Goodarz Danaei: Thank you.

Goodarz Danaei: Thank you so much for joining us for our April monthly webinar at the Lown Scholars Program.

Goodarz Danaei: it's my great pleasure to introduce our speaker today, Dr David Bor who is the Charles Davidson professor of medicine at Harvard Medical School.

Goodarz Danaei: And he's also the chief academic officer in emergency medicine at Cambridge Health Alliance, the Cambridge Health Alliance is a large

Goodarz Danaei: health system network, which has expanded into five cities north of Boston and has done a lot of innovation in medical education, including integrating

Goodarz Danaei: community care with medical education through the Harvard Cambridge Integrated Clerkship.

Goodarz Danaei: Dr Bor was the founder and the CEO of that system for many, many decades, so he’s

Goodarz Danaei: kindly agreed to share that story with us and also maybe a wrap up or spend a good chunk of time, in the end, talking about how this massive healthcare system among the vulnerable population of Boston

Goodarz Danaei: has managed to respond to the COVID19 pandemic Thank you so much Dr Bor for joining us and the floor is yours.

david bor: But it's really my pleasure Goodarz and nice to see you all, I think, rather than go around the room and ask everyone to introduce themselves now let's do that when we get more towards questions at the end

david bor: I also just want to just say a

david bor: few words of sadness at Dr Lown’s passing this year.

david bor: I met him first when I was a medical student some 49 year, eight years ago and I was making rounds in the Brigham and I was terrified of this man.

david bor: And we got to a patient, and he asked me what medicines is this person on? And I listed about a dozen different medicines and he said “well that's the problem stop all but one!” And I said to him

david bor: “Dr Lown which one do I keep?” It probably sounded like this \*high pitched nervous voice\* “Dr Lown which one do I keep?” and he said to me, “Oh it doesn't make any difference, you can choose.”

david bor: And he just he was a remarkably great teacher and leader.

david bor: And one of Michael Fine who, I think you have met or will meet and I wrote a little remembrance of him, which I think

david bor: if you haven't gotten i'd like to pass it out, because he really has had a warm spot in my heart and he is a very big hearted man as so I want to talk to talk to you about

david bor: this healthcare system and how it evolved over the course of the last hundred years, and how it has continued to evolve, mainly in the face of COVID, but I think this the story that i'm telling is

david bor: healthcare system within a changing polo political context in the United States that kind of perfect think that prepared it well to respond to COVID and we did extremely well.

david bor: And I think there's some lessons there, so my introduction you've heard, I have no disclosures so I'm going to talk about CHA, the Cambridge Health Alliance, call it CHA

david bor: and start off just showing you where it is and what it is talk about the historical evolution and then what we did in the face of COVID.

david bor: And there should be plenty of time for conversation afterwards. So these are the lessons that I will get to at the end.

david bor: I'll tell you at the beginning. So the public, even in the United States expects that healthcare systems are going to be accountable to the communities in which they sit.

david bor: As Churchill said, and probably people before have, never let a crisis go to waste and what we discovered in this crisis, but also in the ones before

GK Mini: That.

david bor: It brings out often generosity of spirit, willingness to sacrifice, the courage to make errors to just move forward

david bor: Even if things don't work out and it gives opportunity for new leadership and what we saw here, I think the most impressive leadership came from people who are

david bor: probably half my age.

david bor: The recipe for success at least as I see it, is to have public health responsibilities and the healthcare responsibilities melded as one organization which is the way we are designed.

david bor: That the ethos of primary care should sit at the center and that partnerships between the healthcare system and the social support systems and local political government are really critical; rapid cycle improvement works;

david bor: transparency; and we did a huge amount of communication with this public and with the staff in the hospital and that really bred a lot of confidence in what we were doing and trust, even if the things that we did didn't work.

david bor: I think scale is really important, and there's central planning at for a country of 350 million people that

david bor: works well in some areas, but in other areas, it's really the local and that's most important and trying to

david bor: build on relationships and trust that have existed for long periods of time.

david bor: A few words about scale that I'll get to that we're relatively small, and we know our patients and communities well and that

david bor: helps with the trust, but the smallness also helps with nimbleness and we were able to turn on a dime and I think the overall message, especially for those outside of the United States, who find

david bor: That American capitalism is

david bor: getting exported, continually being exported, no matter who is the US President, and it really failed in healthcare and in many other ways.

david bor: Okay, so Cambridge Health Alliance, our mission is simple, to improve the health of our communities and the vision is that we really wanted to be

david bor: A foremost leader in academic medicine, but when we say public healthcare institution that's public health and healthcare as one entity.

david bor: This is a map of Boston the metropolitan Boston area has a population of about 4 million people, the city has a population that 600,000 and the area that.

david bor: So this is Boston down here that you can see the pointer just yeah. Okay, so this is the city of Boston down here, this is the Charles River

david bor: and north of the Charles is Cambridge and we, the main hospital started at in Cambridge and then our catchment area has moved to Somerville, Malden, Everett,

david bor: This is a looking over the city of Boston across the Charles river and up here is Cambridge and Somerville is here, and then the other cities are pathway.

david bor: This is Harvard University.

david bor: And this is a housing project in Cambridge so it's another view of Cambridge it's a very nice looking housing complex as public housing.

david bor: And Cambridge has a very rich tax base, so we can actually afford to build housing and keep it up so that looks decent.

david bor: This is an area it’s quite industrial, lots of small semi detached houses all of those has, as you see, have three fam or triple deckers and they have three families in them, there are areas that are really quite indigent.

david bor: And just to give a sense of what this population that are public hospital serves, we see a much

david bor: More indigent population than then is the average.

david bor: And you can see partly by the racial mix, so this is when it says CHA’s panel Cambridge Health Alliance panel that's the blue, these are the patients who are enrolled in primary care at the hospital, who we see repeatedly.

david bor: And the green as the population of the communities that we're serving so those populations at 68% of the population is why, but only 37% of our populations, is why we see more

david bor: African Americans or Caribbean Americans some Africans we see many people who define themselves as both black and Hispanic Asian and Pacific island white and Hispanic.

david bor: So it's a much more we serve a poorer population that includes a lot of immigrants, these are the languages spoken by the people we see only 56% speak English as a first language.

david bor: The major, the dominant second language is Portuguese and those Portuguese are mainly from Brazil, the older people came from the Azores and Cape Verde and from Portugal itself Spanish Haitian Creole another 40 50 60 languages spoken in our communities.

david bor: I just show you this just to look at the colors. So these are health outcomes and we're looking at age adjusted

david bor: rates of mortality for mental health suicide diabetes asthma, etc, the detail’s not important, but just look at the difference from town to town.

david bor: So green means that the rates of mortality are better than the State average red means that they're worse so Cambridge looks pretty green; Chelsea is pretty red; and we see patients in Everett

david bor: Medford, Malden, Somerville, Cambridge. So you can see the tremendous differences town by town in the neighborhood by neighborhood.

david bor: same thing with chronic diseases.

david bor: Then that there's variation by race and again, the detail’s not important, just the fact that we look at race, we look at language when we're trying to understand the communities.

david bor: A quarter of our patients, this was last year, are concerned about food and security; 25% of patients don't know that they'll get to the next month and have enough food.

david bor: So that's kind of the world of that.

david bor: The world of north of the Charles River that we serve. So I'm going to take a quick tour through the evolution of a hospital from its beginning to now and try to contextualize it as the role of government changed over time; so we started the turn of the 20th century.

david bor: We talk about America as being

david bor: A nation of immigrants, and this is this is national data on the proportion of people who are foreign born, who are foreign born so in the late 19th century, when there was a huge immigration here.

david bor: All of my grandparents came to the United States around 1900.

david bor: At that time, 15% of the population was foreign born. That fell in the second world—in the area after the Second World War, but really started, right after the First World War,

david bor: Falling, and this has to do with federal immigration policy, and then it got liberalized and we're back up where we were and that.

david bor: These are political decisions, but it also reflects the economy of the world, and this is where people came from, and following the same

david bor: kind of outline that you can see here is the Irish potato famine, and this is an area of the intense poverty in Italy, Eastern Europe, the pogroms.

david bor: And then here is the

david bor: The

david bor: Large immigration from Mexico and Latin America

david bor: from political disruptions, much of which has to do with america's meddling there; the Cultural Revolution in China here.

david bor: So that there's, this is a community of immigration, the context is also there for the role of government for the first time government really trusts notice that the excesses of capitalism

david bor: were challenging for the public and the trust started being broken up the standard oil company trust the

david bor: trust that ran the railroads in America at broken up by Teddy Roosevelt, the President at the turn of the century and

david bor: government took on new roles like it started the Food and Drug Administration to protect the food and the production of food; towns or cities started requiring pasteurization of milk.

david bor: And so that was a role the government hadn't taken up to that point, and at that time between the Civil War and the First World War, many cities erected city hospitals primarily to take care of workers to keep them healthy and these were workers, a large number of whom were

david bor: impoverished immigrants who came to the major cities on the east coast of the United States, so Cambridge Hospital it's Cambridge City Hospital at the end of that, and you can see

david bor: the concern about money, so they authorize the city to take on debt to serve the medically indigent.

david bor: This is a picture of the old hospital, though it was razed, but this is how it looks the people, older people who remember it remember this

david bor: magnolia tree in the front, they don't remember the plantation appearance of the building.

david bor: The innovation, then was truly in the second category it wasn't building a building it was government taking on responsibility.

david bor: And the way it was designed in Cambridge was really interesting they said, the health department and the healthcare in the hospital would be governed by one body, it would have one CEO and that person would be the head of the health department.

david bor: So over the course of the next 50 years

david bor: government continue to take on new roles and particularly after the great depression in the early 30s, 1930s, for the first time, Roosevelt enacted a Social Security Act, so that old people, older people

david bor: would have some kind would would not be impoverished; interestingly, they did not extend that health insurance.

david bor: It was also a time when government, primarily in reaction to popular movements took on roles protecting rights and voters rights and civil rights and there was a period of tremendous activism.

david bor: So back to the hospital; so by then 50 years later Cambridge City Hospital, it was kind of a jewel at the beginning now really offered terrible healthcare, it was beset by

david bor: tremendous political interference in the hiring process any city councilor who had a friend or neighbor,

david bor: A City Councilor who needed a vote could sell it could buy a vote by giving people, neighbors and friends, jobs in the hospital, that's called patronage, but the thing that really

david bor: was a tremendous embarrassment to the city and also to Harvard University, which is just six blocks down the street from the Cambridge city hospital; there was a national

david bor: white paper and national TV program talking about the quality of medical care in the United States and they focused on Cambridge City Hospital as an example of the worst.

david bor: And that was so embarrassing that the city of Cambridge and Harvard University got together wringing their hands and said, we have to do something.

david bor: And the university said well, what we could do is, we could have an academic affiliation with Cambridge City Hospital, we’ll start a residency program there and that will bring good faculty and good residents and that will improve the quality of care and it did.

david bor: So that's the next stage of development, so the first one I'm showing a building the next one I'm showing yet another new building so part of the deal with the Harvard affiliation was they built a new building.

david bor: There it is.

david bor: So what was new now with the affiliation, they decided that the hospital would focus on primary care, it would not try to be a mini Massachusetts General Hospital or mini

david bor: Beth Israel hospital, but rather it would be its own thing, it would be a primary care hospital.

david bor: And it would build a number of health centers in the community that represented communities that

david bor: differed from one another because of their ethnic or racial mix.

david bor: So there was a health center in the Portuguese speaking community and one in a Spanish speaking community and one in a Haitian Creole speaking community; they hired locally from those communities

david bor: and made it very comfortable for people to get care locally, a hospital with the academic affiliation attracted just as planned,

david bor: a bunch of educators who were also very politically active and people who were interested

david bor: in public medicine and activism around it, and yet some of the organizations that

david bor: were started by came people of the Faculty at Cambridge Health Alliance include Physicians for Human Rights,

david bor: The Society for General Internal Medicine, the US Preventive Health Service Task Force on the Periodic Examination Positions for a National Health Program and we were all members of IPPNW that's the International Physicians for the Prevention of Nuclear War, Dr Lown’s organization.

david bor: And for the first time they balanced the budget, so the hospital really got a tremendous shot in the arm during this this era.

david bor: And building the new building, you can see in the language that the hospital system it's a symbol of unanimity of Cambridge, you can just feel the activism of the time.

david bor: Here is the building it will house the sick, treat the injured, without regard to color, religion, economic status, or political persuasion, quite different from the first 50 years earlier when they said, this is a charity hospital for to take care of the poor.

david bor: The intellectual roots of the hospital really have to do with community oriented primary care, and this is a picture of Jack Geiger, who like Bernard Lown, those two individuals are probably the fathers of

david bor: activism and healthcare over the last half century and they both passed away this year.

david bor: Dr Geiger started a health Center went to Pholela in South Africa, when he was a student.

david bor: And learned about community oriented primary care, brought the idea back to the United States walked into the, as a 25 year old, walked into the

david bor: Secretary of Health and Human services in Washington, pounded his fist on the table and said, “you should build 1000 health centers like the one I'm going to describe” and he described the health centers and amazingly that's what happened.

david bor: The other intellectual route come from the Alma Ata Declaration in 1978 in Kazakhstan, where they gathered together

david bor: representatives of the WHO, as well as activists physicians and came up with

david bor: this declaration and the essence of it is that health is a fundamental human right.

david bor: Something that's not written in the US Constitution, but should be; health is broadly defined as physical health, mental health, social health, social well being.

david bor: inequality is unacceptable primary care should be the essential basis for the system.

david bor: And social accountability; institutions like ours should address the priority health needs of their communities. And these became the intellectual roots of Cambridge Health Alliance in that era and to the present day.

david bor: So the context of the next 30 years that brings us up to the almost the turn of the 20th 21st century was a reaction

david bor: To government's role with regulation and the government's role in the safety net.

david bor: And the reaction goes under the term neoliberalism, with the idea that Reagan really ran on and pushed hard, like government is more the problem than a solution and that really the market is going to will bring the greatest wealth.

david bor: And what we saw locally, the city of Cambridge used to control rent so landlords couldn't put people out on the streets and particularly for elders

david bor: on fixed incomes that they would be able to stay in their apartments; in this neoliberal idea.

david bor: they did away with rent control and the result of that was tremendous gentrification in Cambridge you know well, students and young professionals moved into houses that were formerly held by

david bor: elder people, the elders got pushed out, they couldn't afford to stay and they kind of were forced to sell because the prices were going up the rents were going up.

david bor: And Cambridge really turned into a very different city, the immigrants of Cambridge left and the median income went way up The other thing that happened is that the nonprofit health facilities in the

david bor: In this nation began consolidating and forming partnerships, so the Massachusetts general hospital and the

david bor: The Brigham which were two competing hospitals decided to work together as one large consolidated hospital and then they started buying other hospitals and now they control, about half of healthcare in Massachusetts

david bor: and other there's been other consolidation, so that the nonprofits begin began acting like big business.

david bor: So that brings us to

david bor: And we talked about the innovations of the hospital, but the weakness at that time was that's Cambridge City Hospital is still a.

david bor: department within the city of Cambridge; if I wanted a new stapler

david bor: or a ream of paper I haven't put a chip into submission to City Hall, they would put it out to bid

david bor: and some weeks or months or sometimes years later I would get the low bid stapler which often didn't work, it was cheaper for me just to buy it myself in the store, but this was no way to run a railroad or a hospital.

david bor: But the biggest problem was that the patient population in Cambridge was changing it with the gentrification and we, as a hospital that primarily was dedicated to taking care of poor people, were losing our patient base.

david bor: So what we did is we reformulated ourselves as Cambridge Health Alliance public authority and.

david bor: I got this idea and one of my medical school friends, who was working in a health center here in Somerville across the Cambridge line

david bor: called me and said I'd like,

david bor: I want to work in your institution it's much more interesting than mine and mine is running out of money and it just works terribly poorly and I said well gee you know we're giving

david bor: three, four million dollars in free care to people who lived in Somerville so we may as well have a health center in Somerville.

david bor: Maybe if we wrapped our public license around your health center we could get preferable rates of payment from the Federal Government and give a better,

david bor: be able to pay you and being bring better resources to you and you could be part of Cambridge Health Alliance.

david bor: So I went to the CEO and I said I've got this great idea, and he thought about it, and he said that it's a good idea, let me get back to you in about two weeks. Later,

david bor: he came back and said well I've got a better idea; he said. I said, what's that; he said that helps that hospital has three health centers, 1, 2, 3; we're going to buy all three of them and the hospital, Somerville hospital.

david bor: So we got reformulated, instead of being an organ, a department in Cambridge city government, we became a regional center chartered by the State legislature.

david bor: And it allowed us to build health centers in Somerville and as our populations started moving out of Cambridge they settled in Somerville; they moved northeast: Somerville, Everett, Malden, Revere.

david bor: And over the course of five years we built these health centers and bought a hospital here in Everett.

david bor: And we became this regional health system but built on primary care, so we use the downtown hospitals for complicated tertiary care, we provide care for the primary care in the secondary hospitals for people who don't need brain surgery or heart surgery.

david bor: So the innovation is the public authority, Goodarz said a few words about this integrated clerkship, I can talk about that later if you'd like.

david bor: And we formulated ourselves as if we were working in a single payer national health program; we did away with, everybody became, all the doctors are employed, nobody is in business in any way.

david bor: And within the institution there we try to exist as if we were in a single payer system.

david bor: And then the hospital has to deal with all the insurance, not the

david bor: the doctors and we can work as if the payment is a global payment, and we continue to have this mission, where anybody who wants health care could get to the hospital, no one has ever turned away.

david bor: So the problem with the neoliberalism that Reagan started is that over this period of time that goes to the present

david bor: Tte government’s role got smaller and smaller in health care, the health disparities in this country have gotten absolutely terrible.

david bor: And then, as you saw with Trump he rode on those politics of division.

david bor: The cost of health care continues to go up and now it competes with education and housing and social spending.

david bor: And the system because it's still based on the market, it gets more and more complicated and

david bor: The techniques of management get to look more and more like corporate management, the Affordable Care Act, which was Obama's major accomplishment,

david bor: Increased greatly the number of people who are insured in the United States, but it didn't do away with the insurance companies, so it still is a an even more cumbersome system that has huge amounts of unnecessary waste in it in insurance company profit and their management issues.

david bor: This is just this national data on a disparity, so this is the top 0.1% and the share of wealth that they own so just before the Great Depression in 1928,

david bor: 25% of all wealth in the United States was owned by one 10th of 1% of the population, it fell greatly, and now it's up almost where it was before.

david bor: So we welcome all, no barriers, free care, legal assistance to people who need it, we advocate for community these are a residents a day after Trump was elected, big protest downtown in Boston; here they are with Elizabeth Warren on a I think this was a women's day march.

david bor: And then, a few other comments about

david bor: that federal policy, so the the red line is the change in life expectancy in America and the smaller lines are the other G7 countries.

david bor: And you could see that the US was kind of in the middle of the pack in 1960 and what's happened with the way health care has been organized in the United States, as we now lag the other countries substantially.

david bor: And if you take a look at the difference between the median of these mean of these countries and the US, and you look at that difference, over time, you get a curve like this, which we call the missing Americans so last year there were about a half a million Americans who died.

david bor: We would say unnecessarily.

david bor: and

david bor: Half a million more people died in America than wouldn’t have died, if we had a mortality rate, like the rest of the G7 countries.

david bor: If you look at it according to race, you see that Native Americans have the worst.

david bor: This is.

david bor: The relative risk of mortality compared with G7 so if this is one.

david bor: The risk of death in the United States is higher in every group except Asian Pacific islanders and not just every group but at every age, so this is not just people who are dying of drug addiction in their 20s.

david bor: But in every single age, these are African Americans; four times the average rate year

david bor: of mortality compared G7 countries, these are whites so US is not doing well, for all that it spends.

david bor: This is Massachusetts, looking at the change and spending over the past 20 years healthcare is going up at 1% and it is robbed from the rest of

david bor: social spending, especially environmental and recreational investments; childhood education, higher education, so on

david bor: Okay so where are we today; well we're fiscally we;re very dependent on state and federal funding, because we don't get very much insurance,

david bor: our patients are not well-insured but, we believe our model of care is exactly the way

david bor: The Alma Ata declaration thinks it should be, says it should be, it's for the world, but the US hasn't yet adopted that.

david bor: And our configuration of having a dozen health centers in five different towns and

david bor: Health centers in high schools and homeless programs and taking care of people in nursing homes

david bor: and taking care of people who are homeless, but that's a very inefficient way to deliver health care and in the United States, the reward comes from the tertiary care side.

david bor: So we're perfectly designed to take care of the public and to respond to a pandemic, but we're not designed for financial solvency.

david bor: So let's, I’m going to talk about what to happen with COVID.

david bor: So i've given you

david bor: the evolution of an organization that's public that now is primary care oriented and suddenly there's a pandemic and where the.

david bor: public health and personal health care are melded in one so how did we respond to COVID, and the answer is, in general, really, really well.

david bor: When the effort, when it looked like the first cases were being reported and that this was highly likely to be a problem, the leadership got together and they said, “what should be our goals?” We’ll continue to be patient centered, we will keep an ear to community need.

david bor: We will have to deal with the constraints and, at the time, at the beginning, we didn't know what, they would be, had no idea that the protective equipment would be so limited and be a huge problem.

david bor: We knew that we would have to do some sort of cohorting and keep sick patients and contagious patients away from the hospital if we could.

david bor: Because we didn't want either the transmission of disease in the hospital or in the health centers between patients and between patients and the providers.

david bor: And we assume that we'd have limited resources, we also knew how little we knew about the virus and there needed to be a way to continue to

david bor: upgrade knowledge and there had to be some way to address staff anxiety, so this is what we did so, the initial response

david bor: Had these themes; they had to reconfigure and redeploy staff to address, whatever the need was going to be, we should accent prevention, we had identified cases early and stratified them according to risk and keptthe lowest risk patients

david bor: at home and figure out some way to take care of the high risk patients without them getting stuck through the whole system and being seen by many, many people since we knew little about the way this disease spread

david bor: and what the risks were and very few people really understood this, we decided that the triage ought to be centralized and that way, the staff could learn about the disease and be educated about the disease in one consistent fashion.

david bor: We would prioritize keeping people in the community, we would continually report on how we were doing, and we would accent education, so we eliminated all elective activities so elective surgery stopped on a dime on a given day.

david bor: In the very second week of March we stopped, we converted all medical consultations to telephone consultations.

david bor: And then, if somebody needed to be seen, after a screen on the telephone, then they would be sent to the hospital.

david bor: Most primary care with was stopped and we closed three quarters of the health centers and then just

david bor: directed patients to a small number of health centers but tried to manage them at home and we tried to do telecommunications as much as possible, but most of our patients really didn't have access to

david bor: To Zoom or to computers or to

david bor: WiFi and the telephone turned out to be the most effective we reconfigured the hospital so that COVID patients were cohorted in one area.

david bor: We more than doubled the size of the ICU and moved created an intensive care unit, the recovery rooms in the hospitals, we created a hospice for patients who were dying.

david bor: And we redeployed lots of staff, so the younger doctors, the ones recently out of training, who were in primary care were sent to the hospitals, hospitalists were sent to the intensive care units and the specialists were put in community care kind of roles and

david bor: very, very few people objected to the chain changes.

david bor: The community management, I think I'll say I forgot to send a reference we published a little article in The New England Journal about this.

david bor: We, so this is a way, what we did, so in the primary care centers we had telephone outreach; we identified through the computer

david bor: all high risk patients who turned out to be about half of all of our patients, and then we called every single one of them, so that's about 80,000 phone calls in the month and we and we alert told them about their risk told them how they could prevent disease,

david bor: talked to them about how they could modulate their risk and told them what would be dangerous signs for them to call back.

david bor: And if they were endangered we gave them a number for a dedicated telephone triage line we set up a triage center.

david bor: And people who call the triage center people there, and these were doctors and nurses and nurse practitioners, we tried to make a diagnosis and great acuity and then depending on acuity and risk,

david bor: would make a referral and the referral places could be to community management, the respiratory clinic or the emergency department so community management was for people who had symptomatic disease but was not, but people who were not terribly ill at that point, and they

david bor: have a phone consultation and then they were called on day four, day seven and day 10 of their illness.

david bor: and we knew that by day 4, in the main that's when respiratory symptoms began and day 10 in the main that's when people got quite sick and would often need to be hospitalized.

david bor: So we call them to check on them and follow them at home and then the respiratory clinic was in a tent outside one of the hospitals and patients who were sick

david bor: were sent there for evaluation, if they couldn't be evaluated, we felt we needed blood tests or oxygen saturation management, monitoring,

david bor: rhey were sent to this respiratory clinic and they manage the high acuity patients sent them home they would call them daily or twice daily depending on how sick they were and then, if necessary, send them to the emergency department or the hospital.

david bor: So this is what happens so we

david bor: in the second half of March we made 40,000 phone calls to the high risk patients the triage center.

david bor: So we got 7500 phone calls from patients who were sick.

david bor: Of those we sent about a quarter of them, 1800 patients, to the phone outreach and the, this is the calls on day, four, seven and 10.

david bor: And another 1100 were sent to the respiratory clinic for evaluation and about half of those were sick enough so they needed to go to the emergency department, the other half could be managed at home and 3% of that total.

david bor: 7500 patients who had symptoms only 3% needed to be hospitalized even with that we had the largest proportion of patients hospitalized of any any hospital in the state.

david bor: The other things that we did so, I told you about this dedicated phone phone line and having almost all of our visits by phone or teleconference.

david bor: We partnered with the one of the ambulance companies so that the ambulance could go, the emt could go to patients’ homes evaluate them.

david bor: And then call back to a physician in the respiratory center to get advice on whether they needed to come to the hospital, and these are people who, for whom the trip to the hospital was so onerous that they just couldn't manage.

david bor: And this was a way, this was a way to keep them, possibly to keep them at home.

david bor: We, the health department

david bor: commandeered a gymnasium from one of the high schools and we built a shelter for homeless patients in its school gym.

david bor: We commandeered a dormitory from one of the universities that was closed and we used that for housing for people who

david bor: were being discharged from the hospital but couldn't go home because they were still in quarantine, they should still be in quarantine.

david bor: So we put them in a university dormitory or for hospital workers who couldn't, who had elders at home or spouses or

david bor: loved ones in the in their home, who are immune suppressed, or who were at great risk of disease, so we had quite a number of hospital staff living in a university dormitory.

david bor: We worked out a collaboration with 10 nursing homes, so we gave medical care to people in nursing homes and continually informed them on how they could protect themselves and their staff.

david bor: We addressed food insecurity, along with Project Bread and bought food from local farmers and surplus food from the from the government, and then we distributed the food in

david bor: Three or four to the towns in which we work and also one of my colleagues figured out a way for a doctor to order food on the computer, which would send a message to Project Bread, which would then deliver food to that patient’s home, amazing.

david bor: We did a lot of public education, I ran a dozen grand rounds for the hospital system to continually update people on COVID.

david bor: including some people from the Harvard School of Public Health, some of the modelers

david bor: and the usual grand rounds at Cambridge we'd have a bed 50 or 60 people sitting in an auditorium we have three or 400 people tuning into these things.

david bor: I took responsibility for figuring out volunteer opportunities for retired doctors and students who wanted to do things.

david bor: And the retired doctors especially ended up working on these community outreach telephone calls, then eventually when testing became more available we set up two testing tents and we can see 1000 patients a day in these tents and we set up immunization centers

david bor: In in our catchment area.

david bor: This just

david bor: shows the

david bor: proportion of

david bor: our beds that were taken up with patients with COVID during the first surge, so we got up to 75% of their beds and all of the ICU beds, even in the expanded ICM, this is a

david bor: fun, funny graph. So these are the number of respiratory clinic visits per day.

david bor: And at the same time, the small number of hospitalizations

david bor: per day during that first surge in the month of the month of March; these are new visits to the emergency room and or new hospitalizations and never more than 10 a day, but these hospitalizations were rather lengthy, so the hospital itself got filled up.

david bor: This is an example of the daily— every single day they put out a notice of the total number of patients, this is June, total number of patients in the hospital with COVID.

david bor: The proportion with confirmed or suspected we got up to almost 80% at one point on the number of employees who tested positive

david bor: and so on, and then there every few days, there would be a little story about someone who went above and beyond

david bor: In their response to COVID, but this is what.

david bor: And then another, this is the state data every single day, this is on the computer at the hospital.

david bor: I think I won't talk about Trump and then just go back to the lessons and then we'll just have a conversation so once again the public really expects health systems to be accountable and over the, I think from Alma Ata, that became really built into

david bor: The dialogue and the hospital, but it was really built into the designs from 1911 from the very beginning, as Churchill says or somebody else never let a crisis go to waste.

david bor: I think what the hospital managed to do in this last year, and particularly within the course of just a few weeks, was really monumental, really amazing.

david bor: I think the recipes for success are melding health care and public health together the primary care ethos and working hard to form these community partnerships with

david bor: Food agencies, nursing homes and social service agencies, public housing and so on, the rapid cycle improvement really does work.

david bor: Especially if there's measurement, they tried all sorts of things that didn't work and then they say, well, that didn't work and just throw it out and go on to the next.

david bor: The transparency of being able to say you know things look like they're getting worse here's the curve.

david bor: You know, expect you're going to be working 12 hour shifts for probably weeks going into the future, this is what we're expecting that really built confidence and kind of trust in leadership.

david bor: What I said at the beginning, I really mean that we were able to be successful, because we knew about the community agencies we knew what our patients needs were we knew the languages that they spoke and how to meet and had published

david bor: materials educational materials in their languages.

david bor: And so there's a real terrific great advantage to being relatively small, and we could make the whole system change very quickly, because of the relatively small scale, at the same time, we absolutely needed guidance from at the national level and we needed a national

david bor: procurement process that we deliver the PPE and deliver the testing that was all in short supply for months

david bor: and

david bor: from prices and for all, organizational purposes, I really think market capitalism fails healthcare

david bor: So that's my story about Cambridge health alliance and now

david bor: Thank you.

Goodarz Danaei: Fantastic. Thank you so much.

Goodarz Danaei: 15 years of work wrapped up in one hour and thanks a lot for highlighting the response of the system to COVID, so the floor is open for questions I know a number of the scholars on the call have been thinking or

Goodarz Danaei: Actually entering into action on primary health care, so we can focus on that component of how the system responded to COVID.

Goodarz Danaei: You can unmute yourself, or you can also if your connection doesn't allow, you can type your question in the chat box.

Paulo Lotufo: Can I ask, Goodarz?

Paulo Lotufo: Sure sure yes.

Paulo Lotufo: there's more.

Goodarz Danaei: Sorry Paulo do a

Goodarz Danaei: brief one sentence introduction for Dr. Bor

Paulo Lotufo: Oh, oh I’m Paulo Lotufo from Sao Paolo Brazil, I stayed two times in Boston 1997 and 2000 and 2017 and the first time

Paulo Lotufo: That I had noticed that good public health services in Massachusetts I remember that Dr Lown told us that, oh Boston is the best in the world for science, but not for public health.

Paulo Lotufo: I remember this, but

Paulo Lotufo: I love the approach that you have during this time.

Paulo Lotufo: Mainly now

Paulo Lotufo: Related to COVID, I have a particular question about the Brazilian community in Somerville

Paulo Lotufo: I know i'm not sure about the proportion but

Paulo Lotufo: I think most of them are undocumented people, how do you manage undocumented people?

Paulo Lotufo: Are they reliable for researchers for follow up or they are only using the emergency department for acute care?

david bor: question.

Goodarz Danaei: yeah we can hear you well.

Goodarz Danaei: Seems like your microphone is blocked or moving or it's sounds a bit weird.

Goodarz Danaei: Right now, it might be better.

david bor: Back in.

Goodarz Danaei: Now we can't even understand let's just like do you want to take back to your previous mic you were using.

Goodarz Danaei: Now.

Goodarz Danaei: No, it’s still very echoey and scratchy

david bor: What happened.

david bor: Back in.

Goodarz Danaei: That yeah that makes that might work.

david bor: Okay.

david bor: um so um the Brazilian population is quite different from most of the other immigrant populations, because they continue to travel back and forth between Brazil and the United States.

david bor: Most of the Salvadorean and Nicaraguan immigrants come to the US and they stay here they don't have the mobility that the Brazilians do I can't explain how that works, I guess the Brazilians come here on on visitor visas and then go back and don't end up I don't know how it works, however

david bor: I would say, a good proportion of them are pretty active members in this Community and get into primary care and maintain their primary care relationships, some of them shop back and forth for healthcare between Brazil in the United States.

david bor: And the we find in particular that pregnant women are much happier in Brazil, because the C section rate is so much higher there than it is in Cambridge.

david bor: And that's kind of a cultural norm, they have a C section they feel as if coming to Cambridge and only 3% of them have C sections, feels, as if they’re not getting the best of medical care.

david bor: On the other hand, people engaged in cancer care at our hospital tend to stay, so I that those are kind of anecdotal observations I we can't we do give care to anybody who wants it so.

david bor: Somebody is undocumented does not have restrictions and in medical care at Cambridge Health Alliance, they do with the other hospitals, but not ours.

Goodarz Danaei: Okay, thank you. Natasha.

Natasha Sobers: hi Good morning, so I'm Natasha Sobers from Barbados, so I have a comment and a question, the first comment was you know I really enjoy the theme around “market capitalism fails healthcare.”

Natasha Sobers: You know and bringing out the, you know, the importance of you know, the government role in health care; in Barbados, we know how we have 42% of persons have total health expenditures from out of pocket

Natasha Sobers: spending which we are trying to reduce, obviously, but you know because of the pressures of COVID.

Natasha Sobers: It makes it far more difficult for government know to start moving towards socialism and there's then that I mean there's they're already kind of based in that primary health care centers and socialism, but

Natasha Sobers: persons are pushing more towards you know, putting people to pay for health care and how do we finance this health care in the context of COVID etc, etc, so there's that pressure and tension there.

Natasha Sobers: And you know, given that already at 42% out of pocket expenditure that’s something that we wanted to reduce; COVID is just making that tension worse I think.

Natasha Sobers: So this is great that you spoke to that, but also the second thing was that in the context of COVID you spoke about the alliance collaborating with 10 nursing home facilities, I mean you know COVID, of course, and, like most things the

Natasha Sobers: elderly are increased risk, but I wondered about the long term

Natasha Sobers: considerations for the Alliance and the elderly, did you have to change a lot of the way this, the system is made up; were these special changes, thinking about the aging population and the elderly, is there any sense of going towards collaborating more with long term care facilities.

Natasha Sobers: Or is the population that is elderly in Cambridge because of what you said about some of them being pushed out of the

Natasha Sobers: Of the apartments and bringing in a young persons because we are really struggling with an elderly population, I want to know how you know the Alliance was transformed by thinking about the elderly population.

david bor: Well, structurally

david bor: The

david bor: nursing homes

david bor: don't affiliate with hospitals.

david bor: But we offer to give medical care in nursing homes and so does some of the other local hospitals so it's an inefficient system that

david bor: We do it through, mainly through nurse practitioners, who will go to a nursing home and we'll see a panel of patients that are their patients and then leave the charts reside in the nursing home.

Natasha Sobers: That’s free as well, that's all free?

david bor: Well, when we can bill medicare we bill medicare.

david bor: Bill insurance.

Natasha Sobers: Point of care yeah yeah.

david bor: It's point of care billing so there isn't really a system, I think it would work better

david bor: if the nursing homes were affiliated with one institution, and we would go there and see all of their patients but that's not the way it works in the United States.

david bor: I think some of the some of what changed during COVID, which might endure beyond COVID one has to do with the charts; so we started doing the medical charting on our electronic medical record

david bor: even though the patients weren't, the patients were residing in a nursing home, they weren't residing in a facility of ours.

david bor: And that was helpful because we were able to get information about their health status at home and could manage or in a nursing home and could manage them with a full list of their medications and have their allergies and the like.

david bor: And do more over the telephone than we would otherwise have been able to do so that the charting turned out to be helpful, another thing that may

david bor: endure is the use of the telephone and video conferencing, and we could do video conferencing in the nursing home because the nurse and aide or a staff person would take an iPad or some kind of TV

david bor: video conference computer and bring it to a patient, and we can interact with the patient in that way and that turned out to be particularly useful for patients

david bor: who had made the decision not to come to the hospital, but to die in the nursing home with illness, and so the two things that happened is that

david bor: We had more conversations about end of life, care and then the nursing homes

david bor: were pretty much closed to visitors, because they wanted to prevent contagion; the highest death rate we had was in the nursing homes; in fact we've been following about 500 nursing home patients, a third of them died over the course of the last year, a third.

david bor: and

david bor: But we could be in contact with them and also kind of in giving palliative care over the computer and then also hook them up with their families who are not allowed in the home.

david bor: And we kind of we became the brokers for those conversations, so it connected hospital to the nursing home to the families in a way that we had never thought of doing it before so that

david bor: Those are things that are different

david bor: and probably will endure but that's that's as far as we can go when I would much as I said, I'd prefer to see

david bor: us have a much larger proportion of patients in the homes in nursing homes or have responsibility for the whole place, including the infection control and the rules about who comes in and who doesn't come in and how to use PPE, and all of that that we didn't really have control over.

david bor: Thank you for that yeah sure. Thank you Natasha.

Goodarz Danaei: Let me.

Goodarz Danaei: Ask one of my questions; I have too many, but I'm economizing and not overusing my moderator quota, but I think I have one, at least, that

Goodarz Danaei: I can put in and that sort of maybe I can pose it as the cost of listening to the community; you showed very nice data in the beginning, and how the community compares to the average,

Goodarz Danaei: The national coverage with averages with the G7, but also more locally, how the Community supported by CHA compares with the greater Boston or Massachusetts area.

Goodarz Danaei: I suppose those kind of services, I know because that's what some of the alumni do, it’s very costly to do those kind of surveys, so a number of Lown Scholars are now

Goodarz Danaei: working on Lown community health centers as a pilot for providing primary health care as a social enterprise, including Caleb and Soter and Bayo on this call in Nigeria.

Goodarz Danaei: And we supported them from the program to do a baseline community survey to understand what the needs are.

Goodarz Danaei: But I'm always wondering how often can we repeat those surveys in order to know how things are unfolding, and maybe also how to show that our community health centers have an impact on the

Goodarz Danaei: community so and you also, at the same time, mentioned fiscal sustainability versus vulnerability, so how does the CHA balance, the two things I know you have a research unit and R&D unit that I have talked to.

Goodarz Danaei: If it was a corporation, you would say okay I'm spending 10% on R&D and then the rest, how does the public health center balance, the cost of listening to the community versus the cost of providing care for them.

Goodarz Danaei: And remaining financially sustainable yeah.

david bor: well.

Goodarz Danaei: Or maybe there are cheaper ways to listen to the community that are.

david bor: yeah well.

Goodarz Danaei: yeah or.

david bor: yeah so so that's a really good question how does one listen to the community and so

david bor: And, and we have, we have a bunch of different methods so

david bor: there

david bor: there's there are two different, two different kind of vantage points, one is to look at the community as defined geographically

david bor: and the other is to look at the community of the people who use the healthcare system.

david bor: And right now in some towns like Somerville a third of all the Somerville residency is our system; in a place like Everett, it's about 15% so it's just one in seven or so.

david bor: So the sampling of the community through those who use our system

david bor: tends to to find the poorest people, the people who speak English the least well and for whom surveying is even more difficult, people who don't want to participate in surveys, because they're afraid because of their immigrant status that they

david bor: Well they're because of their immigrant status they're afraid to even come come out of the shadows and, probably, for good reason.

david bor: So what do we do so in the hospital system this year we've started built into the electronic medical record there's a survey of behavior risk factors

david bor: So we asked people about drug use, about housing insecurity, about food insecurity, about transportation issues about employment, and so on.

david bor: And we're we spend money on that not so much, I mean that it costs something to get an embedded into this system but someone has to ask the questions.

david bor: And the doctors are not willing to do that, so at the time of registration we've trained the front desk staff

david bor: or aides to administer a survey, some of it, the patients can put in themselves if they have the facility to do that some of it is interpreted I think in Brazilian in

david bor: Brazilian Portuguese and Spanish and Haitian Creole it's interpreted I think most of the other languages are not at this point so that's one source, secondly, all hospitals in the United States, including ours are required to have some sort of community input, so they have a

david bor: they call it the Community Advisory Board

david bor: for each of the health centers and they're the there are people who meet periodically

david bor: and tell their stories and complain about one thing or another, and sometimes the hospital will say you know we're thinking about

david bor: changing the location to the health center, building something different or stopping a service or starting a service, what do you think; so there's a kind of dialogue that way.

david bor: You know they're they we have used task forces also and know in the past and i've told my my own favorite story of using a task force which I’ll

david bor: take the liberty of spending four minutes telling you about so I came to Cambridge in 1981 right out of fellowship i'm an infectious disease doctor and

david bor: 1981 I started in July and in June of 81 the first two

david bor: young men who died of pneumocystis were reported in New England Journal, and that was the beginning of the AIDS epidemic and I became one of the AIDS doctors are probably the primary AIDS doctor for the city of Cambridge and I was at the patient’s home when he died and

david bor: went

david bor: After he died

david bor: His partner could not find a funeral home that would take his body and I got on the telephone and I spent a couple hours with

david bor: The telephone book, something that doesn't exist anymore, but going down funeral home by funeral home—I'm trying to convince them that it was safe for them, we really didn't know, but it was their obligation to

david bor: take a body and, finally, we found a home the next day I walked into the administer the city manager's office he's like the mayor of the city of Cambridge and I pounded my fist on the desk and said

david bor: I need for you to appoint a coordinator social services

david bor: for the city to help us the deal with an AIDS epidemic, and this is the beginning of an epidemic and I told them the story I just told you.

david bor: I said but I don't know what other issues are going to come up but they're going to be others, so he said well

david bor: it sounds like a good idea, but I don't give money to people just on demand, you need to create a constituency that will demand the services of the City Council and then I will see that you get a fair hearing.

david bor: So I kind of rolled my eyes and walked out of his office thinking that what I did not need was one more project, but we put an advertisement in the local newspaper, to say the first meeting of the Cambridge AIDS task force will be on such and such a day, this was about 1984 I think

david bor: and

david bor: Surprisingly, the auditorium was packed with people and I started the meeting saying we're gathered here to decide how we as a community

david bor: To decide what our priorities are as a community, so we can

david bor: Take our voice and use an I can help leverage your voice for leverage resources, out of Harvard University and out of the city of Cambridge

david bor: to serve your needs and immediately people, the place

david bor: lost control of the meeting somebody yells out, this isn't about doctors, why has a doctor here? This is about health! Health isn't about medicine, it's much broader than that!

david bor: Someone else yells, this isn't about age, this is about racism; and then somebody else says no, it's about homophobia; then somebody else goes, no, we need to legalize marijuana and just it

david bor: took a while to gain direction again, but ultimately, the Community.

david bor: A at this meet at this meeting, and several others prioritized the number one issue as housing.

david bor: And then number two issue was workforce policies against discrimination; number three was community education about contagion; number four was to start a clinic.

david bor: So that was such an eye opener to me that the community really needed housing.

david bor: And I thought that they needed just somebody to respond to whatever the small issue of the day was.

david bor: But that task force turned out to be remarkably powerful because it was the voice of the public and the response of

david bor: Local philanthropists and local industry; somebody built a bought bought a building and we built a hospice and the local furniture manufacturers

david bor: filled it up with beds and people volunteered to work there, and the local polaroid camera company, which was invented in Cambridge they published

david bor: brochures about contagion and made 100,000 brochures that were delivered every house in the area and so on and so forth, but that idea that the task force

david bor: could engage community voice and help guide the institutions about how to behave turned out to be very helpful when we started a Men of Color Task Force and a Healthy Children's Task Force and we've used those kinds of community task forces.

david bor: Healthy Children still exists to this and Men of Color exists to this day, the AIDS Task Force is gone, but when new problems come up, we use task forces as a way to garner community voice.

david bor: So.

david bor: next question.

david bor: we've had two questions from the western hemisphere, is there, somebody from the southern or.

david bor: I guess Brazil is the Southern hemisphere and the Eastern hemisphere.

Goodarz Danaei: Let me pose another big picture question which is unfortunately a bit American but I'm personally very disappointed at the $2 trillion.

Goodarz Danaei: package that President Biden has put forward, which doesn't include much public health and it's all infrastructure, electric cars’ charging stations

Goodarz Danaei: Climate got a good chunk of it, I didn't see and did I miss anything, or is there not much, considering that we are dealing with a pandemic that has killed 25% more Americans in one year that we usually have

Goodarz Danaei: yeah is this we are losing their courage or the status of an opportunity of the pandemic to really help in the United States, and maybe globally?

david bor: yeah I don't know.

david bor: I don't really know what's in the bill, I mean i've been very disappointed to see that public health, the infamous public health infrastructure in this country it's really been put to put to the side and managing this, for example

david bor: rolling out the immunisations the public health system that's what they're great at doing and they've spent 15 years learning or more learning how to do, how to do immunization. They ran the polio immunizations they run most of the money, the health department, make the immunizations.

david bor: And the Trump administration delegated it to for profit pharmacies to deliver.

david bor: And it just it seems like such such a waste, same thing with the testing that that could have been delegated to public health system and I don't there's been disinvestment in public health over

david bor: The last 30 years since 911 and what they did is they took the money from public health and put it into

david bor: What they called it

david bor: disaster preparedness

david bor: So when the next

david bor: issue come in the next bombing of a building happens in the United States, the public health system will organize. But then when it came time to organize they didn't use the public health system.

david bor: So I don't know, I think the, the only good thing that I've seen come out of the Biden administration with regard to public health is that he's appointed really smart trustworthy people to be the head of the CDC and the head of HHS,

david bor: health and human services and

david bor: I guess we'll have to see.

david bor: yeah pretty disappointing, I have to say.

Goodarz Danaei: yeah I also had higher expectations going in and maybe one last question.

Goodarz Danaei: You didn't talk much about tracing our colleagues—I don't see anyone —GK Mini is here from Kerala and reported early on how, and we know what the Vietnamese people did and also South Korea, a little bit more technologically.

Goodarz Danaei: But with more testing and testing, followed by tracing and current time.

Goodarz Danaei: At least initially, Kerala had a huge success and published a paper on it as well how unfortunately, important cases ruin that and we had also a presentation

Goodarz Danaei: A few weeks ago in our town hall from our Chilean colleagues, where they said similar to Spain tracing was very difficult people were not culturally

Goodarz Danaei: attuned to our sort of giving away their neighbors and friends as potentially exposed so that they could get tested and everything so

Goodarz Danaei: What was your sort of experience in that or did you try or I know some of our.

Goodarz Danaei: graduates of the MPH program are very involved in the Massachusetts testing and tracing.

Goodarz Danaei: Was that active in CHA or was it not so.

david bor: Now we we um we really found that we, we could we.

david bor: We couldn't prioritize it because we didn't have access to the testing the turn the turnaround time was so long in the testing

david bor: That you know you'd have to tell somebody you have to wait four days or five days before you're going to get the result

david bor: And that feedback loop was not fast enough to change behavior and and then for many of the people, many of the people we are contacting people who live in poverty, who are working their jobs

david bor: get them because so much such a high degree of exposure.

david bor: We could recommend that they go to one of the shelters that we built but people didn't want to do that, so you know you'd have to try to separate people from their own homes and they just didn't have the

david bor: finances or the will to do something like that, particularly when you couldn't them, this is the result of your tests, we’ll tell you in four days; for the next four days you're going to sleep in a gym—and that it just didn't work.

Goodarz Danaei: yeah we had we had the same comments on discussions with Carol over the government and also, I think it was the nonprofit section had to step in to make those quarantines.

Goodarz Danaei: really true currently not just a shamble of it, and we have a question from Caleb Ochimana from Nigeria, one of our Lown Center entrepreneurs, who is working on a rural Center with 8000 people in two villages; so he's asking why

Goodarz Danaei: The expansion appears to be slow, at least to him—I wouldn't agree with this statement—for the CHA, I think he's counting only the hospitals, but you also have, you mentioned ,the four hospitals and also 30 or so centers. Are there plans to expand to the state, region or nationally?

david bor: There is absolutely no interest in expanding nationally or beyond the state and even locally we're very much in competition with other hospitals.

david bor: And we just don't have the access to capital that the large hospitals have so it would be, we would like to build, to consolidate two small health centers into a larger one.

david bor: We don't have the money, even to do that and the capital, improvement of the you know I showed you the new hospital building of 1966: it needs a complete renovation, and the building in Everett, the hospital there, which was built in sections, but most of it was built in the 50s...

david bor: And the whole thing really ought to be knocked down and rebuilt, and we don't have the finances to do that, so the public sector is

david bor: Relatively impoverished we don't plead poverty and we feel we're able to deliver really quite good health care, but my wife and I ended up needing surgery this year

david bor: And we just we chose to go to our hospital, rather than to Mass General or one of the bigger places and we

david bor: We had the same comment, which was everything worked perfectly well people were nice and kind and generous and the surgeries went well, the only problem was, the place looked like a 1950s motel rather than

david bor: The Mass General now, it looks like you're in the highest class resort hotel you could imagine, and I mean we don't need that but

david bor: The

david bor: Facilities feel antiquated and are in there and the infrastructure is not good so things are always breaking down, they need to be fixed and that's expensive.

david bor: So expansion isn't in the cards unless the healthcare system changes its reimbursement model and even so I'm not sure that we should be any larger than we are.

david bor: But the problem with Massachusetts of having multiple small towns

david bor: each with its own government is that it's easier to form relationships with individuals but to have to interact with four or five different

david bor: city councils and different housing departments in different social service departments it's very, very inefficient.

david bor: So again, it would be better for something our size to be just in the city of Boston which has the same population as our area but it's just one government one government to deal with.

Goodarz Danaei: Fantastic. Thank you any last minute questions/

Goodarz Danaei: Follow-ups?

Goodarz Danaei: So

Goodarz Danaei: join me in thanking again Dr David Bor for this fantastic discussion and again, this is an area that's near and dear to our hearts.

Goodarz Danaei: Alma Ata comes again and again in any of any of our discussions about primary healthcare in these countries that we are presenting, so thank you again, Dr Bor.

Goodarz Danaei: And thanks everyone for joining us; we meet again in our town hall next Tuesday so looking forward to seeing many of you there and that will be an open presentation and discussion. And the next webinar will be in June, so keep an eye on that as well, thank you so much.

david bor: And thank you so much, I wish I could be a member of your group, but looks like you bring a wealth of experience and interests and congratulations to you, and again.

david bor: Thank you for inviting me and also wanted just one more time remember Dr Lown, he was just so remarkable absolutely alright ciao.

Goodarz Danaei: Thank you.

Haley Cline: Thank you.

Haley Cline: Thank you.