Transforming Workplace Health and Safety through Accountable Care Organizations and the Patient Centered Medical Home: New Pathways for Employers

Proceedings of the ACOEM/UL Invitational Summit

Accountable Care Organizations and Patient-Centered Medical Homes

August 17-18, 2015

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Introduction

The trajectory of health care reform in the United States has been moving increasingly toward the goals of cost-effective delivery, improved patient outcomes, and greater patient satisfaction with care received. In recent years, stakeholders in multiple sectors of the health care system have actively pursued these goals and as a result, a number of new conceptual models for health care delivery have emerged, including Accountable Care Organizations (ACOs) and the Patient Centered Medical Home (PCMH). At the core of the ACO and PCMH concepts is the idea that increased integration and coordination of health care goals and processes within the health care system is essential in order to achieve lowered costs and better outcomes. Fragmentation in the health system can be reduced by creating a team-based environment in which diverse individuals and organizations work closely together, securely sharing data as allowed, and giving patients a greater role in their health care decision-making.[1] The goal is to improve the value of health care services and to control costs while improving quality and satisfaction as defined by clearly established process and outcome metrics. In both the ACO and PCMH concepts, a strong emphasis is placed on population health care strategies. This approach emphasizes preserving wellness and preventing disease as well as treating illness. As noted by Cathy Baase, MD, Chief Health Officer of Dow Chemical Company, in an April 10, 2016, presentation at the American Occupational Health Conference, employers are increasingly recognizing the business value of a healthier workforce and healthier communities. "Health is seen as a driver of corporate business strategy" due to:

- **The inexorable rise in U.S. health care costs**
  - Huge waste: about 1/3 of health care costs
- **Prevention opportunities**
  - Prevention efforts could eliminate about 30-50% of the illness burden driving these health costs
- **Massive safety and quality issues in U.S. health care system**
  - 200,000 – 400,000 deaths/year and 10-20X sub lethal events due to errors in the health care system
- **Business value of health as a key driver of other corporate priorities**
  - Safety, employee performance/engagement, loyalty, morale, attraction and retention of employees, corporate reputation, reliability and sustainability

While the central work of coordinating and integrating health care in these models takes place among hospitals, physician group practices, insurers, and other health care organizations, recent policy discussions have advanced the idea that the ACO and PCMH concepts could be strengthened if they were more actively linked with the health promotion and safety efforts of employers and local communities. Because health behaviors and health risks extend across the home, community, and workplace, it is theorized that better health outcomes could be achieved if the primary care and public health communities proactively linked forces with the employer-based occupational health and safety community to advance these new concepts.[2,3] Fostering direct relationships between these communities should enhance the impact of their separate efforts.

The employer community, which in recent decades has dramatically expanded its efforts to improve worker health and safety through specialized programming, can bring deep resources to the ACO/PCMH equation – including system process optimization,

health data collection, population health management, preventive health monitoring, health incentives and recognition programs, and much more. Employers' health-related programs and capabilities are an extremely valuable – and largely untapped – resource, available to help advance both ACOs and PCMHs.

Moreover, one of the best ways to support the health of an individual is to support his or her ability to function at a high level at work, home, and play. Since employment is a social determinant of health, these direct relationships can impact workforce performance and community health and prosperity. By working as active partners in the ACO and PCMH models as they continue to expand in cities and regions across the U.S., the employer community would intersect with the primary care and public health communities in a way that would help advance a true 24/7 continuum of health consciousness and encourage a national culture of health.

In 2012, the American College of Occupational and Environmental Medicine (ACOEM) advocated publicly for this strategy, publishing a position statement calling for greater integration and adoption of ACO and PCMH principles by employers in an effort to extend the impact of the two concepts nationally.[4] Three years later, the ACO and PCMH models have continued to advance, including significant expansion of ACOs from the public sector (Medicare) into the private sector (major health plans and self-insured employers). Over the same period, employers have become more ambitious in developing new integrated health and safety measures to ensure health and productivity in the workplace.

With the health of millions of American workers being impacted by these developments, ACOEM and Underwriters Laboratories (UL) convened a national invitational summit meeting in August 2015, to explore the new era of ACO and PCMH expansion in the United States, and to re-examine the future role of workplace health and safety initiatives in this new era. During the 1 ½-day summit, 15 experts representing government, employers, health care providers, and industry shared data and explored new ideas for maximizing ACO and PCMH impact.

A key trend noted by Summit participants is that some employers – especially those that are large and self-insured – have adopted so many of the core principles of team-based, integrated health care into their own workplace health and safety strategies that they can be considered potential catalysts for the continued expansion of ACOs and PCMHs. As large purchasers of health services, and with expertise in worker health and safety, population health management, data collection, supplier management, and quality improvement, these employers have the capacity to significantly impact the quality of health care delivery and outcomes in their local communities by engaging and participating in ACO/PCMH initiatives. In the process, they can benefit their own employees and at the same time help accelerate health care transformation in the communities in which they do business, ultimately benefiting the entire nation.

Within the overall United States' employer population, hospitals and health systems have a unique opportunity to lead this transformation, first with their own employees. Beyond developing ACOs to elevate the health status of other populations, hospitals and health systems can demonstrate their ability to collaborate and coordinate care to improve the wellbeing of their own workforces.

This document summarizes highlights from the ACOEM/UL Summit, provides insights into the connection between employers and ACOs/PCMHs based on the experiences of three large health care organizations that have created their own ACO/PCMH models to benefit their employees as well as the regional employer populations they serve. Based on the discussions, Summit participants identified 12 essential elements for the successful implementation of employer ACO/PCMH systems (pages 7-8). These essential elements while modeled on large hospital/health system organizations – which by their very nature are ahead of the game in adopting ACO/PCMH principles – can be adopted by employers in any sector, thus putting them on the path of aligning and engaging with true ACOs or PCMHs.

Summit participants also developed three consensus (next steps) statements (page 9); and four recommended core activities that address: 1) communication/advocacy; 2) case studies; 3) training/tools; and 4) metrics (pages 9-10). These consensus statements and recommendations are all intended to help guide continued adoption of the ACO/PCMH model by employers and move the national discussion on

these concepts forward. In addition, the recommendations identify four methods that can be used to enhance training and affect changes in the delivery of health care.

Background

In the mid-2000s, health care costs in the United States continued to be the highest in the world and there was no sign that the trend would change in the near future. By 2010, an estimated 50 million Americans were uninsured and Medicare and Medicaid faced huge financial issues that threatened their long-term stability.[5] More than 50% of Americans had at least one chronic health condition. This, coupled with a shortage of physicians (projected to reach 62,000 by 2015, and 130,000 by 2025), was placing increasing strain on the United States' health infrastructure.[6]

In response to these issues, the Affordable Care Act (ACA) was passed by Congress and signed into law in 2010 with full implementation of all aspects to be completed in 2015.[7] A major portion of the law dealt with extending coverage to those who were uninsured. Since rollout of the ACA, the number of uninsured has decreased from a high of 50 million in 2010, to 39.6 million in 2013, and to 25.5 million in the first quarter of 2015.[8,9,10]

In addition, the ACA contained several provisions intended to transform health care delivery. Among these transformational strategies was a new emphasis on encouraging physicians, hospitals, and other health system stakeholders to work together in a team-based approach to better coordinate care, build stronger physician-patient partnerships, and link payments to health outcomes for individuals as well as populations. These approaches aimed to achieve better health outcomes at lower cost. [11]

Examples of team-based care models promoted under the ACA are the PCMH and ACO. The PCMH concept emphasizes the central role of primary care and the facilitation of partnerships between patient, physician, family, and other caregivers, envisioning care integrated across all elements of the health care system. This includes linking care between hospitals, subspecialty care facilities and nursing homes, and a patient's general community environment. Patients' health care needs and choices are well communicated among the many participants in their health care team, and they receive care in settings that are familiar.

ACOs create a payment and care delivery model that links health provider reimbursements to quality metrics and reductions in total cost of care for defined patient populations. Hospitals, physician groups, and other health care providers work together to treat patients across care settings – including doctor's offices, hospitals, and long-term care facilities. The ACO care model makes physicians and hospitals more accountable in the health care system, combining care-integration and increased efficiency with performance-based and outcome-oriented medical strategies aimed at defined populations of patients. The ACO is meant to improve the value of health care services by controlling costs while at the same time improving quality as defined by measurable outcomes. ACOs may offer a spectrum of health care services in joint ventures among multiple health organizations, decreasing the fragmentation found in the current system. Evidence-based measures are strongly emphasized. The ACO payment and care delivery model links health provider reimbursements to quality metrics and reductions in the total cost of care for the overall population of patients that has been defined.

What binds the PCMH and ACO models is a shared vision that integration and coordination of health care services, combined with a new emphasis on whole-person, team-oriented care delivery, is essential for health reform to succeed. Interest in this new, coordinated and team-based model of care has grown substantially.[12] State governments are investigating PCMH/ACO models and most of the major health plans have started PCMH demonstrations. The Departments of Defense and Veterans Affairs have both adopted a PCMH-based approach to care.[13]

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In addition, the Department of Health and Human Services (HHS) has established new rules and programs to help physicians, hospitals, and other health care providers implement the ACO model and to encourage the growth of ACOs. These include incentive programs established within the Center for

Medicare & Medicaid Innovation, such as the Medicare Shared Savings Program, which rewards ACOs that lower growth in health care costs while meeting performance standards on quality of care provided for Medicare Fee-for-Service patients.[14]

In 2010, the American College of Physicians promoted the concept of specialty practices serving as a critical "neighborhood" with which PCMHs must interact in a coordinated fashion.[15] However, up to now, this has not necessarily been the norm, specifically in the case of specialty-referral process. A 2011 review article found that while primary care providers reported sending referral information to specialists 70% of the time, the specialists reported receiving it only 62% of the time; and specialists indicated that they sent a report to primary care providers 81% of the time, but primary care providers noted receiving a report from specialists only 62% of the time.[16] In addition, 25-50% of referring physicians did not know if their patients had seen a specialist.[16] In response to this concern, the National Committee for Quality Assurance (NCQA) established a Specialty Practice Recognition Program, which included occupational medicine as one of the specialties eligible for recognition as a partner with PCMHs.

Expansion of the PCMH Model and the Patient Centered Primary Care Collaborative

Since the publication of ACOEM's 2012 position statement on *Optimizing Health Care Delivery by Integrating Workplaces, Homes, and Communities*,[4] the PCMH model has continued to grow and flourish. While the roots of the PCMH go back as far as the 1960s, its formal adoption and advancement by the American Academy of Family Physicians in the early 2000s helped accelerate its growth. In 2007, leading primary care associations released a set of joint PCMH principles, adding to its national visibility.[8]

In 2006, the Patient-Centered Primary Care Collaborative (PCPCC) was formed. This not-for-profit membership organization is dedicated to advancing an effective and efficient health system built on a strong foundation of primary care and the PCMH. In less than a decade, the PCPCC has significantly advanced the principles of the PCMH in the business community, growing to more than 1,200 diverse stakeholder organizations that represent health care providers across the care continuum, as well as health care payer, purchaser, and patient organizations.[17] Large employers, such as Walmart and Walgreens, have been active proponents of the PCMH concept among employers.

As of 2014, more than 10% of primary care practices in the United States, approaching 7,000 altogether, have been recognized as PCMHs by the National Committee for Quality Assurance (NCQA).[18] Illustrative of the explosion of interest, a clinician search done recently through the NCQA Recognition Directory reveals 67,085 clinicians and sites having some level of PCMH recognition for all states and the District of Columbia.[19] The work of the PCPCC has been instrumental, along with leading medical specialty organizations, in helping guide these and other health system organizations toward PCMH implementation.

A growing list of studies indicates widespread positive results from PCMH development throughout the U.S.

A growing list of studies indicates widespread positive results from PCMH development throughout the country. Over the last year alone, North Carolina, Connecticut, Oregon, Minnesota, and Vermont all issued reports noting strong results from PCMH initiatives, adding to many other statewide efforts in recent years.[20] Insurers continue to invest heavily in PCMH incentives and are led by Cigna, which plans to tie 90% of payments to value-based care models by 2018, and by Aetna, which plans to tie 50% of payments to such models by 2018 and 75% by 2020. Following suit is UnitedHealthcare which plans to tie $65 million in payments to value-based care models, also by 2018.[20] The business community, led by these large insurers and others, has been among the most impactful of PCMH adopters, extending PCMH principles to millions of Americans – particularly those in large employer-based group health plans.[20]

Expansion of the ACO Model

The PCMH evolved over time, with elements that can be traced back for decades, significantly advancing in 2002 when it was embraced by the specialty of family practice.[21] By contrast, ACOs have sprung forth only recently. Partly driven by incentives provided through programs such as the Medicare Shared Savings Program, and as a specific component of the Affordable Care Act,

they have been implemented relatively quickly. To date, more than 700 ACOs have been formed in the United States.[22]

The geographic distribution of ACOs has continued to expand – they now exist in all 50 states, the District of Columbia, and Puerto Rico. California has the most ACOs (81), followed by Florida (66) and Texas (48).[22] Since 2014, 4.5 million additional people have been included in ACO coverage, bringing the total covered to more than 23 million today.[22]

While the visibility of the ACO concept has been driven largely by the work of HHS in incentivizing care for Medicare populations, ACOs have also begun to form as a care delivery model for non-Medicare patients as well – and the growth in this sector is significant. Of the approximately 23 million now covered by ACO care, only 7.8 million are covered under Medicare, meaning that the majority of ACO volume has occurred in the commercial and Medicaid sectors.[22]

The diversity and number of payers participating in ACOs has continued to increase, underscoring their appeal as a care delivery model beyond Medicare.

The diversity and number of payers participating in ACOs has also continued to increase, underscoring the appeal of ACOs as a care delivery model beyond Medicare. More than 132 different payers have entered into at least one accountable care contract to date, a significant increase since 2013.[22] In addition to Medicare and state Medicaid plans, these payers include regional and national insurers, as well as some large self-insured employers. Commercial payers, including Cigna, UnitedHealthcare, and Aetna, have significantly expanded their involvement in ACOs in recent years.

One of the most aggressive participants in ACO development has been UnitedHealthcare, which in 2015 marked its 250th ACO partnership with various health systems and provider groups. A typical example of UnitedHealthcare's incremental ACO development strategy is its creation in mid-2015 of a partnership with the Albuquerque, New Mexico-based Presbyterian Healthcare Services, an eight-hospital, 700-physician, 300,000-member health plan.[23] Under terms of the partnership, the ACO will provide care for 12,300 New Mexico residents who are enrolled in UnitedHealthcare's employer-sponsored plans.

As similar local and regional employer-sponsored plans become ACO participants, and more private-sector entities become involved in developing ACO models and incentive systems, the use of ACOs as a care delivery model for employed, non-Medicare populations is likely to increase. Projections indicate that ACO expansion could reach more than 150 million patients over the next 10 years – many of them in employer-based health plans.[22] Last year, the Ohio Bureau of Workers' Compensation began a pilot program for knee injuries — the Enhanced Care Program – established for state-fund claimants and centering on high-quality physicians of record who establish comprehensive care plans and who are paid 15% more than the fee schedule.[24]

In turn, as ACO models become more common for employed populations, and a greater emphasis is placed on achieving lowered costs and higher quality care outcomes for increasing numbers of patients, ACO participants will seek more effective strategies for achieving positive results in the local and regional communities in which they operate. Among those strategies will be greater engagement and alignment of goals with other sectors that have a stake in health care – particularly the employer community, which remains heavily invested in the health outcomes of millions of Americans.

The Importance of the Workplace in the Future the ACO and PCMH Models

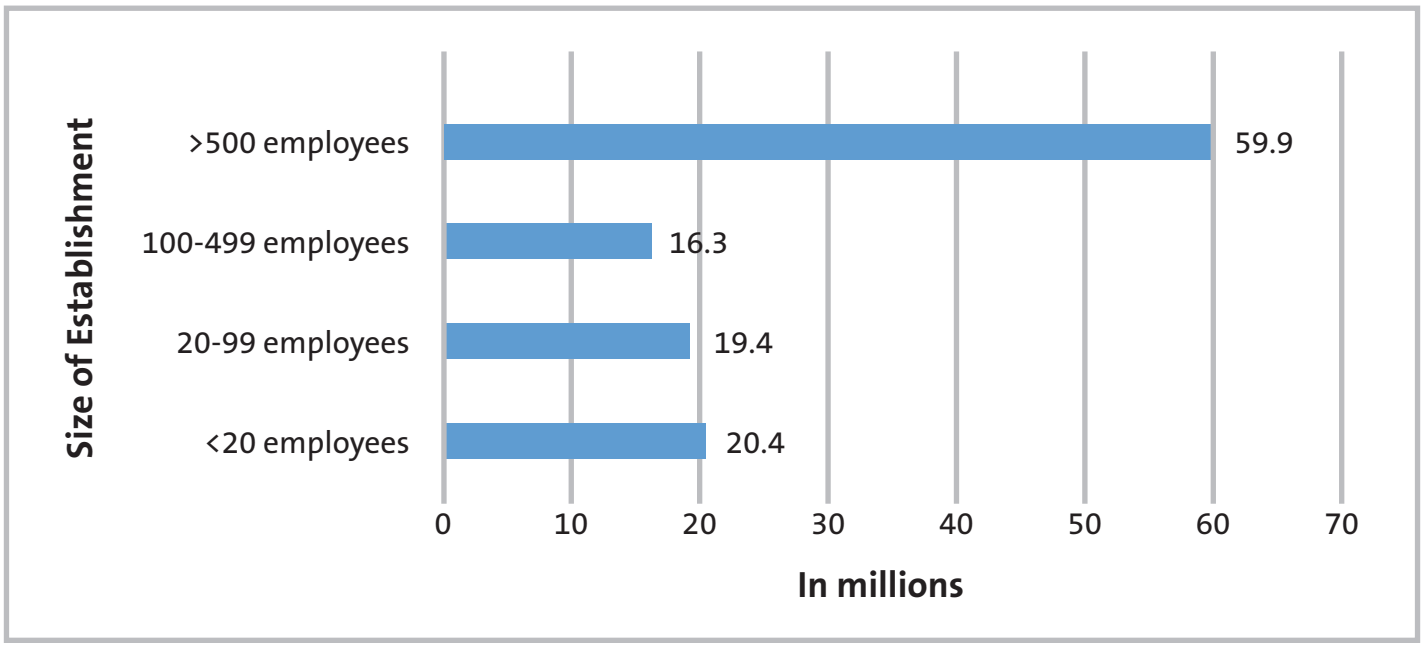
If the ultimate goals of ACOs and PCMHs are lowered health care costs and improved health outcomes, these two growing care-delivery models and the employer community are well suited as partners. According to the U.S. Census Bureau, 55% of the nation's population is covered by employer-based health plans—a total of 169 million people.[4] The health care decisions of these citizens are closely connected with their workplace, and in recent decades employers have become increasingly proactive as providers of programs and initiatives aimed at keeping their workforces healthier. A growing body of research shows an inextricable link between the health of the workforce and the productivity of the workforce, and enlightened employers are taking steps in response.[11] In recent decades, more and more employers have identified employee health and safety as a key strategic business imperative. A significant body of research has

established that investments in employee health and safety programming yield tangible returns that impact the bottom line.[12,25,26]

Researchers have also established that companies that adhere to best practices in health and safety programming tend to outperform their peers in the marketplace.[27,28,29,30] Consequently, employers have become much more active participants in helping manage the health and safety of their employees – ranging from comprehensive wellness and preventive health programs to the use of onsite health clinics. The best and most effective of these are programs in which employer health and safety programs are well integrated and coordinated with each other.[25]

In its 2012 position statement on ACOs and PCMHs, ACOEM noted the remarkable similarities in goals and methodologies that characterize integrated health and safety programming in the workplace and the ACO/PCMH models, advocating for closer alignment between the two for the benefit of the nation's patients.[4] Three years later, continuing advances in health and safety programming by employers have created an environment in which they have the capacity to more effectively align with ACOs and PCMHs – implementing health cost-reduction strategies and population-health programs that result in better overall health outcomes for their workers. Two prime examples of organizations on the leading edge of ACO/PCMH models are IBM and Intel: both companies have completely transformed their approach to health care through integrated, patient-centered care initiatives with a broad ecosystem of networked participants – from care providers and insurers to vendors – saving millions in health care costs in the process.[31,32]

The sheer breadth of the American workplace presents a compelling reason to consider it as a staging ground for the implementation of ACO/PCMH goals and principles. Millions of workers and their dependents are covered by employer-based health plans – and the health care decisions of these citizens are thus closely connected with the workplace as shown in Figure 1 below.



Source: U.S. Census Bureau. Caruso A. Statistics of U.S. Businesses Employment and Payroll Summary: 2012. Economy-wide Statistics Briefs. February 2015. Available at: http://www.census.gov/content/dam/Census/library/publications/2015/econ/g12-susb.pdf. Assessed March 16, 2015.

By extending ACO/PCMH principles directly into the workplace of large, mid-sized and even small companies, and by aligning and engaging more closely with the ACO/PCMH community, employers are positioned to accelerate the adoption of a true workplace culture of health and safety, along with the baseline goals of the ACA. In recent years, ACOs and PCMHs have expanded significantly. As ACO and PCMH principles of health delivery have become more mainstream, and positive results from both models have begun to accrue, their use has begun to be adopted by the employer community.

Essential Elements to Developing a Successful Workplace ACO

Regardless of the model of health delivery (i.e., ACOs or PCMHs), several elements are essential for the effective and successful migration to these new models of care in the workplace. During the Summit, participants engaged in discussions of which elements should be included in a list that would help employers interested in adopting ACO/PCMH models.

The key elements identified by Summit participants include:

- **Culture of health and continuous improvement.** A culture of health, implemented within a continuous improvement model, should be instilled across the employee population and the CEO must lead this process. Everyone in the organization should see the value of a health-improvement process and the commitment by the employer to ensuring the optimal health of employees.
- **Data collection and analysis.** Employers should identify what kinds of health, safety and administrative data are readily available as well as data that should be collected to ensure ACO/PCMH principles are being implemented and sustained. Analysis should identify the prevalent risk factors and chronic diseases among employees and beneficiaries so they can be targeted. Key data collection includes metrics on cost reduction, care improvement and the enhancement of individual performance. The ultimate benefit of ACO/PCMH adoption by employers is better clinical, functional and financial outcomes.
- **Communications and branding.** Employers should strive for comprehensive and ongoing communication with employees and family members and providers regarding the principles and the purposes of engaging in better population health management. The branding of ACO/PCMH-oriented initiatives in the workplace helps keep these the initiatives visible and enhances engagement and sustainability.
- **Incentives/aligning rewards.** Incentivizing participation in ACO/PCMH initiatives, by employees, other beneficiaries and health care providers, is a proven and effective strategy when properly designed and implemented.
- **Engaging employers, employees, and providers.** In the early stages of design and implementation of ACO/PCMH initiatives, all stakeholders should be engaged. This helps ensure an environment of respect, collaboration and buy-in – and leads to more successful and sustainable initiatives. Employees should be accountable for their health and the health of their families. Employers should responsibly create cultures of health. Providers should implement population health management.
- **Engaging the broader community.** Health behaviors don't begin and end at the company's front gate or at the family's front door. Employees live within the broader communities in which they work – and employers should strive to encourage healthier lifestyles for all members of the broader community in which they do business. Well-being is more than just healthy levels of blood pressure and cholesterol – it is a measure of individuals' overall fulfillment, and this can be impacted by a wide range of social determinants in the community, including the economy, levels of employment, educational opportunities, housing options, and availability of parks and recreational time.
- **Engaging primary care providers.** Primary care providers are a critically important component in employers' ACO/ PCMH efforts. It is important that they understand the concepts of workplace population health management, are aware of employer initiatives, and are engaged with employers in helping initiatives succeed. Employers should strive to educate primary care providers on the dynamics of workplace health initiatives and their potential impact on patients. Employers shouldencourage their employees to establish trusting relationships within primary care and establish their "medical homes."

- **Policy changes.** Sustainable ACO/PCMH initiatives in the workplace rely on long-term policy change: Employer leadership must ensure that policy directives within the organization support a healthy and safe lifestyle for employees – both while at work and at home. Policy changes should be aligned with incentives to ensure that the healthiest choice is also the "easiest" choice. For example, providing a discounted price for a healthy lunch option in the company cafeteria.

- **Measurement at every step.** Employers should identify the key employee-population and organizational metrics that will indicate success for an ACO/PCMH initiative and build systems to continuously monitor and adapt this data.

- **Changes to environment.** Many workplace elements contribute to employee health beyond clinical interventions. The workplace environment should be adapted to support healthy work practices and lifestyle changes – ranging from incorporating healthy vending food options to installing ergonomic workstations and developing work-campus walking trails. Maintaining a safe work environment is paramount, and promoting home safety should be included in a comprehensive approach, as well.

- **Programs for the healthy – not just the ill.** Employers should strive to create a system that promotes and focuses on health – not simply a delivery system for the treatment of illness. A key to achieving this goal is the adoption of primary and secondary prevention approaches to help healthy workers maintain their good health.

- **Coordination of care for chronic disease.** Individuals with chronic medical conditions (and more often, individuals with multiple co-morbidities) need strong tertiary prevention/care management services, including health education, health coaching and individualized treatment plans to reduce complications, co-morbidities and hospitalizations. These elements are vital to successful ACO/PCMH initiatives, and employers should deploy evidence-based benefit designs that foster them – such as zero co-pays for effective chronic-care medications to eliminate a financial barrier to controlling disease.

Recommendations/ Next Steps

As the United States and the rest of the world face the rising burden of costs associated with chronic disease and poor health, numerous studies suggest that comprehensive population health management intervention strategies will be required. Evidence confirms that stand-alone, non-integrated efforts to address these issues will not succeed.[4]

Integration of health interventions across the community (public health), the home (primary care), and the workplace (occupational health and safety), hold the most promise for success in addressing these growing global health issues.

Cross-discipline and cross-sector initiatives – including the integration of health interventions across the community (public health), the home (primary care), and the workplace (occupational health and safety), hold the most promise for success in addressing these growing global health issues. The widespread adoption of an integrated health and safety model in the workplace would ensure that this huge sector – impacting the health of more than 130 million Americans – is well-aligned and prepared as the transition to cross-sector health intervention strategies begins to take hold in the United States and globally.

ACOs and PCMHs can learn from the gains made in workplace health and safety. Occupational and environmental medicine (OEM) physicians' expertise in maintenance and restoration of function as a health outcome, use of businessrelevant health and productivity outcomes measures and metrics, use of evidence-based guidelines and the ability to demonstrate return on investment gained from workplace health programs, are of benefit in ACO and PCMH strategies. The experience of several major health systems who employ the ACO model for employee health are demonstrating positive results and have developed programs that are replicable and scalable to serve any size organization.

With this in mind, Summit participants reached consensus on the following statements:

- The workplace —where millions of Americans spend a major portion of their daily lives— should be used as a model of successful implementation of ACO/PCMH concepts.

- All sectors with a stake in health care should become better aligned—including the employer community, which remains heavily invested in the health outcomes of millions of Americans.
- The workplace should be an essential element, along with communities and homes, in an integrated system of health anchored by ACO/PCMH concepts.

Participants also established the need to advance the expansion of ACO and PCMH concepts in the employer community. To accomplish this, four core activities should be implemented, including Communication/Advocacy, Case Studies, Tools/Training, and Identification of Key Metrics. These initiatives will build on experience and success of those employers already engaged in ACOs and PCMHs.

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Recommendations Core Activities for ACO/PCMH Advancement

Summit participants developed the following recommended core activities to help employers adopt and advance the ACO/PCMH model:

1. **Communication and Advocacy** – Build on the advocacy of proponents of ACO/PCMH principles, including the Patient Centered Primary Care Collaborative (PCPCC), to promote best practices; incorporate the ACO/PCMH discussion with policymakers; and develop new policy statements about ACO/PCMH development that includes the role of employer-sponsored health services. Advocacy at the state and national level to further the integration of ACOs and PCMHs is essential, and the OEM community should play a leadership role.

2. **Case Studies –** Develop monographs on successful ACO/PCMH case studies that incorporate employer-sponsored health initiatives, including successful program design, and widely disseminate; develop methodologies to evaluate scientific studies related to ACOs/PCMH. The effectiveness of enhancing health in the workplace – especially through the alignment with or adoption of ACO/PCMH principles – needs to be promulgated through scientific research and development of case studies. While numerous studies have been published and others are underway, a standard methodology to evaluate the effectiveness of programs needs to be developed. Through the use of standard methodology, programs can be compared and a coordinated set of case studies developed, discussing implementation, results and lessons learned.

3. **Training and Tools –** Develop/identify reference materials related to ACOs/PCMH that incorporate employer-sponsored health initiatives and create resource materials for the collection and analysis of health-related data; assist in developing new training and resources in the use of electronic health records. Integrated, "whole person" health concepts are fundamental to the success of ACO and PCMH systems. A coordinated effort for training in "whole person" health – including the importance of integrated health and safety in the workplace – should be a priority in our health system. Information on total patient health should be incorporated into medical school and residency training as well in schools of public health and business. Further, continuing medical education in population health should be advanced as a cross-specialty initiative between OEM and other specialties. Outreach to the safety community should be enhanced and the role of safety and its impact on health in the workplace should be incorporated into all training programs.

To enhance the training and affect changes in the delivery of health care, four methods have been identified:

i. **Development of reference documents and materials on how to collect data and track sources of data.** The employer has access to unique data sources, including claims reports from insurance, disability, pharmacy, and behavioral health-vendors as well as health risk appraisal and biometric screening from wellness programs. The data should be integrated and available to PCMHs and ACOs.

ii. **Simulations that help determine the potential impact of workplace health ideas and programs prior to implementation.** Several population-health simulation models are currently available, including the ReThink Health model. Additionally, estimates of the impact of chronic disease in the workplace can be determined by use of the Blueprint for Health and other workplace health tools. Additional simulation models should be developed.

iii. **Inclusion of occupational health data in the electronic medical record.** Although many vendors have developed specialized EHR systems for occupational medicine, EHRs for general group health have not typically included features related to a patient's work life, such as data fields to code a patient's occupational risks or work capacity, despite clear evidence that such data can be critically important for quality care in almost any field of medical practice. A basic knowledge of a worker's job duties and hazards can be invaluable to all physicians in order to recognize and treat work- related conditions and to prevent injury and illness in other workers. Furthermore, a physician's knowledge of a patient's job duties is foundational for facilitating a prompt and safe return to work. Finally, incorporating basic occupational demographic information into all EHRs could make important contributions to public health practice and research.

iv. **Expansion of the electronic medical record.** Use of clinical decision-support tools in conjunction with the electronic medical record is important to the success of the ACO/PCMH models. Most clinical support tools are developed for primary care providers and these should be enhanced with information on modified work guidelines and return-to-work protocols used by the occupational health community.

4. **Metrics –** *Develop new metric resources for use by employers, including expansion of an Integrated Health and Safety Index for employers' self-assessment*. A uniform set of metrics, which all health care providers can employ and be compared against, should be developed. A carefully calibrated set of measures will assist organizations in assessing their performance. This would allow for comparison of results and consistency in measurement of the ACO/PCMH model among employers. In 2015, ACOEM and UL developed a new integrated health and safety (IHS) index, which includes a set of metrics for three main dimensions: 1) economic; 2) environmental; and 3) social. The IHS index mirrors the Dow Jones Sustainability Index (DJSI). This tool is currently being refined and will be available later in 2016.[25]

Conclusion

The workplace can and should be used as a model for implementation of the ACO/PCMH concepts as millions of Americans spend a major portion of their daily lives at work. The essential elements identified in this paper including engaging the community, changing the work environment, and adapting policies conducive to promoting health and wellness, can be readily adopted by employers in any sector, thus putting them on the path of aligning and engaging with entities involved with ACO/PCMH concepts. As additional employers align themselves with ACO/PCMH concepts, and metrics on performance are collected on a national basis, the full impact of these models in positively impacting employee health can be realized.

References:

1. Institute of Medicine. *Primary Care and Public Health: Exploring Integration to Improve Population Health*. Washington, DC: The National Academies Press; 2012. Available at: http://www.iom.edu/Reports/2012/Primary-Care-and-Public-Health.aspx. Accessed March 11, 2016.

2. Cooklin A, Joss N, Husser E, Oldenburg B. Integrated approaches to occupational health and safety: a systematic review. *Am J Health Promot*. 2016 Jan 5 [epub ahead of print].

3. Michener JL, Koo D, Castrucci BC, Sprague JB, eds. *The Practical Playbook: Public Health and Primary Care Together*. New York, NY: Oxford University Press; 2016.

4. McLellan RK, Sherman B, Loeppke RR, et al. Optimizing health care delivery by integrating workplaces, homes, and communities: how occupational and environmental medicine can serve as a vital connecting link between accountable care organizations and the patient-centered medical home. *J Occup Environ Med*. 2012;54(4):504-512. Available at: http://www. acoem.org/uploadedFiles/Public_Affairs/Policies_And_Position_Statements/Optimizing%20Health%20Care%20Delivery%20 Position%20Statement.pdf. Accessed March 11, 2016.

5. Partnership for Solutions. Chronic Conditions: Making the Case for Ongoing Care. Baltimore, MD: Johns Hopkins University; 2004. Available at: www.partnershipforsolutions.org/DMS/files/chronicbook2004.pdf. Accessed March 11, 2016.

6. Association of American Medical Colleges. *The Complexities of Physician Supply and Demand: Projections through 2025*. Washington, DC: Association of American Medical Colleges; 2008.

7. Public Law 111-148–111th Congress. The Patient Protection and Affordable Care Act. (2010). Available at: http://www.gpo.gov/fdsys/pkg/PLAW-111publ148/pdf/PLAW-111publ148.pdf. Accessed January 14, 2016.

8. American Osteopathic Association, American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians. Joint principles of the patient centered medical home. 2007. Available at: http://www.aafp.org/dam/ AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf. Accessed March 11, 2016.

9. Kugler JP, Padden M, Miller P, et al. Patient centered medical home: baseline view across the services and HA/TMA. Presented at 2010 Military Health System Conference; January 15, 2010; National Harbor, Maryland.

10. DeNavas-Walt C, Proctor BD, Smith JC. U.S. Census Bureau, Current Population Reports, P60-239. *Income, Poverty, and Health Insurance Coverage in the United States: 2010*. Washington, DC: US Government Printing Office; 2011.

11. Loeppke R, Taitel M, Richling D, et al. Health and productivity as a business strategy. *J Occup Environ Med*. 2007;49(7):712-21.

12. Hymel PA, Loeppke RR, Baase CM, et al. Workplace health protection and promotion: a new pathway for a healthier–and–safer–workforce. *J Occup Environ Med*. 2011;53(6):695-702.

13. Green-McKenzie J, Rainer S, Behrman A, Emmett E. The effect of a health care management initiative on reducing workers' compensation costs. *J Occup Environ Med*. 2002;44(12):1100-5.

14. Centers for Medicare & Medicaid Services. Shared Savings Programs [CMS web site]. Available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/index.html?redirect=/sharedsavingsprogram. Accessed March 11, 2016.

15. O'Malley AS, Reschovsky JD. Referral and consultation communication between primary care and specialist physicians: finding common ground. *Arch Intern Med*. 2011;171(1):56-65.

16. Mehrotra A, Forrest CB, Lin CY. Dropping the baton: specialty referrals in the United States. Milbank Q. 2011;89(1):39-68. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3160594/. Accessed March 11, 2016.

17. Patient-Centered Primary Care Collaborative [web site]. Available at: https://www.pcpcc.org/about. Accessed March 11, 2016.

18. National Committee for Quality Assurance. The Future of Patient Centered Medical Homes: Foundation for a Better Health Care System. Available at: http://www.ncqa.org/Portals/0/Public%20Policy/2014%20Comment%20Letters/The_Future_of_PCMH.pdf. Accessed March 11, 2016.

19. National Committee for Quality Assurance. NCQA Recognition Directory: Clinician Directory and Search [web site]. Available at: http://recognition.ncqa.org/index.aspx. Accessed March 11, 2016.

20. Grundy P. Foundation for Healthcare Transformation: The Patient Centered Home the Future. Presentation Invitational ACO Summit, August 17, 2015.

21. Weisz G. *Chronic Disease in the Twentieth Century: A History*. 2014. Baltimore, Md: Johns Hopkins University Press; 2014:236.

22. Muhlestein D. Growth and Dispersion of Accountable Care Organizations in 2015. HealthAffairsBlog [web site]. March 31, 2015. Available at: http://healthaffairs.org/blog/2015/03/31/growth-and-dispersion-of-accountable-care-organizationsin-2015-2/. Accessed March 11, 2016.

23. McCann E. United Healthcare inks another ACO deal. Healthcare IT News. June 29, 2015. Available at: http://www.healthcareit-news.com/news/unitedhealthcare-inks-another-aco-deal. Accessed March 23, 2016.

24. Ohio Bureau of Workers' Compensation [web site]. Available at: www.bwc.ohio.gov. Accessed March 11, 2016.

25. Loeppke RR, Hohn T, Baase C, et al. Integrating health and safety in the workplace: how closely aligning health and safety strategies can yield measurable results. ***J Occup Environ Med***. 2015;57(5):585-97.

26. Loeppke RR, Schill AL, Chosewood LC, et al. Advancing workplace health protection and promotion for an aging workforce. J Occup Environ Med. 2013;55(5):500-6.

27. Fabius R, Thayer RD, Konicki DL, et al. The link between workforce health and safety and the health of the bottom line tracking market performance of companies that nurture a "culture of health." *J Occup Environ Med*. 2013;59(9):993-1000.

28. Fabius R, Loeppke RR, Hohn T, et al. Tracking the market performance of companies that integrate a culture of health and safety an assessment of Corporate Health Achievement Award applicants. *J Occup Environ Med*. 2016; 58(1):3-8.

29. Goetzel RZ, Fabius R, Fabius D, et al. The stock performance of C. Everett Koop Award winners compared with the Standard & Poor's 500 Index. J Occup Environ Med. 2016;58(1):9-15. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/ PMC4697959/. Accessed March 11, 2016.

30. Grossmeier J, Fabius R, Flynn JP, et al. Linking workplace health promotion best practices and organizational financial performance: tracking market performance of companies with highest scores on the HERO Scorecard. *J Occup Environ Med*.2016;58(1):16-23.

31. McDonald PA, Mecklenburg RS, Martin LA. The employer-led health care revolution. *Harv Bus Rev*. 2015;93(7-8):38-50.

32. Cyr LA. IBM Integrated Health Services: Promoting Health and Creating Value. Boston, Mass: Harvard T.H. Chan School of Public Health; 2014. Available at: http://caseresources.hsph.harvard.edu/files/case/files/ibm-ihs_hsph_case_study._4.17.15.pdf?m=1429294770. Accessed March 11, 2016.