

## Chapter Three

### HEALTH CARE AND HEALTH COVERAGE IS CHANGING

Health care in America today is clearly on the cusp of change. Care delivery is changing significantly in a number of key areas. We are seeing change in both the way we buy care and the way we deliver care. In any time of major change, we can be best served as a nation if we clearly understand the changes that are happening, and then work to figure out what levels and categories of change will be most likely to give us the great outcomes we want to have.

That need to understand the change we want to achieve is particularly true for the area of health care disparities and health care differences. If we want to close the care gaps outlined in the 2012 Health Care Quality Report, we need to support change that will help close those gaps. Change is -- at this point in time -- inevitable. Change is not optional. It will absolutely happen. Both care delivery and care financing are changing, and both will be changing in multiple ways. We need to take advantage of those changes in order to reduce or eliminate the intergroup gaps we have today for key areas of care.

A major change that we know will happen in health care financing can be directly useful as we work to reduce disparities in care. Some of the care disparities exist today because we currently have massive disparities by race and ethnicity relative to who has health insurance coverage.

Today more than 75 percent of the uninsured people in major states such as California come from minority populations.<sup>116</sup> We have major gaps in the percentage of people with health insurance in our minority populations. That current insurance disparity will be at least partially mitigated next year by the new Medicaid program expansion and by the new insurance exchanges that will be created by the Affordable Care Act. The new insurance exchanges will soon be selling subsidized health insurance coverage to low income Americans.

The combination of expanding Medicaid programs and creating subsidized health insurance coverage for low income Americans can only have a positive impact on reducing the current disparity in coverage levels.

The new insurance exchanges that will begin operation on January 1, 2014, will also give all Americans, for the first time since the invention of health insurance, a chance to personally buy individual health insurance, regardless of the health status of the person who is buying the insurance. To take full advantage of that opportunity, we will need to make those new health care exchanges minority-friendly -- with education and promotional campaigns and programs set up to encourage high levels of participation in the exchanges from our minority populations.

That new law will clearly create a very different market for individual insurance. That is one of the inevitable changes mentioned at the beginning of this chapter. It will create a new reality for individual health insurance purchasing. Everyone can now buy coverage. The nature of the coverage that will be sold is also now being defined and modified. Minimum benefit sets have now been set by law -- so the leanest and sparsest insurance plans with the biggest deductibles and the lowest levels of coverage that used to be sold fairly often to individual purchasers will no longer be legal to sell to anyone in the new exchanges.

For people who bought those old, very high deductible plans, premium levels will go up a bit to reflect the new, higher benefit levels.

A newly defined set of preventive benefits will also now be mandated for anyone who buys individual coverage. The prevention part of the new benefit package is fairly robust. That level of prevention services has not been included in most of the high deductible, individual insurance packages that have been sold heavily in recent years in the individual market. So change is happening in care financing. Insurance is changing, benefits are being defined, and access to insurance is now an open door for anyone, regardless of health status.

Those changes should both help reduce disparities in coverage and provide better benefits that can help people with care needs have those needs met, regardless of race or ethnicity.

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## Care Delivery Infrastructure Changes Are Happening, as Well

At the same time that the pure health insurance market is changing for several key aspects of coverage, the care delivery infrastructure is also being reorganized, and some elements of the business model we use today to buy care will also now change in some key ways. Those changes in care delivery will also be highly relevant to this book's agenda of ending disparities in care delivery. The changes are badly needed. We have finally begun to recognize the fact at very senior leadership levels in this country that health care delivery in this country has generally been fragmented, splintered, uncoordinated, and too often perversely compensated. We now understand with some clarity at very senior levels of leadership in this country that 75 percent of the care costs in the country are coming from patients with chronic conditions, and 80 percent of the care costs for those patients are coming from the chronic care patients who have multiple care conditions.<sup>117</sup> "Co-morbidities" are the rule, rather than the exception, when we look at the specific patients who generate most health care expenses for our country today. Our leaders are beginning to recognize the fact that those patients who use most of our health care dollars are generally being cared for by an unconnected array of doctors who usually cannot and do not share patient data or coordinate care in any effective way with one another.

Siloed care is a difficult, dysfunctional, often ineffective, and sometimes dangerous way to deliver care. Doctors in this country tend to function in operational silos. Care suffers for far too

many people in far too many settings as a result of a massive set of care coordination and care linkage failures. Many patients in this country can tell their own personal stories and their own experiences of extremely debilitating logistical frustration that arises far too often from not having caregivers who can even communicate with one another at the most basic levels.

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## Coordination Gaps Create Logistical Barriers for Patients

The caregiver communication gaps that exist today among the caregivers in this country can create major inconveniences and significant logistical barriers for far too many patients. Those same exact gaps can also create significant care shortcomings and major logistical dysfunctions for our caregivers.<sup>118</sup>

The caregivers do not intentionally create those connectivity shortcomings.

Our caregivers would almost all strongly prefer to be fully informed about the care being delivered to each of their own patients. Medical care is an information-based science. Doctors can generally provide better care when they have more information about their patients. Far too often, however, we can't create the information flow that is needed to give caregivers that information. As noted above, nearly 80 percent of those care costs for patients with chronic conditions come from people who have comorbidities<sup>119</sup> -- multiple health conditions -- and we have no good way in most care settings to help the doctors get the full set of care information they need for each patient's best care. America needs much better data tools for our caregivers.

That is another key area where care delivery should and will change for the better, if we continue down the key paths we are beginning to put in place. Anyone who delivers care and looks at both the patient's care needs and the logistical challenges in today's approach can figure out some of the key work that needs to be done.

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## Patient-Centered Medical Homes Can Help Deliver Team Care

America obviously needs team care. Patients with multiple health conditions very much need team care. Minority patients who far too often today do not have ongoing relationships with care sites or with specific caregivers very much need team care. We need consistent, science-based, patient-focused team care if we are going to both improve care and reduce the care gaps that exist today for patients in too many care settings.

The need for team care is finally being recognized both by the people who deliver care and by the people who pay for care. Care is changing as a result of that recognition. In many

settings, caregivers are now organizing into new care teams. Those new care teams are increasingly being financially and logistically supported by the health plans and by the government agencies that pay for care.

One of the most popular of the new care team arrangements is called the “patient-centered medical home.” Tens of thousands of primary caregivers are developing “medical home” skill sets and building the care delivery resources and tool kits that will allow them to deliver team care.<sup>120</sup> The new medical homes are not facilities or actual physical care locations. They are basically “virtual” homes. They are care teams -- not care sites. The new “patient-centered medical homes” are a functional and practical way of organizing the care of patients around care teams. The medical home care teams are usually anchored by one or more primary care physicians, and those doctors tend to be supported in a team setting by nurses and other caregivers. Coordinated care is definitely a better care delivery approach for many patients. Patients who get their care from well-run and well-supported medical homes tend to have significantly fewer care coordination problems and fewer care crises. They spend less time in emergency rooms and spend fewer days in hospital beds.

Those medical-home supported patients usually face fewer of the logistical barriers and the functional screw-ups that can result when all care comes from solo care sites and where each piece of care is delivered by unconnected and unlinked caregivers.<sup>121</sup>

For minority patients -- who are significantly more likely than white patients not to have ongoing relationships with primary care caregivers -- the new medical homes can fill a major care gap and can help reduce some key disparity levels that exist today in care access. Some Medicaid programs in a couple of states that have worked with initial generations and versions of medical homes have seen significant care improvements for their patients and some cost savings as a result of the improved care delivered to their Medicaid enrollees by those homes.

As noted above, both emergency room use levels and the number of needed inpatient hospital days tend to go down -- often significantly -- when patients receive their primary care support from a well-coordinated medical home.<sup>122</sup> More than 10,000 care sites have now met the connectivity and care support standards to be officially and formally certified as medical homes, and almost as many care sites are building their own noncertified medical home capabilities.<sup>123</sup> So that particular change in care delivery is, in fact, happening. The medical homes are a new resource that is changing care for the better -- and we need to understand how to use that new tool kit well to significantly reduce or mitigate intergroup care disparities that exist today for too many people.

The new medical homes are not the only major change in the care delivery business model that is taking place today -- supported by both government programs and private market purchasers. We are also seeing a very important migration of caregivers in many settings to a new “ACO” approach to care delivery. That organizational approach is intended to do an even more effective job in providing patient-focused team care to populations of patients than the medical homes.

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## Accountable Care Organizations Are Intended to Create Accountable Care

A growing number of care sites are currently organizing into what are generally called, “Accountable Care Organizations” -- or ACOs. ACOs also have team care as a key part of their agenda. ACOs tend to be larger in both scope and scale than a basic medical home. The medical homes can do great and much needed work, but they tend to focus their efforts on primary care support teams.

ACOs, by contrast, tend generally to include both medical specialists and hospitals in their caregiver mix. On a broader scale, the ACOs tend to set up multispecialty care teams who are connected with each other in various contractual, functional, and operational ways to meet the total care needs of a given population of patients. The caregivers who form ACOs generally set them up to provide multispecialty team care to their patients in a coordinated and functionally-linked way. The ACOs usually create a focus for each team that is built on the total care needs of a defined set of patients.

That represents another significant change in the way we buy care.

Focusing on the total needs of a population of patients is significantly different than the traditional functional business model for care delivery in this country. The traditional payment model for care is exclusively focused on individual pieces of care that are delivered by and through separate and individual care sites that are organized as separate care business units. Those business units each create piecemeal care delivery functions that are all funded in pieces by the piecemeal cash flow model we use today to buy care.

Moving away from that piecemeal model is another major change in care financing that will result in changes in care delivery that can be very good for the patients who receive care in this country today.

ACOs want and need that new cash flow model to survive and thrive. Moving away from the piecemeal approach of buying care to buying and selling care as a team by the package is generally a major part of the typical ACO agenda, aspirations, strategy, and clear intentions. Moving away from a pure piecemeal model isn't always easy to do. When it is done successfully, caregivers face a new and very liberating financial reality. Moving to that cash flow model that pays for packages of care really frees up the care teams in the ACOs to design care around patients instead of designing all care pieces and structure exclusively around what is defined as billable procedures by insurance companies and government payers.

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## The Piecework Model of Buying Care Doesn't Focus on Overall Care

As noted earlier in this book, most care in this country today is purchased entirely by the piece. The piecework payment model for buying care is simple. A piece of care is provided by a caregiver to a patient, and each piece of care then generates a separate bill that is then paid for that separate piece of care.

Pieces of care are the absolute focus of that business model for care purchasing -- so pieces of care become the functional unit for the care delivery structure and infrastructure.

The reality is that buying care only by the piece is a highly unlinked and very primitive approach both to care delivery and care purchasing.

One of the unintended consequences of that piecework purchasing approach is a massive accountability void.

The caregivers who function in that piecework model do not have any accountability for the overall care of any patient. The focus and the accountability of each caregiver is purely and directly piecework based -- with the cash flow and the care delivery processes of each caregiver based on delivering and billing for each separate piece of care.

In that model, an asthma patient has to find a care site of some kind to get care when an asthma attack happens. In the piecework care model, no caregiver is responsible or accountable for coordinating the overall care needs of the asthma patient or for preventing future asthma crises. No one is accountable and no one is paid to do anything in a proactive way for those patients. Each care site involved in asthma care in the current piecework payment model simply waits for an active asthma flare-up to happen for some patient, and then the care site and caregiver reacts to each flare-up for each individual patient with the situational and specific unconnected pieces of care delivered to each patient that are relevant to the immediate and incidental care needs that are created in the moment of need by each asthma flare-up.

In that model, no one looks at either the overall care needs of a population or at possible process interventions, or at any of the health related needs of any patient population. No one in the piecework payment model is accountable for creating interventions that might reduce future care needs for any set of patients or for any individual patient. No one is "accountable" in that model for anything preventive or systematic. It is, sadly and perversely, an accountability-free system. There is an almost complete lack of accountability for any level of care other than creating reactive pieces of care in that piecework, cash flow model that deal with the incidents of care and the care pieces that are triggered when individual care needs

happen for a patient. Major opportunities to do highly effective interventions and preventions for various diseases do not happen very often in that business model because no one in the piecework model is accountable for doing that work and no one is paid for doing that work.

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## The Piecework Model is Neither Accountable or Organized

That lack of accountability is particularly unfortunate for lower income patients who generally can benefit significantly by having proactive care support that can -- when done well - eliminate most asthma attacks and also very significantly reduce the complication levels for diabetes, congestive heart failure, and each of the other chronic diseases that are more than 75 percent of the costs of care in this country.<sup>124</sup>

Data shows us that the Hispanic, African American, and Native American patients are all less likely today to have even one primary caregiver, much less a team of accountable caregivers who work on those aspects of care.<sup>125</sup> Disparities and care gaps result from that disparity in access to primary care, team care, and proactive care.

The new ACO approach and the new medical homes are both intended to help solve that longstanding problem of not having any part of the care delivery infrastructure being either systematic or proactive about the actual delivery of care or the future care needs of any patients. By contrast, an asthma patient in a well-run medical home or ACO setting will have an immediate, clearly designated pathway to care when that care is needed. Those asthma patients who are in a medical home setting also generally will also have a designated caregiver in their medical home -- typically a doctor or a nurse -- who will help each patient both avoid future asthma crises and help minimize the damage levels from the crises that do happen.

That is much better care. It is a major change in care delivery.

Building medical homes and accountable care organizations that can perform those functions is obviously very important work. Being proactive is a very different way of delivering care and of thinking about care for most care sites and for the vast majority of patients.

The opportunities created by proactive care are not insignificant. Good studies have shown that up to 75 percent of the major asthma crises that result in hospital stays could be averted or prevented with the right proactive care approaches.<sup>126</sup>

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## Proactive Care Can Reduce Asthma Attacks and CHF Crises

The new accountable care organizations are being set up to deal with those issues and to take advantage of the opportunities presented by care reengineering. The ACOs are intended to be “Accountable,” “Care” centered, and “Organized.”

“Accountable” is a very important word and a key part of the ACO concept. “Care” is equally important. The new ACOs will each be “accountable” as a “care” team for the total care needs of a given population of people. The ACOs will -- if the model is done well -- have a positive impact on the total care needs of a given population of people. The multiple levels of highly effective proactive care approaches that are now possible for asthma patients will generally be built into each well-run ACO’s operating agendas. Those same proactive approaches and crisis-mitigation strategies will be created for multiple other health conditions, if the ACOs and medical homes have the right business model and the right focus on overall care.

There is a long list of really important opportunities available for effective proactive care.

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## Congestive Heart Failure Needs Proactive Care Approaches

Congestive heart failure (CHF) is another very good example where patients can achieve significant benefits from proactive care. Very clear proactive team care opportunities obviously exist for most patients with CHF. Like asthma attacks, CHF crises are terrible, painful, sometimes terrifying, generally debilitating, and potentially fatal events. A patient having a CHF crisis is drowning in their own fluids. Most CHF patients are eventually killed by their disease. Dying of CHF can be a very painful death. In the wrong care settings, that death can be preceded by multiple, very painful, and often terrifying CHF crisis events.

That is not a necessary pattern of care.

Roughly half of those debilitating CHF crises can actually be averted or prevented by the right package of proactive care.<sup>127</sup> Proactive team care is far better care for those heart failure patients. That proactive care approach for heart failure patients typically does not happen in very many care settings today because of the standard piecemeal care delivery business model we use now to buy CHF care. That lack of proactive care for CHF patients is not atypical. As noted earlier, the current piecemeal business model we use to buy care is very perversely designed for multiple areas of care. In that piecemeal payment model, a congestive heart failure crisis can create 30,000 to 50,000 dollars in revenue -- while preventing the CHF crisis entirely for a patient typically generates no revenue at all. Likewise, heart attacks generate



significant caregiver cash flow, where preventing heart attacks generates no financial reward. We have thousands of billing codes for procedures -- and not one billing code for a cure.

That payment approach answers the question of why preventive care doesn't happen in any effective way for far too many patients who really need it.

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## **Businesses Do Not Reengineer Against Their Own Self Interests**

Health care is a business. Every care site tends to be a separate business. It isn't a good thing for any business in any industry not to have revenue.

Businesses with no revenue almost always fail. In any industry, businesses that have no revenue simply go bankrupt or just disappear. That need for revenue is just as true of health care businesses as it is true for businesses in every other industry. So when we buy care entirely by the piece, the health care businesses of this country often cannot afford to do any of the efficient things that eliminate any of those pieces, because those efficiency-based changes that eliminate unneeded steps literally generate no revenue for the care site. There is no revenue for most care sites unless a procedure is done for a patient.

As noted earlier, up to 75 percent of the asthma crises that happen today could be averted -- with the right proactive care.<sup>128</sup> Half of the congestive heart failure crises could be averted -- again, with the right proactive care.<sup>129</sup> Nearly half of heart attacks and 40 percent of strokes could be eliminated with the right proactive care.<sup>130</sup> Proactive care is rare in American health care because prevention generates minimal revenue for the piecework care business -- but each of those actual crises that do happen to patients for any of those conditions can generate 10,000 to 40,000 dollars in piecework revenue for those care sites. So we obviously very directly encourage, incent, and reward crises-based care and poor care outcomes when we buy care only by the piece.

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## **Medical Homes Sell Packages of Care -- Not Just Pieces of Care**

The new approaches to care delivery will only work if buyers channel cash to make them happen.

Caregivers need cash. That need to have available cash for a care team to do prevention work for patients is why most of the new patient-centered medical homes are set up with some level of per-patient cash flow that pays each medical home a fixed amount of money for a package of care rather than just paying the care site by the piece for incident-based pieces of care. That's also why the new ACOs that are being formed are working out their own financial

arrangements with payers and with the government to create a cash flow that will pay their care teams for packages of care rather than just being paid for pieces of care. That model of being paid by the package can create the needed resources for creative and effective proactive care. So this is an area where change is happening and where change is badly needed. The current financial model clearly needs to evolve. The new ACOs need a cash flow volume and a cash flow stability that will allow them to cut asthma crises and CHF crises and heart attacks and strokes in half for their patients without going bankrupt.

The value for both care quality and care affordability that can result from creating those new business models for care is becoming increasingly obvious.

So -- as noted at the beginning of this chapter -- care is changing. Buyers are beginning to lead the way, because the benefits of some aspects of change are so obvious that they deserve buyer support.

Medicare is now encouraging the creation of both ACOs and patient-centered medical homes. That is a very good strategy for Medicare to follow. Most major health plans in America are attempting to create connected contractual relationships with caregivers that will allow the health plans to have the benefits of both team care and proactive care delivery. A lot of very creative work is going on in various settings across the country for both caregivers and payers to make that all happen. We need to make sure that our minority group populations who have both been disproportionately uninsured and disproportionately underserved by team care will benefit fully from those new care delivery approaches. Ideally, the data reporting that will be required from the new ACOs and medical homes will allow care tracking by race and ethnicity -- very much as it is being done today at Kaiser Permanente. That is a good and functional data model to follow if the goal is to reduce disparities in care.

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## The Tool Kits for Care Get Better Every Day

At the same time that the need for proactive team care is becoming obvious to buyers and policymakers, there is a separate and very important revolution going on relative to the new tool kits that can be used to support care delivery. The new systems supported care delivery tool kit can also help reduce or mitigate the care gaps that exist for groups of patients today. For centuries, health care has functioned with a very basic and relatively crude set of information resources. The key information tool used most often by caregivers in this country today is literally ancient. Paper. Paper medical records are the rule. Most care sites still use paper records that are stored at each care site where care is delivered. That dependence on paper surprises a lot of people, but the truth is that most medical information in this country is still maintained on paper medical records. That is not good for any groups of patients.

Paper is an inferior, dysfunctional, and sometimes dangerous data tool for health care. Ideally, doctors who are taking care of a patient should have all of the information about each patient easily available to the caregiver at the exact time when care is delivered. Medicine is, at its core, an information-based science. To have caregivers delivering care with major information gaps in the exam room or having hospitals delivering care with major information gaps for the caregivers about each patient -- and with major gaps also in place for too many caregivers about the best and most important medical science -- the combinations of those factors creates some real problems in the way we deliver care.

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## We Need Electronic Data About Patients

Those problems do not need to exist.

Delivering care with major information gaps is a particularly bad way to deliver care when we already have much better approaches and functional tools that are easily available and that work really well when they are used. Paper is clearly the worst data recollection and storage approach -- other than relying on pure unassisted caregiver or patient memory. Information about patients that is stored on paper medical records tends to be splintered -- because each care site usually has its own pieces of paper with information that is specific and limited to the exact pieces of care that are delivered to each patient at that specific site. The paper records for any given patient at any given care site are almost always incomplete. They are always functionally inert -- unable to link with one another in any way. In some cases and in many settings, the paper records are at least partially illegible. Paper records in any given care site are almost always inaccessible for many elements of patient care. Those paper records at any site are almost always inaccessible to the caregivers at other care sites who serve the same patient.

So our primary source of medical information about patients in this country still tends to be incomplete, sometimes inaccurate, inherently inert, completely inactive, and generally inaccessible segments and slices of data that are stored in inconvenient ways on isolated pieces of paper.

Better tools exist now to do that work. They should be used.

Those extensive data deficiencies should not be acceptable to the patients of America, or to the government programs or the private employers who pay for most medical care in this country through their benefit plans.

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## Data Deficiencies Make Dealing With Disparities More Difficult

Those data deficiencies obviously make dealing with health care disparities much more difficult, because it is almost impossible to track, monitor, or report on care performance for any care site when the needed information is locked up in pieces of paper. Those data deficiencies should be particularly unacceptable to us all when we now spend \$2.8 trillion in total as a country on care.<sup>131</sup> Our care delivery infrastructure absorbs so much cash every year now that if American health care were a separate national economy, it would be the fifth largest economy in the world.<sup>132</sup>

That is enough money to expect that caregivers should have complete data about each patient and to expect that the information about each patient should be available to each patient's caregiver when that information is needed at the point of care. That is also enough money to expect that there should be rich streams of data available to compare care performance and to track basic patterns of care. Detecting disparities takes data. We need to detect disparities in order to correct them. We should be able to identify care disparities almost as soon as they happen. We can do that if we have the right set of data and the right mechanisms in place to get access to that data.

That specific point about the new tool kit that is needed for care delivery is highly relevant to this book on care delivery disparities because it is almost impossible to detect, measure, track, or improve any disparities in any care sites or any care settings without adequate data about care.

The people who wrote the 2003 IOM Report on care disparities said that data was needed to detect, improve, and reduce disparities.<sup>133</sup> They were entirely correct. It is hard to reduce disparities without data about those disparities -- and paper data is impossible to use as an information resource to support that work.

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## Eliminating Disparities Is Impossible Without Disparities Data

Eliminating care gaps is functionally impossible without data reporting systems that let the caregivers in each site and care setting know when disparities exist. That need for data is true in all care sites. Look back at Chapter Two in this book. The Kaiser Permanente caregivers had no clue that any of the care disparities and care gaps that were outlined on the performance charts that were shown in that prior chapter even existed for those patients until each category of care was tracked by group, measured by group, and then compared by the group and by the site to the performance of the other groups and the other care sites.

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## Using Data Is Impossible When Data Doesn't Exist

The logic involved is pretty simple and it is very pure. Using data is impossible when data doesn't exist. A major first step in improving care is to have data that allows care to be measured. As this country begins to build our new ACOs and to create our new medical home care teams, we need to build that wisdom and that tool kit into each of those new care sites. They will each need data to make care better, and they will need data to eliminate disparities. We need data to track care and we really need data to deliver the best care to each patient. When care is measured and recorded, care can improve. Having data about each patient available to caregivers at the point of care is extremely important as a key tool needed to deliver the best care to each patient. That piece of information is extremely important for a book on health care disparities and that point about the need for data is more important today than it has ever been.

We are moving to a new world for American health coverage. More people will be insured. That expanded insurance coverage will create a significant set of opportunities for care improvement. When 10 to 15 million more Americans become covered by Medicaid, that expansion of coverage for those very low-income people will massively shrink the health care insurance disparities that exist now for those sets of people.

We need to make sure that the programs that we put in place in each state that expands Medicaid deal directly and explicitly with the issues of needed team care and needed care data.

The truth is, however, that the pure expansion in insurance coverage will not automatically eliminate any actual care delivery disparities for anyone with either Medicaid coverage or private insurance. Eliminating or reducing our insurance disparities is a good thing, but that particular gap reduction doesn't make our care delivery disparities disappear. Lower income people will still be less likely to have available care sites and consistent access to basic care than higher income people. For lower income people to receive the best levels of care, we will need a data flow infrastructure and a care delivery strategy that makes the care data for those newly insured patients both electronic and portable. It is even more important now for newly insured, low income people to have their caregiver teams armed with a workable set of care data -- because care for lower income people tends to be even more splintered by site and by caregiver than care for higher income people.

The good news is that when the care data is both electronic and linked, care can get better. The care infrastructure that functions at Kaiser Permanente is consistently and constantly proving that theory and that contention about the value and the potential for that data to improve care to be true at multiple levels. When easily accessible data exists about care, caregivers can do a better job for each patient and the overall levels of care can become both more consistent and safer.

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## Data Is Needed to Make Hospitals Safer

Safety is an important issue for American health care. We also need to address patient safety as we address disparities in care.

One area that proves that point about the sheer value and functional benefits of data for the process of improving care relates to hospital safety. We actually have significant problems today in this country in many areas relative to hospital safety. One of the unfortunate aspects of health care in America today is that 1.7 million Americans enter a hospital every year and get an infection they did not have on the day they were admitted to the hospital.<sup>134</sup> Those infections kill people -- and they also cost a lot of money.

Studies have shown that the hospitals that serve the most Black patients tend to have consistently higher death rates -- and those higher death rates are due to the care system -- not the patients.<sup>135</sup>

There are far too many infections in our hospitals today.

We clearly need to make changes in the way we buy care.

We need a business model for purchasing care that does not financially reward the care sites where infections occur. ACOs can make that happen. The new ACO cash flow approaches should be set up so that the ACOs have a strong incentive to create safer care and so the care sites are not penalized financially when care does get safer. Care safety and the need to create systematically safer care are not insignificant issues.

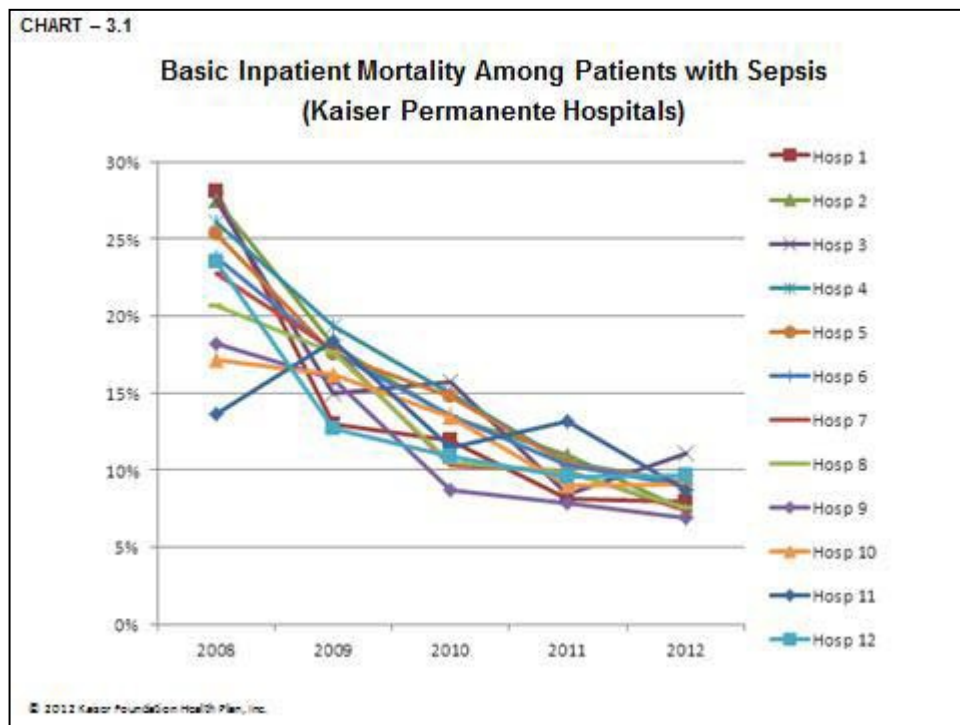
Sepsis -- a blood stream infection -- is actually the number one cause of death in American hospitals.<sup>136</sup> Most people do not know that to be true. More people actually die of sepsis in hospitals than die of cancer, heart disease, or stroke.<sup>137</sup> Twenty percent of seniors who died in California hospitals died of sepsis.<sup>138</sup>

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## Data-Free Beliefs Can Be Sincere and Wrong

That is a tragedy. An even bigger tragedy is that most of those sepsis deaths could have been prevented. The next chart shows the reduction in sepsis death rates that happened at a dozen California hospitals. That chart also shows why data is so extremely important. Before any measurement of sepsis deaths was done, all of these hospitals believed they were delivering great sepsis care. All of the hospitals had key people in each site who were entirely well-intentioned. All of the care sites on that chart knew the basic science of sepsis care. But the

chart shows that the care for sepsis patients was obviously not as effective in each of the hospitals. Some hospitals had a much higher death rate from sepsis. Learning that fact about the difference in the mortality levels was a golden gift to all of the hospitals on that chart because it gave those low-performing hospitals both the context and the perspective they needed to get better at treating sepsis. And -- because care processes were focused on when the data became available -- that same data also ultimately helped the higher performing hospitals get better. Those 12 hospitals -- as you can see from that sepsis mortality chart -- all used that new knowledge about their care results to actually improve care. A lot of lives have been saved in those 12 hospitals over the past couple of years because that data did the extremely important work of helping the low-performing care sites know that they were not delivering care at optimal levels.



Before the data reports were done, every hospital on that chart believed strongly that their sepsis care was the right care. Everyone believed their performance levels were high. That was, however, a data-free belief. Data-free beliefs are not an optimal care management tool. Only real data about real performance can actually create the working context for real performance improvement. Using real-time and accurate data about care processes and care outcomes is particularly true for sepsis.

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## Sepsis Care Lends Itself to Process Improvement

The sepsis care process really lends itself to systematic process design and redesign work by teams of caregivers. There is a “golden hour” for each patient in sepsis care where the death rate can be cut in half with the right care.<sup>139</sup> Hospitals who take a systematic approach to care improvement can functionally learn to do the exact right things in that golden hour -- like, getting each patient’s lab tests back to the patient’s caregiver in 15 minutes or less rather than letting those lab tests for each patient go through the normal hospital lab test result response cycles and information distribution systems. The normal response cycle for routine hospital lab tests can take one to four hours in many care settings. It’s hard to treat your sepsis patient with the right drugs and do that lifesaving treatment for that patient inside that “golden hour” time frame if the lab tests that diagnose the disease for each patient do not come back to the care floor until two hours or four hours or even six hours later.

Many lives are saved in hospitals when the lab tests for sepsis care get back quickly enough to make a bigger difference in each patient’s care. So each hospital who wants to reduce their sepsis deaths needs to reengineer their lab processes and information flow to make that targeted result happen.

When that overall sepsis mortality-reduction work is done well, the hospitals not only track sepsis deaths -- they also can put processes in place that measure how many minutes it took to diagnose each patient and how many minutes it took to get the right drugs to each patient. Continuous improvement in care delivery benefits hugely through the skillful use of the right set of critically important process data to support care process improvement.

The hospitals that continuously improve their processes have shown they can cut sepsis deaths by more than half. They can also reduce lifetime patient damage for the survivors of sepsis. That is another key point to understand about the extremely high value and benefit of getting sepsis care right for patients. When the sepsis patient gets the right treatment in the right rapid time frame, the patients who survive their sepsis infection and go home from the hospital also tend to have a lot less permanent or long-term damage than the patients who get their sepsis treatment more slowly -- in two or four or six hours. The patients who get slow care and who still survive to go home from the hospital are significantly more likely to be permanently damaged from sepsis than the patients who get fast care and also survive. Patients in the best care sites are much more likely to go home undamaged rather than ending up in a lifelong care setting -- with permanent support needed to deal with permanently damaged internal organs.

For low income people -- often minority patients being treated in low- performance care sites -- being permanently damaged by sepsis makes an economically challenged financial



reality for the patients even worse. Minority patients very much need best sepsis care. Not weak or inadequate sepsis care.

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## The New ACOs Need to Do Process Improvement

We need to understand how the care improvement process works. Speed is clearly essential to improve results for some areas of care. Speed doesn't happen spontaneously. It also doesn't happen consistently. Process improvement work is needed to create speed. Data can help deliver, create, and support improvements in care delivery speed. Data also lets us improve care and track care. ACOs need to work hard to design the right data flow. Data is badly needed for the new care delivery world, and the existence of data can be supported in important ways by the new insurance environment we are moving into. The new ACOs should be data-focused at key performance levels. The process-aligned model can work. Suggesting that ACOs build that tool kit isn't a theoretical or hypothetical suggestion. The fact is -- Kaiser Permanente functions now as a kind of ACO -- and the ACO tool kits described above clearly offer functional value in that setting. Kaiser Permanente is currently proving the value of having data-supported care in an accountable care setting to be something that all of the new ACOs should aspire to achieve.

A major key to the success in care improvement and disparity reduction work at Kaiser Permanente is to have all of the patient data on the computer. The problems of paper-based data were described earlier. Paper is no longer used for those purposes in either the Kaiser Permanente hospitals or in the Kaiser Permanente medical offices. All of the data is computerized. That work to computerize all patient records was done for that entire care infrastructure as a full package of interconnected data flows because the paper medical records that were used in the past were functionally inferior, and they resulted in significantly less effective care for Kaiser Permanente patients.

What can the rest of the country learn from that experience?

The primary conclusion that can be learned is that electronic medical records should be the standard way we all record data about care in all care sites in this country. Paper medical records should disappear.

For individual patients, the care teams need computerized care plans. The care team members also need tools that support patient-specific care tracking. As noted earlier, Kaiser Permanente has managed to cut the death rate for HIV patients to half of the national average using those kinds of tools.<sup>140</sup>

Kaiser Permanente also eliminated the racial care disparities in the process for HIV patients by building individual computer-supported care plans that are built around each patient -- then using the entire computerized care data tool kit as a prompt and a support system for follow-up

care. The tools that are available when data is computerized are obviously far better than the care support tools that are anchored in a paper database.

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## **New Care Tools Could Revolutionize Care**

The next generation of care support tools is going to be even more impressive and more useful than the old care tools. New tools are being developed daily. Some of the new tools are amazing new pieces of technology that track and monitor patients remotely at low costs with a higher degree of accuracy and great convenience.

New remote monitoring tools that exist today can actually do a functional EKG test from a low cost device connected to a smartphone. New technology can track activity levels, blood pressure, and the symptoms of multiple diseases, and do it at remarkable low expense levels.

To get care right and to make care the most affordable in the future for people of all races and ethnicities, we need to embrace that new set of care support tools, and we need to incorporate those tools effectively in a team-based way into the overall way we deliver care -- with an underlying support of electronic medical records for each patient. Team care can be enhanced and enabled with the new connectivity tools. The business model of care needs to support that process. We need the new ACOs and the new medical homes to have a cash flow that enables and encourages them to use and embrace that new set of tools. We need to remove economic and functional barriers to the more effective use of those tools, and we need to link those new tools to team care in increasingly effective ways.

That will not happen unless we choose as a nation to make it happen and unless the primary purchasers of health care create the cash flow that will enable it to happen.

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## **We Need the New Tools to Support Team Care**

We could be starting down some dysfunctional paths for some of those new tools in their current iterations.

Too many of those lovely new tools are being set up today without the right linkage capabilities or linkage strategies. That is unfortunate. The new tools will become their own electronic data silos if that level of isolation happens. Creating a new set of isolated electronic data silos that will replace the old set of paper-based, nonfunctional isolated data silos isn't significant progress. Replacing isolated paper silos with new isolated electronic silos would clearly be the wrong path to go down. To eliminate care disparities, we need best care, we need accountable care, we need connected care, and we need care that is supported by the

new array of care tools. We very much need the data being made available by those new tools to be universally linked with each other to create optimal care for our patients.

So as we look at the new care tools, the new care organizational models, and at the expanded number of people who will now have coverage instead of being uninsured, this is obviously the time to make some important decisions about key aspects of delivering care and collecting care and sharing care information. We particularly need to make a few important decisions in each of those areas if we want to eliminate the current set of disparities in care delivery and the perverse differences in care outcomes.

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## The New ACOs Need to Learn From Success

This time of change should be a time of progress and advancement.

It would be a mistake to simply insure millions of additional people and not both improve care delivery and care data flows at the same time. The new accountable care organizations are being created to do some of that care improvement and data flow improvement work. That is the right thing to do. The new ACOs can be well-designed, well-structured, and well-incented. If those care organizations are paid with a cash flow that enables them to sell care by the package and not just sell care by the piece, those new care teams will have a high likelihood of success.

Their likelihood of success will probably be enhanced if they understand and use some of the operational and strategic approaches that have been designed, implemented, and continuously improved. In the Kaiser Permanente care infrastructure over the past several years, it has been involved in an overall continuous improvement process that has anchored very basic accountable care organization functionality for those care teams for a number of years. It is worth understanding that functionality and its component parts at this time of great change in both care delivery and care financing, because the other organizations who want to deliver accountable care can benefit from both the mistakes made and the successes that have been created in that ongoing and large-scale accountable care and team care context.

The next chapter deals with some of those learnings and explains some of the basic guidelines, strategic directions, and functional approaches that have proven to have value for those 9 million patients and their caregivers.