

MINUTES FOR THE MEETING OF THE BOARD OF THE BOSTON PUBLIC HEALTH COMMISSION Wednesday, November 15, 2017

A meeting of the Board of the Boston Public Health Commission ("Commission") was held on Wednesday, November 15, 2017, in the Hayes Conference Room, 2nd floor, 1010 Massachusetts Avenue, Boston, MA 02118.

Board Members Present:

Francis J. Doyle, Esq., Chair; Monica Valdes Lupi, JD, MPH, Executive Director; Joseph Betancourt, MD, MPH; Harold Cox, and Manny Lopes.

Also Present Were:

Dean Sandro Galea, Katherine Atman, Ali Ragan, Marjorie Nesin, Candice Bangham, John Burrows, Heather Gasper, Catherine Cairns, Jim Imprescia, David Gallagher, Juan Morales, Jr., Shekeima Dockery, Ana Vivas, Paul Shoemaker, Catherine D'Vileskis, Stephanie Seller, Jenifer Jaeger, PJ McCann, Mark Scott, Gerry Thomas, Chris Rogers, Debra Paul, Maia BrodyField, Catherine Fine, Ann Henry, Eugene Barros, Doug Lau, E. Zhang, Martha Farlow, Charles Alpren, William Kibaja, Leon Bethune, Anne McHugh, Hoa Bui, Mark Kennedy, Jackie Abron, Duncan Silayo, Mary Bovenzi, Puneet Sharma, Tim Harrington, Rita Nieves, Oyin Kolawole, Ellie Valdes Lupi and Kathy Hussey.

Proceedings:

Presentation: Guns as a Public Health Issue Dean Sandro Galea, Boston University

- Mr. Doyle welcomed everyone and called the meeting to order at approximately 4:10pm.
- I want to start off by welcoming a friend. The Dean of the Boston University School of Public Health, Dr. Sandro Galea. He has been with BU three years now, but was also a friend of Dr. Larry Culpepper when he first came here. He's been an amazing force of change and improvement and national recognition of just how far the school has come in just the last three years. I thought five years because of how much has been done, but indeed, it's only been three. We're delighted to have him here tonight. We welcome him. I know that when the boss is in town you want to make sure that you're able to say a few words. So, I will kick it to our fellow Commissioner Dean Cox to elaborate a little bit more.

Harold commented: I get called Dean. I need you to know that I am only 'a' Dean. This evening we have 'the' Dean. It's an honor to have Dean Galea join us this evening. Dean Galea has an impressive bio that some of you may be familiar with. The thing that I would only want to highlight, in particular, about Dean Galea is that he is a physician, an educator, a researcher. He is an administrator. And perhaps more importantly for us this evening, he's a thought leader. Dean Galea has been on the forefront of a number of very important issues around public health. Indeed, one of the areas he's spent a tremendous amount of time lately, thinking about, writing about, talking about is guns and gun violence. Given the events that have happened in our country over the last few years, in particularly, in the last few months, it's important for us to have a robust and important conversation about guns. And it's important for us to have a thought leader who has been thinking about the issue, who is on the forefront of providing guidance and the like about this. So, we've invited Dr. Galea to come today to share with us some of his perspectives about issues around guns, as well as thinking about what do the data tell us that we should be doing. What are some of the things that we might consider doing in our community as we reflect on

what's happening in other parts of the world? Sandro is a colleague, he is a mentor, he's a friend, and I'm really very glad that he's here to join us this evening. Sandro.

First of all, thank you for those very kind introductions. Thank you, Commissioner for inviting me here today.

What I'd like to do was to talk for 20-25 minutes about guns. What I'm going to try to do is just give us a grounding. I want to make sure that everybody understands what the basics about what the issue is with guns and then we can have a discussion.

This is one of those issues that is so hot it's constantly in the media and there are a lot of opinions. I feel like there's a lot of heat on this issue, but very little light. So, I suppose it's my job to shed some light.

I'm going to start by really trying to deal with one issue which is: are guns a public health issue? To my mind, it's obvious that guns are a public health issue and there should be no debate about this. This is a definition from the International Academy of Medicine about what does population health mean, the signs of public health: "It is something that requires us, as a society, to collectively assure the social, economic, cultural conditions to remain healthy." It's very hard to say that anything that is not and that is contributing to so much lack of good health, is ultimately not a part of this definition.

If there is any issue where social and economic cultural conditions matter, it's certainly guns. On multiple, multiple levels guns, to my mind are easily, readily, an issue smack dab in the middle of public health, population health science and public health matters. Let's just label that right.

(Dean Galea brought up copies of articles written on the recent mass shootings.) We talk about guns and I said it's an issue with a lot of heat, in no small part because of things like this. This is a week, not even a week ago, 26 killed in a rural Texas church. This is a horrific event, horrific. A gunman walks in wearing a black hood and Kevlar and just systematically shoots 26 people. That followed this, which was the worst incident in U.S. history in Las Vegas, where a gunman shoots down 59 people and injures another 500. That was less than a year after Pulse nightclub shooting in Orlando, which was previously the worst shooting. Of course, all these mass shootings get a lot of press. They mask the many, many other much smaller mass shootings that happen essentially daily.

I'll show you one of those which was the San Bernadino shooting which involved the health department. These go on all the time. They get a lot of attention, but I seriously think that there is a risk that we run of getting inured, there are so many of them. If I were to stop at this point without changing slides and said to you: remind me of the last picture and you would have forgotten because there is a flood them.

In fact, the data show very clearly that we do forget and forget very quickly. This the mentions of the Las Vegas shooting on TV News. What they did here was they took an analysis of percentages of all sentences spoken on CNN, CNBC, FOX, FOX Business, MSNBC, and Bloomberg over a 25-day period. Day 0, a lot of mentions and then it goes down. There's nothing amazing about that, that's true for all media stories. On Day1, 1.4% of all sentences spoken made mention of the Las Vegas shooting.

Let's take a look at the Las Vegas shooting. (Dean Galea superimposed anther chart.) Next, the red is the Vegas shooting. The yellow is Hurricane Harvey. The green is Charlottesville. And the blue is Orlando. So, you see how our spike was lower and our long tail of mention is lower than it was after these other events. If there is another mass shooting tomorrow, I bet it will be lower than that. [The chart compared mentions of major news events on TV News as percentages of all sentences spoken on CNN, CNBC, FOX, FOX Business, MSNBC, and Bloomberg over a 25-day period. The events were: the Las Vegas shooting, the Orlando shooting, Hurricane Harvey, and the Charlottesville rally.]

So, we are almost getting inured by these events, which is horrible, just horrible. It's horrible that we are getting accustomed to these events. We should not be getting accustomed to them. We should not be thinking this is normal. It should not be the kind of world we want to live in where our children,

like my daughter in elementary school, do active shooter drills like we did in the '50s when we did nuclear war drills. That is not the kind of world we should be living in, but that is the world we are actually living in. So, that's just be way of framework.

• 1 - Descriptive epidemiology. Let me start with some descriptive epidemiology. It seems like we have ever more mass shootings. Is it true? The answer is yes, it is true. We have ever more mass shootings. This data is through 2013 but it keeps going up. This is active shooter incidents and you can see where the trend has gone up. This is what we read about in the paper all the time. Is this important? Absolutely. This is very important. These are horrific events and we should pay attention to them. Are these significant, epidemiologically, in terms of the burden of shootings? The answer is no. These are fewer than 2% of annual gun deaths. So, what we read about is fewer than 2% annual gun deaths.

Most gun deaths are not mass shootings, not just most, but 98.7% have nothing to do with mass shootings deaths that make the media. If you think about it, you have this punctuate, high intensity of gun shooting events we spend a lot of time talking about, those are fewer than 2%. 98% of other events are gun deaths that we never talk about.

This compares us to other high-income countries and gives you a sense of how disproportionate homicides, specifically, are in the United States. We are 4-times more than the next closest country, which is Switzerland and gives you a sense of how out-of-whack we are.

So, going back to epidemiology. So, what are all these shootings? I said that the mass shootings are fewer than 2%. Where are they from? This is from a recent graphic. Every year the majority of gun deaths are suicides; about 22,00, about 12,00 are homicides and others, these are typically accidents. See the mass shootings: 1.2%; and self-defense about 1.6%. This is the picture. The majority are suicides. About half as many of those are homicides. The rest are accidents, self-defense and mass shootings.

Now, we have heard a lot from the media about the fact that as many people now die from guns as from motor vehicle accidents. I think it's fair to say that it been high on people's minds. Editorial boards and leading newspapers are writing about it. The Boston Globe has actually been probably the leading large newspaper in the country to have a very, very clear point of view and has had some very poignant reporting on this. This has been the past 2 to 3-year trend. Everybody knows that. So, you're thinking things have gotten worse in Boston over the last 3 years. This is actually what's been happening. We've actually had the same number of firearm deaths since about 2000, the turn of the century. It's been roughly the same with an uptick in 2015-2016, so it's currently working its way through the system, trying to figure out what's going on there, but roughly we've been the same. If you look at this, we're higher in the '80s and '90s. A lot of this was linked to the Crack epidemic. Then there's a real drop until 2015 and we've roughly stayed the same.

So insofar as we're paying attention to this issue, it's good. Insofar as it took us 15 - 16 years to pay attention to the issue from a public health perspective, then that is a real pity. I'll wait to get to the end to impart why that is.

Just to put this in context, I would like you to just think for yourself: what is one issue which in health and responsibilities of health departments, schools of public health, that we have paid a lot of attention to is things like natural disasters and terrorism.

This is a map that simply looks at the state-specific firearm rate. And to make a good point, that while we've had roughly the same gun related deaths for the past 15-16 years, it's quite different by states. There is tremendous heterogeneity in gun incident rates by states. We'll come back to this in the end, because in many respects, this is what give us the indication that there are things that can be done and that there are states that do very good things. And to be clear, Massachusetts is the leader. In Massachusetts, the gun injury rate has gone lower than any other state in the country. We can discuss why that is afterwards. In no way does that mean there isn't more than Massachusetts can do, but Massachusetts actually is the leader. So, heterogeneity by state.

The other part of the gun epidemic that strangely, I find, is seldom discussed in the national media is that the gun epidemic is inextricably linked to race consistently. The red line is Black, the blue line

is White, the green line is Other race. This is fatal firearm by race from 2000 on. Just like I showed you there has been a plateau, but Blacks have consistently been twice as high a White and White has been roughly twice as high as Other races. So, there is a consistent race gap over the past 15 years that we've had this general pandemic level of gun deaths.

Now, given how much we've been discussing this issue the past 2-3 years, given how much I would argue we have neglected this issue in the 15 years before, its worse than going back to well, what other issues have we talked about so much in the past 15 years? Let me help you: disasters and terrorism. This is handy slide that shows the number of American deaths by firearms the last 14 years and the number of American deaths by terrorism. So, you can all do your own math as to how much attention we, in the public health community, have given to this versus that.

• 2 – Guns. It's very hard to talk about firearms, but we're not going to talk about firearms, we're going to talk about guns. This is where things can get antsy in this conversation, but I figure I'm here to try and be honest and give you the data. It's impossible to have this conversation without talking about guns. So, guns. We have a lot of guns in this country. Here is a simple graphic. This is the population of the world: 7.13 billion; population of the U.S.:4.43%. These are all the civilian owned guns in the world: 644 million; and this is how many civilian owned guns in the U.S.: 42%. So, we're about 4% of the world's population and we own about 42% of the guns.

So, let's talk about the guns. When you compare us to other countries per capita, per capita, there's us, next is Yemen, then Switzerland, etc., etc. We have a lot of guns. The argument that you see pushed in certain local circles is that: well, it's ok to own a gun. In fact, if more people had guns, then the good guys will have guns and they'll be compelled to pack.

• 3 – Guns = gun death and injury. So, I started to think before I came here about how to say this diplomatically, but now I think the only way to say this is that it's just not true. The data clearly show that this is not the case. In fact, the data are very clear that more guns means you have more gun death and injury. In answer to the question: what's the single most important thing I can do to avoid being shot by a gun? The answer is: you should not have a gun. It's actually very simple. The data show that. I could spend an hour talking about data, but in the interest of time, I'll show you two slides.

This one just came out, a recent graphic at the state level and simple. This is the Percent of Households with Guns, by state and the death rates above the national average. You see Wyoming at 80% of households have guns versus Hawaii, which is about 20%. Massachusetts is right there at about 21%. The red are the states that have gun deaths over the national average. It's a simple graphic right. The states with more guns, by and large, are the states which have gun death rates above the national average. This is a simple pictorial: more guns at the state level, more gun deaths. Then I can get into fancy statistics and fancy epidemiology, but will show you one simple graph. More gun ownership, more gun deaths. It's a very clear line.

I run a school of public health. We have many PhDs we can sell you. Come to us for a PhD and analyze this. I can tell you that, at the end, you will come to the conclusion: more guns, more lives, more people are going to be injured or killed.

• 4 – Suicide and lethality. Now, let me talk about suicide for a second, because I said at the beginning, that most gun deaths are suicides. One of the arguments that you frequently hear about guns is: well, you take away guns, people are still going to kill themselves. So, let's look at some statistics.

First of all, this is homicide. Remember I said homicide has been flat, but with an uptick in the past year. And this is suicide, which is slowly been travelling up; this is gun-based suicides. Ok, people are still going to kill themselves with guns, but will they not still kill themselves using something else if we take away the guns. The answer is they may still try, but they are less likely to succeed, because the core point is that guns have over other methods of suicide is that they have more lethality. So, most suicides, as suicide research shows, are impulsive which means that people will have a variety of circumstances, usually adversity, stressers, depression. They conspire and the person tries to kill herself or himself. Most people who fail to kill themselves will not try again. The question

is: how likely are you to fail to kill yourself and that depends entirely upon what you have at your disposal to when you try to kill yourself.

Let me show you this graph. This is the percent of all suicide attempts. The largest suicide attempts were by overdose. Why is that? It's very simple, that's the most handy, easy way. Everybody has various drugs in their cabinets. It's the easiest way, that's the biggest part. Then you try to cut yourself. Why is that? Again, that's the second most easy way. This is the percent of suicides compared by guns, 6%. That's attempts.

Now, let's look at successful suicides. 54% of successful suicides are guns. Why is that? It's actually hard to kill yourself with an overdose. The lethality of an overdose attempt is about 7%. The lethality of suicide with a gun is about 97%. Far fewer attempts with guns, far more success. The answer to the question that says: well, if you remove guns people will still kill themselves. The answer is yes if you remove guns all you're removing is the 6% of suicide attempts by guns. But now what you're left with is that you're removing more than half the suicides.

• 5- What we often forget. I'm going to show you one more slide going back to the state level. This is states where multiple gun suicide rates are higher, this is firearm suicide rate and this is gun owning population. There is more gun owning percent. I want to talk about a point we somehow fail to talk about. When I wrote about this in an op-ed in the Globe, I became a target of NRA attacks, which I'll be happy to talk about afterward, and that is people who are injured, but not killed by guns. Think about it for a second before I show you the next slide. How often are your lead stories about those injured by guns? The answer is relatively infrequently, we talk all the time about gun deaths, relatively infrequently we don't talk about gun injuries. There are roughly twice as many, three times as many gun injuries versus gun deaths.

Chief Hooley spoke up. The Boston Police Department is getting pretty good at putting out about non-fatal shootings. They do break it down. Dean Galea said yes, the data are there, it's in the media. Actually, the Boston Globe recently did a really nice piece on some of the injuries from Vegas as well. I feel like it's slowly beginning to emerge.

Let me show you some data on this. This is homicides, suicides and accidents and is broken up by death and injuries. Let's stay with suicides because I just talked about suicides. You see how the vast majority of suicides result in death; relatively few suicides gun injuries. Look at accidents. Most accidents are actual injuries. Now look at homicides. Relatively few homicides are actually deaths. Most homicides end up as non-fatal gun injuries.

I will not ask the crowd, although I have done this before, how many have been shot by a gun. The data show that gun related injuries is associated with substantial morbidity and costs to the system and hospitalization. So, we've done an analysis where we look at head to head comparison between gun injuries and motor vehicle injuries. We've shown that gun related injuries result in more hospitalization, more complications in hospital, and more re-hospitalization in head to head comparison.

Total Burden of Firearm injuries 2001-2014. So, you take these injuries. This is the total burden of firearm injuries. About one-third are fatal, two-thirds are non-fatal. From those two-thirds, about half of them are minor and these are usually the accidents by the way. Then you have this group, which is larger than the fatal group, that is hospitals with injuries severe enough to be hospitalized.

The other data point we just published on this is that the number of non-fatal injuries is actually going up. This goes all the way back to 2013 where there has been an uptick in fatal gun homicides in 2015-2016. Non-fatal injuries are going up. We have more and more people who are now injured and for many of whom their life has been entirely altered by gun violence.

• 6 – The mental health myth. I'd like to address the mental health myth. This is one of our biggest pithies in the national conversation on this. Although I try to be an optimist because it's better than the alternative. Until about 5 years ago, every single time there was a mass shooting, I would get a reporter who would call me up and he or she would say I want you to talk about how mental health illness results in mass shootings. I would say no, that's wrong, it's not about mental health and the reporters would hang up on me.

So, the myth is widely pervasive. It's very pervasive. This is mass shootings are a sign of mental health. Do you think that mass shooting in this country are more a reflection of problems identifying and treating people with mental health problems or inadequate gun control laws? Mental health problems overwhelming in 2015, not so long ago. People out there think that mental health problems are the reasons for mass shootings.

Lifetime prevalence of psychiatric disorders are comparable in Canada and the U.S. There are many different ways to study this. But perhaps the simplest, easiest way is through a natural experiment. Suppose you had two countries side by side. Suppose these two countries have people who are roughly similar people. I happen to have lived in both these countries and I can tell you that the people are pretty similar. They like similar things. Of course, in one country they might like hockey more than the other one, but roughly the same. So, you say to yourself, do these two countries have different prevalence of mental illness. Let's take a look and compare Canada to the U.S. Basically, the prevalence of mental disorders are roughly the same in Canada and the U.S. And, of course, that's our firearm homicide discrepancy between Canada and the U.S.

Mental illness is not the cause of the gun epidemic in this country. In fact, people with mental illness are more likely to be victims of violence before they are perpetrators of violence. I want to be careful on this because in no way should we suggest that we should ignore the role of depression, for example, in the likelihood of suicide attempts. We should not ignore it. We should not throw away this whole notion, because people who we know are at high risk of suicide that mental illness is one of the key factors for suicide. So, there are opportunities to intervene, to make sure that people with mental illness do not hurt themselves. But, there is no evidence that mental illness, in and of itself, is the driving force of all mass shootings.

• 7 – On research. Now, I mentioned at the beginning that the national conversation has been not well informed. The reason for that, to my mind, is because we have not had the amount of research that we should have on this issue. At the end of the day, it is the research, much of it done at universities, that drives the data that can inform the public in conversation. Some of you know that the Dickey Amendment, which was introduced by Congressman Jay Dickey in the '90s, essentially bans cities from advocating about firearms. The CDC determined that as a ban on firearm research, and as a result, you have things like this.

[Next chart.] This is funding and this is death rate. This is a whole bunch of diseases. And that's gun violence. So, our death rate, gun violence actually falls in terms of low-level funding. That is directly linked to publications. Look at this. Notice the cluster of things that are low are all injuries. It's suffocation, aspiration, and drowning. All injuries is what's lowest, because no publication per the death rate because of low funding. Gun violence kills a lot more people than these other ones, so keep that in mind.

Research has been stifled and that has had enormous effects. Probably the biggest effect is that there has been, until recently, no group of young investigators who have gone on to do this work. If you look at the people in the country who have done work on this, you have a handful of leaders in the field who are Baby Boomers. In my generation, Generation X, there truly is a handful of people, period. The reason is, I came of age in the academic world at a time when there was no funding. There was no money for this. The way the academic world works is to do the studies you need money. When you can't do studies, people as a result, people are essentially dissuaded from it.

Congressman Dickey, before he passed away, recanted his support for his own amendment, because he realized that not having data means that we have robbed ourselves of the opportunity of important information that can guide and inform decisions.

• **8** – **On potential solutions.** So, let me end on potential solutions. I'm always very, very leery about talking about solutions whenever I speak to colleagues in the health department, because in truth, you are all in the business of solutions and I'm just a duffer at that. So, I'm just going to show you a couple of pieces of data and then leave that conversation to you.

First of all, the question is this: do policies make a difference about the guns and gun injuries? The answer is absolutely. There is no question about that.

• Gun Law 'Grades' and Gun Death Rates. [Next chart.] This is gun law grades and gun deaths. The Law Center to Prevent Gun Violence grades all states by the strength of their gun laws. You can look at this measure and essentially get the grades. Massachusetts has an "A" along with Hawaii, New York, Connecticut, New Jersey, California, and Maryland. And this is the gun death rate. Grade A means you have policies and regulations around guns. Then there's the Grade B, C, D and F. So, this is a very simple slide that shows if you have a gun regulation you will have lower death rates, period.

There are several natural experiments, including some states that have introduced efforts regulate guns and some states that have taken away efforts to regulate guns. Here's one. In 1995, Connecticut required background check to obtain a permit. Missouri, in 2007, repealed its license requirements. Here's what happened. Connecticut saw a 40% change in gun homicide and a 15% change in gun suicide. Missouri saw a 25% increase in homicides and a 16% increase in gun suicides.

So, these are change experiments which are very ?? Other countries give us examples. You may have heard of the Australia example. In 1996, after the Tasmanian massacre said enough, and passed a regulation buyback program and reduced gun fatalities substantially. Then it gets to this issue of well, yes all of that is fine and good, we can say that, but we all know that any effort to control guns in this country is bound to fail. The answer to that is it's true that any effort at gun control in this country is bound to fail. It is not true that efforts at all the various components that go into that politically charged ???? are bound to fail.

In fact, the majority of people are in favor of background checks for all gun buyers. Troublingly enough about this mental illness one, but leaving it aside. Nation-wide ban on civilians convicted of violent crimes. Barring gun purchases by people on the no-fly list; background checks for private sales; federal mandatory waiting period on all gun purchases. These are all over 50% and not just in all households, but also in gun households. In all of these, a majority of Americans are in favor of including the gun households. The public, whenever you hear Americans are not in favor of gun control, it's that Americans are not in favor reflexively of the term gun control. In fact, the majority of Americans are in favor of all of these.

I want to end on this slide. Over here is 100% of American support and over here is most experts say not effective. So, if you look at various gun policies, most of them fall into this quadrant: universal checks of gun buyers; barring sales to violent criminals; barring sales to convicted stalkers; report lost or stolen guns; require gun licenses; universal check on ammunition; stronger sentences for illegal guns; national gun registry; assault weapons ban; semi-automatic gun ban. All of these the majority of Americans support. So, to my mind, the answer what should we do, insofar as possible, I would say we should not rest until we have done everything at least in this quadrant. Because all of these things probably make a difference and we know we have the majority of Americans' support.

Now, the last question is: is there any one thing that is going to change the landscape of gun violence and gun injury in this country? The answer is no, there is no one thing. Well, there is a one thing if we remove all of the guns, but that's not going to happen. It's unrealistic. There are 3 million guns in this country. It's not going to happen tomorrow that 3 million guns are going to go away. It's just not going to happen. Given that, there is no one thing that can be done. I think what a smart jurisdiction does, be it municipal, be it state, be it federal, although we all know that's been off the table for several years, is it says to itself: what does my complex web of laws, policies and their implementation look like? How much more comprehensive can it be? Let's take a look at all of that and figure out what is realistic and feasible for us to do so that we can actually put something into place. That's it. I will stop there and be happy to take any questions or comments.

Frank continued. Dean, thank you so much. The evidence, particularly the way you presented it, is very compelling. We encourage everyone, if they have not already, to read the article in the Globe. It was quite informative as well.

(https://www.bostonglobe.com/opinion/columns/2017/11/06/steps-can-take-gun-violence-now/Gn5827wclmotDnLPFRwSIN/story.html) Thank you for addressing some of the issues that I think were foremost on the minds of the Boston Public Health Commission.

Boston has long been an anti-gun city regulatorily and permitting wise. I believe Boston has a very low percentage of applicant versus permits granted. I don't have that data, but have heard that, at least, anecdotally compared to towns where it's easier to acquire one. Much of the discussion, as you know, and even for years Deborah Prothrow-Stith would always say that gun violence is a public health issue. Of course, for all of us in public health or health care, it goes to our hearts, but everybody else it goes right by and they go right back into gun violence as a criminal issue. I think, unfortunately around here, we focus on it too much as just the criminal issue.

So, my question is: How can we help change that debate? How can we get it to be identified better, as a public health commission here in Boston, as a public health versus a criminality issue? It is certainly both. Then the other quick question to tag onto that is that a lot of your data, again, was very compelling, but in the public health care realm of that data, there's no cost associated. I think the more we could establish cost related to the healthcare involved, or lost productivity or whatever different kinds of costs are involved, all the way from suicide right through gun violence on the street, the impact or whatever kinds of financial analysis data could be applied to it might be helpful in yet a different realm. So, let me throw those two at you to start.

There are emerging data on costs, under study costs and I think they are underestimating the costs. Let me give you one concrete example. We know from studies of other traumatic events that people who experience traumatic events go along to suffer from post-traumatic stress, a certain proportion. There is not a single study that has looked at the post-traumatic stress disorder among survivors of gun related injuries and looked at the course, and as a result, the psychological and then the social and economic costs of PTSD linked to gun related events. It's an obvious study and it's never been done. So, there are costs data and I think the costs are underestimated. I'd be happy to discuss costs if people are interested.

Going back to what Boston can do, as I said earlier, I have deep respect for my colleagues in public health practice. I will not presume to say what one should do, but from my perspective, just looking at this picture, I think Boston here tends to lead. I was honored to be invited by the Commissioner and I accepted, not because I need something else to do, but because I think it's actually symbolically important that the public health commission says this is something that we care about. I think it's very important the public health commission says this is a health issue, like it also is a criminal justice issue, that's fine.

We're learning right now, and I think Massachusetts is also a leader on this, around the opioid epidemic. We learned the hard way many of us were writing back in 2003, 2004 that overdoses should not be a criminal justice issue, it should be a public health issue. We're in the same place as firearms. I would love to see the city where I'm raising my children to take the lead in being a national example.

Part of the reason I was very glad the Commissioner asked me to speak, is because I should think that you all could sit on your laurels. I think it's easy to say look, we're actually the best state in the country. God bless. But that's not what I hear you say and I really respect this. I think that: a) we can be better and b) I recently wrote about this and it will be coming out in the Journal of Public Health, about the positive spill over. A lot of public health happens through positive spill over. If a jurisdiction does something, then other jurisdictions then follow suit. Forget something as touchy as guns. Look at things, for example, ???? like restaurant grading. These are all positive spill overs. These are when particular jurisdictions start doing them. I think that with issue of guns, as well as opioids, Boston, Massachusetts stands to be a national leader. I think what you do here will resonate and echo. In some respects, I suppose I'm encouraging you to say to take this on, do what you can. You are the ones who can actually determine what you can do. Others will listen and follow and the impact will be far greater than just Boston.

Frank. Thank you very much Dean. Commissioner Lopes?

Yes. Great presentation and thank you again for visiting us this evening. Tell us about the role of healthcare providers. Some of us that are on the Commission work for healthcare providers. I know from many of our providers, primary care providers in particular, ask us about guns in homes. Is there more that we can envision as providers and also thinking more as a city, educators and providers, if we're all speaking the same language, providing the same message and information, and again, the Commission serves as the convener of this, but back to specifically to providers.

I feel that providers are such an important voice in any health discussion, both at the level of the public health conversation and at the level of influence providers have on their patients. I would encourage the Commission to work with providers to push the message, insofar as to take this message and distill it into what are bite-size chunks that all providers can learn so that all providers can make sure that their patients can understand. That will change the conversation. I think providers talk about guns in homes, really happens infrequently. There's a big disconnect between us saying it should happen and it actually happening.

Manny commented. I think it should happen in the medical schools. Your presentation should be a requirement. Dean Galea said I think we need to change the providers. Recently, Senator Murphy of Connecticut, who's probably the leading voice in Congress on this issue, was actually commenting on the work we had done. But the point he made, he said that part of the problem is there has been 30 years of national conversation that has been all informed only by pro-gun forces. It's only been about three years that this ground swell effort has been pushing back. There's a 27 year head start on the argument that more guns is good and politics is any guy with a gun is good guy with a gun.

The more avenues the Commission can think of infiltrating the conversation, the better and providers are a prime venue. Medical students, yes, people go to medical school to make money, but they are actually motivated by a desire to help people. In some respects, they're like an easy group to try to get on board. It's never easy. It's never easy to get physicians to do anything. These things takes time and it's helpful to remember that the conversation has been filtered another way for 30 years. It's helpful to remember that this is a long game. It's not an outbreak that the Commission is going to deploy all its best disease detectives and hunt it down in a few days. This is going to take years.

Dr. Betancourt commented. I was thinking about the issue of how in Florida they've banned doctors from asking about guns. So, you have the politics of this is so crazy that even people who want to do the right thing are put at risk. The question I have, if I could just add to that, I think providers, given the data you showed around not mental health, homicide, that kind of stereotype of a mass shooter, but mental health around suicide prevention and caring around mental health and asking about guns is a very easy win. I think that's something that providers can envision.

The question I have is, and I do want to get political a moment, because I believe there are a couple of stalking horses that continually get put out that bad guys are always going to have guns; Chicago has always pointed out. What do we know about hot-spotting or strategies that run counter to this idea while putting the good people through all these checks and balances is one thing, but we still have these hot-spots.

Dean Galea replied. The fact is that without some federal action, you are never going to make the size of dent you want to in homicides in this country, because the state borders are porous and it's easy to buy guns. It's easier for me to sell you my gun than it is to sell you my car. It just is and it should not be the case, and these require federal action. So, yes, it is entirely true that there is only so much a state can do without any federal action. But, if all the states are doing things, that, in some respects, would leapfrog into federal action. These hot-spot approaches show tremendous density in some areas and high gun injury rate and a lot of those are bought illegally. Just to be clear, most guns used for mass shootings are bought illegally. The vast majority of guns

killing people in mass shootings are bought illegally. So, hot-spots and this high density, high crime areas get a lot of attention, just like mass shootings do. They are not a population problem. The problem are the things that I was talking about.

Harold spoke up. Sandro, first, thank you for your presentation. It was thoughtful and certainly puts out on the table for us many things to think about. I want to talk about the issue around data and the problems around the CDC not being able to, in the way the CDC has chosen to interpret the mandate that was given to them. So, our assumption always is that reasonable people will do reasonable things if they got the right kind of information. One of the things that you're suggested is that we don't have enough information. I guess as we think about our community here, about Boston, about Massachusetts, are there some suggestions that you've been thinking about relating to how to address this issue about the lack of data and ways that our community might be involved with the school in actually helping to address that. So, this is really one around how do we take this conversation about data into the next place.

Secondly, are there some ways for us to partner with the school to address this issue, especially around data, as we are then thinking what do we do with it. It's more than just collecting data, but it starts with collecting it first.

Dean Galea responded. Collecting data takes money. To be completely candid, I don't think it's the scale of money, or that it's about the Commission or about the school. It's about real estate. The boldest experiment on this was in California who said regardless of no federal funding, we are going to put money into this and create centers of excellence to study this. California is the best example. They put in \$10 million so they could generate their data. The money has to come from somewhere. The scale of the money you need to do this is beyond the scope of a single school. If we're serious about generating data as a state, we as a state, should invest. Ideally you get the federal to participate, but that's not going to happen. [Note: recording was a bit warped at this point; couldn't capture what was said.]

Harold had one more question. If you had your druthers about things, if you had your wishing cap about something that you would recommend, something that you would like to see done, something that hasn't been able to be done anyplace else, and you were looking for a community open to thinking about something, new, different, expansive, innovative, do you have anything in mind you'd like to see done?

Dean Galea said he would like to take, there are some good personnel out there that have reviewed the evidence and what we know about the list of various policies and regulations that we know and expect to be different. I would like to see a score. Take that list, add it on to what are we doing in Massachusetts, in Boston, make it a green dot. Then ask ourselves why aren't we doing anything to not make it a red dot. Make it an agenda. Let's make it happen. That's what I would like, an honest self-appraisal that says here is what the best data suggests works. Let's list them out and give ourselves a score on how we're doing on each of these on the city and state level. Then set ourselves a goal where we're actually going to get a green dot on everything. That is what I'd like to see done.

Monica had a question. First, thank you again very much for that presentation. I think the data are sobering, particularly since we've been so inundated with these stories. I guess short of getting the \$10 million dollars for looking at a California-like model, I did want to pick up on something that you said in terms of Americans and their love for guns. How do we then shift the narrative from gun control, which clearly isn't the issue, to firearm safety? The example, to just connect it to what Assistant Dean Cox had said around the data, is that there are city colleagues from other parts of the country, the example I wanted to share was Seattle, King County, where they have taken the lens of firearm safety and used and leveraged their surveillance systems. So, in that particular case, it was their Youth Risk Behavioral Surveillance system (YRBS) data to actually integrate a series of questions around firearm safety for youth, in terms of access to firearms in the

homes, what your parents or teachers know if you had a firearm at school, etc. So, I think short of getting big money, I do think there are opportunities for the Board and the Commission on the different surveillance systems that we have to take a closer look and then also on the education side. I'm wondering what you think we need in terms of pivoting and sort of redefining the narrative.

We were at this congressional forum a couple of weeks ago and you would think that, we use our thumbs for the thumbprints for the i-phones, and just on the manufacturing side, if there was more money to be made with the firearm industry in terms of integrating that and people are all for it, why isn't it happening? Or is the NRA just untouchable?

Dean Galea responded he keeps thinking that there will be a tipping point when one of the firearm manufacturers realizes that they can make money on creating safe guns. That will be the tipping point. Nobody's done it yet. The tide will shift once that is in place. So, what can we do? The tide on these changes slowly. I think the Commission adopting the language of firearm safety. I think the Commission embracing gun safety as a core public health issue and having that emerge in all your materials, in all your messaging and in partnership with law enforcement that it's all about gun safety. That will change the tide. It won't happen tomorrow, but it will happen. I think we should not underestimate the potential for change and having the Commission build on the wave of public revulsion around these mass shootings. Build on this new cresting of academic work which has really been influenced by just this deep sense of we really need to do something about this. I think together this can shift the conversation.

Frank had comments. Dean, you've been absolutely wonderful, informative, in helping drive us to our thought process. You mentioned in this Commission has engaged several times over the past year, if not decades probably, about engaging better with the very robust public health schools that we have in Boston. We've been talking about it lately around opioids and other things and just how to get that organized as a regular, informative, two-way communication and engagement activity, to inform us in the role that we have with all that you have on all the investigations and types of data, types of just perception, studying these issues as public health issues, not just as government entity issues, which tends to be our quick reaction to things here at the Commission. I would welcome that. I would love you to give us some recommendations on how to do that better. Sometimes, having some of the best public health educational institutions in the country, it becomes so competitive you can't have them all together. If you had one and really engaged with them, or however we could do that best, with one or all, we would encourage and love to be able to talk more about that with you.

Dr. Betancourt had one more question. You know this country makes a lot of decisions with no evidence, little evidence, a lot of evidence, evidence is never directly linked to policy and the politics is so overwhelming here. One factual question and then one more open-ended question for you.

Are we seeing differential perspectives around guns generationally? Meaning, are we turning the tide so that generationally there might be some energy there. I guess the second is might we consider giving \$5 - \$10 million to some very disruptive marketing or messaging. I think about what we did with tobacco where there was some really very disruptive, almost hack-a-thon approaches to changing public opinion. I've not seen that at all. We see stats, we see the news, we see the dips, but no real kind of potent, disruptive kind of messaging to change the tide, so that politicians can no longer continue to get re-elected under the same premises of the NRAs very potent message.

Dean replied. One the first question, and it's a great question, there may be something there that I have not seen. On the second question, absolutely. The Commission is in a prime position to do that. We've seen some of the pretty bold messaging. Dr. Betancourt thought there were a lot of great tobacco examples and campaigns that they had. Dean Galea said this is something that

takes a little courage. I do not know of any other health department of any size in the country that have embraced gun safety as a core part of its message or part of what it does to build it in to the messages pushed out by the city. If that's something that makes sense to you at the Commission here, I think it would be bold, innovative and potentially disruptive message.

Frank commented that we try to engage our audiences in the Commission's work and I know you're on a tight timeline and it is 5 o'clock and we promised to let you go at 5. I wondered if you could entertain a few questions from the audience so that they could engage in this a little bit too.

Jen Jaeger, Interim Medical Director asked a question around the data showing many more people were injured by guns as opposed to killed and so many are injured by people that they know. In terms of the data, are there a lot of accidental shootings by drive-bys that a are affecting kids? Is it folks getting injured at home? Dean responded that accidents are only a small part of the pie. But to build on what you said, intimate partner violence is well documented to be a precursor to subsequent shootings. Want to do something bold? Intimate partner violence, one strike you're out. Anybody who's ever been convicted of domestic violence can never own a gun. That's something bold. There's no particular data on that because nobody's ever done it.

Martha Farlow. Thank you. One of the things I see around Boston, and again this is probably biased, is gun related violence among youth and kids. Do you have any thoughts about how these policies are targeting them or any issues or differences you see with older folks? Dean replied that the youth and kids' stuff is really important. If there was only one thing I could do, I would invest my energy in messaging within your programs that deal with younger generations. I would strongly encourage that.

Frank wanted to acknowledge that Commissioner Evans did send a couple of members of his gang unit here. So rather than put them on the spot, I wanted to thank them for being here. They are certainly welcome to ask a question. But what would you like to say to them that you might be different from what you would say to us? Dean replied he wouldn't say anything different and that he's said what he wanted to say. If there's any place in the country where we can approach this issue as a partnership between public health and public safety, we'll use those terms, it is here. Insofar as Commissioner Evans realm is public safety and the Commission's realm is public health, there is such direct overlap on the firearms issue as there is with the opioid issue. I want to speak now as a resident of the city, knowing that public safety and public health are working hand in hand, makes sleep very well. Frank stated we really do understand and respect and try to develop that area. Thank you.

Harold asked the audience if they had any questions or comments. A brief discussion with the audience regarding gun violence and social inequities followed.

Frank thanked Dean Galea for joining us today. I know the Dean will work with us to engage the entire school in more direct efforts to stay together and aligned and more informative of each other to move the city even more forward.

Monica commented that we were going to do a little change up. If you want to stretch your legs, there's some staff who actually have to go to other meetings, so we'll just take a little break.

Chairman's Comments Francis J. Doyle, Esq

• Ok, we're back in session. What a great presentation, eye-opening I think for all of us, for different reasons perhaps, but eye-opening nonetheless for each of us.

I would like to not leave the subject just yet without a kind of follow up on what the Commission would like to see us do with having been given that information. One thing I was particularly taken with early in the question and answer session that Dr. Galea spoke about when he was asked about what we could do locally. He said, and I'm not sure exactly of the context he put it in, but an assessment of the current best practices, if you will, or the best or most effective programmatic legal

regulatory activities, that have been taking place around the country at a local level, have been successful. He said there have been studies on that and it seemed to me he had a checklist of things in his head that we could engage him further to identify, perhaps Dean Cox could. I think that's a great next step for us to think about engaging in that type of a study as a Commission taking those best practices and then developing the kind of score card. How are we doing at this level? Have we done what we can. At least the evidence has shown so far that it has been effective in localities action as opposed to national or state-wide activities. Anyway, that's the start of the conversation. Perhaps if others think that way we could engage the staff.

Dr. Betancourt commented. I thought that Harold's question about who else needs to be at the table is very provocative and very appropriate. I think when we do talk about the hot spot, the perspectives of why I live in a community I have to have a gun. That perspective isn't represented here and what we could do to make you feel like... There are things that are public health and public policy, but I think helping address that side of the problem is something, in addition to public advocates, running that table to find some common ground, both locally and nationally is the right thing to do.

Harold appreciated Dr. Betancourt saying that. I do think that that gets to be one of the problems we have with this issue and any number of other issues. We're really good about talking to ourselves and kind of reinforcing the kinds of things that we think without really having a real understanding and appreciation for what's the other perspective. Even understanding that we don't all think the same thing. So, indeed finding the mechanism that allows us to have that conversation with others to be able to understand what are they thinking also and then where are those common ground areas. It's clearly not this, guns or no guns, that's not a conversation. In fact, that's a no win for anyone, guns or no guns. Maybe that long list that Dean Galea put up that that begins to provide an opportunity for us to have a conversation. It seems that the question around who's at the table is around how do we hear other perspectives.

Frank commented. As we talked the last time, I know staff has been working on this subject, but when we talked about substance and opioid abuse, we talked about convening as the convener in the city around these kinds of issues and who you would convene with and how it is done. I was talking to folks about that business if you will and often they would say you have to have the families of the addicted at that table for that conversation. That was something that I don't even do in my own realm of healthcare. I think of the people that are directly addicted. I think of the public impacts of those addictions. I think of what they're selling on the streets at Mass. Ave. and Albany and those kinds of issues. I was taken aback by saying you're right, nobody engages with the families of the addicted and how important their input might be.

Manny agreed with Commissioner Cox around getting the full perspective. When you asked that question, I whispered on the other side of the table the gun owners. I think one of the conversations I believe on the substance use is the folks that are suffering with pain. That's some of the other groups that we haven't brought to the table. Just recently, hearing from a young lady who's suffering with pain and having difficulties getting medication that she needs to deal with her pain. So, I agree with you having that other perspective and bringing them and seeing if there's common ground, particularly with that chart. I totally agree that that chart was telling us areas where we can work together and come together to try to put some policies in place and take some action. I think it's a great idea. My only final suggestion would be.... I know the Mayor has been very much focused with all the other things, but he has also been focused with the buy-back program to try to get guns off the streets. Maybe we can help elevate that conversation of off the streets and out of the homes and really begin to talk about more about the gun safety and coming up with language that we can introduce in the schools. I agree with Martha and others around the elementary schools, to use a common term, it's going to take a village. If we're all using that same language and we're all taking about the same issues, hopefully that's where the impact will be.

Harold said he's not certain where this goes. I really appreciate the kind comment made a moment ago about deciding to take a position and deciding to actually put it on the forefront that they are not

health departments that have identified this as being a key area. While Massachusetts is certainly a very different place than some of the other states on the list we saw, Massachusetts still has issues, significant issues. Thinking about what is a very deliberate, vocal, visible, activity that we can do, that says that gun violence is something important for us. Understand it will take a lot more conversation and maybe something very important for us to do and that we are very vocal about it.

Secondly, in thinking about this issue about how do we engage with the full spectrum of perspectives? That may be an opportunity for us to engage with the other public health schools and various other kinds of schools around our community to help develop, engage and have those kinds of conversations with many different perspectives in our community: gun owners, non-gun owners, people who have been impacted by gun violence, people who are afraid, people who aren't quite certain what they think; all of those perspectives. Those conversations may also help us to drive where we want to go as well.

So, two things. First, a very directed statement that says guns are an issue for us and here's what we want to do about it. Second, engaging in conversations that allow us to bring together many perspectives.

Frank stated we'll ask the staff, if that's ok with my fellow Commissioners, to ask the staff to take a look at this through Monica's leadership, obviously, and approach it the way we did after we discussed the substance abuse disorder stuff, both on the scorecard issue and on what would we do to have a larger impact that we might be able to have as brought up by Dean Cox and Dr. Betancourt.

Dr. Betancourt noted, one thing mentioned, is the impact of these kinds of active shooter drills and things at schools. The PTSD that is being created in schools right now cannot be underestimated. I don't if there is curriculum in schools around to mitigate some of this. This is real. I've experienced it with my kids. What it does to them is very disruptive and I think it's going to have long-term consequences too. I don't know if there's anything on the curricular or working with the schools to think about how you can be a leader around this, ways to not just look at it from a fear standpoint, but a leadership standpoint. The challenge is to focus on perhaps a generational approach. We think about building resiliency and also mitigating the traumatic impact of this, the access to the media that's pervasive now for kids and also the types of activities they engage in in schools, which has really been very damaging.

Monica commented that Catherine and Mark were just beginning to allude to that. I just met with them last week with our Deputy Director Rita when they were giving us an update on the Neighborhood Trauma Teams. When we look at the data and the percentage, over 60% of the clients coming into the program have experienced exposure to violence. Whether its gun violence, domestic violence, in the home, I think you're right, BPS will definitely be a partner in this. I know that Superintendent Chang, and I had reached out to Commissioner Evans ahead of time, are committed to working with us. Unlike some other cities where you actually have to make the case or provide the justification that it's a public health issue, we're beyond that. I definitely think that there could be some exciting opportunities for the Board to help us lead in this space. I know that this is something you all have been interested in, so this is great in terms of next steps.

Frank thanked Monica for the wonderful presentation and appreciated her putting that together. It was a great conversation and there are a lot of next steps involved.

Acceptance and Approval of October 11, 2017 Minutes Board Members

• While we have a quorum, I would entertain a motion to accept the minutes from the October Board meeting. Manny Lopes accepted the motion and Harold Cox seconded the motion. Are there any objections? No objections. As there are no objections, the minutes from the October 11, 2017 Board meeting are hereby accepted. We do have a couple of other issues so I will turn to our Executive Director Monica Valdes Lupi for her report.

Report from the Executive Office Monica Valdes Lupi, JD, MPH Executive Director, Boston Public Health Commission

• Great. Just an abbreviated version of our updates from the Executive Office Team. First, in terms of staff transistion I am pleased to share with the Board if you recall, our bureau director Beth Grand, who had led our Homeless Services Bureau for over two decades had stepped down. After a competitive search, we didn't have to look too far because we have selected Gerry Thomas, who is currently serving as our bureau director for Community Initiatives, to head up the Homeless Services group.

Gerry has been here, many of you have worked with her, she's been here since 1999 and has served in many capacities throughout the organization. She's worked closely over the years with Beth and the Homeless Services team, so we're really pleased that Gerry will be leading this team effective December 5, 2017. We're working now with Gerry and her team to transition her over to Homeless Services.

- **BPHC** in the news. We were so excited to introduce and launch the Health Equity Advisory Committee at last month's meeting. Several new outlets covered the story, including the Dorchester Reporter, Hyde Park Bulletin, and El Mundo Boston.
- City of Boston Press Release: Mayor Walsh announces Boston awarded \$2.6 million to expand services for pregnant and postpartum women with substance use disorders. We are pleased to announce that BPHC was awarded a SAMHSA grant of \$2.6 million over five years. The grant will serve 180 Latina women and their children in Entre Familia, a City residential substance use treatment program that offers culturally sensitive, gender-specific care and services.
- In your packets: A late breaker that we weren't able to share in advance, was the new bill that the Governor has filed. You probably have been hearing a lot about this over the last couple of days. It's in your packets, more about the CARE Act and some of the critical components, and I wanted to make sure you had that. I know that our Board Chair had requested a few more details about that, so that is in your packet. We will be in touch offline with all of you to share updates on the convening that we've been working on with Michael Botticelli, Barry Bach and our colleagues at BMC around a SUDS round table and next steps around that. In the interest of time, we can follow up offline.

Just to dive into the next agenda item is an update of our financial audit activities. This evening we are joined by Mr. Chris Rogers, who is an audit partner at CliftonLarsonAllen. He will be walking through this with you all this evening. CliftonLarson has been the firm we've used for the past three years to do our financial audit. This is a draft that he'll be reviewing with you pending some final information we're waiting to receive from City Hall regarding our pension numbers. With that, I'll hand over to Chris.

Update: Financial Audit Chris Rogers, CliftonLarsonAllen, LLP

- Thank you. The agenda for today is: Executive Summary; Financial Statements; Reports on Internal Control over Financial Reporting and on Compliance; and Reports of Federal Awards.
- Executive Summary. Fieldwork began September 6, 2017. The requested audit information was provided piecemeal which has delayed the audit process. Financial statements are currently in draft form: Significant Open Items: Net Pension Liability Reports Boston Retirement System; IT Assessment; and Trinity Receivable Dispute. Federal grants portion of the audit is in process with an expected completion date of December 2017. Unrestricted net deficit at year-end totaled \$189 million. Operating revenues increased 5% while operating expenses remained consistent with the prior year. Long-term obligations total \$305 million. Current ratio/working capital is 2.85. Opinion: Expected to be unmodified (consistent with prior years) with an explanatory paragraph for the omission of Management's Discussion and Analysis.

- **Statement of Net Position.** This chart showed a breakdown of Assets and Deferred Outflows of Resources: Total as of June 30, 2017 = \$157,102M; Liabilities and Deferred Inflows of Resources: Total as of June 30, 2017 = \$326,351M; and Net Position: Total as of June 30, 2017 = (\$169,249M).
- **Statement of Revenues, Expenses & Changes.** Figures on this chart are also as of June 30, 2017. Operating Revenues: \$102,514M. Operating Expenses: \$188,839M. Operating Income: (\$86,325M). Nonoperating Revenues (Expenses), Net: \$77,705M. Capital Contributions: \$366M. Change in net position: (\$8,254M). Net position, beginning of year: \$(\$160,995M). Net position, end of year: (\$169,249M).
- **Revenues by Funding Source** Operating and Nonoperating Revenue Percentages. Grants: 25%; EMS & Other 3rd Party: 29%; Leases and Rents: \$1%; Other: 2%; City Appropriation: 43%; Interest Income: 0%.
- Expenses Operating and Nonoperating Expenses Percentages. Public Health Programs: 69%; Property Operations: 3%; Public Health Service Centers: 8%; Administration: 2%; OPEB: 6%; Pension: 10%; Depreciation: 2%.
- **Significant Footnotes.** Leases (Lessor) (Note 6). Commission is currently re-negotiating BMC lease. Mallory Building lease through 2096: \$1.6M received up front, \$1.4M recorded as unearned revenue at 06-30-2017, recognizing revenue of \$18k/year. Future minimum lease payments for Northampton Square (Phases 1 and 2) total \$142M.

Notes Receivable (Note 7). Mattapan Heights and Northampton Square developments (through the respective nonprofits). \$42.7M (including accrued interest) outstanding and due between 2042 and 2065. All amounts have been deferred and not included in revenue and net position.

Other Post-Employment Benefits (Note 10). Total unfunded liability is \$98M (based on 06-30-2015 actuarial valuation): \$11M of assets accumulated as of actuarial valuation date. Net OPEB obligation recorded at 06-30-2017: \$93.5M. OPEB expense totaled \$12M. Contributions totaled \$4.6M: represents 38% of annual expense.

- **Financial Highlights.** Pension Plan (Note 11). Commission's proportion of SBRS net pension liability totals 7.8753%, or \$141M. Pension expense totaled \$19M. Deferred outflows of resources totals \$28M: Changes in assumptions, proportion and difference between expected and actual earnings. Deferred inflows of resources totals \$22M: Changes in assumptions, proportion and difference between actual and expected experience.
- Report on Internal Control over Financial Reporting and on Compliance and Other Matters. Required by *Government Auditing Standards*. Must report on the following: Significant deficiencies or material weaknesses in internal control over financial reporting. Material noncompliance related to laws, regulations, contracts, and grant agreements. Results: Currently evaluating the impacts of findings identified during our audit process.
- **Reports on Federal Awards.** Total federal awards: \$33M. Major programs tested: HIV Emergency Relief Project Grants; PPHF: Racial and Ethnic Approaches to Community Health. An opinion on major federal award program compliance and findings (if applicable) will be issued when our procedures are complete.

Presentation: Revisions to Body Art Regulation Implementation Guidelines Paul Shoemaker, Associate Director, Environmental and Occupational Health Division

- Paul will brief us about permanent cosmetics and the changes we made to our tattoo guidelines to accommodate the practice. Thank you. I'll begin with the agenda.
- Where We're Going. History of the Boston Body Art Regulations. Requirements of the Regulations. Implementation and Enforcement. Emerging Issue Permanent Cosmetics. Challenges and Lessons Learned.
- **History of the Boston Body Art Regulations.** In 1962, Massachusetts bans tattooing except by a physician. In 2000, State ban ruled unconstitutional by the Massachusetts Superior Court. In January 2001, Massachusetts Department of Public Health issues model body art regulations. May 23, 2001,

Boston Public Health Commission promulgates Boston Body Art Regulations. Currently, there are 16 active body art establishments and 61 licensed artists.

• Requirements of the Regulations. Restrictions on Clients: Under 18 – No tattooing, piercing genitalia, branding or scarification. Under 14 – No piercing at all. 14-17 years old: Piercing (except genitals) if a parent or legal guardian is present and signs a consent. No body art if client impaired by alcohol or other drugs. No body are on any part of a client showing a visible rash, lesion, or sign of infection. Client must disclose certain medical information which the artist may use as a basis for refusing service.

Establishments: Annual permit required except: licensed physician's practice or businesses that do only ear piercing. Zoning compliance and Use and Occupancy permit. Floorplan separates practice area from public. Emergency plan. Medical waste disposal contract. Clean room and sterilization equipment. Restrooms and hand washing sinks.

- Artists: Documentation of licensure in another jurisdiction or previous practice or apprenticeship. Photo ID. First Aid/CPR certification. Blood Borne Pathogen training certification. Anatomy and Physiology course (piercer only). On-site "inspection" of work.
- Work Practices: Client consent/release statement and record keeping. Sanitation of work stations. Sanitation of tools wash/ultrasonic cleaner and autoclave. Single-use ink 'caps', bagging machine/cord, covering surfaces. After-care instructions.
- Implementation and Enforcement: Routine inspections; investigation of unlicensed artists/shops; licensing guest artists.
- Emerging Issue: Permanent Cosmetics. Also called micropigmentation, microblading, permanent makeup, cosmetic tattooing and similar terms. Definition: Using the processes and principles of tattooing to introduce ink into the skin to replicate the appearance of applied cosmetics, such as enhancing eyebrows, coloring lips, eyeliner/shadow, etc.
- New Community of Practitioners. Until this year, prohibited in salons licensed by the Massachusetts Board of Registration of Cosmetology and Barbering (BOC). Recent BOC policy change permits permanent cosmetics if they meet local regulations and use a separate room approved by the BOC. Several calls each week from practitioners inquiring about permanent cosmetics licensing. Boston Regulation includes permanent cosmetics as tattooing.
- Administrative Policy Change: Body Art Guideline Revisions. Policy approach: In line with state policy, provide a path to licensure for permanent cosmetics practitioners to ensure they meet the health and safety standards set out in our Body Art Regulation. Key challenge: Crafting appropriate education requirements: Cosmetologists unable to meet the required documentation of prior experience in tattoo parlor; Tattoo industry trains practitioners using informal apprenticeships, cosmetology industry focuses on formal classroom education; and Training classes for permanent cosmetics being offered across the country are of varying rigor.
- Policy Development Research. Reviewed body art regulations by state to collect the following information: Do they have body art regulations? What are their training requirements? What training coursework do practitioners need? Do they mention permanent cosmetics in their regulations? Do they have separate permanent cosmetics regulations? What training do they require for permanent cosmetics? Coursework? Apprenticeship?
- Boston Body Art Guidelines Updated September 19, 2017. Training requirements are set in the Guidelines. Under the Body Art Regulation, Guidelines can be updated by the Executive Director. Proof of experience and training for permanent cosmetics only: certificate of successful completion of a training course of at least 100 hours of instruction time and accredited by either the American Academy of Micropigmentation or the Society of Permanent Cosmetic Professionals; and 200 hours of apprenticeship, including 30 hours observing procedures being performed and performing at least 50 complete supervised procedures. Based on Kansas, Maine, Missouri, and Virginia model.
- Outreach Planned. Environmental & Occupational Health will: Notify industry professional in tattoo shops; Notify nail salons and hair salons. Modes of communication: Formal letters; Fact sheets;

In-person outreach through Safe Shops Program; Responding to in-person and phone-based inquiries, as needed.

• Remaining Challenges and Lessons Learned. Mobile nature of artists. Difficulty of catching the "scratchers" and enforcing against them. New businesses. More than technical/scientific knowledge needed by staff.

Adjourn

Mr. Doyle thanked Monica and our other presenters for their reports and thanked the audience for coming. He adjourned the Board meeting at approximately 6:10p.m.

Addendum:

PLEASE NOTE: This report is a synopsis of the board meeting. Presentations are posted for review a day or two after a meeting to our BOH webpage: http://www.bphc.org/boardofhealth/Pages/boardof-health.aspx. All board meetings are recorded. Requests for a copy of a recorded meeting should be made via: info@bphc.org. Thank you.

RESPECTFULLY SUBMITTED BY:	
Kathleen B. Hussey, Board Secretary	