

Cerner achieves 24% lower PMPM healthcare spending

Bharat Sutariya
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Brief Description

Dr. Bharat Sutariya, Cerner's Chief Medical Officer for Population Health, uses evidence from Cerner's own employee health plan to prove an employer can dramatically reduce healthcare costs. His approach brings together comprehensive primary care, behavioral health integration, a holistic personal health record, and other ingredients to true produce true population health management.

Sutariya also suggests additional innovations such as the emerging use of EHR interoperability standards and pre-encounter questionnaires to further improve health, consumer engagement, and provider productivity.

Watch: Highlights (3:48) Full Interview (29:50)

This BOH interview was underwritten by VPAC. VPAC uses patient-generated data to help providers more accurately & efficiently identify & treat behavioral health conditions. See www.vpacclinical.com.

Highlights

- Sutariya led development of Cerner’s population health platform and interventions
- Members of Cerner’s primary care cohort have lowered risk factors and 24% medical cost per member per month vs. control group
- Cerner provides population health services to its own 34,000 plan members as well as members of other employer-sponsored plans
- Cerner’s success built on health screening, engagement incentives, comprehensive primary care, behavioral health integration and aggregated personal health records
- 30 Million or 11% of US consumers enrolled in some pay-for-value healthcare delivery
- 1 in 2 consumers has chronic condition (e.g. behavioral, diabetes, asthma)
- 1 in 3 consumers has behavioral health condition and at least one physical chronic condition
- Cost of behavioral health services can be reduced through automated screening and diagnostic tools as well as through integrating services into primary care

<p>Bharat Sutariya, MD, FACEP VP and Chief Medical Officer, Population Health Cerner Corporation</p> <ul style="list-style-type: none">• Leads Cerner’s population health innovation strategy & design• Serves health systems as well as employers, government and healthcare sponsors worldwide• Thought leader on sharing accountability between consumers, providers, and payers as well as healthcare economics• Joined Cerner in 2004 to lead various product lines• Previously led HIT strategy for Detroit Medical Center and taught as a clinical assistant professor at Wayne State.• Board certified in Emergency Medicine• Medical degree and residency training, Wayne State and Detroit Medical Center	<p>Matthew E. Hanis Host & Executive Producer Business of Healthcare</p> <ul style="list-style-type: none">• 25-year healthcare industry veteran• Held leadership roles in health systems, payers, and commercial enterprise• Day job leading Hanisworks LLC, virtual health business consultancy <p>Business of Healthcare</p> <ul style="list-style-type: none">• Serves healthcare executives across all major industry segments• Audience of over 10,000 stakeholders including 4,700 decision makers• Editorially independent focused on meeting Mission and Margin goals
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Transcript

Speaker	Transcript
	Entry sequence
Sutariya	we've been tracking a cohort that is enrolled in our primary care model what we have seen convincingly is despite this cohort aging five to seven years their overall risk factors in the cohort that's enrolled in our own primary care center is actually same or lower number one number two their overall cost of care is lower compared to a control cohort. We absolutely believe and are convinced that a comprehensive program that surrounds where every single day there is a conversation of health whether that's in your cafeteria whether you have a walking trail whether you are proactively addressing behavioral health issues are vital and has huge ROI
Sutariya	the general framework for population health is you need a longitudinal record then you need a set of intelligence that can run surveillance across the longitudinal records, identify a set of risks or diseases and then facilitate or assist in derivation of a plan and that plan that needs to be a shared plan across all clinicians and across the patient him or herself because one thing we need to do more and more often is we need to include patients in the care team
Hanis	because health care IT is so complex as a developer I have a lot of work to do to build something for, the customer base that has Cerner, for the customer base that has other electronic health record platforms where's what's the way to remove that barrier
Sutariya	<p>there's actually an exciting advancement over the last three to five years and that is in terms of FHIR F-H-I-R as a data service and then SMART S-M-A-R-T as a integration of an application experience through those two standards I believe there's much potential ahead.</p> <p>There's already a proof point that today a developer can leverage standard FHIRE service, ability to retrieve that data from anyone's EMR that's FHIR compliant today be able to create an experience in an application and then embed that experience using smart standard into EMRs</p>
Sutariya	when you can generate a specific questionnaire pre-visit send it to the patient, have patient electronically complete it and that questionnaire to come back into your electronic health record and to an extent already being preprocessed so exposing the right information in the right manner to a clinician. Making clinicians much more efficient to conduct then the face to face
Sutariya	I think the opportunity for a large employer is potentially to fund the cost of the Personal Health Record there's much to be gained as we talked about any time you can enable that 360 longitudinal view of a person it has the potential to lead to a better health care model because now your risks are readily identified you can run surveillance on a continuous basis. So, I think employers as we talked about as much economic to gain as much in terms of productivity but also in terms of cost of health that they have to pay

	Highlight version end
Hanis	Dr.Bharat Sutariya thank you so much for joining the Business of Healthcare
Sutariya	it's my pleasure.
Hanis	Tell me a little bit about your background.
Sutariya	<p>I did medical school in Detroit and southeast Michigan and Following completion of medical school I trained in emergency medicine and worked for several years at Detroit Medical Center and practiced emergency medicine.</p> <p>While practicing emergency medicine I grew my interest in information technology and how it can help health care transform to a better model and through that interest after having spent several year helping Detroit Medical Center lead their information technology initiative finally came over to Cerner initially helping to develop many of the electronic medical record function but as of late my focus has really been about how do we leverage data that's in the EMR to help improve the practice of medicine and help improve the outcomes that we deliver to our patients</p>
Hanis	what is it that you accomplished at Cerner in that phase of your work
Sutariya	I would say that over the last several years I have been able to work with leadership at Cerner and developers to develop a 360 view of an individual is saw a longitudinal record that paints a complete picture and make that picture available to a practicing clinician so when clinician makes a decision he or she is making a decision on the complete picture
Hanis	and so in that work a big part of what you did was established the framework and foundation for the population health capabilities within the Cerner platform
Sutariya	Yes the general framework for population health is you need a longitudinal record then you need a set of intelligence that can run surveillance across the longitudinal records, identify a set of risks or diseases and then facilitate or assist in derivation of a plan and that plan that needs to be a shared plan across all clinicians and across the patient him or herself because one thing we need to do more and more often is we need to include patients in the care team
Hanis	so working in the population health space the value based movement has changed the landscape tell me about the implications
Sutariya	absolutely so so not we are at approximately thirty plus million patients in the United States enrolled in some sort of value based payment program today so it is it is a movement at scale and what that movement is doing is changing the primary care model to a more holistic care model and there now is more focus on with health and wellness as well as chronic disease management.
Hanis	When you think about behavioral health, how does behavioral health fit into that transformation

Sutariya	I think we now need to have a parable focus or I would say simultaneous focus of health and prevention behavioral health management as well as chronic disease management and it all needs to be integrated into our everyday practice of primary care.
Sutariya	<p>I'm sure these statistics are known but at high level in the United States one out of two patients has some sort of chronic condition so if you think about chronic condition for second now if you think about the behavioral health side roughly speaking one out of five patient has some sort of behavioral health issue but if you look at the overlap between the two roughly speaking one third of all the patients that have a chronic condition have behavioral health issues.</p> <p>The causal and effect is still not as well established does behavioral health come first causes chronic condition does chronic condition come first and causes behavior health issues we need to treat both together because there is a complex interrelationship both at the physiology level but certainly at a fact of everyday life level.</p> <p>They both are equally debilitating from the perspective of how I conduct my day and how I live my life but they're also equally debilitating in terms of economic cost and productivity</p>
Hanis	How should the large employer be thinking about how behavioral health fits into their plan design.
Sutariya	I think a large employer needs to think about behavior health very similar to the chronic disease that is whether it's be behavioral health or chronic disease you're going to lose productivity if you don't have a happy healthy In an employee then you're not advancing your mission as a company right and if you really look at the indirect cost of behavioral health as well as chronic disease in terms of presenteeism and absenteeism It's a massive cost and so employers need to get in front of the behavioral health very much the same way or not they're trying to get in front of chronic disease by doing wellness assessment by doing various different biometric screening they need to ensure that in those screening behavioral health components such as PHQ9 but certainly other are as well integrated
Hanis	so your vision is one part of it is detecting the risk
Sutariya	Yes So it all starts with identification of risk but once you identify risk then you have to be able to stratify segments of population and then you have to ensure there you're either helping them navigate the care delivery system many of the smaller issues can be resolved by just assigning them to a health coach or health navigator or a therapist other issues can be managed by primary care and there are specialty issues that of course need to be referral to a behavioral health specialist
Hanis	what are the barriers that an employer needs to think through as they drive the plan design with their partners
Sutariya	Absolutely I think we need to incentivize so that the employee base completes the risk assessment so if I talk about my company Cerner we significantly incentivize every employee to complete a fairly comprehensive health risk assessment and biometric screening every single year. Our compliance points are extremely high because both there's incentive involved but there's also continuous education involved but once that risk assessment is completed it goes to an automated intelligent processing system where the system detects based on your answer which segment of the population needs one type of attention so that human

	doesn't have to read every single assessment and make decision the system helps you do that and get you into the risk stratification buckets and once you're there then you can plug them into the right part of the system
Hanis	so Cerner itself is a very large employer
Sutariya	absolutely we have we have 26,000 associates worldwide today majority of those of course in the United States
Hanis	and in tell me a little bit about how Cerner has executed on engaging its employees and integrating behavioral health into the services to your own employees
Sutariya	so we are self-insured employer you know as many large employers are and we truly take a holistic vision we want our associates to be healthy happy and productive It obviously helps us on the productive side but it also helps us on the cost of health care side so what we have done is that we're pretty much taken the control over how we deliver health care all the way from benefit plan design to printing the card to managing member services to running our own TPA to standing up our own primary care center in each one of our campus where we have a significant population.
Hanis	in addition to being one of the leading electronic medical record platforms and Pop Health platforms in the country in the world you've also created an integrated solution for an employer
Sutariya	absolutely we believe it's vital to learn ourselves and by running our own health plan we learn from that experience and then since we are technology company we take that experience and generate a skill that then we can provide to the rest of the market so the lessons we've learned in managing our own employees we now have converted that into a solution that we provide to tens of large and small employers all over the United States and of those employers very often we run a complete primary care centers not just occupational health but an integrated primary care center where you are providing preventive services chronic disease management as well as integrated behavioral health management
Hanis	Tell me about the impact that you've seen in health outcomes and cost with your work
Sutariya	We've been tracking a cohort that is enrolled in our primary care model what we have seen convincingly is despite this cohort aging five to seven years their overall risk factors in the cohort that's enrolled in our own primary care center is actually same or lower number one number two their overall cost of care is lower compared to a control cohort. We absolutely believe and are convinced that a comprehensive program that surrounds where every single day there is a conversation of health whether that's in your cafeteria whether you have a walking trail whether you are proactively addressing behavioral health issues are vital and has huge ROI
Hanis	in your belief is that that reflects both the ability to screen through wellness strategies and motivate the integration of primary care behavioral health and other services in the clinics that you operate and the ability to analyze and understand that data and engage and influence the members to take care of their own health
Sutariya	I think it's the overall capabilities that we are deploying to change the conversation from care to health
Hanis	when you think about the costs associated with behavioral health it's integrated into what you do you have a cost associated with detecting

Sutariya	Yes
Hanis	You have a cost associated with diagnosing and then you have a cost associated with treating. Tell me about the automation that you've achieved in those areas
Sutariya	<p>So I think first let me just say we need to treat behavioral health not as another island.</p> <p>To me as a practicing clinician in emergency medicine still I consider behavioral health as any other chronic disease and I think if we deploy the same type of methodology of the practice management and leverage the same type of advancement in technology as well as application of intelligence I think we can do much better in behavioral health, for example when we do the prescreening or screening or assessment that assessment needs to be comprehensive across health and wellness related risk behavioral health related risk as well as if you have chronic disease it needs to go deeper into that chronic disease whether that kind disease happens to be a depression or that happens to be diabetes we need to be able to go deeper and capture that richer context from the patient him or herself.</p> <p>So once we have captured that then we need the same type of intelligent decision support system that we deploy today for chronic diseases such as diabetes or heart failure. so with the common elements of pretty much any chronic disease management it is first you have to identify that disease you then have to risk stratify that disease and if you can actually apply some predictive model to say what is going to happen or what treatment may be more effective than others or what is the best way to engage this patient in their his or her own care because every one of us have different motivation and So if you can apply this predictive model then you were able to come up with a more precise plan that is personalized to that person.</p>
Hanis	Is Cerner removing barriers created the opportunity to innovate in those spaces you just articulated
Sutariya	Excellent question. So I think what we need to do is we need to unleash the power of innovators there are thousands and millions that are out there. As we all learn from the app ecosystem of Apple and Google and so on once you provide a platform there are all kinds of innovators out there. we strongly believe in open ecosystems in healthcare. Not only we believe what we have made our Cerner Millennium platform an open platform today code.Cerner.com Anyone can go log in can see the profiles that we publish on how others can innovate with us in a standard fashion and so absolutely we need to do more and more purpose specific inoperability and open ecosystem in healthcare so others can innovate
Hanis	because health care IT is so complex as a developer I have a lot of work to do to build something for, the customer base that has Cerner, for the customer base that has other electronic health record platforms where's what's the way to remove that barrier
Sutariya	<p>there's actually an exciting advancement over the last three to five years and that is in terms of FHIR F-H-I-R as a data service and then SMART S-M-A-R-T as a integration of an application experience through those two standards I believe there's much potential ahead.</p> <p>There's already a proof point that today a developer can leverage standard FHIRE service, ability to retrieve that data from anyone's EMR that's FHIR compliant today be able to create an experience in an application and then embed that experience using</p>

	smart standard into EMRs at Cerner we have already integrated various different smart applications that other innovators have developed and we believe we're just at the very beginning of that journey
Hanis	that's incredibly exciting and in unleashing innovation a really really big part of that is removing the cost of innovation and that sounds like what you're what you're describing both in industry standards and in the platform or App Store approach that Cerner is taking
Sutariya	yes industry as a whole I believe is moving and of course we are trying to lead as much as we can and be the very early adopter of FHIRE and SMART and as such we've already got an at scale movement going on right now
Hanis	let's delve into the question of automating diagnosis in behavioral health. What's the what's the innovation opportunity there what's the if somebody's going to bet some money on that where should the bet go.
Sutariya	Is there just enormous opportunity to leverage the advancement in the big data and then and more than big data how do you leverage that big data in a machine learning and Cognitive Computing manner to detect risks and then be able to gain further insight from the patient themselves by sending them a survey by sending them questionnaire to drill down further to confirm a suspicion based on various cognitive computing methodology so if you detect a risk asked more specific question based on that questionnaire there you can then confirm a diagnosis
Hanis	so in other words you've got a set of tools that are well understood that are good at detecting a problem. But then there's perhaps. I think what you're saying is there's a gap an opportunity to create tools which can ask the patient history the other questions that you need to really information you have to gather from the patient to accurately diagnose and validate a condition
Sutariya	We need to cognitively assist a provider. Health care is complex human physiology is complex and every person is different so we need to leverage the power of computing and Big Data to facilitate a clinician making early and accurate diagnosis we're not going to replace a clinician but we want to make clinician more efficient and make as early a diagnosis is possible
Hanis	if I can take an encounter that a psychiatrist encounter that takes forty five minutes of time with the patient and most of that is gathering history family those sorts of things to come up with the diagnosis if I can gather all that information before that patient walks in the door now I may be of open that time up to get to diagnosis quickly and perhaps even begin treatment faster
Sutariya	think there's an enormous opportunity in that area right now there's been enough advancement already into certainly our electronic health record capability but into overall market capability as well when you can generate a specific questionnaire pre-visit send it to the patient, have patient electronically complete it and that questionnaire to come back into your electronic health record and to an extent already being preprocessed so exposing the right information in the right manner to a clinician. Making clinicians much more efficient to conduct then the face to face
Hanis	Was it it's using computer assisted It's just like in an airplane you know I'd rather feed all the information like air speed and altitude and so forth and present that to the pilot so that the pilot can say this is all put together here's what I think is happening and then make a decision
Sutariya	you know I think that's the transition that you know the technology is going through right now ability to capture a questionnaire has been there for quite a while but ability to capture a questionnaire understand those answers processing those answer and applying rule based system on it so that you can convert it into some insightful clinician is there of you know right now I mean
Hanis	if ten percent of the U.S. population is in a value-based program as you mentioned the beginning what's interesting is as that percentage rises the economic incentive to the providers change.

Sutariya	And I think that's why there's an excitement now because we now have a payment model that incentivizes holistic care so you can focus on health, prevention, behavioral health because all of those can lead to poor detection of chronic disease management rising your costs right so we now have economic incentives aligned with a better practice model of medicine
Hanis	it's really it's an exciting time it's also challenging because as a provider today it's a bit chaotic some of my payers are working this way some are working this way I've got this E.M.R. I may or may not have the workload figured out there's a lot that's going to happen to get to a highly efficient delivery system
Sutariya	I think that that's very accurate we still live in a world where the workflow is fragmented based on the information I have in my E.M.R. Certainly the interoperability has improved and I can go and get context from different encounters but that context is still limited to what would contain a typical you know HIE documentation where I strongly believe we need to head and we have spent significant investment making this happen is that we need to formulate a longitudinal record of each person you're responsible certainly if you're taking financial risk on you. Should be able to get their claims to you get clinical data from your own system but clinical data from other systems as well as their pharmacy data and we need to surround that with open data social economic data U.S. Census data. C.D.C.'s you know indicators data environmental data we need to create a complete three sixty view of that person's ecosystem not just their clinical record what that person's ecosystem what neighborhood they live in is that it is their food desert, do they have access to transportation at the same time we need to understand their complete clinical picture
Hanis	it's drawing in the social determinants of health as actually a third dataset you have the administrative data of the of the patient claims which tells us about cost you have the clinical data found in the electronic medical record and what you're arguing is there's actually a third dataset which is the social determinants of health which may not be resident in any in those first two platforms other than knowing the you know zip code or the where the patient lives but there's other questions to ask
Sutariya	Yes And traditionally E.M.R.s were not designed to house more than clinical data so there's an evolution going on and that's why the cloud based you know platforms are quite important because the third is social but let's also talk about the fourth which is person entered data as a patient I should be able to enter data into you know my record with just my personal health record when you call an electronic health record I need to be able to enter my risks my symptoms my motivation my preferences into a record and I want that that information to be honored by my provider in making decisions about me.
Hanis	I think there's a complicating characteristic to our health IT ecosystem and that is today that ecosystem is provider centric it is built around the premise that a provider has been given an economic incentive or for its own clinical, quality, business reasons to create an infrastructure to build an instance of your record my record but I as a consumer I guarantee you I don't have only one provider I have an enormous number of providers in my ecosystem and I believe that the economic issue is that thus far our I.T. infrastructure is built around the idea of provider-centric. It would be more efficient if it's person-centric but no person has an economic incentive to incur the cost of forming managing and controlling their own personal health record the per all personal health record initiatives that I'm aware of have fallen to their demise based on the economic model does that resonate with you
Sutariya	Absolutely and I think that's a really important discussion here because much of the health care system today has been provider centric not only just from a technology perspective but even from a delivery model perspective and we need to transition to a consumer-centric model. So Cerner just at our health conference, earlier this month Zane Burke our president stood up on stage in front of thousands of people and said look we are going to make the personal health record available and free of charge for number of years so if you as a person sign up for your personal health record We will aggregate your data across all the systems we can connect to and we will make that record available to you as a person.

Hanis	Interesting
Sutariya	No charge
Hanis	A brilliant Strategy for an I.T. platform company so I applause you what's the what's the opportunity for a large employer in that domain
Sutariya	I think the opportunity for a large employer is potentially to fund the cost of the Personal Health Record there's much to be gained as we talked about any time you can enable that 360 longitudinal view of a person it has the potential to lead to a better health care model because now your risks are readily identified you can run surveillance on a continuous basis. So I think employers as we talked about as much economic to gain as much in terms of productivity but also in terms of cost of health that they have to pay
Hanis	Dr. Bharat Sutariya thank you so much for joining us today
Sutariya	It has been my pleasure