## AMERICAN PUBLIC HEALTH ASSOCIATION

and

THE NATIONAL ACADEMY OF MEDICINE

+ + + + +

RESPONDING TO COVID-19: A SCIENCE-BASED APPROACH

+ + + + +

WEBINAR #4: CRISIS STANDARDS OF CARE DURING COVID-19

+ + + + +

WEDNESDAY APRIL 15, 2020

+ + + + +

The webinar convened at 5 p.m. Eastern Daylight Time, Lawrence Gostin, JD, Moderator, presiding. PRESENT

LAWRENCE O. GOSTIN, JD, Director, O'Neill Institute for National and Global Health Law, Georgetown University

CARLOS DEL RIO, MD, Distinguished Professor of Medicine and Professor of Global Health and Epidemiology, Emory University

JOHN L. HICK, MD, Professor of Emergency Medicine, University of Minnesota; Faculty Emergency Physician, Hennepin Health Care

REBEKAH E. GEE, MD, CEO, LSU Health Care Services Division

JEFFREY KAHN, PhD, MPH, Andreas C. Dracopoulos Director and Robert Henry Levi and Ryda Hecht Levi Professor of Bioethics and Public Policy, Johns Hopkins Berman Institute of Bioethics

NICOLE LURIE, MD, MSPH, Former Assistant Secretary for Preparedness and Response, Department of Health and Human Services

## CONTENTS

## <u>Page</u>

Welcome and Introduction 4	
Overview of Crisis Standards of Care and COVID-19, John Hick	
Overview of Realtime Decision Making in State Health Departments and Hospital Systems, Rebekah Gee	
How Do We Act and Implement Crisis Standards of Care and What We Do Going Forward in the United States and	
Hopefully Globally, Jeff Kahn 52	
Question and Answer 68	
Concluding Remarks	

	4
1	P-R-O-C-E-E-D-I-N-G-S
2	5:00 p.m.
3	DR. LURIE: Good afternoon or evening,
4	depending on where you are. This is Dr. Nicole
5	Lurie. I'm the former Assistant Secretary for
6	Preparedness and Response at HHS and co-Chair of
7	the Advisory Group for this webinar series.
8	Alongside Dr. Carlos del Rio of Emory University.
9	And we're both thrilled to be here.
10	Welcome to the 4th webinar on the
11	COVID-19 <b>C</b> onversation <b>s</b> series brought to you by
12	the National Academy of Medicine and the American
13	Public Health Association.
14	The purpose of this series is to
15	explore the state of the science on COVID-19 and
16	to inform policy makers, public health and health
17	care professionals, scientists, business leaders
18	and the public. More information on the series
19	and recordings of past webinars are available at
20	the covid19conversations.org website.
21	Today's webinar has been approved for
22	1.5 continuing education credits for CHES, CME

and CPH. None of the speakers has any relevant
 financial relationships to disclose.
 Please note that if you want

continuing education credit you should have registered with your first and last name. Everyone who wants credit must have their own registration.

4

5

6

7

22

All of the participants today will 8 9 receive an email within а few days from cpd@confex.com with information about claiming 10 11 those credits.

12 If you have questions or topics you 13 would like to address today or on any future 14 webinars, please enter them in a Q&A box or email 15 us at apha@apha.org.

Ιf experience 16 you technical difficulties during the webinar, please enter 17 your questions in the box. Please pay attention 18 19 to the chat for announcements about how to 20 troubleshoot. They'll probably come up early and often. 21

This webinar will be recorded and the

	6
1	recording, transcript and slides will be
2	available also on covid19conversations.org.
3	Before I introduce our moderator for
4	today, Dr. Gostin, I thought I might just make a
5	quick remark about how I spent my day. The day
6	before yesterday.
7	In back-to-back calls, I was on a call
8	first with all the hospitals in New York City who
9	were talking about taking care of COVID patients
10	in ICUs who had developed kidney failure.
11	And they were talking about the fact
12	that they were out of dialysis machines, they
13	were out of dialysis fluids and they didn't have
14	enough nurses. And so they weren't able to offer
15	dialysis for patients who were sick in their ICUs
16	and who they felt were very likely to get better.
17	An hour later I was on a call with
18	fellows at an Indian Reservation in South Dakota.
19	And South Dakota, as you know, is an emerging hot
20	spot for COVID.
21	These fellows were telling me that
22	they're trying to think about how to implement

crisis standards of care but don't even have 1 access to the basic laboratory tests to calculate 2 3 any kind of scores with which to think about how to make any assessment about how one is likely to 4 be. 5 And so, it is very minor for me that 6 7 it's just a huge country. Crisis standards mean different things in different places. And I'm 8 9 really looking forward to today's speakers to help guide us through how we might be thinking 10 11 about this. 12 We are thrilled to have Professor Larry Gostin as our moderator. Professor Gostin 13 is a Professor at Georgetown University and the 14 Director of the O'Neill Institute for National 15 and Global Health Law. 16 17 He's a member of the Advisory Group for this webinar series. And he served as chair 18 19 of a major Institute of Medicine consensus report 20 recommending the original framework for crisis standards of care. 21 22 Larry, over to you to frame today's

conversation. And thanks for all of your
 contributions.

MR. GOSTIN: Well, thank you, Nikki. And thank you for all of your contributions. And on behalf of the National Academy and the American Public Health Association, I'm really delighted to welcome you to today's webinar.

And our hats go off to these two leading organizations for helping to guide the country and educate the country at a moment when we're experiencing a once in a century event. A public health crisis that we know has no modern precedent.

As we speak, we understand all of us 14 that there has been a deep concern in the United 15 States of America about scarcity. The scarcity 16 17 effects health hospital the system and functioning, which in turn places patients at 18 19 risk because we don't have enouqh medical 20 resources like diagnostic testing kits, ventilators and other necessary medical equipment 21 22 to keep patients safe.

	9
1	And of course, it's not just COVID
2	patients because all of us may have had other
3	health conditions. And that's being put on hold
4	as well. And so you got an overload of the
5	health system.
6	Beyond that, it turns out sadly that
7	COVID-19 SARS-CoV-2 is highly contagious. And so
8	health workers are at risk.
9	And keeping them safe with personal
10	protective equipment is critically important.
11	Not just to our mission but to our ethical values
12	to be faithful to first responders.
13	And as you may have seen from the
14	public discussion, the World Health Organization
15	has been much in the spotlight and has really
16	been thought of about how it's handled this
17	pandemic.
18	But we do need the World Health
19	Organization more than we've ever needed it in
20	the past. And we need to come together.
21	Not just as a community of Americans,
22	but it's a community of the world. Because this
l	I

is truly going to affect every community, every country in the world. And so we need a robust World Health Organization to lead us through it.

1

2

3

4

5

6

7

8

9

10

22

And if we think about what Dr. Lurie talked about in terms of the high variability of capacities here in the United States, think about that high variability globally. There will be many countries in the world that have very weak health systems, fragile governments and governance.

And as we speak, COVID-19 is posed to run through some of the lower income countries at most at-risk. In places like Sub-Saharan Africa, the Middle East and the Indian subcontinent.

And we're going to have to make hard choices there too about the crisis standards of care. And we need the World Health Organization to help set those standards, set those norms, provide guidance, provide technical assistance. And also, to help beef up health systems to deal with the kinds of scarcity we see.

And so, this webinar could not be more

On today's webinar we're 1 timely. qoinq to examine crisis standards of care within the 2 3 context of the developing and ongoing COVID-19 crisis. 4 We'll begin with an overview and learn 5 some of the real-time decision making 6 about 7 that's being made at state health departments and hospital systems. And then we're going to delve 8 9 into the complicated and very hard ethical questions of how do we act and implement crisis 10 standards of care and what we do going forward in 11 12 the United States and hopefully globally. For this we've got really an unrivaled 13 series of experts and they're going to help guide 14 the discussion. 15 John Hick, who served with me on the 16 Crisis Standards of Care Committee for 17 the Institute of Medicine is currently the Deputy 18 Medical Director for Emergency Medical 19 Chief 20 Services and Director for Emergency Preparedness for Hennepin Health which 21 care, serves 22 Minneapolis and the surrounding county.

	12
1	Dr. Hick is one is one of the nation's
2	leading experts on crisis standards of care. And
3	we all turn to him when we have hard problems.
4	Rebekah Gee is the former Secretary of
5	Health for the State of Louisiana. Currently the
6	head of the Louisiana State University Health
7	Care Services Division.
8	She's going to share with us her
9	perspectives on the challenges that are faced by
10	state health departments and hospital systems.
11	And as know, COVID is being fought from city-to-
12	city, county-to-county, state-to-state. And so
13	her perspective is going to be critically
14	important.
15	And then Jeff Kahn, who has been
16	working tirelessly, both as a member of the
17	National Academy of Medicine and as a public
18	figure, is the director of the Johns Hopkins
19	Berman Institute of Bioethics and sits on the
20	hospital's decision-making committee with regard
21	to COVID-19 care.
22	He's going to help walk us through the

ethics of enacting crisis standards of care. 1 So, I thank all of you for joining us 2 3 today. I thank the National Academy and the Public American Health Association. 4 And 5 particularly our panelists. 6 And so, to get us started I'm going to 7 turn it over to you, Dr. Hick, and we'll look forward to your giving us an overview of what 8 9 crisis standards of care are and how we can implement them. 10 11 DR. HICK: Thanks so much, Larry. And 12 just much appreciation to you and to Nicki. Nicki had charged us at the Institute 13 Medicine in 2009 with coming up of for 14 а framework for how miqht make difficult 15 we resource allocation decisions with the 16 H1N1pandemic. And we fortunately got off a little 17 bit easy in that pandemic but not so much this 18 time. 19 20 And so, it's a privilege to be working with aqain. And unfortunate this 21 you as 22 situation is, I think that we have some good

1	

foundations anyway to respond from.

So, this is going to be a little bit 2 3 of a book jacket version of crisis standards of its and impact and what 4 care we can use principally to apply to the COVID-19 pandemic. 5 6 But there's a lot of nuance here that I'm not 7 going to be able to cover but that some of you are more familiar with than I am even because of 8 9 your personal experiences with this disease.

Next slide please. So, I just want to 10 11 draw a little bit of a distinction between crisis 12 standards of care, which is the systems response and includes government support for the care and 13 the changes in care that we need to provide 14 15 during a disaster, and particularly in а pandemic, a long-lasting event like this where 16 those emergency orders that official support of 17 the disaster response efforts are so important to 18 19 promote consistency, to promote fairness, to 20 promote equity across the care system.

21 Crisis care is really situational. 22 And to Nicki's point, it is the inadequate

resources that you are faced with in front of 1 you. And you must do the best you can to provide 2 3 the best care possible in that situation. Regardless of the number of patients you have, 4 you will do the best you can. 5 But the systems and the processes need 6 7 to adapt to that situation. And so, there is a not a one-size fits all here. 8 9 Next please. So I think we need to be careful not to think of crisis standards of care 10 11 as a light switch that we flip on and off. 12 Next. It's much more a set of tools. And whether that is adaptations of personal 13 protective equipment, whether it is adaptations 14 of a respiratory care profiles to encourage high-15 flow nasal cannula oxygen in patients we might 16 normally intubate. 17 Whether it gets all the way to the 18 19 point of having to reallocate ventilators, crisis 20 standards of care really provides the set of tools that can be applied to the clinical 21 22 situation.

And it's our job to make sure that we 1 have processes in place, that we have clinical 2 3 input into those decisions and we create processes that will be the most fair, equitable, 4 accountable and proportional to the needs of the 5 incident. 6 7 Next slide please. This was а framework slide that I think a lot of you are 8 9 probably familiar with, but on the left-hand side is our conventional patient care status. 10 11 We use our usual spaces, our usual 12 staff, our usual supplies. In the middle is where we really have the opportunity to prevent 13 getting into crisis. 14 15 And I want to emphasize this because I think in some cases it becomes almost too easy 16 to say, we're going to make triage decisions and 17 withhold from certain individuals 18 care or 19 reallocate care. And in reality we probably haven't 20 done the best that we absolutely can to extend 21 22 that contingency space, to provide the

functionally equivalent care that we can in repurpose areas by extending our staff, by conserving supplies, but also by transferring patients from an overwhelmed area to an area that has capacity to moving when needing resources to the patients or patients to the resources.

1

2

3

4

5

6

22

And making sure that within a hospital that we're not having pockets of care that are very, very different from an equity and from a consistency standpoint. Of even patients in that same facility.

So making the maximum use of these resources, what we have. Making sure that we thought through the adaptations before we get into them is important. Because under stress our brain really narrows its scope and ability to problem solve.

And we tend to just do what's in front of us and keep doing it over and over. And a lot of times that's not a really good strategy, as I often tell my 16-year-old daughter.

On the right-hand side is when we get

into crisis. And really moving from a patient 1 focus to a population focus based on us saying, 2 3 what can we do that's going to do the greatest good for the greatest number. 4 5 And in that case we really are putting the patients under a degree of risk. We may even 6 7 be putting providers at a degree of risk if what we're talking about from a crisis standpoint is 8 9 conversation of PPE, for example. But it's a calculated risk and we need 10 11 to make sure that we're balancing those risks 12 against the potential benefits. So, with that in mind I'll talk through just a few of the specific 13 applications of some of this framework to COVID-14 15 19. Next slide please. Part of doing the 16 17 greatest good is making sure that you have strong incident management 18 and the stronq search 19 capacity plans going into an incident and during 20 the incident. And that you're adapting those plans 21 22 and technics to the demands of the day. And

making sure that you're not siloing yourself and 1 thinking just about one department, just about 2 3 critical care but thinking about the health care system as a whole, thinking about other partners 4 down the street, over a state line, wherever else 5 you need to look. Under the couch cushions. 6 You 7 need to find the resources that you can find and apply them in a systematic way. 8

9 But you need support from your 10 administration, from your incident command system 11 for doing the things that you may have to do if 12 it comes down to difficult resource choices and 13 allocation decisions.

The farther ahead you can anticipate The farther ahead you can anticipate resource shortfalls the better position you're going to be in to compensate for that when those happen. So think ahead about what might happen and what your contingency plans are now.

And then solve the imbalance. As I mentioned, bring the resources in and know where those resources exist and how fast you can get them, transfer patients to other locations that

20 1 have capacity. 2 And when you have to, triage But don't triage before you've done 3 resources. those other things. 4 Get help. Don't be an island in these 5 situations. 6 7 Next slide. So the core strategies you can really use are to conserve, substitute, 8 9 adapt, reuse and reallocate. And we've seen examples of each of 10 11 these in COVID-19. Whether it's conserving and 12 putting people on ventilators on a more delayed basis or conserving in some cases medications, 13 sedative and otherwise. 14 Substituting different technologies 15 when we need to. So, meter dose inhalers for 16 17 nebulizers for example. 18 Adapting. You know, putting two 19 patients on one ventilator. If you carefully 20 select them and keep them paralyzed that may be a very short-term stopqap maneuver that you can do 21 22 while you look for an alternative anesthesia

С

machine or something else, now that you might use
 to bridge those patients.

3 Reuse. Whether it's reusing 4 ventilator circuits or other things that we 5 normally don't reuse but you can with high-level 6 disinfection is extremely important.

7 And at the end, if we have to, 8 reallocating resources from one patient, one 9 location to another, may be the only option that 10 we have.

Next slide please. Some of the hospital challenges that have been faced with COVID-19 are space, and in particular, expanding critical care.

15 So looking hard at your postcare 16 anesthesia units, procedure areas, 17 intermediate care units. Even ambulatory surgery 18 centers.

There's many locations where a fairly high-level of monitored care is provided that can easily adapt and provide staff for ongoing critical care. And we need to make sure that

(

we're really emphasizing the maximization 1 of those spaces, utilization of those spaces. 2 3 Our staff will need to step up and step over. And what I mean by that is, it 4 doesn't make any sense to train a dermatologist 5 to operate a ventilator. I mean, thev're 6 7 probably brighter than I am but it's just not a skill set that they have for the most part or are 8 9 familiar with. So, stepping up the intermediate care 10 11 nurse, stepping up the hospitalists, stepping up 12 care providers that are very close to an intensive care unit care on a daily basis, to 13 provide them a little more orientation, a little 14 more familiarity, a little more comfort with that 15 level of care. 16 stepping over. Taking 17 And then critical care domains such as anesthesia and some 18 19 of our other colleagues that aren't used to 20 provide ongoing critical care but are more than familiar with managing a ventilated patient, 21 doing airway procedures, medicating and keeping

22

1 patients sedated.

Those are techniques that they can step over into critical care with very little additional training and provide a significant augmentation of staff.

On the stuff or supply side, we've 6 7 seen pretty consistent shortages with sedative medications, personal protective equipment. 8 9 Fortunately nowhere has out of yet run ventilators, knock on wood, but airway supplies 10 11 have been critically short in some institutions. 12 So, thinking hard again about how we allocate, reuse. alternative 13 Where some ventilators might be out in the community and 14 dental practices and other places with anesthesia 15 machines or transport ventilators, other sources 16 17 of ventilators, even veterinary might be an option. 18

But we are seeing more and more ventilators coming into the system now and that is a good thing. But that doesn't mean by putting somebody on the ventilator you provide

1 effective critical care.

2	So there is other things like the
3	monitors, IV pump tubing or making use of IV
4	drips where we actually get back to counting
5	drops again. And other ways of measuring giving
6	IV medications.

7 On the special consideration side, 8 knowing where we can cohort patients and how to 9 preserve some of our specialty services, like 10 trauma care and other things is important and 11 making sure that we're able to take appropriate 12 isolation practices with our staff is critical.

Next slide please. In general our focus, if we take the left side as a daily basis, and this is from the ACCP 2014 document on critical care expansion and the taskforce for mass critical care, which has some really good articles I think on expansion of critical care.

But this is the general framework is that as we expand critical care in the hospital during COVID-19 or other similar situations, we're forcing patients who need lower acuity care out into the community, out into alternate care sites and other locations. And we need to be prepared for that potential flow.

1

2

3

4

5

6

7

8

These patients are very ill. They remain quite unstable at times for days and even weeks afterwards. And it's a difficult transition. But we may need some alternate care sites. Those need to be carefully thought out.

9 Next slide please. The usual framework for an alternate care site 10 is а 11 situation like this, where we have three-inch 12 couch mattresses and maybe some, if you're lucky, some draping in a flat space area such as a 13 gymnasium. 14

these work well for 15 And certain But for the type of older, weak, 16 applications. convalescent care individuals, this is probably 17 not a good environment for them to be cared for. 18 19 We're going to need good mattresses and locations 20 that are close to bathrooms.

21 And so things like long-term care 22 facilities that have been recently decommissioned

and hotels and other places that place the patients in a care environment where they can be better isolated from each other, receive better care, better comfort and better support in their convalescence are probably better choices than some of these open flat spaced areas.

7 The other thing that should be emphasized is that there is tremendous potential 8 9 for alternate care locations, for crisis care locations, on hospital campuses and in owned 10 11 facilities that are already operating as health 12 care facilities.

Whenever possible, we should try to keep hospital patients in hospitals and within the health care infrastructure. Particularly with a potential for decompensation, like we've seen with a number of COVID-19 patients.

Next slide please. So when we have to make difficult triage decisions there is basically the three Cs. There needs to be the concept of operations.

22

How decisions are made at the

institution, there need to be criteria for making those decisions and there needs to be coordination in that process and amongst those criteria within that regional area so there's consistency. And the patients aren't getting a different standard of care at one location than another.

1

2

3

4

5

6

7

8 Next slide please. So an example of 9 a crisis standards of care concept of operations 10 might be your triggers. And this is just a 11 diagram from a Minnesota document that's 12 available on the web.

The triggers and notifications for CSC 13 activities, how it's integrated with incident 14 command, who participates in a triage team and 15 what is the process for making those decisions. 16 Because ideally, you wouldn't like the bedside 17 provider to be making those decisions, how those 18 19 are communicated and what sort of appeals process 20 or quality assurance is in place.

21 And we have to remember too that those 22 processes need to adapt to the circumstances at

hand. That if you literally have half a dozen people at any given moment in the emergency department presenting that need intubation, it won't be possible to go through some of these frameworks in the most ideal way.

And we will have to adapt them to the circumstances at hand, just as we always do with crisis standards of care. But we need to set out the ideal first and work backwards from there.

Next slide please. As far as criteria 10 11 goes, we need to remember that whatever criteria 12 are out there, and the SOFA score gets used a I'm one of the primary sort 13 lot, and of perpetrators of that, if you will, 14 after publishing one of the initial articles, but let's 15 remember that SOFA is a really lousy predictor 16 for outcomes in these cases. 17

In cases of respiratory failure, SOFA does not have very good predictive value. And so it may be very attractive to compare patients in the general scheme of things, but I would really caution strongly against using SOFA as a decision

(

6

7

8

1 tool unless it's coupled with COVID related 2 mortality predictors.

3 I would also be very careful, this is from the Minnesota Department of Health card set, 4 I would make sure that whatever state criteria 5 you're doing you go through that and make sure 6 7 there are not exclusion criteria, particularly those that are based on, and anything to do with 8 9 functional scores anything to do with or preexisting disabilities. 10

There's already a couple of states that are in court because of some of the existing language. And some of that language was included in some of the initial recommendations that different specialty societies had made.

But we've really appreciated over the years that we need to be very careful about sort of preexisting conclusions and exclusion criteria. We need to consider everyone that's coming in the door.

21 And we need to consider them in the 22 context of whatever process they have. Whether

it's for the subdural bleed or COVID-19, we need 1 to take the prognostic features that we know are 2 3 appropriate for that condition and apply that to what we think their prognosis is. 4 5 Next slide please. So when we talk a little bit more about criteria, I just want to 6 7 emphasize again the importance of including COVID-19 in specific prognostic factors. 8 9 And I will disagree with Doug White. I don't think that everyone agrees that the 10 11 spectrum of age or that we should give resources 12 to the younger population is generally accepted across cultures. 13 I think we have to be very careful 14 about age discrimination when we talk about 15 triage decisions. And yet in this case, advanced 16 age no question confers additional mortality with 17 COVID-19. 18 consideration 19 So, in of that, consideration of increased mortality and the 20 setting of cardiac injury of very high D-dimers, 21 22 of the severity of co-morbid conditions, renal

failure, there is many prognostic factors that as 1 we get more evidence we'll be able to hone these 2 3 even more carefully to be able to predict outcome with COVID-19. 4 And these need to be living documents. 5 We need to update them as better evidence becomes 6 7 available so we can put the best predictive tools into the hands of clinicians that are trying to 8 9 work to save these lives. So in order to keep up with that, it's 10 11 strongly recommended to have a clinical care 12 committee or a similar body that's keeping an eye on that literature and keeping an eye on updated 13 specialty society recommendations, such as those 14 from the American College of Chest Physicians, 15 available on the ChestNet website. 16 And these need to be specific enough 17 so that we avoid ad hoc decision-making at the 18 19 bedside. We really want to give the clinicians constructs on which to make decisions. 20 And ideally, have someone above them 21 22 make those decisions so they can concentrate on

31

(

the care of the patient. And ideally, make that 1 in partnership with a couple of people so there 2 3 is not one individual on whose shoulders that moral injury will come to rest. 4 5 Next slide please. Coordination is the final three, third of three legs of this 6 7 stool. We really need to make sure there is consistency. 8 9 So, regional coordination with the health care coalitions is so important. 10 And 11 communication about what level of care is being 12 provided and cooperative mechanism a to facilitate transfers, intensive 13 care unit transfers into a major metro area from an out of 14 state area or within a metro area to assure that 15 we have consistency, and again, the equity of the 16 17 care provider is very important. And also, coordination within 18 the 19 states and even interstate for the guidelines 20 that we're using, the criteria for decisionmaking, advisory committees and then brokering of 21

32

transfers across regional lines.

22

С

	33
1	I think this is so important to make
2	sure that we're providing as consistent and as
3	fair care as we can provide given our system and
4	given its limitations. And a lot of times we
5	don't think about the smaller hospitals in non-
6	metro areas and what they can contribute
7	potentially towards these responses and how best
8	to utilize them in the process.
9	So, coordination ahead of time can pay
10	off big when COVID-19 really hits your area.
11	Next slide please. Now, I just want
12	to put in a plug for ASPR TRACIE, which I'm
13	blessed to be the editor for.
14	ASPR TRACIE does have some great topic
15	collections. That we have some shrunk down topic
16	collections specifically for COVID-19, and we
17	also have some broader ones for crisis standards
18	of care, for a broad range of topics that are
19	directly applicable to some of the critical care
20	surge capacity and other planning that you're
21	doing. So please take advantage of those
22	resources.

	34
1	And, Larry, again, thanks to you and
2	thanks to Nicki. Not only for having me on today
3	but for your leadership in this topic area across
4	the years.
5	MR. GOSTIN: Well, thank you, John.
6	That was a truly splendid overview of the topic.
7	It really laid the framework.
8	And what I particularly liked was your
9	emphasis on equity and planning. And also, non-
10	discrimination. Not using a person's status as a
11	determining factor. Whether it's age, race,
12	disability, gender or other kinds of status of
13	the individual.
14	I think those are critically
15	important, both legally and ethically. And I
16	know we're going to return to that with Rebekah
17	and Jeff.
18	So with that, thank you. We take our
19	hat off to you, John, for all you do for the
20	country. And for patients around the country.
21	And now it's a great pleasure to ask
22	you, Rebekah, invite you to give your perspective
	I

35 1 from state health departments and hospital systems. Over to you, Rebekah. 2 3 DR. GEE: All right, thanks. Thank you, Larry. 4 And thanks to Victor and to Nicki who 5 have had the great pleasure of being a warrior 6 7 with when we had the Baton Rouge area floods in 2016 and 100,000 structures were under water, 8 9 including part of our governor's mansion. I'm really grateful to her and to the Academy for 10 11 leading these discussions. 12 From Katrina to COVID, Louisiana has not been a stranger to tragedy. Next slide. 13 first two weeks the of this 14 Tn 15 epidemic, likely in part due to the Mardi Gras celebrations that had some of the largest number 16 of people in close proximity during the time this 17 virus was circulating, and before that was widely 18 19 known, we had the largest percentage increase in 20 the world, include at that time, compared to New York City. 21 Currently Louisiana has 21,000 cases 22

and we've lost over 1,100 of our citizens. 1 We do however hope that the dark days are behind us. 2 3 Two weeks ago was when our ICUs had patients spilling over and one of the hospitals 4 that our colleagues work in, at LSU, was within 5 two beds of running out. Today we have 150 fewer 6 7 patients on vents than one week ago. Next slide. And you can see here the 8 9 case numbers and death counts are going down. The next slide. Death counts are 10 11 going up but case numbers are going down. 12 And here you can see that we have fewer patients on vents and the hospital beds are 13 qoing down. 14 15 So, we're hoping that we're starting to see some improvement here because of efforts 16 to social distance and so on. 17 Next slide please. But the journey 18 19 was not easy, and a lot of what John said I'm 20 going to reiterate, and I really appreciate his leadership, but our journey was shocking. 21 22 And for me, you know, having been a

1 health secretary and led responses to weather events, this has been unprecedented in that this 2 3 was the first time that in my career where we've had, as a nation, and many of us, to address 4 something together. simply 5 And we're not prepared. 6

And in particular, the journey to get protective equipment for our staff or PPE was shocking. And then it laid bare the lack of federal and state preparedness in coordination for this scale of an epidemic.

12 In fact, there was great confusion 13 about the federal assets available, PPE supply 14 and when that supply would come. And the federal 15 stockpiles were not adequate.

And as a result, at LSU and at the command center at GOHSEP, we were extremely confused. And what we did get was inadequate. At one point we got N95s, a large supply from the strategic national stockpile, but they were well past their recommended shelf life.

22

We called other academic medical

centers in states where there were few cases and plenty of resources, but fear combined with a scarcity mentality meant that I was told that no PPE could be spared or sent from other institutions. So therefore we looked locally.

1

2

3

4

5

6

7

8

9

10

22

We unloaded PPE from dentist's office and veterinary clinics. We vetted our health systems in Louisiana, sources from China. People that had been selling tchotchkes weeks before are now sourcing PPE.

And as demand increased, the prices did as well and the quality of products was unclear.

And so, given that there was no clear 14 path to having appropriate supply and given our 15 numbers, really indicating at that time that we 16 were going to run out of ventilators and run out 17 of PPE, we did extraordinary measures such as 18 19 resorting to 3D printers and even commandeering a 20 furniture store in New Orleans to print shields and to start making face masks and gowns. 21

Ventilators of course were another

challenge. And lack of clarity about when they would come, what kind of ventilators would come and who they would be sent to added to confusion.

1

2

3

4

5

6

7

And health systems and states were bidding against each other, and sometimes against FEMA. Incredibly frustrating. You'd find ventilators and they would be swiped by FEMA.

8 We really had no surety of what would 9 come and when. And it really felt to our faculty 10 on the front lines that it was like we were in an 11 auction for our lives and the lives of our 12 patients.

And sadly, this waste in redundancy 13 really, even more so than places like LSU and 14 Ochsner, disproportionately impact our 15 rural hospitals and federally gualified health centers 16 that simply weren't going to win this 17 eBav bidding game or the power struggles about where 18 19 resources would go.

And the 25 bed hospital we run, Lallie Kemp, even today was out of gowns and we had to order some and get them there today.

meaning 1 There well private were solutions developed such as projectn95.org for 2 3 PPE and vents. But during our search there was no way to prioritize based on need, it was first 4 come, first serve. And FEMA could take whatever 5 they wanted before states could get it. 6 7 Really, solutions are needed. Both public and private sectors solutions that use 8 9 algorithms for prioritization during times of disaster and scarcity. 10 11 There are several examples of ones 12 that have been developed. Notably the University of Washington has some algorithms that have been 13 helpful for planning, Johns Hopkins University 14 and the Louisiana Department of Health have 15

However, they are still inadequate. 17 They need to be invested in and matured and the 18 19 ability to do predictive modeling bolstered 20 because overestimated need we the and underestimated results of 21 for measures 22 distancing.

partnered.

16

And so, clearly we're not correct at what our numbers, what the numbers we thought would be.

You know, some good news has come last night at the White House. The Dynamic Ventilator Reserve was announced. That's really a no brainer but a good thing that it's happening.

Adam Boehler and Ochsner together 8 9 announced it. And this idea is that places like Ochsner right now that actually have excess 10 11 ventilator use could deploy to somewhere like New 12 York or Minnesota or wherever these ventilators are needed so that we don't oversupply and take 13 too much for ourselves when they're not needed. 14 I mean, a similar reserve could be set up for 15 PPE. 16

leadership 17 And need from we professional associations. Both from facilities, 18 19 places that represent hospitals, like the 20 American Hospital Association and professional societies like my society, ACOG to give us 21 should be done, 22 quidance on what John as

42
mentioned.
And so, for example, one hospital in
New Orleans asked employees to put their N95 mask
in a paper bag and reuse them and spray hydrogen
peroxide on it.
Other hospitals were able to give
employees new masks daily. And that
inconsistency led to panic and concern. And it
certainly would have been helpful to have AHA
guidance or CDC protocols that are published for
mask reuse.
As well as to provide selective
guidance that is triggered by scarcity dynamics
so that you don't have these practices that are
either unproven, unwarranted or inconsistent in
regions because you can't allocate PPE
effectively or because of concern over scarcity
or because of lack of preparation.
Also, we need recommendations on how
to best sterilize the scarce PPE. People are
talking, you know, we've used ozone in one
setting, we're using UV radiation. What is the

(

43 right way to do it, how do you scale this and 1 what is the evidence. 2 3 That's something we had to wade through, and still have confusion over. 4 And over the past few weeks as well 5 we've used our pluripotential, smart people at 6 7 LSU to redeploy, as John mentioned, to other As one of my favorite social media posts fields. 8 9 said, stay at home because you don't want to be intubated by a gynecologist. 10 11 We have used people like surgeons and 12 anesthesiologists in critical care settings to do We have up-trained nurse practitioners 13 lines. and individuals who do primary care to work in 14 intensive care units. 15 But we could have done a lot better 16 If the professional societies could help 17 iob. quide us as to how do you move up the ladder and 18 19 help train people up, this should be done prior 20 to a disaster, it should be done with training and it should be done before those essential 21 22 workers on the front lines get exhausted or

overwhelmed and are really unable to function
 optimally.

Finally, there has been a lot 3 of confusion around workplace safety procedures in 4 the wake of this pandemic. I think that work, 5 essential worker protection is a health equity 6 7 issue. We're treating essential workers as if they're disposable. 8 9 We've had three bus drivers die just

10 in New Orleans because they had no protection and 11 were getting breathed on all day by all kinds of 12 people. Essential workers need, there need to be 13 national guidelines.

There should be a coordinated effort by entities such as OSHA and NIOSH to address these important questions as they relate to pandemics so that folks who are particularly lowincome and unempowered have somewhere to turn for protection.

20Next slide. Oh, so there are a couple21of more slides so I'll just keep going.

22

So, what actual decisions are state

health departments having to make and what information or guidance could help them better make these decisions.

1

2

3

So, at LSU our doctors would like to know what type of PPE, here we go, what type of PPE are needed and for what type of procedures, and when is protection needed, how is protection best utilized, sterilized and disposed of, how best to prioritize and schedule patients.

For example, should we mirror what 10 11 some grocery stores are doing and set special 12 morning hours for the most vulnerable patients after the night team has come in and cleaned and 13 which patients are a priority, these ethical 14 15 issues for urgent but non-emergent procedures. For example, should a 31-year-old mother of three 16 with breast cancer have priority versus a 75 year 17 old with bladder cancer and severe dementia and 18 19 other chronic diseases, so who gets priority.

And also, who gets priority for testing. You know, as we move into the next stages of this, who gets the antibody test, who 1 gets the COVID tests.

2	And right now in New Orleans, if you
3	don't have transportation and you haven't been
4	able to get to a walk-in clinic, you don't have a
5	test. So we need to address those issues through
6	mobile testing, which is what LSU aims to do by
7	next week.
8	We need health disparities data and
9	ongoing measurements so that if implicit bias is
10	getting in the way of providers' decision-making
11	about these critical resources that we can
12	address it.
13	We know right now that African-
14	Americans are dying at disproportional rates.
15	Sixty percent of the deaths in Louisiana are
16	African-Americans versus the 32 percent that
17	African-Americans make up of our population. Why
18	is that? We need to be able to address some of
19	these things in more real time.
20	And finally, better evidentiary
21	support for severe scarcity scenarios. For
22	example, vent sharing guidelines.

(

And then support for situations where 1 end of life care must be provided without family 2 3 members. And finally, crisis counseling services should be available for care givers who 4 are dealing with unprecedented numbers of dead. 5 And the next slide. And then in the 6 7 face of rapidly changing protocols for clinical care, what can be done for the care of COVID-19. 8 9 So, early on in the epidemic there was very slow diffusion of information. Both to 10 11 providers and the public. 12 And so we, I'm sorry this slide isn't available to you but there was not a good COVID 13 The COVID screener that came out from 14 screener. the CDC was not particularly friendly in terms of 15 being literacy and numeracy adequate. 16 It asked questions that many people 17 don't know the answers to. And in fact, some of 18 19 the questions were, are you about to just stop 20 breathing. Which you hopefully should not be filling an online questionnaire out if you're 21 22 going to answer that question yes.

	48
1	So really slow response. Difficult
2	for state health departments to communicate with
3	the public about where they should go, when they
4	should go to emergency rooms.
5	And very also difficult for front line
6	providers to cull through journal articles and do
7	lit reviews and figure out what knowledge is
8	happening.
9	And then just to underscore, it's
10	extremely difficult when politicians make
11	statements about certain drugs and that they
12	should be used for COVID.
13	We had runs on several of these drugs
14	in Louisiana, and in fact, our board of pharmacy
15	had to make a statement about not being able to
16	fill these things. So it might be anticipated
17	that we need to have guidelines about what
18	pharmacies are able to fill and for whom during
19	these types of events.
20	Social media has been very effective
21	for our clinicians to help them vet and curate
22	information. And it's often reassuring for them
ļ	

to know that others are also going through
 similar situations.

3 So, it would be helpful for the AHA to hospital level decisions, support such 4 as scarcity and reuse models, as mentioned before, 5 and specialty societies to support spread of 6 information. And rapidly disseminate promising 7 clinical protocols in the National Academy of 8 9 Medicine or another scientific body that can curate this so that there can be public trust in 10 11 this information.

And these types of vetted curated messages could help bolster local networks such as COVIDNOLA here in New Orleans that help the public understand why we have stay at home orders for as long as they are and help them understand admonitions.

And for COVID, there is an urgency of timelines obviously and needs to bolster the COVID clinical trials network. Oh, can bolster and create a COVID clinical trials network similar to what's being done for cancer and

1

2

3

4

5

private solutions such as the website.

World Without COVID was launched yesterday morning with a goal of connecting patients to coronavirus clinical trials. More of that is needed.

And finally, if a single medication 6 7 back to medication scarcity is found to be effective and there are shortages, we should 8 9 consider 1498 authority for the U.S. to manufacture these pharmaceuticals or a national 10 11 subscription model similar to what Louisiana has 12 implemented to try to eradicate Hepatitis B in our state. 13

In conclusion, we've been reminded by this epidemic that the health of one individual can have profound impacts on the health of the community. And my hope is that our experience with COVID will bolster a national dedication to the universal coverage.

And certainly reinvestments in public health. Because what we didn't pay for we are certainly paying for now.

	51
1	On the crisis standards of care that
2	John and Nicki and others at the National Academy
3	of Medicine advanced and first promoted in 2009
4	are a good start, but there is a lot more work to
5	do. So thank you, and sorry about this slight
6	guffaw.
7	MR. GOSTIN: Well, thank you, Rebekah.
8	You gave us a wonderful view from what it's down
9	like in the health and hospital system. And
10	that's crucial.
11	And I particularly liked the idea that
12	you put forward, that Nicki had also mentioned,
13	which is equity and why we're having these kind
14	of different scenes, kind of differential impacts
15	on certain communities like African-American
16	communities or American Indian communities.
17	And not only do we need to understand
18	it but we can't understand it unless we have more
19	granular data that separates out diagnosis,
20	illness, hospitalization and death with more
21	specificity.
22	I also of course appreciated very much

your attention to front line workers. 1 You know, people who are putting themselves at risk every 2 3 day and our core ethical duty to keep them safe. Because they're out there working for 4 us every day, we need to be out there working for 5 every day because ethical duties 6 them are 7 reciprocal. And so, as we are transitioning to 8 9 ethics and the ethics of crisis standards of care and scarcity, I'm really delighted to welcome 10 11 Professor Jeff Kahn. 12 Jeff and I go way back in thinking about the hard-ethical problems that occur in 13 relation not only to medical and health care but 14 public 15 also health and population-based evaluations of what works, what doesn't work, 16 what's fair, what's not fair. 17 So, thank you very much, Rebekah. And 18 19 thank you, Jeff, for joining us. I'm delighted 20 to turn it over to you now. Thanks, Larry. And let me 21 DR. KAHN: 22 say thank you to the APHA and the NAM for hosting

this really critical conversation.

1

2

5

I should say great to see you, and 3 great to see Nicki and John too. And it's making me realize all roads lead through Minneapolis. 4 So good to see everybody, old friends and new acquaintances alike. 6

7 So I'm going to talk without slides. Not because I don't like slides, but because I'm 8 9 going to share some of the work that we're engaged in at Johns Hopkins in the midst of 10 11 planning for the outbreak. And for those of you 12 who live in Maryland or are paying attention to what's happening, we have 13 not yet had an executive order come from our Governor. 14

So I am hesitant to get ahead of the 15 release of what will be the state level quidance. 16 So I'm going to speak from notes rather than show 17 I will say too, that the comments that 18 slides. 19 I'm making relate to the work that we're engaged 20 in as a scarce resource planning committee. It isn't specific to ISA standards of care, but of 21 22 course, we're in a crisis and trying to establish

	54
	54
1	standards of care for this particular crisis.
2	So let me take the questions that were
3	posed to us on the panel in turn, which will be
4	the way I'll organize my comments. The first
5	was: what ethical considerations must be taken
6	into account when planning to enact crisis
7	standards of care? Of course a crucial question,
8	and both John and Rebekah have signaled to them,
9	and Larry in his comments as well.
10	And John I think said: best care
11	possible. And of course that's a critical
12	commitment. That's not just a medical and
13	professional commitment, but an ethics
14	commitment.
15	And so just to sort of frame the
16	conversation that we're engaged in, and I note
17	lots of other people around the country and
18	around the world are engaged in, we need to think
19	about the ethics commitments and principles that
20	are at issue and need to be attended to as we
21	craft frameworks and plans for implementing them.
22	So I would list in that collection the

duty to provide care. So that's about the best 1 possible. 2 care And of course that's а 3 professional commitment of our health care providers and our health care institutions. 4 At the same time, and this is where 5 the tension comes in, we have a duty to steward 6 7 resources. And in the context of crisis care planning, and in particular as we're talking 8 9 about the COVID-19 outbreak, we are facinq potential shortage of lifesaving resources. 10 11 So duty to provide care, and duty to 12 steward resources are coming into conflict, at least in theory if not in practice. 13 And of course we hope they never will come into conflict 14 and practice, but we're preparing just the same. 15 As we think those through, and that 16 tension of course is at the crux, we have to 17 think about how to allocate in ways that respect 18 19 distributive and procedural justice in ways that 20 are equitable. So this goes to Larry's points about equity and consideration of people where 21 22 their needs are, rather than what they look like

1 or where they come from.

1	or where they come from.
2	So equitable approaches to
3	distributing scarce resources in ways that are
4	standardized and clear, so they can be followed
5	by the providers. And I'll talk more about that
6	in a moment.
7	And done so transparently. So I think
8	that's a really critical point, that transparency
9	as a sort of ethics commitment. So that not only
10	the providers understand, but the public who will
11	be affected, understand the way that these
12	decisions will be made.
13	And in particular, attending to
14	vulnerable parts of our communities and peoples
15	who have been historically marginalized and
16	therefore may be distrustful of the health
17	system.
18	So we I think have real concerns to
19	face about saying, well we're not going to treat
20	certain people in certain ways in the context of
21	people mistrusting health systems and not feeling
22	like they would be fully treated under the best

1 of circumstances. So we need to be really 2 careful as we face down these difficult 3 conversations related to crisis standards of 4 care.

5

6

7

8

9

10

So those are the high level principles, with a primary goal, which I don't know I need to articulate, but I'll do it anyway, of maximizing the benefit of treatment, and enhancing survival for as many patients as possible. That's what we want to do.

11 And of course then it's sort of all, 12 the devil's in the details. So let me move to the second question, which was: what sort of 13 ethics framework or decision making assistance to 14 government leaders, hospital and health system 15 administrators, clinicians, et cetera, need to 16 17 plan and prepare to enact for crisis standards of care? 18

And so I will say that the committee that I'm part of, and as I mentioned, we're not calling it a crisis standard of care committee, we're calling it an allocation of scarce

1 resources committee.	But it's performing that
2 function in the contes	xt of the COVID outbreak.
3 We have b	een meeting, this is the
4 fifth week we've bee	en on remote work, and we
5 started the Monday of	f our first week. So now
6 into the fifth week,	we're meeting every single
7 day, twice a day for	an hour each time, seven
8 days a week.	
9 And that's	a group of 20 people from
10 across the Johns Hopk	ins Health System, who are
11 working hard to craft	not just sort of high level
12 guidance, which is sor	t of the kind of principles
13 that I mentioned a fe	w moments ago. But really
14 clear frameworks and	d guidance documents and
15 implementation plans n	not just in general for what
16 we face when there	's a shortage, but with
17 specific flow diagrams	S.
18 Triggers f	for when we would invoke
19 making triage decision	ns. The steps that would be
20 involved. The individ	duals who would be involved
21 in making triage decis	sions. The roles that those
22 people would play.	The time frames for those

decisions. So how quickly they would need to be made, and each for specific resources that may be scarce.

1

2

3

4

5

6

7

8

9

21

22

And so I'm sure it doesn't bear repeating, but let me just make the list here, or offer the list of the things that we have been working through. And I'm sure others around the country and around the world are thinking about the same things.

Lots of attention has been paid to ICU beds and ventilators. And of course, we all hope that we won't face the situation where we have to make decisions about which patient gets the ventilator if we're down to more than one patient and fewer ventilators than patients available.

But it also turns out that there are other resources that are potential to be -potential to be scarce or likely to be scarce. And among the things that have received less attention, and I think worth saying, is blood.

The blood supply is under a threat. Not because of people needing to be transfused

when they're infected by COVID-19, but because people are staying home and not donating blood. And blood is, of course, a perishable commodity that relies on altruistic donors.

1

2

3

4

And people who need transfusion will need transfusion before and after and during the current pandemic. And so the blood supply is in peril, and we need to have a plan for how to allocate it.

A little bit of a quick sideline, 10 11 which makes it for an interesting ethics 12 discussion. Is that unlike ICU beds, which are one patient, one bed, or ventilators, you know, 13 one ventilator, one patient, unless they're 14 A lot of it is a variably used 15 multiplex. commodity. Some people need only one or two 16 units, and other cases require literally hundreds 17 of units of blood. 18

And it's possible for these massive transfusion protocol cases to sometimes wipe out a supply of a blood bank in a single case, especially if the blood supply is already 1 suppressed. And so we have a difficult ethics 2 question to answer about, at what point do you 3 trigger restrictions on the use of blood, if 4 doing so would eradicate the blood supply so that 5 there was none left for other patients?

It's do we use it at all on one or two patients, or do we spread it out and use it maybe on 100 or 200 patients?

9 And that's a different ethics 10 calculation than is ventilators and ICU beds. So 11 very specific frameworks in terms of how those 12 particular decisions would be made for the very 13 particular resources that would be involved.

We've included -- and I'm sure this is true of other places too -- transfer policies. How do we decide when it's appropriate to have patients come to Johns Hopkins? And in what order when we have a shortage? And what order of priority would we offer access to hospital or ICU beds in our hospital?

And most recently, we've been trying to work through issues related to allocation of

21

22

convalescent plasma in the research context. But nonetheless, there are likely to be more patients eligible for receiving convalescent plasma than there are units of plasma to go around.

1

2

3

4

5

6

7

8

9

10

22

So very specific guidance is the answer to my question about what sort of ethics framework or decision making assistance. The more specific, the better, because these are decisions not being made in hypothetical, but in actual.

Among the things I want to say before I leave that is, it's really important and it's an ethics point I should have made earlier. That we need to protect clinicians from having to make decisions about what's good for their patients versus what's available to offer to patients.

And so that means creating triage teams with a very specific membership, to make decisions and take them out of the hands of the bedside care providers. That's a really important point as part of the planning.

And among the things that relate to

1 protecting clinicians, is making that sure they're protected from liability. And maybe we 2 3 can talk about that during the Q&A. It's not an ethics issue per se; it's more of a legal issue. 4 But obviously we don't want to put clinicians in 5 the position of making decisions that will leave 6 them in legal liability for not providing an 7 adequate standard of care. 8

9 The third question was: who should be 10 involved in this planning and decision making? 11 And I made a brief reference to the fact that 12 we've had a group of 20 that involve clinicians 13 of all the relevant sub-specialties of medicine.

It is, in our case, chaired by the VP 14 for Quality and Patient Safety. 15 It includes three members who have ethics expertise. So I am 16 on the committee. And then my two colleagues who 17 chair the ethics committee at Johns Hopkins 18 19 Hospital. So we have ethics, we have nursing, we 20 have clinic -- medical care of various types, and we have the General Counsel for our hospital and 21 22 health system.

very interdisciplinary is 1 So the the question about who should be 2 answer to 3 involved. And as I said, we've been meeting very, very frequently. And I think that part of 4 the answer is you need to talk about these things 5 not only in prospect, but as you are living 6 7 through them, because conditions change, as we heard from both John and Rebekah. 8 9 How should the resulting standards

are crafted be communicated to hospital 10 that 11 staff, health care workers, patients and families, 12 and the public? I will say nature and humans abhor vacuums. And it's really critical to share 13 the information as soon as you possibly can, 14 because people will otherwise try to figure it 15 for themselves, and that tends 16 out to be inaccurate. 17

And so we are trying to be proactive in doing things like hosting townhalls. FAQs are being created. Talking points for people when they are called by members of the media to talk about what the planning looks like. And trying

	65
1	to be clear about what will and will not happen.
2	So just by way of example, there was
3	a kind of rumor moving around through some of our
4	communities that if you came into the hospital
5	and were COVID positive, you would automatically
6	be declared a do not resuscitate patient, which
7	is not the case. And we've had to work hard to
8	get ahead of that so that those sorts of rumors
9	don't take hold among the public.
10	Lastly, the last question, and then
11	I'll stop and turn it back over to Larry. In the
12	face of rapidly changing protocols for clinical
13	care of those with COVID-19, how should or can
14	committees adapt to ensure their decisions are
15	always being informed by them as up to date and
16	appropriate ethical guidance?
17	So when we started the process that I
18	have briefly described now almost five weeks ago,
19	I think we all thought, and I think we were
20	actually told we would be at this for just a few
21	weeks, two or three weeks. And we would craft
22	the framework and implementation plans, which

(

would then be shared with our colleague hospitals around the state, and eventually become part of the state level approach.

1

2

3

And so we would do that work. Work very hard at it, very fast. And then turn it over to those who would implement it. That has not proven to be the case. And that's because as we have been working, things have continued to change.

And so my answer is: you need to keep at it with a group of people who are committed to helping think through the issues as they arise in an ongoing way. Remarkably, lots of busy people, 20 very busy people show up every day at 1:00 and 7:00 p.m. for an hour, and we work through whatever the issue of the day is.

I don't think anybody's missed a single meeting. We have come to think of each other as sort of family. We're living through a little bit of what feels like wartime. And we're not even the ones who are at the bedside trying to make theses hard decisions.

So I think this is something that 1 need prepared 2 people to be for. It's а 3 commitment, but we're all I think feeling like we need to step up and see this through to the end. 4 So that's all I think I wanted to 5 include in my notes. I quess the last thing I 6 7 will say is it's critical to share and coordinate among all of the affected parties. 8 9 In our case, it's the hospitals across our state. But like I'm sure all of those of you 10 11 watching and listening, the email listservs that 12 I'm part of just sort of exploded when we ended starting about 13 up to talk scarce resource planning. 14 And the level of willingness to share 15 what people were working through in draft form, 16 and just sharing ideas and helping to figure out 17 what best practice was, has been remarkable. And 18 people have been really willing to do that 19 in 20 ways that I think will lead everybody to make better and more thoughtful decisions. 21 22 And so Ι think coordinating and

sharing is a really important takeaway from what
 we have experienced so far. So with that, I will
 stop.

68

Thank you, Jeff. 4 MR. GOSTIN: That was a real tour de force. And I think you've 5 told us that, you know, we need a good multi-6 7 disciplinary transparent process. That once you come up with those ethical standards, you need to 8 9 have good health communications so that people understand and are educated. 10

And then you talked about medical malpractice liability. Of course I'm a law professor. And I think that if a health worker is following good ethical standards, he or she should be protected against liability. And so ethics and law go hand in hand.

So we've got about 20 to 25 minutes for questions and answers. I've got a lot. I'm going to send them -- I'm going to read them. But I would like, if we can, to have you answer them as quickly as possible, so we can get through as many as we can. And I've got them by

С

1 text message.

2	So this first one is for John or Jeff.
3	Can you talk about the concepts of health
4	literacy and patient-centered care in the context
5	of COVID-19? How do we make sure patients
6	understand their choices? How can we make sure
7	patients have people to speak for them and
8	support them when families can't be in the room,
9	as we know, is all too common during COVID-19?
10	So who wants to take this? John or
11	Jeff?
12	DR. KAHN: I think John is muted.
13	Maybe I'll start while John unmutes.
14	MR. GOSTIN: Okay. Well I mean I'm
15	hoping that just one of you will do each so that
16	we can get through this.
17	DR. KAHN: Okay. Well I'll tell you
18	want we're doing really fast.
19	MR. GOSTIN: Yeah.
20	DR. KAHN: There's been a really
21	important point. And so we've crafted materials
22	for patients and families that are going to be

1 shared with them, that are, you know, reading appropriate, 2 level as well as scripts for 3 clinicians to use to make the points that need to be made to families and patients. 4 5 So we're highly attuned to exactly these concerns. And there need to be materials 6 7 crafted, and early on, before you need to use them obviously. 8 9 MR. GOSTIN: Thank you very much. So I've got another question. This one is for John 10 11 or Rebekah. 12 And if we're expecting a second surge after social distancing is lifted, and manv 13 public health experts think that that's likely, 14 are there things that we can be doing now to 15 16 prepare in terms of training, equipment, quidelines? 17 18 Is there bandwidth or attention to 19 start term preparedness right now, figuring that, 20 you know, we're going to be in incremental stages with waves of COVID that are impacting the health 21 22 system? So John, are you still muted, or are you

able to jump in here? If not, Rebekah, would 1 you mind? 2 3 DR. GEE: Yes. So John mentioned some And I would echo what he said. of these. Ι 4 also, you know, the types of research protocols, 5 registries, health disparities data, we can start 6 7 bolstering those information systems. National quidelines, professional 8 9 guidelines, workplace safety standards, these are all things that can be done, you know, working on 10 11 -- we can be working on now. 12 Algorithms for decision making. And information for the public that is appropriate 13 for literacy. Really focus on communities of 14 color and other communities, Native American, 15 Spanish speaking folks, Vietnamese community here 16 in New Orleans, we need materials for them. 17 We can be working on that. 18 19 And definitely telemedicine resources 20 and support. And then certainly professional societies creating, you know, better protocols 21 22 for PPE use. The sterilization protocols have

	72
1	been used throughout many hospital systems. And
2	by this point we ought to know what works best.
3	We need to disseminate that quickly.
4	And professional organizations should
5	be helping to guide hospitals, hospital
6	administrators and systems on what types of
7	persons are best deployed to what types of
8	situations, and start giving guidance.
9	And you can start doing drills and
10	training. If, you know, New Orleans in a week or
11	two, if things are better, we should be training
12	and drilling for the next one.
13	MR. GOSTIN: And that's
14	DR. HICK: And Larry, I'll just make
15	a quick mention here.
16	MR. GOSTIN: Yes. Please do.
17	DR. HICK: I think it's so important.
18	You know, we haven't gone through our first major
19	peak here. But I think it's so important to
20	learn from the health care workers who have
21	been through that: what do you need?
22	Because the mental toll, the physical
	I

toll, but also the opportunity to 1 improve practices in that next wave. I think learning 2 3 from the front line providers is something that we have to do. 4 And also have to help support them. 5 Because this is one of the most mentally, you 6 7 know, taxing things, I think, that any of these providers are ever going to face in their 8 9 careers. MR. GOSTIN: It is. You know, and I 10 11 would just add one other thing. Which is that, 12 you know, by the second wave, I hope that we're going to know more about risk. 13 other words, what the 14 In are procedures? And what are the infection control 15 measures that we can do that actually -- the 16 procedures that raise risk, the infection control 17 standards that can reduce risk? 18 19 And also I think by that time we should have antibody tests. We should have a 20 better idea who might be more immunologically 21 22 protected from SARS-CoV-2. And so we're going to

	74
1	need to be able to apply science in more
2	sophisticated way in the service of not only
3	treating patients, but protecting health workers.
4	So you know, this next question is
5	was addressed to John or Jeff. But I think
6	Rebekah could easily do it as well.
7	I mean one of the things, you know,
8	we've all noticed is that, you know, probably the
9	highest risk settings in addition to the
10	hospitals, would be congregate settings. Places
11	like nursing homes, prisons, jails, homeless
12	shelters.
13	And so the question is: how can we
14	apply crisis standards of care in these settings,
15	where you've got both highly vulnerable patients,
16	and also high at risk settings for contagion?
17	Who would like to jump in there?
18	DR. HICK: I think I'll defer to Susan
19	as the state, you know, state health director to
20	start anyway.
21	MR. GOSTIN: Okay.
22	DR. GEE: So I'll just start. I mean
	I

look, I think it's very challenging. We are --1 we've had several clusters of nursing home cases. 2 3 A veteran's home, we lost 25 people in one veteran's home. Just tremendous compression. 4 And the Governor issued a proclamation about who 5 could go back to nursing homes, because it's very 6 7 challenging. We've set up a 2,000 bed location at 8 9 our convention center so that we could offload positive 10 patients who are COVID who are 11 recovering and convalescent, but don't really 12 need critical care. It's difficult to use something like 13 that in New Orleans for a patient who is in 14 Minden or Bunkie. So it's a big challenge, and 15 certainly as you've seen in these reports. The

16 other question is public reporting. 17 There's a lot of controversy right now on: do we report 18 19 these hot spots? How do you report these hot 20 spots? And lots of politics and politicking on So Ι know these are very difficult 21 that. 22 problems.

	76
1	MR. GOSTIN: Okay. Thank you.
2	DR. HICK: And just to emphasize.
3	MR. GOSTIN: Yeah.
4	DR. HICK: Larry, these are such
5	vulnerable populations. And we just owe a lot of
6	proactive defensive efforts to each of these
7	facilities. And really thinking through what
8	that means, and trying to get ahead of some of
9	those outbreaks. And then, you know, isolate and
10	quarantine, and do the best we can to protect
11	those.
12	But I think too, with long term care,
13	I think it's so important that we're thinking
14	through end of life wishes. And the context of
15	some of the level of critical care that's
16	required to get people through these illnesses.
17	And just making sure that we're being
18	consistent with people's wishes. It's so
19	important to have that outlined ahead of time to
20	reduce the moral distress for families as well as
21	for caregivers.
22	MR. GOSTIN: Yes, indeed. And we have

to also remember that in this environment there, just vulnerable, but they're these are not isolated. And they're removed from their family and their loved ones that can provide the kind of support that they need.

1

2

3

4

5

22

The next question is actually near and 6 7 dear to my heart, because we spent most of our time talking about the hospital system and the 8 9 health care system. But remember, we have system, which includes 10 а health а public 11 health workforce and community health workforce.

12 So how in these more population-based workforce environments, public health 13 or community health workers, how does a crisis 14 standards of care apply? And how can we best 15 equip and inform the public health workforce? 16 And I think that can, you know, it was addressed 17 to John. But frankly, all three of you know this 18 19 stuff really well. So any of you, please jump 20 in.

Yeah again, I think I'll 21 DR. HICK: defer that one back to Susan, as you know, as

78 being in charge of state public health. 1 I think you're probably in the better position to start 2 3 with that than I am. DR. GEE: So it's Rebekah. So I think 4 that number one --5 DR. HICK: Rebekah. 6 7 DR. GEE: With some of these community health workers and public health professionals, 8 9 one thing we're looking at is similar to what New York City has done, is to use a platform like 10 11 Unite Us. 12 We have to recognize that although people are dying of COVID, and of course, you 13 missed my last three slides. One of them was of 14 Ellis Marsalis, who is a jazz great, a phenomenal 15 teacher, father incredible 16 to some jazz musicians, who has died. 17 And so we can't lose sight of that. 18 19 But there are also people who are going to die of 20 hunger, of neglect, of abuse, of violence. That the social needs that we are encountering in 21 22 Louisiana and that will be encountered elsewhere

as this epidemic advances, are tremendous 1 and unprecedented.

2

3 And so using something like community health workers in partnership with Unite Us, we 4 created a volunteer registry of 3,000 students, 5 nurses, doctors, dentists, social workers who 6 7 have volunteered to help to use phone banks to get people the resources they need. 8

9 And I think we really have to think about that. And our Office of Public Health, 10 11 we're fortunate that we have 64 parish or county 12 health units. And those individuals right now are not doing the normal vaccine and family 13 planning type of work they do. They actually are 14 staffing the command center and helping to deploy 15 resources throughout the state. 16

And so I think this is a real wake up 17 call for states that don't have that type of 18 19 public health resource. That local public health 20 is extremely important. And when you don't have that local trust in public health leaders, the 21 22 doctors, the nurses, the social workers, on the

1 ground, in communities that are vulnerable, you
2 really lose out.

3 And we had lost a lot in the general administration. In fact, 500 nurses were let qo. 4 But fortunately, we have what we have. 5 And it's been a game changer here. 6 7 MR. GOSTIN: Yeah. Thank you, That's -- and you made some important Rebekah. 8 9 points. And we've talked about how we apply these ethical and legal standards in hospitals, 10 11 and we've also looked at congregate settings like 12 prisons or nursing homes. But we have to remember the vast bulk 13 of people are sheltering in place. 14 They're on

15 stay at home orders. Many of them are 16 vulnerable. Many of them need care.

And we need to think about how we can triage care for them. And not just physical care for their health conditions, but also mental health and emotional health. I think these are really critical.

So the next --

22

	81
1	DR. KAHN: Larry?
2	MR. GOSTIN: Yes, please. Just jump
3	in.
4	DR. KAHN: Let me just, yeah, let me.
5	One of the things you said, I think it bears
6	emphasis, which is the health system that we
7	have.
8	And you know, we all know this, but
9	I'll say it out loud. I was on a call earlier
10	today with a colleague in the UK, and talking
11	about what we were facing.
12	And he said, you know, the NHS would
13	just move ventilators from one place to another
14	as they're needed, where the outbreak demands.
15	And it, you know, makes the point that what we
16	call a health system is quite different than what
17	health systems are like around the rest of the
18	world.
19	And it's shining a light, a very, I
20	don't want to say harsh light, on some of the
21	aspects of what is our fragmented health
22	care system. And the kinds of things that
ļ	we're,

Rebekah and you were talking about in terms of 1 the fragility of this safety net for things like 2 3 housing and food security, and providing health care. 4 So by way of an observation rather 5 than something we ought to do, but maybe we learn 6 7 from this, what we're going through, and do better going forward. 8 9 MR. GOSTIN: Yeah. You know, we've never seen anything quite like this. And you 10 11 know, with the sheer scale for what we're seeing. 12 Not just the health consequences, but the vulnerability and the social isolation in 13 various settings, whether it's long term care, 14 hospital care, acute care, or in the home or 15 homeless shelters. These are critical things. 16 DR. HICK: Yeah. At the same time, 17 just a quick point. 18 Larry, This has the 19 potential to be transformative for American 20 medical care. And the use of telemedicine and the leveraging of --21 22 MR. GOSTIN: Right.

	83
1	DR. HICK: Many other techniques, you
2	know, to deliver medical care. And I'm
3	profoundly concerned about some of the chronic
4	illness care that's not happening.
5	And even some of the acute illness
6	care that isn't happening because of COVID.
7	People not seeking care for their chest pain, for
8	their stroke symptoms.
9	MR. GOSTIN: Yeah.
10	DR. HICK: For other things they need
11	to be seeking care for. So we have challenge but
12	also opportunity even, you know, to redesign
13	things essentially for the future here.
14	MR. GOSTIN: Mm-hmm. Yes.
15	DR. GEE: So John, I just want to
16	weigh in. In Louisiana we've had a 30 percent
17	decrease in some hospitals in stroke and MI
18	presentation, which is highly concerning. So
19	it's reinforcing your point.
20	MR. GOSTIN: Yeah. I mean one of the
21	things we know, and from epidemics from Ebola to
22	any of the other major epidemics, is that
	I

)

actually more people die of ongoing conditions 1 than they do of the -- the focus disease itself. 2 3 And so that's a really very important reminder. And the other thing that you said was 4 really critically important, is that we're going 5 to have to learn from this, because one day 6 7 COVID-19 will be over. And we're going to have to restructure 8 9 things. We'll have to restructure our health system, our hospital system, the way we do remote 10 11 medicine, and also the kind of social and income 12 supports that qive vulnerable we to our populations. 13 So these are really, you know, crucial 14 Let me -- this next one is for Rebekah to 15 ideas. start, but anybody can jump in. 16 Rebekah, you mentioned that training and guidelines are needed 17 for clinicians to step into emergency roles. Can 18 19 that happen in real time soon enough to make a 20 difference? Could you comment on medical and other 21 22 health professionals, students, coming into high

1 intensity situations?

2	DR. GEE: So we've had big challenges.
3	And we created this volunteer network and
4	partnership with UL, our University in Lafayette
5	and LSU.
6	And 3,000 people signed up, 2,000 of
7	them health professional students. And we're
8	really having challenges with schools and

8 really having challenges with schools and 9 facilities. For example, our convention center 10 not wanting students there. Worried about PPE, 11 worried about exposure.

So I think we need to do a better job. Certainly the accrediting body is ACGME, and AAMC can work to come up with guidelines for what is an appropriate role for a medical student, for a nursing student, or a PA.

You know, and let's get that done. There's no reason to delay that. And we have lots of folks who are sitting at home now who could be doing, you know, including our fourth year medical students, many of them.

22

You know, NYU graduated early. Ours

We're worried about them not having 1 are here. enough practice and some other considerations. 2 3 And so why can't they be doing some of this? Why can't individuals who are getting ready to start 4 residencies or who are, you know, off duty right 5 now be doing some drilling? 6 7 So I don't see any reason why this couldn't start now. And many parts of this 8 9 country are not under extreme risk like we were for the past two weeks. 10 11 And we need to be prepared. And 12 again, the one thing I've learned, and I'm sure Nicki could reinforce this, is that one of the 13 things you see in a crisis is this false scarcity 14 mentality. 15 You see -- I saw it on September 11th 16 when we emptied the hospital. When I was doing 17 my sub-I, thinking that you'd have tons of trauma 18 19 patients coming in. They never came. And we 20 actually put really vulnerable people in the community who didn't need to be there. 21 22 And in Baton Rouge where we had

shelters, and we were giving people medications out of whatever stock that might not have been safe, thinking oh, they won't have it. And of course, there was a Walgreens a mile and a half away. So we've got to be able to be logical when these things happen. And planful. And have these things planned ahead of time.

8 And it's exactly what should be 9 happening in parts of the country now that are 10 not yet hit. And in parts of the country that 11 have been past their peak.

MR. GOSTIN: Thanks. We've only got a few minutes. So I'm going to summarize a few questions. And then if each of you just gives us say a 30 second take away.

You know, one is, you know, how can we embed local and cultural values into these decisions? Whether we can offer any resources for clinicians to learn about the ethics of crisis standards of care?

And then finally, and most importantly, and we've raised this before. But

21

22

	88
1	as we learn from this, and we think toward the
2	future, what is the biggest take away that you've
3	got about what knowledge we've gained, what
4	lessons we've learned, and what we can do in the
5	future?
6	So why don't we take 30 seconds from
7	each of you? Perhaps John, Rebekah, and then
8	Jeff.
9	DR. HICK: Wow, with 30 seconds. Okay.
10	I think we've learned
11	MR. GOSTIN: Yeah, sorry.
12	DR. HICK: I think we've learned that
13	the 2012 principals that the IOM outlined, you
14	know, fairness, transparency, proportionality,
15	accountability, all those things are absolutely
16	critical.
17	And the conversation with the
18	community and determining their priorities, you
19	know, now and as we go into the future, is
20	absolutely critical. And trying to defuse the
21	care that we provide across as much of a region
22	as possible, and use those resources maximally

1 and consistently.

22

having clinicians applying 2 And а 3 uniform set of criteria and in a systems way, so that they're not burdened with that moral injury 4 at the bedside of having to make tough choices. 5 I think all of those things, the 6 7 strength of those principles and those practices has been emphasized throughout this. And we want 8 9 to continue to emphasize our commitment to fairness and equity, and all of those values 10 11 across the community as we go through this and 12 beyond. Thank you. And Rebekah, 13 MR. GOSTIN: what do you think are the top lessons we've 14 learned to make us better prepared in the future? 15

DR. GEE: Well I think it's -- I quess 16 it's a shock to me, but it shouldn't be, that we 17 were unprepared. We were grossly unprepared for 18 19 this. That we did not have а supply of 20 ventilators. We didn't have a plan for PPE. We had not done the kind of drills. 21

We hadn't thought about where things

were being sourced from. You know, running out
 of fobs because they were made in northern Italy.
 So now we can't test patients.

90

And all of these things are things that hopefully we'll learn from. Planfulness, number one. Number two is public health. Is that public health disinvestment and the lack of support for public health, we are paying the price for it.

the CARES is 10 Τn Act there а 11 tremendous, trillions of dollars will be spent on 12 this. Many people will die. You know, if we had had better systems of surveillance and testing, 13 some of this, much of this probably could have 14 been avoidable. Shame on us if we don't fix it 15 going forward. 16

And if we don't invest in the types of people in public health infrastructure that help us deal with these types of pandemics, because they are not ending. It's a global world. You're in Wuhan one day, in Wisconsin the next. And then finally I think some are

(

surprised by, but shouldn't be, that this 1 is really a stress test showing the disparities and 2 3 the inequalities in our society. And that health care should be, in my view, 4 and hopefully in others', a human right. 5 But that even if you don't believe that, that the health 6 of one person impacts the health of 7 entire communities. 8 9 And even for that reason alone, for selfish reasons, we should want the American 10 11 public to be healthy. And help support efforts 12 bolster health, whether through health that efforts that 13 care or promote healthy So I think all that are -- all communities. 14 15 those things are important learnings. Thanks Rebekah. 16 MR. GOSTIN: Jeff, you are our last take away before I turn it back 17 over to Nicki to conclude. 18 19 DR. KAHN: Great. Thanks. And I'll 20 be quick. I want to just reiterate. Public health planning matters. We've learned that in 21 22 spades. We can coordinate rapidly when we need to, which has been a really interesting lesson to

	92
1	me. So things that seemed insurmountable and
2	would take weeks or months, can happen now within
3	hours and days when it needs to.
4	And then the last thing I'll say is,
5	the idea about community priorities that John
6	mentioned, I think is really interesting. But I
7	think it's we're seeing that people think a
8	little differently as we're living through this
9	than they did in prospect.
10	So I think there will be some good
11	work to be done in retrospect, learning from
12	this, so that we can embed community values into
13	the next time we need to plan for this.
14	MR. GOSTIN: Well that's wonderful.
15	I just want to thank John, Rebekah, and Jeff for,
16	you know, a wonderfully educational and vital
17	discussion about how we get through this pandemic
18	with an intact and functioning health system.
19	I also want to thank the academies and
20	the American Public Health Association. And turn
21	it over to Nicki with our thanks for planning and
22	leading this. Nicki, over to you for the final

1 concluding remarks.

-	concluding remains.
2	DR. LURIE: Great. Well thank you.
3	And let me just reiterate my thanks to you,
4	Larry, and to the panelists and all of the staff
5	and our advisory committee who have really helped
6	to plan this.
7	You know, as I have listened to this
8	incredibly rich and robust conversation, you
9	know, I think back to many of the things that I
10	used to talk about when I was in government, and
11	that I still really firmly believe.
12	And the first thing I would say is
13	that good response is built on the back of strong
14	day to day systems. You respond with the system
15	you have in hand, not the system that you wish
16	you had in hand.
17	And so as I think about this
18	conversation, I think about: in our strong day to
19	day system, are we always providing the best care
20	possible? I think we probably have to say in
21	many circumstances the answer is no.
22	In our strong day to day system, are

we always stewarding scarce resources? You know, 1 I volunteer in a community clinic where resources 2 are scarce. And I see lots of probably not very necessary tests get done all the time. So the 4 probably we there is have room for answer improvement. 6

3

5

7 John and I have worked together on a number of shortages day to day. Not things that 8 9 ever required crisis. Whether it's a shortage of blood or a shortage of normal saline, or a 10 11 shortage of an anesthesia medicine, or anything 12 else.

I think what we've seen there is that 13 institutions that have come together and thought 14 about how not to get into a crisis, but plan, 15 make these contingency plans and conserve and 16 reuse and substitute, those folks that have put 17 those day to day systems in place seem to have a 18 19 leq up in dealing with the very difficult 20 situations that we have now.

A strong day to day system does better 21 22 if you have a structure. And so we've talked

	95
1	about, and John talked about working through an
2	ICS structure in this kind of a situation.
3	And one of the things that that does
4	a well, is it helps mitigate the panic, and I
5	think the rush to crisis standards of care. You
6	have to go, or you ought to go through the
7	contingency process before you get to crisis.
8	Strong day to day systems know their
9	communities in advance and incorporate their
10	communities into planning and execution. And
11	strong day to day systems do everything they can
12	to ensure equity.
13	It's not just about a ventilator here.
14	What we know, it's about PPE. It's about
15	testing. It's about people who have to stay at
16	work driving buses, working in grocery stores, et
17	cetera. And thinking about now equity, as we
18	think about who's going to be able to return to
19	work, right? And are you going to need a test?
20	Are you going to have to pass certain
21	other requirements? What's going to happen here?
22	There's a lot of equity considerations still

П

1	ahead of us that we need to think about.
2	You know, I think we all know that no
3	plan, no matter how good it is, survives first
4	contact with the enemy. But it sure is easier if
5	you've thought through these circumstances before
6	than if this is the first time you are thinking
7	about crisis standards of care.
8	And then finally, while we would not
9	have wished this disaster on anyone anywhere in
10	the world, never let a good crisis go to waste.
11	And so as I think we've heard, I mean, we're all
12	impressed by the amazing creativity we've seen.
13	The amazing state and local and institutional
14	leadership we've seen.
15	And as John said, this is an
16	opportunity for us to think about important
17	aspects of redesign. Whether it's we're on the
18	cusp of something that looks closer to universal
19	coverage that we can expand access through health
20	system reform, and through telemedicine, and
21	through other sorts of things.
22	But there's tremendous opportunity

And it's probably a good thing for us all 1 here. to be thinking about that as well. So with that, 2 I will just say that this all concludes today's webinar. webinar will Our next be next 4 Wednesday, April 22nd, again at 5:00. 5

3

6 And we'll focus COVID-19 on and 7 testing. And what this next generation of testing might look like. Everyone who registered 8 9 for the webinar will receive an invitation to the next one. And for those of you who missed parts 10 of this or want to share this with friends, this 11 12 webinar has been recorded.

And as I said in the beginning, the 13 recording, a transcript and slide presentations 14 will available 15 be made on the website, covid19conversations.org. 16

17 Aqain, thank you so much to our panelists, to APHA, to NAM for sponsoring this 18 series. And thanks for our listeners for joining 19 20 us today. Stay healthy and safe. Take care. (Whereupon, the above-entitled matter 21 22 went off the record at 6:32 p.m.)