the structure of existing laws. On-site inspections in the arms control process had begun only a few years before, with the implementation of the Intermediate-Range Nuclear Forces INF Treaty. Prior to that time, there had been no routine way for Russians to visit U. Thus, the nuclear nonproliferation threat reduction programs were stepping out into virgin territory. Page 46 Share Cite Suggested Citation: As part of this legislative process, conditions are sometimes attached to the funding of cooperative nuclear nonproliferation programs. In some instances, these conditions have themselves constituted impediments to implementation. Although relatively few changes to national law have been required to implement the programs, in some cases national law has had an enormous impact on that implementation. It was noted, however, that these new regulations have impacted a wide range of international cooperation, not only those involved with Russia or on cooperation on nuclear nonproliferation. It is within this broad international context, therefore, that the consequences of the actâ€”and any future modifications of itâ€”should be considered. Implementing procedures or regulations can also be changed without impacting the law itself. For example, as discussed elsewhere in this paper, U. This streamlining would be within the existing law, but would refine its implementation. Interagency relations in each country also have the potential to either hinder or facilitate cooperation on nuclear nonproliferation. Some of the background materials suggested that, in the U. Such duplication, of course, leads to sharp criticism and even greater consequences, such as budget cuts, at the hand of Congress. In the Russian case, the interagency structure has been in considerable flux in recent years, with frequent reorganizations hampering understanding of exactly which agencies must participate in the decision-making process. Agencies not directly responsible for implementation have, as a result, had opportunities to hamper progress or, in some cases, veto it outright. The Russian background paper called for the appointment of a single senior official in each government who would work to improve coordination of all cooperative nuclear nonproliferation activities. The official would report to their respective president and head interagency groups on nuclear nonproliferation. Others did not go as far, but urged instead that, rather than a tsar, a more coherent and focused interagency process should be sought within the normal structure of the executive department. Such a process would coordinate, but would not have direct influence on budgetary decisions or their implementation. Page 47 Share Cite Suggested Citation: By providing opportunities for program participants to learn from the experiences of others, effective communication across programs also helps to build a common body of institutional knowledge upon which new staff members can draw when they begin their work. It was suggested that it is important to actively encourage and guide the development of institutional knowledge as part of a well-developed personnel policy, because such a body of knowledge can serve as part of the mechanism for generating, communicating, and enforcing system-wide performance expectations, and because new employees can draw on this body of knowledge to ease their transition into a cooperative nuclear nonproliferation program. Several types of mechanisms for disseminating information were discussed. Workshops and conferences are clearly useful mechanisms for sharing ideas and experience. They not only provide venues for American and Russian program managers to interact outside of official channels, but also create opportunities for program participants to exchange ideas with experts who are not directly involved with cooperative nuclear nonproliferation programs. However, many of those involved in collaboration already have a grueling travel schedule, and some information may be most effectively imparted in the form of a report. Therefore, a system which provides well-coordinated, reliable dissemination of relevant material on paper and via the Internet, as demonstrated by the INSP program, might also enhance inter-program communication. Finally, there may be substantial benefit in establishing a unified program evaluation system

which is transparent to program participants. This would provide a mechanism for negotiating and striving to meet an agreed set of program goals, for assessing where individual programs might make improvements, and for creating an institutional memory from which both new and experienced program participants can learn. The Russian background paper noted that the goal of educating, training, and promoting a new generation of specialists and managers goes far beyond the scope of the current project and requires the long-term, large-scale, and concerted efforts of the governments and other political, scientific, and cultural institutions of both countries. It could become one of the strategic goals of the United States and Russia for the foreseeable future. Only a new generation of people, free of the negative stereotypes of the Cold War and possessing a fundamentally changed mentality, can irreversibly cement the relations of confidence, friendship, and cooperation between the United States and Russia. This transformation will be neither quick nor painless. Page 48 Share Cite Suggested Citation: It was argued that failures to establish agreed program priorities when programs were just beginning have increased the difficulty of completing the projects and resulted in misplaced effort. Improving the process of establishing program priorities would be quite useful in providing guidance to program participants as they make daily decisions about how to allocate time, funding, and other resources. Given the scale and complexity of the network of cooperative nuclear nonproliferation programs, the process of rapidly correcting the root causes of a particular problem may be more destructive than the problem itself. The use of tools such as exemptions and waivers provides the opportunity to solve immediate problems without having to wait until their more fundamental causes have been addressed. One example that was cited was the use of waivers or exemptions to overcome the visa and site access problems that increasingly plague cooperation between the United States and Russia on nuclear nonproliferation. The goal would be to substantially reduce the number of people in both countries who must repeatedly apply for visas and access clearances to perform their regular duties. It must be stressed that these arrangements were not in contravention of Russian law or regulation, but simply fell into unknown territory. The United States and Russia had never worked together at sensitive sites in the past, with a few exceptions, such as on-site inspections under the INF Treaty. Ad hoc arrangements thus arose out of the necessity of getting work done in unique circumstances, where the two countries had no agreements to fall back on, but were committed to establishing and carrying forward the cooperation. Sometimes, those involved were working under a commitment set at a very high level, such as at a presidential summit, and therefore they were accorded some political cover. In other circumstances, however, progress came because individuals were willing to proceed, essentially on their personal recognizance. Page 49 Share Cite Suggested Citation: In these cases, the hosting minister has often taken personal responsibility for negotiating special access to sensitive sites or other arrangements with counterpart ministriesâ€”thus placing a heavy burden on his store of political capital.

Chapter 4 : State of Oregon: Hazards and Cleanup - Implementing the Dry Cleaner Program

The aim of this study was to identify the major barriers to implementation of effective workplace violence prevention programs in hospitals. As a first step in better understanding barriers to implementation of effective workplace violence prevention programs, we conducted a study utilizing focus groups of nurses and allied health professionals.

Receive tips and tactics on key elements, such as how to involve and engage senior leaders, how to involve and engage staff and clinicians, how to develop an infrastructure for QI at scale, how to meaningfully involve patients and families in QI work, and how to design your improvement approach. After this presentation, you will be able to: Develop a strategy and theory of change for creating a culture of continuous improvement across your organization Identify tactics for involving and engaging people across the organization, from senior leaders to clinicians to administrators, in QI work Develop an awareness of the key requirements in building an infrastructure and support system for QI at scale Presentes: Do you want to reduce burnout as a barrier to personal and organizational health but are unsure where to start? This session offers practical methods that leaders can apply to ensure physical and psychological safety throughout their organization, plus steps to foster joy in work, and to create a journey map for their organization that yields a safer, more joyous workplace. Address your organizational needs to ignite joy in work and ensure safety Interpret and apply practical methods in physical and psychological safety plus steps to joy in work Construct an initial journey map that sets the path to a safer, more joyous workplace Presenters: For one week, health care leaders across the United States, Canada, and Europe asked their patients and staff this simple question. The responses were illuminating and galvanizing. Join us to explore how this effort led health care leaders to discover hundreds of rules, policies, and habits that were developed with the best of intentions but do little to improve the care experience and the actions taken to address them. They make care happen, yet most health care organizations underspend on leadership and management development. This highly interactive workshop explores new thinking and delivers practical leadership lessons. Participants will explore the critical skills required across four competencies: There are no shortcuts to better quality, safety, or value; active physician engagement is critical. To fully participate, most physicians need to acquire skills in improvement methods and to expand their traditional views of autonomy, teamwork, leadership, and accountability. Learn lessons from the Virginia Mason experience and principles to apply to your own institution to engage physicians in transforming care. Identify how urgency, shared vision, change sponsorship, an explicit compact, and a single organization-wide improvement method facilitate needed physician engagement Articulate how to address the unspoken assumptions physicians hold that become barriers to their engagement in improvement Presenters: To achieve quality aims, organizations must develop capable leaders of improvement, and often they do so through internal training programs. This course will address common questions: Which people should these programs train? How to measure success? What mistakes to avoid? What are others doing? Describe how some highly innovative organizations are currently running successful improvement capability training programs Develop improvements that could be applied to your existing improvement capability training programs Presenters: Are there really high-impact changes that have the potential to accelerate transformation across health and social care? This session will draw on real-life examples where the answer to this last question is a resounding "yes. Understand the governance responsibility for quality and performance Gain insights into board structure and process for overseeing quality and safety Describe the importance of the board role in setting aims and expectations Presenters: The presenters will discuss how the company used the Model for Improvement, Knowledge to Action cycle, and the Five Practices of Exemplary Leadership to create a culture of ongoing development and deliver improved patient care consistent with the Triple Aim. Describe how the Model for Improvement and Plan-Do-Study-Act PDSA cycles support real-time learning and continuous performance improvement Explain the essential role that leadership development plays in creating and sustaining an organizational model geared toward continuous improvement and effective change management Develop a

strategy for implementing an evidence-based approach to human resources within your own organization. These achievements have not occurred by chance. The panel will discuss the leadership qualities and learning processes that drove improvements in military trauma care and the opportunities to eliminate preventable injury deaths through translation to the civilian sector. We aimed to equip specialist physicians having little quality improvement experience to lead improvement initiatives across a wide range of organizational opportunities quality and safety, clinical and operational. This presentation highlights our approach to develop and roll out our first cohort of physician change leaders, as well as a summary of more than 10 projects in implementation, plus recommendations for other organizations. Develop a strategy and framework to create a program for physicians in leadership and quality improvement Understand how to implement a framework to enable physicians to lead quality and performance improvement projects Learn from success stories from our physician quality and performance improvement program, as well as lessons learned Presenters: Leaders at every level are confronted with specific issues, performance concerns, and pressure to fix them. You are expected to know how to act, but are you making the right decision? In this session, learn how improvement science can support leaders to discover if an issue is due to identifiable reasons or is the result of a process to improve, and what actions to take to support enhancing performance in each case. Describe the role of understanding systems and variation in leadership improvement Understand the difference between attributable causes and common cause Know how leaders should focus improvement differently depending on the cause Presenters: Contrast this with industries where management through improvement science has resulted in increasing quality year-on-year. We expect excellence from cars and devices, and in service. In this session, participants will learn the difference between improvement science in projects and its systematic application through management. Understand the current state of improvement in health care and the gap between in other industries Identify attributes such as understanding variation, systems thinking, scientific learning, and the role of psychology Identify changes that you can make to learn from improvement science and close the health care improvement gap. We will present a framework to help leaders at different levels of a system in their efforts to deeply engage people and connect them to a shared purpose. Develop knowledge and understanding of the key drivers to a motivated clinical workforce that is continuously improving: We began in January by focusing on addressing the opioid crisis and improving mental health care. How can such an ambitious effort be designed, built, and supported? Describe strategies used to launch a collaborative engaging care systems and health plans Use the Collaborative Action Framework to support their own work Understand when collaborative action is a beneficial method for solving complex problems Presenters: In this engaging and highly interactive session, the presenters utilize their combined experiences in improv theater, patient advisory work, and business to give participants a practical guide to team communication in the multigenerational health care teams workplace. Understand the importance of communication in effective teamwork collaboration, innovation, performance Identify the characteristics and communication styles for each generation Learn practical strategies for improving multigenerational team communication Presenters: We will present program design, curriculum, implementation process, and results and facilitate discussion about developing physician improvement leaders. Focusing on a few specific management traits and behaviors from the framework, we share how two systems promoted change by providing support and tools to front-line leaders, often the most influential members of the work setting. Identify ways to accelerate the development of culturally healthy learning environments in your organization Describe how to engage and enable front-line leaders with innovative tools to support the development of learning environments Examine the personal, social, and structural factors that enable organizations to create highly reliable learning environments Presenters: A Conversation High-Impact Leadership: A Conversation This session is designed to be an interactive and lively conversation moderated by the authors of the IHI High-Impact Leadership white paper. Learn from an expert panel of health care delivery system CEOs and senior leaders about their leadership experiences and learning while leading change and organizational transformations. Understand the IHI High-Impact Leadership Framework and Behaviors Gain insights into leadership behaviors that shape culture

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Learn from the leadership challenges and efforts of successful leaders Presenters:

Chapter 5 : Health and Medicine : Health and Medicine Division

programs, including air, water, toxics and hazardous waste. This evaluation also looked at the Agency's efforts to promote pollution prevention approaches at other Federal agencies, which is also authorized by the P2 Act. The P2 Act established a national policy that pollution should be prevented or reduced at the source whenever feasible.

Impediments in Carrying Out Approved and Funded Collaborative Projects Government agencies, universities, research institutions, private-sector companies, and individual scientists in the United States and Russia have derived many benefits for both countries and for individual participants through bioengagement projects. At the same time, however, these institutions and individuals have often encountered operational impediments that have complicated implementation of activities after project approval at appropriate levels of the governments, as well as by the leaders of the institutions that are involved. At times, the two governments have taken the initiative to resolve problems that have arisen during implementation of projects. But more often, the institutions responsible for program implementation and the individual project participants have assumed the responsibility for finding ways to overcome barriers. Most difficulties hindering bioengagement also permeate cooperation in other fields of science. A common reason for such reviews of applications from participants in science programs is the possible linkage of proposed activities with export-control regulations or with other security concerns. Page 92 Share Cite Suggested Citation: Recent Experience and Future Directions. The National Academies Press. Joint scientific efforts, and of course joint successes, frequently engender strong support from the general public as well as the governments. Development and implementation of science programs are usually less controversial politically than exchanges in some other areas. Also, programs that provide for large financial transactions across international borders are usually scrutinized carefully by authorities in the two countries. Difficulties that arise during implementation of cooperative science projects depend in large measure on the extent and depth of the preparatory steps to carry out different types of activities. Such advanced planning is particularly important if the activities involve collaborators at institutions that have little experience in receiving foreign visitors. Also, arranging visits to geographical areas that are not on traditional itineraries of foreign visitors may be difficult for inexperienced hosts. Usually, activities explicitly endorsed in documents issued by appropriate government agencies in the two countries before they begin encounter fewer administrative delays than activities that are arranged without such official support. Nongovernmental programs involving access to sensitive information or facilities that are not completely open are particularly susceptible to unanticipated disruptions by local officials who are unaware of itineraries approved in Moscow or Washington. For many years, the two governments have relied on one or more intergovernmental working groups to encourage removal of unwarranted impediments to cooperation. The focus has been primarily on impediments that delay government-sponsored activities. However, at times the working group has considered issues that have significant effects on the interests of the private sector as well, with the exception of trade relations, which are usually handled in other forums. This chapter highlights several issues that have been of interest to the intergovernmental working group. These issues are a delays in issuing visas along with travel and time limitations associated with Russian visas, b customs duties levied on imports of scientific equipment, c tax status of international and foreign research organizations operating in Russia, and d delays in obtaining authorization for marine scientific research. While the working group has been an important focal point for addressing these topics, the issues are also discussed in other venues, such as meetings between embassy representatives and officials of the Department of State in Washington or the Foreign Ministry in Moscow. The chapter also considers a ownership of intellectual property IP that is developed through cooperative activities, and protection of existing IP that is exposed during collaboration; b access by participants in joint projects from one Page 93 Share Cite Suggested Citation: Before addressing the foregoing issues, the importance of having access to reliable funding for carrying out both planning activities and implementation activities should be underlined. Without funding for

cooperative activities, there is little motivation to be concerned about impediments that seem abstract. VISAS Delays in issuing visas and the short lengths of stay that are often permitted by visas have for many years been barriers to more extensive U. In July , agreement was reached on a new bilateral visa agreement between the two countries that then entered into effect in September The agreement provides for multiple-entry visas with a validity of 36 months for most business and tourist visitors. Official visitors are to have 1-year multiple-entry visas. If long-term visas are issued for cooperative science programs, they should resolve a number of the visa problems associated with bioengagement. Of course, visa officials may decide that 3-year visas are not appropriate for certain activities, and there undoubtedly will be continuing issues surrounding the issuance of visas. One visa-related factor that the governments consider is the linkage of biology to terrorism and proliferation concerns. Until , the limited time allowed in Russia to a visitor who was conducting research a maximum of 90 days during a single day period hindered efforts of some researchers in completing their activities on schedule. Also, clarification of procedures for American scientists to obtain permission to conduct research near international borders, particularly in outlying regions of Russia that have different access requirements from region to region, would have helped foster exchanges when travel to certain geographic landscapes was important. It is too early to know whether the new visa regime will significantly reduce such problems. By , the time required for issuing U. But in some cases, the delays were unacceptably long. The process is often burdensome for Russian scientists who do not live in Moscow, St. The travel from Russian towns to far-away U. Also, reliable and expedited delivery services are not available in many towns of Russia. As is well known, each visa applicant must take personal responsibility for allowing sufficient lead time for issuance of the visa, in accordance with requirements set forth by each government. While both governments continue efforts to expedite issuance of visas, they should also give attention to ensuring that potential visa applicants are adequately informed as to the time needed for processing visa applications and as to the status of applications. There have been frequent changes in procedures in recent years, and at any given time, applicants may not be aware of the latest requirements. In short, the payment of customs duties has been and remains a difficult issue in carrying out projects within the framework of the Agreement on Science and Technology Cooperation. At times, there have been misunderstandings at the Russian port of entry concerning the extent of the authority granted to the ISTC. But in general, ISTC facilitative services have been quite effective. Now, as the ISTC prepares to cease operations in Russia in , tax-free transfers of the titles that the ISTC currently holds to the Russian research centers where the items are located has become a significant issue. Customs charges have been a continuing issue. At present these charges cannot be avoided. Also, CRDF charges a modest fee for its facilitative services. It is not surprising that many U. But if the two countries move toward a new model for cooperation that provides for each side to support its own scientists, transfers of money for equipment, salaries, and other purposes should be less frequent. During the early s, the availability of foreign scientific equipment for sale by Russian importers increased significantly. The availability of foreign equipment in the sales departments of many large Russian companies, together with the maintenance service provided by Russian-based technical representatives of the manufacturers of the equipment, has reduced the need for Russian institutions to arrange their own imports of equipment. They can now buy equipment at sales outlets in Russia. Some advanced technology items are not available in Russia. As a specific example, several scientists associated with the U. Fish and Wildlife Service terminated their cooperation with Russian colleagues because it became too time-consuming to obtain permission to work effectively across international borders. A significant problem involved imports of global positioning system devices and satellite tags used in animal migration studies. Some marine mammals and birds of interest that migrate between Alaska and Chukhotka have the potential to spread different types of diseases, such as avian influenza, that could then be transmitted to human populations. Most of these 12 now 13 organizations are U. The Russian Ministry of Finance was to develop procedures for reinstating many of the other organizations and adding still others to the tax-exempt list on a regular basis, but this has not occurred. The Duma has been considering legislation that would grant additional foreign and international organizations tax-exempt status.

This issue affects the activities of U. The intergovernmental working group is attempting to have the Ministry of Finance include on the list a number of U. In summary, tax aspects, along with customs requirements, clearly deserve special attention, including appropriate budgeting for expenditures to meet legal requirements. Legal issues often require expert opinions that should be obtained prior to undertaking joint efforts, so that surprises during implementation are avoided. The governments can play helpful roles in these areas. Page 96 Share Cite Suggested Citation: The United States has consistently been slow in granting permission for Russian vessels to operate close to the U. An example provided by the Department of State of the problems with permission to enter waters close to Russia is as follows: In , scientists associated with the Russian-U. Long-term Census of the Arctic research program on board the Russian-flagged vessel Khromov were prevented by the Russian navy from entering Russian territorial waters to retrieve three oceanographic moorings. These moorings had limited battery time. Some of the data will never be retrieved. It is clear that this administrative problem could have been avoided through better communications, and it harmed the carrying out of a costly Arctic research program that has significant biology-related components. The situation apparently improved in These documents may be intergovernmental agreements, memoranda of understanding, or simply exchanges of letters. Whatever the format, they are important. And they must have the correct stamps and signatures. Even the best-designed joint activities can be disrupted through lack of appropriate and readily available documentation. Occasionally, IP rights have been a contentious issue in setting the stage for a cooperative activity. At times, patent protection may be critical for successful marketing of products. However, the significance of patent protection may be exaggerated. In Russia, in particular, an inventor may be more interested in having a patent certificate to hang on the wall than using a patent as an incentive for a paying customer to adopt a new discovery. The inventor may have witnessed too many colleagues waste their time searching for customers, although at the same time the inventor would like personal recognition for his or her technical achievement. Nevertheless, the lack of agreement on such protection can inhibit sharing Page 97 Share Cite Suggested Citation: Also, such a situation can deny an inventor of a fair share of the income that is received from unconstrained use of information, which should belong to the inventor. This is particularly important when newly developed advanced technologies are integral to the successful completion of collaborative projects. Further complicating the situation is distinguishing new technological approachesâ€”approaches that presumably are governed by contractual arrangementsâ€”and utilization of old technological discoveries, which presumably belong to the institution that had developed the technologies before entering into a contract. More than a decade ago, the U. The idea was to be sure that all parties agreed in advance as to how successful endeavors were to be handled. But the approach throughout the U. Agencies have the flexibility to determine in negotiations with foreign partners the ownership aspects of discoveries resulting from a grant or contract that they are prepared to award. Also highlighting differences in approaches, the U. Agency for International Development USAID has used the common foreign assistance practice of granting to recipients of assistance all IP rights for using results of activities that are carried out through joint efforts. It was established to be an assistance agency, not a promoter of U. The ISTC has had a different approach.

Chapter 6 : Reports from the Sustainability Program at The National Academies

The purpose of the meeting was to foster a focused discussion on opportunities to increase the use of waste heat; the technical, economic, and regulatory barriers in the U.S. to expanded implementation of waste heat programs, and ways these barriers can be reduced; and the role of federal agencies in supporting these programs.

Numerous international and domestic fisheries studies indicate that overcapacity and excessive fish harvesting capacity are prevalent in many common property and open access fisheries, regardless of the scale of fishing or the type of fishery. Overcapacity and excessive fish harvesting capacity can also occur in limited access fisheries. Wherever these situations occur, overcapacity contributes to overfishing, economic waste and unsustainable development. Objective of the Expert Consultation The expert consultation Catalysing the Transition away from Overcapacity in Marine Fisheries is an opportunity to gather experts from a diversity of technical backgrounds - including resource economics, marine policy, biology, marine and coastal management - and cultural backgrounds - including South America, Southeast Asia, Oceania, North America, and Europe. The group will discuss and provide guidance on ways to facilitate the adoption and implementation of capacity reduction programs and, more specifically, on the difficulties associated with adopting and implementing such programs. In doing so, and as part of the issue of how to get various stakeholders to embrace capacity reduction programs, the guidance will likely also offer ideas on how to mitigate the negative effects of capacity reduction programs. As stated in the Prospectus: The purpose of the Expert Consultation will be to identify and outline innovative strategies and mechanisms for reducing overcapacity and subsequently avoiding the regeneration of overcapacity. The Expert Consultation recognizes the need to catalyze political will, partnerships, and policy reforms in order to create capacity reduction programs are going to be. Thus, the participants will work to: In addition, the Expert Consultation will cover issues such as subsistence, employment, and the raising of revenues and foreign exchange in various types of industrial fisheries. The discussions will also take into account the flow-on and downstream effects that adjustment programs can have on other sectors, including artisanal fisheries sectors. Approach of the Expert Consultation: Each skeleton situation below describes a possible circumstance in which a capacity reduction program may be applied. Although the situations may reflect conditions found in many parts of the world, they are not intended to refer to any one particular real fishery. These situation descriptions are intentionally simplistic. Using brainstorming and other facilitation techniques, the participants will generate their guidance on how to catalyze the transition away from overcapacity. Catalysing the Transition from Overcapacity: Guidelines of the Rome Expert Consultation: Report of the expert consultation on catalysing the transition from overcapacity, Rome, The principal output will be available prior to the 25th session of the FAO Committee on Fisheries COFI that is being held in Rome in Framework Situations Situation 1 - Overcapacity in an industrial fishery Stock:

Chapter 7 : Leadership Track

7. Impediments in Carrying Out Approved and Funded Collaborative Projects. Government agencies, universities, research institutions, private-sector companies, and individual scientists in the United States and Russia have derived many benefits for both countries and for individual participants through bioengagement projects.

Moving to a learning healthcare system will require the identification of specific areas where system complexities slow or inhibit progress and the development of solutions geared toward overcoming impediments and failures. Workshop discussions considered a number of process inefficiencies, structural barriers, and system failures that are significant impediments to quality and that preclude the delivery of highly effective, highly efficient, evidence-based health care. In the second workshop session, the focus turned to the areas of underperformance that may need the most attention and correction from an engineering perspective. Presenters in this session examined select obstacles inherent in multiple healthcare system components and certain flawed processes that particularly affect the generation and application of evidence. This chapter begins with an overview of the healthcare culture. In his presentation William W. Stead, chief information officer of Vanderbilt University Medical Center, described the current healthcare environment as being characterized by competition, misaligned incentives, and inherent distrust among stakeholders. Throughout health care, Stead sees competing cultures at loggerheadsâ€”as exemplified by the tensions among consumers who want high service and low out-of-pocket costs, payers who want to select risk and limit cost, and purchasers who want more value at the lowest cost. Education for health professionals is only one area that needs reform. Another requirement will be to move from the business of managing episodes of care to the business of caring for patients and populations. He added that similar fundamental reforms will need to be engineered into the business models of virtually every healthcare stakeholderâ€”in payment mechanisms, and, notably, in the role of the individuals in managing their own care. Speaking from her perspective as a cardiologist and health policy analyst, Rita F. Moreover, limited integration in the design of systems for health information technology HIT and technologies such as imaging systems has allowed their misuse and overuse, thus impeding their ability to improve healthcare quality. Redberg surveyed the current landscape of diagnostic and treatment technologies available for heart disease and offered suggestions for systemically evaluating and using these technologies in ways that improve care and reduce costs. She proposed that more systematic data collection and the development of more prospective registries would lead to better-informed decisions in health care. Addressing a concern that was raised throughout the workshop about the need for more robust data collection and mining capacities, Michael D. Chase, associate medical director of quality, Kaiser Permanente Colorado, asserted that the U. Impediments to full use of the data include limited data access, a problem that is exacerbated by inadequate adoption of electronic health records EHRs and lack of data standards. As health care has become more complex, the lag in the sophistication of data applications in evidence generation has become more acute. Engineering principles, Chase suggested, could help those in charge of health care manage various complex processes and increase the use of data for clinical decision support. Chase offered examples and suggestions concerning how key delivery systems could be better integrated into healthcare systems in order to address critical areas in health care. For example, Chase proposed a patient-centered, population healthâ€”based view grounded in the principle of getting the right information to the right member of the healthcare teamâ€”including the patientâ€”at the right time during the workflow or decision-making process. Chase presented a model that takes a broad look at decision support opportunities across a continuum of patient needs, available healthcare professionals, tools and systems, and an extended time line for patient care. Deutschendorf, senior director for clinical resource management at Johns Hopkins Hospital and Health System and principal of Clinical Resource Consultants, also observed that there has been an escalation in system and patient complexities throughout the current healthcare environment. The crush of information, a plethora of new technologies, increased regulatory oversight, an aging population,

and heightened consumer awareness and expectations have all contributed to the disorganization, fragmentation, and discontinuity of patient care. Consequently, she argued, effective care coordination and linkage have become even more important. Deutschendorf spoke of the need for processes that ensure patient-centered alignment of care. One application is a care delivery process with communication models and systems that can ensure the accurate and timely transfer of patient information throughout the healthcare continuum. Deutschendorf suggested a number of other changes, including more clarification, definition, and distinctions between acute patient care and ambulatory care; better management of consumer expectations; and increased communication and collaboration between caregiving team members. Because models of care need to be based more firmly on evidence, she proposed that rigorous research be conducted to determine which care delivery models can yield appropriate safety outcomes and the highest possible quality outcomes. Muller discussed areas of successful transformation in administration and business systems at his institution. He highlighted projects on patient registration, billing, and revenue cycle management, and he discussed how each was transformed in order to be more effective. He also described a project that examined how UPHS inpatient and outpatient operations were improved through a combination of systems analysis, reporting systems, incentive alignment, and continuous change management. In discussing lessons learned in several areas of day-to-day practiceâ€”as well as from significant, documented resultsâ€”Muller illustrated how engineering-specific interventions can change systems of care. In recounting examples of reform at UPHS, Muller also highlighted elements of a methodology for conceptualizing change in the face of entrenched health cultures. He offered specific lessons learned about using data and analysis to identify opportunities and motivate change, redesign workflows and restructure roles, integrate information technology, establish goals and monitor performance, and create meaningful incentives. The final speaker in the second session, Eugene C. Nelson of the Dartmouthâ€”Hitchcock Medical Center, said that we will need a healthcare system information environment that provides critical knowledge that can be used to effectively manage individuals over time, evaluate and improve the quality and value of clinical practice, and facilitate basic translational and outcomes research. Nelson detailed the issues and concerns that motivated the project, discussed the challenges of designing the systems, and described their positive impacts on system effectiveness and patient satisfaction. First, that culture is centered on individual expert health professionals; their behaviors reflect the way they are selected, the way they are educated, and what it takes to survive in their work environment. These cultural roots of the health professions must be addressed if change in health care is to be realized. Second, the culture of health care in this country is one of a clash among competing forces. Stakeholders work against each other to obtain advantage for themselves at the expense of others. If we are to achieve meaningful improvement, this competitive clash needs to be transformed into a competition to work together to achieve the right results for the patient. The way health professionals make decisions will not scale up to handle the data load that is resulting from biological discoveries in genomics, proteomics, and other areas. This last observation is good news. As the health professions and other stakeholders realize that they cannot escape disruptive change, we will have a once-in-a-century chance to test better approaches to health care. Building on these observations, this paper contrasts the current healthcare culture with a future culture in which care is delivered through systems approaches. The Culture of the Health Professions The culture of the health professions is rooted in their education. In the first phase of that education, the scientific basis of health and disease and the scientific method are taught. The goal is for each professional to have a current fact base and to know the method by which facts are discovered. This phase of education is preparation to act on what is known, interpret new literature, and learn from practice. By way of analogy, at the end of this phase, students have learned how the car works and how it is built, but they have no idea how to plot a path from point A to point B. In the second phase of education, students learn practice through an apprenticeship model in which they are mentored by a variety of individual experts. To continue the analogy, in this phase students learn the many ways to use the car to get from point A to point B and which ways work best. The third phase of education extends throughout the career as learning continues through practice and reading. If something

unusual is seen in a patient or something new is tried on the chance that it might work, case reports are written to share observations. When the effects of alternative approaches are sought, a trial is conducted and the results written up. However, learning remains individual. Each health professional seeks to be the best expert at caring for the cases he or she sees. The culture of the health professions is influenced by the way decisions are made. The reasoning of health professionals, because they are experts, takes place through the recognition of patterns. A person with fever, cough, infiltrate on a chest X-ray, and an elevated white count is suspected of having pneumonia, while a low white count causes concern that the immune system is overwhelmed. These conclusions are based on the entire picture, in much the same way that a constellation in the night sky is recognized. There is no systematic processing of data and calculation of combinatorial probabilities as is done by a novice in a learning situation. In addition, the data used to make decisions are imprecise. Many measurements used in clinical practice are correlative measures, not direct measurements of the substance itself. For example, nephrologists used to measure serum creatinine, an indicator of renal function, by the light absorption of a compound formed by the adduct formation between creatinine and the picrate ion. Other compounds were absorbed at the measured frequency, causing falsely elevated measures. In other words, physicians erred on the side of treatment with a toxic drug because treatment had to be started early to save the transplant. This overload is handled through specialization and subspecialization. In the process, some are learning more and more about less and less, while the rest are learning less and less about more and more. The workflow requires large amounts of multitasking, is interruption driven, and is nontransparent. There is no chance to sit and reflect. Compensation models reward piecework, procedures, and technology. The combination of these internal roots and external pressures has led the culture of the health professions to become one in which circumstances that conflict with quality health care are accepted. Variability in practice is accepted as well. The best experts are sought out and expected to disagree. What other industry would report success if there were a shift in performance on a recommended practice from 60 to 80 percent of cases? If 5 practices need to be followed for each patient with a condition, and each is performed correctly 80 percent of the time, the probability that all 5 will be done correctly for a given patient is just 33 percent. Autonomy is a goal of training. Challenges from those lower in the hierarchy are not acceptable. The conditions under which health professionals function lead to increased self-confidence and cynicism Gray et al. The fragmentation in care results in less of a sense of responsibility. Although everyone knows the healthcare system is broken, each individual believes his or her own practice is quite good. Data showing the variability in practice are met with surprise. By and large, health professionals are passionate about doing the right thing and are attempting to provide care for patients despite the system. Most of the time, they do a good job. The trouble is that most of the time is insufficient to avoid the quality problems that are ubiquitous in health care. The Clash Among Competing Forces The culture of the health professions is just one of many cultural challenges to achieving better health care. The healthcare system in the United States is a clash among competing forces; it is not a system. Health professionals, for example, focus on payment for services and autonomy. Care facilities seek high-margin services and low supply costs. Suppliers focus on intellectual property protection and volume. Meanwhile, consumers seek accessible services and low out-of-pocket costs. Payers pursue the right to select risk and limit cost. Purchasers want more value at the lowest cost. As Porter and Teisberg point out, the different stakeholders compete in a zero-sum game. The only way a payer can reduce costs for a purchaser, such as an employer, is to negotiate with the provider to take less or force the consumer to receive less.