DEPARTMENT OF HEALTH<br>BUREAU OF RADIATION CONTROL<br>SEMI-ANNUAL ADVISORY COUNCIL MEETING

$$
\begin{gathered}
\text { May } 22,2012 \\
9: 00 \mathrm{a} \cdot \mathrm{~m}
\end{gathered}
$$

Tampa Airport Marriott Tampa International Airport

Tampa, Florida 33607

Reported By:
Penny M. Appleton, Court Reporter

Dempster \& Berryhill Court Reporting
501 E. Kennedy Boulevard, Suite 775
(813) 229-8225

Alberto Tineo, CNMT
8 Bureau of Radiation Control Staff
9 James Futch, Administrator
Cindy Becker, Administrator
Janet Cooksey, Management Review Specialist
Brenda Andrews, Business Consultant
11
Medical Quality Assurance Staff
12
Mark Whitten, Executive Director, MQA
Gail Curry, Regulatory Consultant, MQA

Thereupon, the following proceedings commenced:
DR. JANOWITZ: Good morning, everyone. Get
started. Glad to see you all here this morning. Why don't we -- I think most of us know each other, but why don't we start with introductions.

DR. ATHERTON: Hi. Bill Atherton. I'm a Chiropractor in Miami, Florida.

MR. BURRESS: Paul Burress with Florida State University.

MS. BONANNO: Carol Bonanno, and I represented the Florida Nuclear Medicine Technologists, and I'm retired.

MS. DROTAR: Kathy Drotar, Department Chair with Keiser University Department of Radiology and Radiation Therapy.

MR. RICHARDSON: Tim Richardson, Program Director for Marion County School of Radiologic Technology, and I represent the Florida Society of Radiologic Technologists.

MS. DeLOATCH: Nancy DeLoatch. I'm a guest. MS. BECKER: Cindy Becker. I'm with Radiation Control.

DR. JANOWITZ: Warren Janowitz. I'm head of Nuclear Medicine at Baptist Hospital in Miami. MR. FUTCH: James Futch, Bureau of Radiation

Control, Florida Department of Health.
MS. ANDREWS: Brenda Andrews, Bureau of Radiation
Control.
MS. COOKSEY: Janet Cooksey, Radiation Control.
MR. TINEO: Albert Tineo, Halifax Medical Center,
Daytona Beach.
MS. CURRY: Gail Curry. I'm with EMT, Paramedics, Rad Techs Certification Unit.

MR. WHITTEN: Mark Whitten, Executive Director, Board of Pharmacy, Certification Office for EMTs, Paramedics and Rad Techs.

DR. JANOWITZ: Good morning, everyone. So I think the first order of business is the approval of the minutes. I think they were distributed by e-mail.

MS. ANDREWS: Yes.
DR. JANOWITZ: Are there any comments or corrections?

Motion to approve the minutes?
MR. TINEO: So moved.
MS. BONANNO: Second.
DR. JANOWITZ: Any opposed?
(None)
DR. JANOWITZ: I think I'll turn this over now to James.

MR. FUTCH: I just want to say thanks again for

```
everyone coming and taking time out of your busy -busy lives and helping us out with work of radiation control in Florida. We do have one guest Nancy McDonald DeLoatch.
Is that how you pronounce it.
MS. DeLOATCH: Yes, sir.
MR. FUTCH: A practicing nuclear medicine
technologist --
MS. DeLOATCH: I am.
MR. FUTCH: -- in Florida and --
MS. DeLOATCH: I am the clinical instructor for the Program of Nuclear Medicine Technology, and I also sit on the Board of Directors for EMT.
MR. FUTCH: Right. And Nancy was kind enough to come down -- this is going to come up in a later discussion we're going to have about the new types of licensure that we have available to us in Florida and some insight into NMTCB's section of types of certification.
Janet, do we have anything else before we get going?
MS. COOKSEY: Brenda, I think, wants to go to travel.
MS. ANDREWS: You may to --
MR. FUTCH: Go ahead.
```

MS. ANDREWS: I have travel packets for everyone underneath your -- your notebooks. If you have any questions, let me know; however, if you can fill this out now, if you just had mileage and you know what -how to go ahead and fill it out, then you can do that and turn it back in to me.

There's the worksheet here that's in your packet, and also, this is a sheet for you to sign and date, and that's all you do with this. If you're going to turn the packet back in to me, make sure you do not fold this. I have provided envelopes for you to return them in if you wanted to do it that way.

MR. FUTCH: So we'll fill in your banking information later.
(Laughter)
MS. ANDREWS: But the instructions are there, so if you can fill it out now and give it back to me, feel free to do that. Otherwise, just mail it back in to me when you get back home, and make sure you put all your receipts in there too.

DR. JANOWITZ: I guess the next item is department restructuring, Cindy Becker.

MS. BECKER: Oh, okay. Well, welcome, everybody, at least to the Tampa airport, maybe not to Tampa, and I wanted to thank Janet and Brenda for putting these
lovely binders together because it helps me a lot because $I$ can't read that far away.

But if you turn to Tab A, you will see the first work chart is our current organizational chart. I don't know how long it will be current. We have not had an official date, have we, of when it's to take place, but we're all assuming, you know where that gets you, July 1 or probably thereabouts.

But right now on this first page, you will see we are still called Bureau of Radiation Control. We are in the Division of Environmental Health, which is under the Department of Health umbrella and that -- that we're with the other bureau, as you can see. We're with the Division of Environmental Health.

If you turn the page, the back side is what's proposed, and what we understand will happen. The Division of Environmental Health is becoming the Bureau of Environmental Health. So since we will no longer have a division to report to, we are being transferred to the Division of Emergency Preparedness and Community Support. You'll see that's highlighted here, and we will be having a slight name change. We will be the Bureau of Radiation Prevention and Control. We did not choose that name.

MS. BONANNO: We're going to prevent radiation?

MS. BECKER: There it is.

MR. FUTCH: Get all the jokes out now.

MS. BONANNO: Okay.

MS. BECKER: Afraid so.

MR. FUTCH: We're also preventing water and air at the same time. We're doing radiation first.

MS. BECKER: Don't breathe. Right? You will see the other bureaus that are also there with the Division of Emergency Preparedness and Community Support, and on the next page, you'll see that this is broken down a little bit, showing the division and the five bureaus. There's still a bureau to be named. They're still doing a little bit of tweaking, but as far as we know, we're going as an entire whole bureau to this division, which hopefully will mean that it should be very transparent to everyone out in the field and also, we hope, to our staff.

We have not heard if there will be a physical move involved with the folks in Tallahassee. That may happen. It may not. It'd be better for us if not, but we don't know that part yet either. We do have one of our field offices located -- the A. G. Holley Hospital in Lantana, we have four staff located there. That hospital is closing down June 30 th, and so we have to move by then. So we are in the process of -- Brenda
is -- she's our move specialist -- in the process of trying to locate space for us. If not, they may be working from their homes, which is the way we have been moving any way for the inspection staff.

Other than that, $I$ think can't of any other organizational issues I have heard of. Every day we hear a little bit more news, little bits and pieces, not really any big news for us as far as the Bureau, and that's good because we are staying as a whole bureau, and other bureaus were not as lucky.

So does anybody have any questions related?
MS. BONANNO: Who did this, just out of curiosity?
MS. BECKER: Where did it first start?
MS. BONANNO: Yeah.
MS. BECKER: I guess it first started with the legislature deciding the Department of Health was too large, and, you know, how it's -- I know if you've been here many years you've seen it, oh, it's too large. We need to get it down to the local levels. Oh, we don't want local levels. We want it all together. So to me it's just a roundabout cycle again.

So then it got assigned to a group that was a team, a reorganizational team, that met with different top leaders and worked out a plan, and this was their plan.

```
So what else? Anything else about that, James, that you know about?
MR. WHITTEN: Nothing he's going to say.
MS. DROTAR: The staff, is it going to stay
intact?
MS. BECKER: Yes.
MR. FUTCH: We are moving to a division that is -has other, I guess what you might call, statewide services like radiation control. There's a lot of the department that works through county health departments. The division that we're in right now that we're moving from almost -- I think the vast majority of the work is performed by local county health department staff, and the folks in Tallahassee write the regulations and set the standards and so forth. This new division of Emergency Preparedness, for example, one of the sister bureaus is the Bureau of Public Health Laboratories. I forget how many there are, but there's several public health labs around the state, including one in Tampa. So from that perspective, I guess it might be -- there's some benefit to having other folks who are focused more on our own people doing the services directly in different parts of the state, rather than working through the county health departments.
```

DR. JANOWITZ: Does the Emergency Preparedness and Response Bureau handle radiologic emergencies, or how does that go?

MR. FUTCH: No. We still have the subject matter expertise inside radiation control for emergency response to -- to radiation accidents, incidences that are required, but those folks inside our office know some of the people in the Bureau of Emergency Preparedness who handle other things, like, I don't know what, hurricanes, whatever else happens out there, not radiological. So there's also some benefit to that. There will be some people there that we can work with.

DR. JANOWITZ: Does this affect the budget lines or?

MS. COOKSEY: Not so far.

MS. BECKER: Not so far. Now we have a new state Surgeon General effective tomorrow, Dr. Armstrong, so they have begun the appointment from the top up. Everybody is still interim acting status, so all we've heard on that is they're going to start from the top up and then move on down.

MR. FUTCH: And that includes departmentally our future Division Director but also our Bureau Chief who is retiring as of the end of the month. Is that?

MS. COOKSEY: Uh-huh.

MS. DROTAR: Bill's retiring?
MR. FUTCH: Cindy's acting, and we kind of get the feeling that everyone's waiting for the new Surgeon General to appoint the new Deputy Secretaries who appoint the new Division Directors who then appoint the Bureau Chiefs.

MS. BECKER: All the way down. We have an Acting Division Director. Victor Johnson is Acting Division Director of the Division of Emergency Preparedness and Response or -- how can we have that? The Division of Emergency Preparedness and Community Support -- yeah, Community Support, but they changed their name as well. We all have to get use to our name changes.

DR. JANOWITZ: Hopefully, everyone will be appointed before we have a new Governor.

MR. BURRESS: Where did the radon folks end up?
MS. BECKER: Radon ended up in the Bureau -- you can see it up here. They went with Carina Blackmore, if I can see it up here, or do we not see it at that level?

MR. FUTCH: Which table are you on? The one in the middle.

MS. BECKER: Yes. The one on the back page. They went to Bureau of Epidemiology, I believe. I think

```
that was the Carina Blackmore section.
MR. FUTCH: It's still in indoor air, isn't it? MS. BECKER: Yeah, indoor air. Yeah, and you don't see it break down as low as that. DR. JANOWITZ: It's not environmental? MS. BECKER: No. They did not stay in the Bureau of Environmental Health. They went to the Bureau of Epidemiology. Yeah. Environmental medicine I think is their section. They tried to stay in radiation control, or go with us, I should say, but it did not happen that way.
DR. JANOWITZ: Okay. The next item on the agenda, MQA update.
MS. CURRY: We just wanted to kind of give you all some numbers. This is based on -- from our fiscal year of July 1st until May 15. We wanted you to know that we've approved 1,619 applications. Out of those, we have licensed 1,508 of those, and we have renewed 9,808 licenses.
And the only other thing we were going to talk about, which \(I\) know we talked about last year, is the electronic verification for schools so you don't have to do the letters any longer. I know ARRT has that capability. We are working on that, but we kind of keep getting bumped for other things, especially with
```

the legislature getting over with and that. There's lots of things that IT has to put in place before our electronic verification. So hopefully, that will be out by the next meeting.

DR. ATHERTON: Those licensees are all licensed in Florida?

MS. CURRY: It's basic x-ray machine operator, general radiographer, nuclear medicine and radiation therapy. The majority of them are general radiographers. I think I had somewhere our basic x-ray machine operators who had a pretty good bit of those. 482 of those were basics. So that's it.

MR. WHITTEN: I have nothing. I guess one thing. We are currently processing at 1.7 days.

MS. CURRY: Oh, yeah. 1.7 days.
MR. WHITTEN: So we're pretty efficient.
MS. CURRY: That's from the time the application hits our office because there is a small process before that where the application comes into the office, the money gets deposited, demographics are put in, and then it's sent to our office. So we are working at 1.78 days.

MS. DROTAR: I just wanted to say with the new system and doing the applications online -- because I graduate three classes a year, and it has been so

```
smooth, the process of having the students do the application online and being able to just use a credit card to do it. I know everybody got the license applied for, and sending the letters isn't a being deal at this point. It'll be even nicer and smoother when, you know, but the students, when they graduate, are able to go to work the next week if they find a job, and, you know, kudos to you guys for making it such a smooth process.
MS. CURRY: Thank you.
MR. WHITTEN: We're actually working with the Bank of America. Right now at times we're waiting on money to clear. Actually, some of that 1.78 days are -- we could probably have these done at a half a day, but we're renegotiating our contract with Bank of America so there will be an automatic release of funds, and as soon as we have everything, they're approved.
DR. JANOWITZ: Moving off topic since we have plenty of time, how is the job situation for new graduates?
MS. DROTAR: It depends on what part of the state you're in. Because we have the 12 different campuses and -- and we just had a program directors meeting last week. In my area, things have picked up down in Sarasota. Some of the other campuses have seen a turn
```

around where there is not as many jobs open, and there's a lot of, in our area any way, new outpatient facilities, free-standing, so that's helped a lot and urgent care places that have an x-ray machine, so they're able to go in there and do both sides of, you know, front and back kind of thing.

But we're probably, I would say, at about 75 percent of our graduates have jobs. But it's -it's -- and that's not to say that there aren't openings, but what $I$ see a lot of is that there are positions, but they're not filling the positions because of budget crunches, et cetera.

MR. RICHARDSON: We're in a pretty encompassed area, Marion, Citrus and Lake County, and we have about a 90 percent placement rate right away, then 100 percent within about six months, so our area, believe it or not, is still growing population-wise, building hospitals, putting on wings. It's because we're located by the Villages, if you all have heard about the Villages.

DR. JANOWITZ: So you still have a good pool of applicants.

MS. DROTAR: Yeah. What he says goes out to 2013, May of 2013. So I have about four more classes that are lined up and in the wings, but people are still

```
coming into the profession, so \(I\) haven't seen a downturn there.
MR. RICHARDSON: We have about four times as many people apply as we have spots for so, and needless to say, we pick the best and the brightest. We try to, any how.
DR. JANOWITZ: Any other comments?
MS. DROTAR: Can I add to that? JRC is -- to meet DOE guidelines, we're going to have to publish all the approved college or -- yeah, programs are going to have to post their job placement and their completion rates, so that will be updated on an annual basis, but it will be information to the public to see what different schools are doing.
DR. JANOWITZ: Okay. I guess we can move on to Rubidium 82.
MR. FUTCH: Actually, before we do that, if we could, we have to decide where we're going to have lunch. Take care of the important things. The Tampa airport has been kind enough to provide us with not one, but two places to eat, Carrabba's or TGI Fridays, both of which can accommodate a large group.
So shall we do a show of hands who feels more like Carrabba's, or I'll just then say TGI Fridays must be where you all want to go. Right? Does anybody care?
```

Brenda, why don't you decide and surprise us, whichever place.

MS. DROTAR: Maybe just make sure that they'll do separate checks.

MR. FUTCH: Oh, separate checks and quickly.
MR. RICHARDSON: And if we don't like it, we're going to blame you, you know.

MS. ANDREWS: Well, don't worry about me. I can't pay for anything. My wallet's in Ocala.

MR. FUTCH: What's important, though, is she doesn't actually live in Ocala, but we did stop there for lunch yesterday on the way here.

MS. ANDREWS: And my wallet decided to stay.
MS. BONANNO: And it likes Ocala.
MS. ANDREWS: It likes Ocala. I'm offended.
MS. BONANNO: Probably wants to move to the Villages.

MR. FUTCH: There was like this great gravitational force as we're driving down the interstate. I wanted to turn to the left.

I'm sorry. Go ahead.
MS. BECKER: I started with the updated slides. These are slides that Mike Stephens from our bureau put together for the Health Information Control Program Directors Meeting in Orlando, which was last week, week
before. I can't think now how far away that was. Week before last. This starts in the middle of his presentation. I think we had a pretty good thorough update. I was not here but --

MR. FUTCH: I'm not sure everybody was here for the update last time. Dr. Janowitz and Alberto weren't here.

MS. BECKER: Okay. Do we have the other slides on there?

MR. FUTCH: Yes.
MS. BECKER: Otherwise $I$ can read to you the minutes from last time, and that would be very boring, I'm afraid.

Okay. Thank you to Mike Stephens for putting this together.

They also had -- at the conference, they also had -- Braco was there, the manufacturer, and somebody from Nevada Bureau of Radiation Control, as well as FDA and CDC. They were all there during the presentation, so I took notes. I'm going to try to reproduce the topic they had.

This was the issue some of you heard, and I guess a few of you had not heard, the event that took place, not only in Florida, but in Nevada, and $I$ guess we can start. Okay. Next slide.

What happened is customs and border patrol between Canada and the United States has radiation detection equipment. They picked up -- a couple of folks going through their customs and patrol set off their radiation detection alarms, and they discovered that it was strontium that they were picking up.

They traced back these patients from PET scans, and there was patients from Nevada and from Florida as well. It says 379 patients, calibration records, break-through records. I'm trying to skip this slide. Go to the next slide. Oh. Okay.

This is some charts that we pulled up at the -- at the site. I had to go back. This site -- I'm sorry. Keep going. Go to the next slide. I didn't realize he had put all the beginning stuff on there. Need to go forward.

All right. That slide. That's perfect. Okay. Now I can give you a little bit of history. So what happened in tracing these patients back to facilities that were in Nevada and in Florida, they discovered that the scans were done using a rubidium/strontium generator, and these generators have strontium as their -- it's a break-through product that is not suppose to be seen at much of a high rate, and, as I guess you know, the people and med techs here, that

```
what they're trying to get is the rubidium, which has a 75 percent half-life. It's a very good material to use the scanning because it's gone very quickly, so it's very good for the image and for the patient.
But what was happening is more strontium was breaking through, and it was absorbing into the patients, and this was months later these were being detected from the radiation detection devices that were at the border and customs patrol.
So FDA got involved. They recalled all of the generators, which were manufactured by Braco or Braco, however you want to say their name.
MR. FUTCH: Carol could tell us.
MS. BECKER: Is it Braco?
MS. BONANNO: It's Braco.
MS. BECKER: Okay. Braco. I hate to say it, but they were the manufacturer of the devices and also, I believe, Los Alamos National Laboratories also checked the devices and could not really find anything malfunctioning, so it became what is going on with how they're being used, and that's where we came into play.
They asked Florida and Nevada to do some testing at facilities to find out how they were being used. 21 of the 30 facilities that did have these devices in Florida they were able to visit, and this then becomes
```

```
the results of that visit.
The -- 9 the 21 sites were recording zeros.
Instead of the actual break-through number, they simply recorded, oh, it's a zero. 18 of the sites did not record zeroes, but even though they were over regulatory limits -- 5 of the 18 were over the regulatory limits. They did not report it, and they kept using them. So they only not stopped using the device, they used it on patients and then also did not report it to us as required.
So we had a ton of patients, needless to say, that probably were scanned with this with using the generators. We thought maybe as many as 35,000 patients in Florida. This is during the timeframe of February to July of 2011. Only during that time period were these generators in use. They have a life span of use. I think it was 25, 28 days. Does that sound about right? If I recall.
Have I missed anything about bringing anybody up to date? Because now I've come to the point, I think, from last time that we go into what we did after this point.
DR. ATHERTON: What's the half-life of strontium?
MS. BECKER: Strontium is 64 days, but now the rubidium is 75 seconds.
```

```
MR. FUTCH: This is actually -- I haven't seen this, but this is actually hooked up, Carol, to the patient?
MS. BONANNO: Directly to the patient. The generator is diluted directly into the patient.
MR. FUTCH: It's so short, you have to do that. So no syringe in between.
MS. BONANNO: Yeah. No dose calibrator in between. There's a dose calibrator built into injection machine.
MS. BECKER: See if I missed anything. Everybody understand? It's kind of messy.
MR. FUTCH: I guess at one point, FDA asked CDC to become involved in trying to do an epidemiological study of what happened with all the patients or a sampling of the patients in order to figure out what happened with all the patients. That's who asked us to go and do a lot of these meetings.
MS. BECKER: And that should be the next slide.
DR. ATHERTON: I'm still a little confused on you said it wasn't the machines that were malfunctioning. It was how they were being used?
MR. FUTCH: Well, Los Alamos couldn't get them to malfunction in the manner in which they were testing them.
```

DR. ATHERTON: Okay. But here were some malfunctioning and then they were --

MS. BONANNO: The machines didn't malfunction. The technologists malfunctioned.

MS. BECKER: Yes. They were using them past their lives for one thing, and I think the way they were drawing the doses too much without salt volume, I understand.

MS. BONANNO: Yeah. The more saline that goes over the generator over time, the more likely you are to get strontium rates. So if you're doing more than, let's say, eight patients a day, we have recommended that you get a second generator and get one every three weeks, rather than stretching it out.

MR. FUTCH: Carol, you're also suppose to use the Braco saline or?

MS. BONANNO: No. No. You use regular old saline, regular old saline. You have to be careful not to use distilled water or glucose. That will ruin the generator right now. It strips it.

DR. ATHERTON: So some were too old, and some were being over used.

MS. CURRY: Yeah. Some were sites that do way more than usual sites, and some were people that, I'm embarrassed to say, didn't do their QC or didn't do it

```
properly. When you see a zero, there should not be a zero. There's something. There's a little something every day.
DR. JANOWITZ: One thing I heard was that the dose calculations that were done by Homeland Security used to be done at Los Alamos, and then they did their own calculations, and supposedly they were not performed correctly.
MS. BONANNO: That could be too. And they also apparently lowered the cutoff after the tsunami at all the borders. So if it happened in the past and people went through, they wouldn't have even been picked up.
MS. BECKER: They've been in use for what? 22 years?
MS. BONANNO: Yeah.
MS. BECKER: Probably not a first time. Don't want to say it's the last time but...
MR. FUTCH: Although, I think the -- you know, the way these things normally work is they get an alarm based upon a gross gamma reading, and then they'll pull out a gamma spec --
MS. CURRY: Try to figure out what it is.
MR. FUTCH: -- and figure out what the material
is. Having done this myself for Florida for many years, if you see something besides -- like, technetium
```

you're not going to think twice about, F18, you know, anything like that.

If you see Strontium in a person, you're going to question what's going on. I mean, you might think that's some sort of, you know, usage that has nothing to do with medicine.

MS. BONANNO: And I think some people didn't use the dose calibrators correctly, I'm guessing. If they got all zeroes, they had it set too high.

MS. BECKER: Yeah. That was one of the things they did find. Things were not done right. Okay. I think the next slide.

Wow. There it's talking about just what we were talking about. Okay. If you look in your handout, by the way, on Tab B, you will see three slides that we're going to go over in a minute that bring this up. This is an earlier slide that talks about what they found with the generators.

No correlation between patient values and lot number calibration date or time frames. Okay. When we were collecting all the records from the 21 facilities, we were trying to see if it did make a difference between lot numbers. We could not find any difference. Okay.

Next. This is when CDC stepped in and said, hey,

```
Florida and Nevada, will you help us determine what really is going on here now with the patients? So we provided three facilities. The index site where the patients first came from was actually in Sarasota, but Braco got there before anybody else did and started testing the patients.
So we grabbed the three facilities in the Orlando area, mainly because our lab was right there so we could get the tests done very quickly using our laboratory facilities. So the facilities were contacted and asked if we could have them contact their patients, which they agreed, and, of course, a lot of patients were not available because they were down here just temporarily, the snow birds, but we did manage to get -- ended up with 123 patients, and we had one week to do 123 patients, to scan them, our equipment.
So this now is your binder. So we counted 123 patients in the four days. That was done in October, and these were patients that were originally imaged between the February 17 th and July 22 nd date. That's when the time frame that we think the first patient was. It was months back that they found the strontium, so we went all the way back to February 17 th and then ended, of course, July 22nd because by then FDA had recalled all of the generators.
```

```
We did find of 123 patients five that were twice backgrounded. The largest was actually 12 times background, and I think background was considered to be about 50 counts on our equipment for strontium, and we had as high as a 6 out of 20 counts.
The largest dose -- well, nine patients went up, I should say, for whole body counting at Oak Ridge National Laboratories, and of those the largest dose that we found was about 429 millirem whole body. Now, I believe Nevada had one that they found as high, like, 12 rem. Do you remember that number being in there? They found one quite a bit higher than we did. As -oh, Nevada. I'm sorry. 4.9 rem, not 12. 4.9 rem. Okay.
So what did that mean for us? Well, after we did the testing and they went for the whole body scans, we came back and started issuing, of course, our notice of violation letters. These were for recording zeroes and for not reporting to us. So we realized that this was an issue, considering it occurred with so many of the licensees, and did not want it to happen again, was trying to prevent that as much as possible, but we issued new license conditions for these medical use licensees.
One was, of course, to follow the FDA package
```

insert. We have that here, if you wanted to go access their site, but it basically instructs them to follow the manufacturer manual and updates and all the documents that come to them from the manufacturer.

Braco had claimed that they had sent warnings about don't use the generator past this lifetime and how to set -- set the -- so they don't set it all at zero, how to set that, and they didn't follow the instructor's manual or the updates or the associated documents. Not every facility, but that seemed to be pretty much what most of them were doing.

We also instituted a new training requirement where they have annual refresher training with the staff that use the generators. Now they have to start collecting the data from the generators so that when we inspect we can look at the data.

MR. FUTCH: Besides zeroes.
DR. ATHERTON: Is there -- the fines or the letters in violation you sent out, is there a monetary fine associated with those?

MS. BECKER: No, we did not issue fines.
DR. ATHERTON: Okay. Because it seems like the only reason that the pressure to ignore the zeroes or something would be -- eventually be monetary because they don't want to buy a new generator. I wondered if
there was any monetary fine associated with the violation.

MS. BECKER: Yeah. I think it wouldn't be a good -- it would not be a good idea considering that there was such a large scale issue going on with that. I think if it happened in the future, that might be something that we would consider, but it was such a large scale, it would be kind of hard pressed to all of a sudden to say, oh, we're going to fine everyone.

MR. FUTCH: Bill, I think there was -- judging by the tremendous interest from the medical community to get these generators back in use, I think there was a pretty substantial monetary penalty that they paid through not having them.

MS. BONANNO: The whole country paid.
MR. FUTCH: Yeah.
MS. BECKER: They couldn't use them for how long? It was a couple months.

MS. BONANNO: They just started. There's seven yet to start in Florida, but they started 20.

DR. ATHERTON: I was just curious.
DR. JANOWITZ: These cameras which were doing the cardiac procedures were basically dead for six months with no income. I mean, if there was a mixed-use oncology scanner, then there could be, but in a
cardiology office where they were doing just cardiac, they've had to shut down because this was the only source of rubidium.

DR. ATHERTON: So the fine was built in?

MS. BONANNO: Yeah. And some people who didn't have a problem had to suffer because of those who did. MS. BECKER: It's always the case. Isn't it? MS. BONANNO: That's true. I retired just before this happened.

MR. TINEO: Did those facilities have a radiation safety officer in place or -- to supervise what they were doing or not? It was just most of it outpatient centers?

DR. JANOWITZ: They all have to have one radiation safety officer.

MS. BONANNO: They were all outpatient in Florida but one.

MS. BECKER: Yeah. Outpatient facilities. They were all, like, cardiology offices.

MR. FUTCH: And then you have the one more there on the bottom.

MS. BECKER: Pharmacy. Yeah. The nuclear pharmacy, that's a whole another -- a whole another animal. They have multiple clients often who use the same generator, so we had to issue a new license
condition for the nuclear pharmacy saying, you need to keep track of how long this generator has been used. That was the issue with them.

The next slide, Thoughts. Okay. As Carol said earlier, volume does appear to matter, and the main issue still seems to be that the licensee has to be aware of the licensing and manufacturer requirements and follow them. So the sites -- they had training, and they documented that they had the training. They seemed to know how to use the generator.

MS. BONANNO: They got in a hurry.
MS. BECKER: But when you record zeroes, that's not good. The generators, like it says on the fourth bullet there, were not available for testing because, realize, they were already used and sent back, so you had that going. Reporting breakthrough is important because it may have been discovered sooner if they actually had reported the true numbers they were seeing. They might have said, oh, we're having more breakthrough than we're suppose to have. And I don't even like the last bullet, but let's hope it doesn't happen again. That was truly a mess for everybody. DR. JANOWITZ: Carol, you could probably answer this, but my understanding is Braco's instituted some pretty stringent QA?

MS. BONANNO: Yes. As a result of the FDA's request. Right now every site sends in the QC every day to the appropriate --

MR. TINEO: With zeroes on it?
MS. BONANNO: They review that every day, and then they send it on. There's a data person in house that's reviewing all of those. They're not happy about doing that, but that's what they have to do. They e-mail it to the apps persons every day. Because I sat by her at the FMT meeting and looked at her computer. She was reviewing one day's worth. So yeah, they're pretty strict right now, and $I$ don't know if that will last.

MR. FUTCH: How are they reporting the numbers now? Someone has to read something and write it down somewhere and type it in?

MS. BONANNO: That form you saw they fill out, I think they've changed that form a little bit, and that's what you would get is those daily forms, the three pages.

MR. FUTCH: I was wondering if there's something from the Braco system that would maybe print out what the breakthrough is, and that must be given to the corporate office.

MS. BONANNO: Well, if the new infusion system ever gets approved, that's all built in with a computer
in it. It will be done automatically. When that happens, we'll have computer errors instead, which is a problem.

MR. RICHARDSON: What kind of counters do they use to measure those doses?

MS. BONANNO: Well, there is -- within the fusion system, there is a base -- or a positron counter, and that's checked every day against the dose calibrator. The dose calibrator is the gold standard and if it -if they don't match, then the fusion system is calibrated and the results are repeated until it does.

One thing that's kind of interesting is the different sites in Sarasota that about -- just before I left, I got a phone call from them one morning saying their breakthrough was a little higher than it had been. It wasn't breakthrough. The strontium was higher than it should have been, and I had the application person with me, and she said, repeat it at noon, and call me back. They repeated it at noon, and they called us back and said it was even higher. She said shut down, and they did right then and there. They did no more patients for two weeks until they got a new generator, but it was a different site but in the same city and the tech had trained at that other site. MR. FUTCH: So there's a kind of a rough
correlation that during the day if you're just testing it once and you're testing it in the morning -MS. BONANNO: Yeah. MR. FUTCH: -- is it reflective -MS. BONANNO: And they have a letter. Everyone has a letter in their binders that says if you start to see an increase, you are to -- it's a letter from Braco. It says you should repeat it again that day, and if it's high, you're to call Braco immediately. Now they have to call the State too. That's fine. I think that's great.

MR. BURRESS: Is the breakthrough, is that percentage, the .02 , the percentage of the total dose can be breakthrough product or is it units, like so many micro?

MS. BECKER: Is it a percentage or a unit?

MS. BONANNO: It's a ratio of strontium to rubidium.

MR. BURRESS: So 2 percent -- . 02 would be 2 percent.

MS. BONANNO: It's lower than that. It's very low.

MR. BURRESS: And they base the allowable limit on the annual limit?

MS. BONANNO: Something that was established by

FDA when the product was first approved. The same thing for technetium. If you still have a generator in your hospital, which nobody does anymore, you measure the molybdenum. Molybdenum can break through just as easily. Not as easily, but it can break through. I never saw it in my years, but we checked it every day and then given was a ratio of how many microcuries per millicurie.

DR. JANOWITZ: You got to realize as the generator gets older, you have to pass a lot more --

MS. BONANNO: A lot more saline through it.
DR. JANOWITZ: -- saline though it to get the activity.

MR. BURRESS: We had a graduate student 10 or 15 years ago that worked in a lab using radio isotopes and contaminate her stool, and it wasn't the P32 she was working with, and I found out she'd had a nuclear medicine procedure done. So we thought, okay. Well, no problem. It's probably from that, but it never decayed. It looked like it was tech 99, and the stool never decayed, and when I calculated it, it was just a few hundred picocuries, and I looked back then at what the breakthrough was allowable, and it was way lower than even -- you know, even a fragment of that thing, but I don't know if she sweated this out or urinated it
out, but it was the only place in the laboratory, and with HIPAA and all, I didn't want to embarrass her and say, exactly what happened here, but I wondered how common this is because all the QA/QC is done a priority before the treatment. Right? Or the patients have to go back to be rescanned? Or would it just get caught at, like, a customs clearance checkpoint?

MS. BONANNO: That's why people who have thallium scans sometimes -- they carry a note with them to take a flight because thallium's got a longer half-life. DR. JANOWITZ: I was visiting Turkey Point once many, many years ago. There was a group of us. One of the guys in the group had had a thallium scan about a week ago, and as $I$ was passing through the detector, I kept setting it off because he was in the same room. It took a while before they'd let us out of the plant because they monitor you going out, not going in. DR. ATHERTON: My question was maybe just a followup to Paul. Is there any figures of the potential harmful effects of that strontium in the body? Is it too low for any concern?

MR. FUTCH: Don't hold me to anything technical that's about to come out of my mouth. Wasn't the medical event threshold at 5? And even the Nevada side just under the effect. So all the rest of this in

Florida is way, way under.

MS. BONANNO: Way under. Probably less radiation than they would have gotten if they'd had a thallium scan.

DR. JANOWITZ: And if you look at a thallium -thallium cardiac study, which is done on millions of people, the typical dose would be about half of what that maximum dose was in Nevada, so and people have these twice a year sometimes, and so I mean, it's not something you want to see, but it's probably not tremendously dangerous.

MR. FUTCH: I think you don't want -- to the individual, it wasn't a significant thing, but do you want the entire country to be using the generator that's increasing the overall radiation dose to all of those people all the time by whatever amount?

DR. JANOWITZ: It's not like the CT scanners where people were losing their hair.

MS. BONANNO: Yeah. It wasn't like that.
MS. BECKER: It was just a mess.
MS. BONANNO: I'm so sorry to have missed it.
DR. JANOWITZ: It probably cost Braco hundreds of millions of dollars.

MS. BONANNO: Probably what?
DR. JANOWITZ: Cost Braco hundreds of millions of
dollars.
MS. BONANNO: Hundreds of millions of dollars. Almost a year's worth of sales. There were no bonuses this year. No new sales.

MR. FUTCH: So, Cindy, we done with Uncle Fester?
MS. BECKER: Thank you. Any questions, call Mike.
DR. JANOWITZ: We are way ahead of schedule. You want to take a ten-minute break?
(A brief recess was had.)
MR. FUTCH: All right. Well, thank you. This is a topic we've spoken about quite a bit in the past couple years, and I'm happy to -- this is the passage of legislation that would allow the Department to issue licences in areas of radiologic technology beyond radiography, nuclear medicine and therapy. The council has supported it I think at least four years, five years, maybe longer than that.

In this past year, we were fortunate to have legislation under House Bill 309 and Senate Bill 376, which passed. House Bill 309 takes effect on July 1st of this year, and it would do almost exactly what the previous versions of the legislation that you saw and approved last October wanted us to do.

And in your -- in your packet, underneath Tab C1, hopefully, is something that looks like a Chapter

```
2012-168, and I see that's it. Okay. And this is the -- the law that was passed. This is House Bill 309, and it has everything in it to set up a special -what we called a specialty technologist, and this allows us to recognize a national organization, such as ARRT or NMTCB, that licenses folks in areas that we do not and certify them by endorsement in those areas.
And the -- I think the one thing that was in the version of the draft legislation that you saw last fall that's not in this is that version would have allowed us by regulation to change the definition of radiation as new technologies and new devices come into use in the future. That was the one part that was not kept in the bill, but it's essentially everything else we wanted, and, you know, it's not that big a loss because, you know --
MS. BONANNO: It was a nice try.
MR. FUTCH: -- if we do have something new that pops up in the future that we need to regulate, we can go back and try to ask for the law to be changed.
DR. JANOWITZ: What is the definition of radiation --
MR. FUTCH: Right now -- I'll read it to you. The current definition of radiation means x-ray and gamma rays, alpha and beta particles, high speed electrons
```

and neutrons and other nuclear particles. So it's pretty much things ionizing that you would think about.

So in the next tab, Tab C2, you'll see the legislative implementation plan for this particular law, and there are, I think, just two pages to it, and basically, on the left-hand side, you'll see where it says a column Directives In Bill. This is where we basically took the individual mandates and instructions from the legislature and broke them out individually, and then as you move across the columns, it assigns a timeline for different activities needed to implement that mandate and then who's responsible for it.

There are basically two things in here that we have to do. Three things, I guess. First, recognize the national organization, which one are you're talking about, decide which of its post primary advanced specialty licenses you want to also have in Florida, adopt by regulation the titles and name that will appear on the Florida license for that profession and then adopt a scope of practice for that profession, and the legislature requires that the titles and the scope of practice be consistent with the national organizations. So that's where we're at now.

In the timeline, you can see here the first thing we've done as of May 15 th was meet with Mark and Gail
and their counterparts in MQA and discuss what changes would we need to the licensing database that the Department uses, discuss online applications, how that needs to change in order to accommodate these new license types.

And the second thing on the timeline is actually today's meeting to discuss what national organizations, which types of specialty technologists to start with and the scope of practice for those, and then from there it's basically as of July 1st, we can start the official rule promulgation, notice of rule development. If a workshop is needed, that will be held roughly a month later, and then about a month after that, whatever feedback you might get from that process, you can initiate the actual rulemaking, which is where you publish the proposed rule for comment.

So you can see through the timeline then if
every -- every one of these steps is required -- and every one of them is, except for perhaps the workshop -- then we anticipate having the process finished by January 2013, and that's when you can start accepting applications from the new people to be licensed in Florida.

So if we move over to Tab C3, the legislation specifically mentions as an example of types of
certification PET and CT. We deal currently with two national radiologic technology organizations. One is ARRT, who performs all of our State testing for all three primary categories, and the other is NMTCB, who we license by endorsement in the -- in the primary category.

My computer's going to sleep. Pardon me.
So those are the first two that we looked at. NMTCB has a smaller range of advanced and primary licenses, so we put them in the book first to go over.

If you look at NMTCB, they basically have three types of licensure beyond the basic certified nuclear medicine tech. One is a nuclear cardiology technologist. The second is positron emission tomography, I guess, technologist, and the third one is nuclear medicine advanced associate. Of those three, it's really the first two that are eligible through this pathway. The nuclear medicine advanced associate is, I'm told, roughly at the same level of responsibility as the radiologist assistant. It's a position extender.

MS. BONANNO: It's a position extender with a master's degree.

MR. FUTCH: Yeah, with a master's degree. So the remaining two are nuclear cardiology technologist and
positron emission tomography technologist.
We've excerpted some information from the NMTCB website on these couple pages here. The first one is the nuclear cardiology tech. This actual paragraph of information -- we really couldn't find a nice concise paragraph description of what $N C T$ was in one spot up there, so we kind of cribbed it from different places around the internet, so you won't actually go to NMTCB's website and find that exact paragraph, but that's -- that's why there's an asterisk on them. Nancy's going to be here. We don't want to get in trouble, but the rest of it is. So you can see the exam content for the -- it's actually NCT at the bottom of Page 1 there on Tab C3.

And then if you flip over, it shows you how many of these folks there currently are in each of the states, and you can see we highlighted Florida. There's -- of the 682 national NCT certificates, there's currently about 48 of them in Florida, and this is something that you'll notice when you -- when you -when we start talking about ARRT also.

There's really only three types of certification that have any substantial numbers in the post primary area, and that is mostly with ARRT, and we'll go over those, but it's CT, MR and mammography. The rest of
them are all in the tens and a couple hundreds, so they're not large numbers of people.

I should mention that we estimated when we did the bill analysis for the legislature -- we estimated approximately 600 or so people might seek the certification in the first year and another 600 in the second year, and we based that upon some big guesstimates on how many people there were in Florida. I won't go into it, but it's a big guesstimate. You all could have done the same thing and probably come up with a better number.

The second type from NMTCB is positron emission tomography, and that starts on Page 3 here. You can see the breakdown of their exam content and the numbers there, 710 nationally and about 37 in Florida.

By the way, I think Nancy is one of the 48. Right? For NCT?

MS. DeLOATCH: Yes, sir.
MR. FUTCH: So if you have any questions.
So at this point, here's why we're here and why we're talking about this, for NMTCB, any way. I have to write an actual regulation that says we are going to recognize NMTCB as a national organization for NCT and PET or one or the other or neither one or both, and then I have to specify what the title is. That's
fairly straightforward. They've got a name. It will be the same name on the Florida license.

And then we come to the scope of practice, and the way the legislation was written it allows us to simply -- since it says we have to be consistent, what we can do is say, okay. The scope of practice for NMTCB's NCT is found at this location on the Society of Nuclear Medicine's website or whoever society, and it is therefore incorporated by reference as of this date, and then if I they give me permission -- if it's copyrighted, I got to get their permission.

They put it on the Florida website with the Florida regulations, and Mark and his colleagues go forth and change the database, and we start taking applications January 1st, and we also have to go through the regulatory process and make sure that all the different folks who look over our shoulder and make sure we're following legislative intent feel like we followed the legislative intent.

So from the standpoint of what I need, I've got just about everything to do both of these, except for the scope of practice. NMTCB is like ARRT. They look to the societies for their practice standards, scope of practice, whatever phrase you use for what you can do in that profession.

And I want to make sure I get this right, Nancy. In the case of PET, that's coming, we think, from Society of Nuclear Medicine later this year.

MS. DeLOATCH: It's going to be brought to nationaf council in June. We've already -- we've already alerted our representative from the southeast that this is happening in Florida, and she's going to bring it to the table and recommend that we start looking at the very least defining the PET and coming up with a scope of practice and practice standards for it as a specialty for PET.

MR. FUTCH: And soonest that might happen would be?

MS. BONANNO: It can probably be pulled from the current scope of practice and eliminate a lot of stuff that's directly just nuclear. It could be done pretty quickly. It's just for -- as far as NCT, no one can take that exam if they're not already a nuclear med tech, so I don't think you have to do a single thing about that, but $x$-ray techs can take the PET exam, as nuclear med techs can take the CT exam, but the NCT is only for people who are already nuclear med techs, so I don't think we need to even include that at this point.

MR. TINEO: Yeah. I was going to ask that question because --

MS. BONANNO: Nobody can take that exam unless they're already a nuclear med tech.

DR. JANOWITZ: There should be no difference in scope of practice.

MS. DeLOATCH: Actually, there's not.
MS. BONANNO: I mean, if you want to put it in there only because there's a possibility that thirdparty payers down the road are going to say, I don't want to pay for that SPECT scan or the rubidium scan unless it's done by somebody who's a certified NCT, but I think that's not going to happen.

DR. JANOWITZ: What was the point of creating the nuclear --

MS. DeLOATCH: I think -- and I may not be correct in this because $I$ just came onto the board just about two years ago, and the exam was created several years ago, but I think what they found was that several people that work with radiology specialists that sat on the board found that they were not very happy with the quality of work that was being done.

So we kind of went along the lines the accreditation on labs where they said, well, if we test these people on their knowledge, that maybe it will, you know -- it will kind of force the quality up to all people that do nuclear cardiology and encourage them
and to recognize people that were -- had done all the extra, gotten the extra work, you know, and just work their experience in nuclear cardiology alone beyond the entry level exam. I don't know that it was ever intended to be anything more than a recognition. I don't know that it was --

DR. JANOWITZ: I could see it as a recognition. MS. BONANNO: That's really all it is at this point.

DR. JANOWITZ: I don't see the accreditation agencies requiring that.

MS. BONANNO: You never know what insurers are going to do down the road.

DR. JANOWITZ: That's one way to eliminate nuclear cardiology if they require it because nobody's certified.

MS. DeLOATCH: Yeah. It would cripple Florida. DR. JANOWITZ: You know, Florida has the most in the country.

MS. DeLOATCH: We do, but it's still not enough.
MS. BONANNO: It's not very many considering the number of cardiology practices. Whereas the PET, that's a whole different thing, and CT is a whole different thing. MR. FUTCH: Okay. So --

MS. BONANNO: And NMAA is brand new, and I guess that's going to have to come down the road the same way the radiology person did.

MR. FUTCH: Yeah. I think that would make more sense. At least, that wasn't the nuclear -- the more advanced master's level person, I think you might get some opposition trying to use this particular piece of legislation for that purpose because it does -- it is kind of an extender and steps into areas that $I$ know we never envisioned inside the -- when we did the bill in the House.

MS. BONANNO: That all came after we started with this four or five years ago.

MR. TINEO: That's going to have the same pushback as the radiology assistant.

MR. FUTCH: Probably.

MS. DeLOATCH: I believe they do have a scope of practice.

MS. BONANNO: Yeah. They do have a scope of practice.

DR. JANOWITZ: So that's going to be more probably
a physician extender type of regulation.
MS. BONANNO: How was the other one --
MR. FUTCH: Florida radiology.
MS. BONANNO: The radiology.

MR. FUTCH: Yeah. The radiology community pushed VRA.

MR. TINEO: And they developed what they could -what they can and cannot do --

MR. FUTCH: Yeah.
MR. TINEO: -- under what is direct supervision, what it was indirect supervision and all that.

MR. FUTCH: And that was actually -- we're getting a little off the beaten path here, but for the RA, that was the one exception to the registry always deferring to the society for the scope of practice.

MS. BONANNO: Yeah.
MR. FUTCH: You recall we actually adopted ARRT's January 2005 role delineation for our RA in Florida when we first passed -- when that became law. We had discussions about. That was the exception.

MS. DROTAR: That was -- that was, I think, in coordination with ACR also to define what the role was of that extender for RA.

MR. FUTCH: So getting back to the NCT, what I'm hearing is don't try to adopt NCT at this point.

MS. BONANNO: No.
MR. FUTCH: Okay.
MS. BONANNO: We want the PET, and we want the $C T$.
MR. FUTCH: Yeah. The CT we'll pick from the
other side in a minute. PET, what do I do for a scope of practice now? Because that may -- I mean, I don't know what's going to happen to the regulatory -There's a couple things I could do. The regulatory attorneys who look at our work like specificity. They hate vagueness in the regulation. I shouldn't say hate. It's not personal. It's built into the law adopting rules and regulations. They want more and more specificity.

MS. BONANNO: I'm thinking --
MR. FUTCH: I've go to adopt something.
MS. BONANNO: Yeah. I'm thinking that may be able to take the NMTCB and take the nuclear med tech -well, we're working on one. Okay. See what we can do. MS. DeLOATCH: We're working on a definition at th申 NMTCB, and I think the same thing is they're going to bring it to the NCOR.

MS. BONANNO: You can pull a lot of things out of the nuclear medicine tech scope of practice and make it into a new scope of practice. MR. FUTCH: Now so I see a couple possibilities. Don't do anything with PET this go round and wait until this process is finished.

MS. BONANNO: Yeah.
MR. FUTCH: Okay. That's the easiest and safest

```
from my point of view, or try and put something together and hit the target that they're going to end up, not knowing what the target is and not having the expertise to do so, but then we have you guys. So I'm going to start with my position right now is probably not to do anything with PET until --
MS. BONANNO: You hear back from them.
MR. FUTCH: Yeah -- somebody sticks something in front of me that everyone agrees with this is a good thing to use.
MR. TINEO: I agree.
MS. BONANNO: I think there may be only six people
in the whole country who are expert techs who have taken the PET scan and passed it, so it's not -- I don't think -- has anybody --
MR. TINEO: I don't think it's going to change anything today with PET. I mean, nobody's waiting out there to try to take the test to go out and get a job. MS. BONANNO: But there are -MR. TINEO: But there's a lot of nuclear medicine techs that are ready to -MS. BONANNO: To take the CT. MR. TINEO: -- the CT boards to go out and get a job -MS. BONANNO: Yeah.
```

MR. TINEO: -- or perform those procedures. So I think that's the more.

MR. FUTCH: Okay. And I think that will work. The only -- the only possible difficulty is CT and PET are specifically mentioned as examples in the legislation, so it's clear that they expected something to happen with those two, so we'll deal with that, I guess.

DR. JANOWITZ: No. PET is included in the nuclear medicine scope of practice.

MR. TINEO: Right.
DR. JANOWITZ: So as a temporary measure, you could --

MR. FUTCH: But if $I$ do that and -- see, if $I$ adopt the nuclear medicine scope and say --

MS. BONANNO: Then they'll think they can do a thyroid scan and a bone scan, RIA.

MR. FUTCH: You have the people who are radiographers who aren't practicing the rest of med scope who then may --

MR. TINEO: Yeah. We got to be careful with making sure we really get the scope to --

MS. BONANNO: Narrow.
MR. TINEO: -- narrow enough but not too narrow that it doesn't allow flexibility. So it's --

```
MR. FUTCH: Basically, make sure it's narrow enough to fit the radiographers --
MR. TINEO: Correct.
MR. FUTCH: -- keep them from getting into trouble with the rest of the nuclear medicine --
MR. TINEO: Correct.
DR. JANOWITZ: You should be able to excerpt what's in here.
MS. BONANNO: As an example. Did you already pull it up?
DR. JANOWITZ: Yeah. I guess it will take a while because it has to be approved by the NMTCB board.
MS. BONANNO: Yeah. The tech section has to approve it and then the board society has to approve it.
MR. FUTCH: Well, keep me in the loop there, and as drafts are developed, Nancy, shoot them my way.
MS. DeLOATCH: Okay.
MR. FUTCH: And we'll send them out to the group and make sure that everybody's aware of it, and if, I don't know, if the opportunity presents itself somehow, if miracles happen and it gets finalized before we're done with whatever we're doing, we'll try and put it in, I guess.
DR. JANOWITZ: In the best of all circumstances,
```

```
it could be in September.
MS. DeLOATCH: I was going to say it'll go before the board in June.
DR. JANOWITZ: Before the technologist board?
MS. DeLOATCH: Yes.
DR. JANOWITZ: And the SNM board meets in September.
MS. BONANNO: Have to start tonight.
MS. DeLOATCH: Actually, Cindy's already started.
MS. BONANNO: Oh, she's started? Okay. God love her. Okay.
MR. FUTCH: When did we want to break for lunch?
Why don't we at least start into ARRT. Then we'll break for lunch. Anything before we leave NMTCB?
Nancy, you have anything else you wanted to add?
MS. DeLOATCH: No. I think their position is that we're working closely with American Society of Nuclear Cardiology and Society of Nuclear Medicine Technologists to, at the very least, have a definition of NCT. They're going to work a little more towards the scope of practice and practice guidelines or standard guidelines for the PET portion of it, but the scope of practice should come from the Society of Nuclear Medicine, not from us. We can define it and refer to it.
```

MR. FUTCH: All right. Well, thank you for coming. You're welcome to, of course, hang around and watch the rest of the fun.

MS. DeLOATCH: I intend to. Thank you.
MR. FUTCH: So moving over to Tab C4, we move into the world of ARRT and ASRT. This page came to us from the government relations person at ARRT. We had -- I had asked a series of questions about what they offer and which ones have they offered and how do they relate to one another, and you'll see that these are -- these are the credential titles that might appear on a license. The ones that are listed as primary you'll see at the top. The two that we don't currently do in Florida are sonography and magnetic resonance imaging.

Sonography and magnetic resonance imaging are also available as post primary, which is why they're listed separately there in a second section, and they're not -- there's no difference to the staff, Mark and Gail, when it comes in. You're not going to know how they came to this credential. It's just going to say $S$ or $M R$, and the rest are all post primary.

The one on the top there, cardio -- the CV, there's a note down below. Basically, CV is no longer issued by ARRT, but they have folks who are still renewing the credential, so you might see it on a
wallet card. They've replaced that with CI and VI, which are further down the list, cardiacinterventional, vascular-interventional radiography. All three of those -- there's another note down below. All three of those, CV, CI and VI -- starting to sound like an alphabet soup, aren't we? CV, CI and VI, all three of those are covered by one practice standard, which is called cardiovascular interventional, and we've got some -- some notes -some questions actually back to ASRT and ARRT. How does one distinguish between the three inside the document, or can one distinguish between the three inside the document? The current answer I've got is no.

Sonography is very similar, sonography in the overall category, and then there's the two post primaries, vascular sonography and breast sonography. They're all covered by one practice standard, which is called sonography, and I did a quick check. The word "breast" does not occur in the practice standard, and then, of course, CT and mammography and bone densitometry. The RRA is the category we already have, registered radiologist assistant.

And if you want to flip over to, let's see, C5, you'll see the current numbers of certificates issued
by the country, and Florida's highlighted there in yellow. If you look across the top where you see the red letters in parenthesis, those are the ones that match the page you were on before that actually appear on a license. They've used some slightly different abbreviations in the header there, like for mammo, they put MAM, instead of $M$ in parenthesis. Everything you see between the two vertical lines at the top is what we currently do not have in Florida. Everything outside the lines we have currently in Florida.

And if you look at the numbers going across, you can see that pretty much mammography, CT and MRI, each of them has around 3,000 or multiple thousands of certificate holders in the State of Florida. Now these are certificates issued, and as you know, you can hold multiple certificates. If you look all the way to the right, there are only 21,700 people listed holding all of these different kinds of certificates. If you do the math, there's about 50 percent more certificates than there are people, and that's part of how we came up -- we ended up with 640 in here, any way.

So there's actually not, you know, 3,600 people with CT in -- I shouldn't say that. There are 3,600 people with CT, but some of those may also have the MR, and so if you add those two together, you get fewer

```
people. Okay. There's a lot of those three, and there's not very many of the rest, as you can see.
DR. JANOWITZ: But there's -- if you add up the nuclear therapy rads, that equals, I guess the total number of tech. Right?
MR. FUTCH: Well, even there you may have duplication.
MS. DROTAR: Yes. I've got all three of them, so I count in each category.
MR. FUTCH: But, you know, that's not important, except to guesstimate anything so. So here's the -here's the important thing, and the happy part for me is CT and MR and mammography each have their own practice standard.
MS. BONANNO: So you just have to refer to them. MR. FUTCH: Exactly. MS. BONANNO: It's a beautiful thing. MR. FUTCH: And they're also the three biggest. So I would -- I would, you know, attempt those first, I think, barring any objection or other discussion to the contrary from you folks.
MS. DROTAR: If you look at the regulations from CMS that people that are doing CT and MR and vascular sonography need a certificate to demonstrate their -that they are competent to do those exams, and that
```

```
ties into reimbursement too, so there's -- there might be areas, you know --
MR. FUTCH: Which three were those?
MS. DROTAR: CT, MR and vascular sonography.
DR. JANOWITZ: Does mammo fall under the --
MS. DROTAR: MQSA.
DR. JANOWITZ: That requires certification?
MS. DROTAR: Yeah. That's pretty much covered by MQSA, what they need to do and the requirements.
MR. FUTCH: Okay. Just to pack a few more facts into your head before lunch.
DR. JANOWITZ: Just one other comment, though, I think the vast majority of sonography technologists are not certified by ARRT.
MR. FUTCH: There are -- there is ARDMS.
MS . BONANNO: ARDMS.
MR. FUTCH: In the -- you remember I mentioned before we didn't have the legislation to define radiation the way we wanted to in the future? I should preface this by saying I did not directly speak to the lobbyists about this particular issue, but from our lobbyists, the reason we don't have that is there was some opposition in the sonography community in Florida.
I won't say ARDMS because I don't know that, but from some of the folks who said to the legislative staff we
```

have certification in sonography.
They were afraid we were trying to force them to be licensed, and the reason is if you were to say in the legislation add ultrasound to the definition of radiation, that definition is used in a different part of the existing law to prohibit anybody who doesn't have a license to administer that radiation, prohibit them from practicing.

Now we were never going to do that. Okay. We wanted the ability to add things to the definition in the future, you know, many, many years down the road after the community came to us and said, hey, we would like to be added to this, and it's also relevant to whether or not we add sonography now because even without that ability, we have the other parts of the legislation which says basically you can have any kind of rad tech certification you want to, so we could do that. We could add sonography now.

Now looking at the numbers here from ARRT, you probably would say, well, you know, why? There's only a few of them right now. So I guess the way $I$ would recommend proceeding with sonography is let's get the big ones done and let's, folks, start knowing that yeah, you can add different advanced kinds of certifications for radiologic technology in Florida.

Let the knowledge build that it's possible, and then if the sonography community wants to be added to this, we can do that in the next go round.

And that's just the thought off, you know, the top of my head as the guy who has to write this because sonography does have -- it does have a practice standard, but it does have the built-in problem of it's also got vascular and breast mixed into the middle of it.

MR. TINEO: I'm with you because I just don't see what the need is to add that as a requirement or -because it's not going to do anything. People are either not going to take it or not going to apply to have -- I mean, there's going to be some to apply for, you know, need because it's not required to have it to go and perform the job, and it could make it more of complaints more than anything else.

MR. FUTCH: If you decided you want to add sonography, then you have to decide just ARRT or ARDMS --

MR. TINEO: Right.
MR. FUTCH: -- also, and they have just as many flavors of types of certifications.

MS. DROTAR: That's where it breaks down too or gets more burdensome is because a lot of people are
using the ARRT as a basic sonography license and then apply -- after they've gotten that, that takes them through the next level so they can test out in physics with ARDMS and go for all those different sub certifications. So it can be...

DR. JANOWITZ: You know, I'm not sure you want to tackle this right now, but $I$ think it is an issue that needs to be addressed because there are a lot of people out there doing ultrasounds who are really not qualified to do what they're doing. You got -- let's put it this way. There's a lot of private offices which are doing, say, cardiac ultrasounds, and they realize, well, now I can start doing carotids, and maybe I should start looking at gallbladders and kidneys and that sort of stuff, and so they're taking people who are trained maybe in cardiac ultrasound, and then all of sudden, they're doing general type ultrasound, which truthfully many of them don't know what they're doing. So it may not be the highest priority right now, but $I$ think it's something that should be --

MR. TINEO: I agree with you. I just don't see how we can regulate it. I don't see how asking to be in a -- going through certification is going to prohibit that from continuing to happen.

DR. JANOWITZ: Well, if you need a license to do it.

MR. FUTCH: Well, yeah. And the other thing to keep in mind is the way this legislation is currently -- was written, you -- for the areas currently covered by primary radiologic technology, I mean, nuclear medicine therapy and radiography, anybody can go and do CT if they have a radiographer's license in Florida.

What's different about $M R$ and sonography is there is no license issued by the state government currently to do any kind of $M R$ or sonography, so and that's just a fact. So if you see, you know, oh, look. There are MR licenses out there and now there's interest in people wanting sonography, you know, they may start coming to us at the state level.

I don't know. This sounds like a good place to break. What did you decide?

MS. ANDREWS: Fridays.
(The meeting recessed at 11:41 a.m. for lunch.)
(The meeting continued at 1:16 p.m. as follows:)
MR. FUTCH: So we discussed ARRT and what's available, and you've seen the three biggest or the mammo, the CT and the MRI. Any discussion of where you think we ought to start? First off, I thought about
this. I thought we should just adopt all of it because we don't want to go through this over and over and over again, but I don't know. Maybe we should just do the big ones for now and save the tiny ones until somebody comes and says why don't you do this.

DR. JANOWITZ: Have we decided to do the PET, CT portion first?

MR. FUTCH: I think we have to do --
DR. JANOWITZ: CT.
MR. FUTCH: -- CT, the CT for nuclear medicine.
That's the one that most folks care about here.
MS. BONANNO: Right.
MR. FUTCH: The PET's mentioned in the legislation, so when that's available, I think we ought to do that one, and then beyond that, you know, the next biggest are MRI and mammography. Mammography has all the federal requirements, so it's not like we're giving anybody the ability to do something they can't already do, but that really wasn't the whole point of the legislation. The point was to give them the ability to reflect on their State license what they've got in the national registries. MS. DROTAR: If it's other than - with some of these two, if it's other than if you're -- like, if you're radiation therapy or if you're nu med, one of
the other primary modalities, the exam you're going to be taking is a limited exam any way for ARRT. Right?

MR. FUTCH: Well, I asked them those questions, and the answer I got back from ARRT was the only ones that $I$ know of were $M R$ and sonography, and they said there was no difference in --

MS. DROTAR: Oh, okay.

MR. FUTCH: -- what they're giving folks and what appears on their license. I used to think that there was two different ways of getting bone densitometry, but you saw the response $I$ got from ARRT.

MS. DROTAR: Yeah.

MR. TINEO: No. I think it's a full -- full exam.
MS. DROTAR: But we're limiting the license to
what they can do in Florida. Right? If they're --
MR. FUTCH: Well, I wouldn't say we're -- I
wouldn't want to think we're limiting the license --
MS. DROTAR: Okay.
MR. FUTCH: -- I mean, in any way, shape or form. It's --

MS. DROTAR: Well, what I mean is, like, when you're a -- if you're a radiation therapist and you've got the CT, you're only going to be doing CT as related to radiation therapy.

MR. FUTCH: Under current law, yeah. If you were
in Florida and you're a radiation therapist, you can do CT but only for simulation purposes related to radiation therapy. You couldn't do diagnostic CT as a radiation therapist, unless you went and got ARRT certification and then came to Florida and we gave you that CT certification. Then you could do diagnostic CT.

DR. JANOWITZ: Do it outside of radiation therapy. MR. FUTCH: You could with the new certification, but not without it.

DR. JANOWITZ: Same thing with nuclear medicine. MR. TINEO: They have to pass the exam, and then you just apply for your license. Correct? MR. FUTCH: Maybe I didn't understand the question. They're going to the national registry and getting whatever they want, and then they're coming back to Florida and saying I want to do this in Florida. So we're not sending anybody to exam for Florida's purposes. Was that the question?

MS. DROTAR: Sort of. Okay. Because -- actually, one of the other things is when we're looking at these, that it's like now JRC has accreditation for MR programs, and they've also started one for basic machine licensing which is separate, but if their -you know, if they develop other accrediting --
accredited programs, educational programs, then, you know, that could be a place for certification, you know. I don't know what I'm saying, but, you know, to look for -- to not limit maybe what we're really looking at if it's a certification that somebody can get. They're going to be looking for that specialized certification.

MR. TINEO: I don't think the State is trying to certify people. They're just trying to --

MS. DROTAR: No, not them -- not for them to certify, but the technologists are going to look at why can't I get -- if we can -- if $I$ can get a license for CT, why can't I get one for quality management or one of the other certifications?

MR. FUTCH: And that may happen.
MS. DROTAR: I mean, it's just the other side. MR. FUTCH: That's an argument to adopt all of it as once or as close as possible in time. I don't know what people may want or may come to us for. MR. TINEO: Is there a cost associated with all this? I can imagine that this is labor intensive. MR. WHITTEN: There's an IT component. There's the solution for that. We're working on that. There are so many fields you can put on a physical license, only so many fields, and there is staff time, of
course, but we're going to absorb.
MR. FUTCH: The legislation proposes to charge $\$ 45$
per application.
MS. CURRY: And it's strictly endorsement, so it's not a lot of more -- it's not a lot of time spent on an application.

MR. FUTCH: I think 45 is the current endorsement fee.

MR. TINEO: So if the person wants it, they're just going to have to pay the additional \$45.

MR. WHITTEN: It's really a checkbox and a check.
MR. TINEO: Additional revenue. I mean, my position is let's just take as many as we can, but start from the CT portion of it and start implementing all of it. I mean, there's no reason why not.

MR. FUTCH: Well, except for the scope of practice issue on a couple of them.

MR. TINEO: Right. Well, whichever one have developed the scope of practice, we just implement those as we go down the list and then...

MR. WHITTEN: That's what I would recommend, just do it as a phased approach based on what you can notice as far as rulemaking. Start with doing the endorsements for those where James can immediately start the rulemaking. Then we go down the path. As we
can notice a new development of rules, we start bringing more people into the fold.

DR. JANOWITZ: How do we define a national accrediting organization?

MR. FUTCH: A national organization is -- it's in the existing law. A national organization means a professional association or registry approved by the Department that examines, registers, certifies (insert your group) or approves individuals or educational programs related to operative sources...

DR. JANOWITZ: So the Department can decide. MR. FUTCH: Yeah. That's the key part. Yeah. And we also have that in the legislation where it refers to the certification types. We have an approval process there also. So first approve the -- I mean, it's not going to be a two-step process. We're just going to do it, but there are two different places in the law that gives us the ability as the Department to decide what it is.

DR. JANOWITZ: Because I remember we had an issue with some RT schools that were not approved a few years ago, and they sued. Didn't they sue or something? MR. FUTCH: Do you remember that? MS. CURRY: Remember Dade Medical? MR. FUTCH: Oh, God.

MS. CURRY: How can you forget?

MR. FUTCH: Well, he said sue. Yeah. That's not a problem right now.

MS. CURRY: At the time it was.
MR. FUTCH: Yeah. Yeah. We're recording. Okay? So we'll leave it at that for now. They're accredited now. But that was -- that was...

All right. Well, I still have -- going to go forth, talk to NMTCB, talk to ARRT. For whichever ones of these we can develop the language, we'll put the language together, and hopefully, we'll be able to show that to you sometime in the next month or so.

Let me show you -- the next tab, C 6 , is an example of a license issued by MQA. This is close to being a real license. We don't normally put basic x-ray machine operator and general radiographer on the same license, which is why this one's in here. This is one that we had to correct but this -- the upper left-hand portion here is the wallet -- the wall certificate, and then you see the wallet card in the upper right-hand corner, and I wanted to show you this so you can see how much real estate we've got for spelling out license types.

The next page is essentially the same thing but for a different profession. This is for a clinical lab
technologist, and you can see in the middle there where it starts talking about qualifications, and then if you look at the wallet card, there's the same thing on the left-hand side of the wallet card. Clinical labs is the profession used by -- or regulated by MQA that has after us the most types of things on a license that you can list, and so this person is a hematology technician, a microbiology technician -- I can't even read the next one.

MR. TINEO: Immunohematology.
MR. FUTCH: And so forth and so on. So I expect that, as Mark said, there may be some maximum limit here in the paper itself, and once we exceed that, I don't know. I guess we don't list the license anymore.

MR. TINEO: It's going to be economics, how many people are going to pay the $\$ 40$ per.

MR. FUTCH: Oh, yeah, that too. Well, Kathy will.

I mean, she's got... I should ask you how many of those other ones you don't have that are already on the Florida license.

MS. DROTAR: Actually, I've only got three, yeah.
MR. FUTCH: Okay. And then the flip side of this is what it looks like now on the license that we give a person but the license on the online site, the verification. So this is what I would expect it would
like for rad techs. Everything that's new is going to be looked at as a qualification, and up at the top, it will say Certified Radiologic Technologist, instead of Clinical Lab Technologist.

You know, we're talking about multiple national organizations also. I mean, right now it's pretty simple. ARRT has these. NMTCB has these other ones. They don't really overlap. We don't have CT for both organizations. We start talking about ARDMS and sonography, we've got sonography from two different organizations. I guess that's just another thought, if we go to that point.

MS. BONANNO: There's two nuclear medicine ones too.

MR. FUTCH: Yeah, but we don't -- and that's an important distinction. We don't currently -- I can give you an endorsement license for ARRT in nuclear medicine or $I$ can give you an endorsement license from the license itself. It doesn't indicate which way you came.

MS. BONANNO: Because some people got both.
MR. FUTCH: Yeah. So I would assume we would keep that the same. We don't need to start listing ARRT after everything.

MS. DROTAR: No. You want the credential from the
people that are actually credentialing you in it. If I were looking for documentation for a new instructor, I'd want the ARRT card, the same as you wouldn't give transfer credit information on $a$, you know, another college.

MR. FUTCH: Well, Mark and Gail and their staff will check all the wallets cards.

MS. CURRY: And those will all be in I-center too. There will be a scan document in I-center, so we'll always have record of that.

MR. FUTCH: Document imaging system. It needs to be tracked.

MR. RICHARDSON: James, on this license verification where it says profession, where would the BMO be? Would they be radiologic technologist?

MR. FUTCH: No. There's is basic x-ray machine operator.

MR. RICHARDSON: So very specific.
MR. FUTCH: And they're not eligible for any of these at this point, unless the national registry has changed their policies and started granting them.

MS. BONANNO: I don't know if that will ever happen.

MR. FUTCH: But yeah. Where it says clinical lab technologist, it will say basic $x$-ray machine operator.

All right. Well, the rest of these C tabs are, I think, really not needed. These are the actual scopes for each of the ARRT credentials that you just saw. The cardiovascular one is underneath C8, and in your leisure time, you can flip through and see if you can divine where CI and VI are separated out. I couldn't find it.

And then if you flip ahead to sonography, the same thing. They actually list -- ASRT actually lists some of the other registries. Like, underneath sonography on Page $S-5$, sonography is in the C11 tab. You'll see they mention not only ARRT, they mention ARDMS, so they are not registry specific, and those are some of the titles that ARDMS is using, RVT for vascular technology; RDCS for registered diagnostic cardiac sonographer; and then CT.

So any further discussion on that? I'll move on to the D tab. I appreciate the discussion. If you have any other thoughts, talk to your societies, facilities. Want to make anything apparent to me about what is good and what is not good, call me up, e-mail me.

Okay. May I move on to Tab D?
DR. JANOWITZ: Sure.
MR. FUTCH: Okay. Tab D, the registry, every once
in a while, will update the content specifications for an examination. I'm talking mostly ARRT. Most of these exams, $I$ think all the exams, except for basic, are 200 questions graded, and they have certain subject areas, you know, radiation protection, image production and evaluation, so forth and so on, and these things will change over the years. They just modified radiography a little while ago, put in more digital-focused questions, took out some film-focused questions.

They're very careful to always keep the number of questions the same. There's a lot of statistics, and, I guess, a little psychology that goes into the design and vetting of these exams to make sure that they actually test what they're suppose to test. I'll be the first to admit I'm not qualified to explain a fraction of it.

But I have been talking to some of the folks because what ARRT is doing next year is they're changing the number of questions -- they call it the cut score -- that an applicant must get correct in order to get a passing score on the exam.

A passing score on the exam is referred to as a 75
scaled score. There are -- since we have time, I'll digress for a moment. If somebody knows more than
this, jump right in. Okay? But there are multiple forms of an exam in circulation at any given point in time. There's a large question bank. If I go and take a test today in Tampa and Kathy goes and takes the test tomorrow in Jacksonville, I'm not necessarily going to see the same questions that Kathy saw on the test. I may have taken one form of the exam. She took another form of the exam. Hers may be more difficult than mine.

There are certain questions that are present in all of the forms of the test that are anchor questions that ARRT uses to rate the relative difficulty of whatever forms of the exam, so that if they say I got a passing score and it was 75, which is a passing score, even though she may have answered fewer questions than me because it was a more difficult exam, she also earned a 75 on the test. So there's -- there's the actual number of questions you got correct, and then there's the score that's reported as the scale score.

The scale score hasn't changed from a 75 since the inception of the current system back in the early 1980's, I think they said it was. It hasn't changed in Florida at all.

In our regulation, we picked a passing score is the 75. Next year to get a 75, depending upon which
particular form of the exam you're talking about, let's say the average form, you will have to answer six more questions correctly to get that 75 next year than you do currently, and those six questions out of 200 works out to roughly 3 percent. So another way of thinking about it is if they didn't make this change -- that's not the way.

DR. ATHERTON: You'd have to pass 78 percent. MR. FUTCH: No. It's the other way. 73 or 2, somewhere in that vicinity would be passing in the new -- in the old scheme as reflected in the new scheme. It's really easy to get this stuff wrapped around the axles. Okay. Take this to heart. You have to get more questions right next year than you do currently. So even though the numerical score isn't changing, in order to get it, you have to do slightly better.

So we're bringing this to you today because -- not that I anticipate any, you know, questions or issues or something like that, but the first person next year who earns, say, a 74 and finds out about any of this may come back to us and say, well, what did you do that for? And we're going to, say, hopefully, because we talked to our council, and they suggested that we stay the same as the national registry, which is a 75 scaled
score. I don't know if you'll actually say that, but I'm hoping you'll say that.

MS. DROTAR: On the registry site, they have a PowerPoint that's just gone up recently that explains the whereas and wherefores and how the score actually stays the same.

And I was actually on a committee that we were out there in October or November, and we actually took the registry and looked at the questions, and there were 15 people, different managers, educators, people that do the hiring, and what we really looked at and what the registry was looking at was -- because the surveys that they've gotten back were questioning that the people that were passing the low scores that were actually passing the exams, if they really knew what they were doing and had the registry gotten dumber over the years.

And so they -- but they look at this about every five years, and when -- you know, through multiple processes. So it's not just one process, and what we looked at in taking the registry was -- or looking at some questions was should a student know this, and should a basic entry level student or graduate know this? And if so, what -- what's the percentage of them getting that question correct?

```
And what we all found was that through -- that through that process -- and it was taken to the registry board and presented -- that the -- even though the score, the passing score stays the same, that the raw score did need to be adjusted, and they've done this with other -- in other disciplines, and it doesn't really -- what it does is to help ensure the integrity of the exam, that the people that are taking it are qualified and competent to be in that profession so...
MR. FUTCH: Thank you, Kathy.
DR. JANOWITZ: Can people apply for license if they have not passed the exam?
MR. FUTCH: Well, they can certainly apply.
DR. JANOWITZ: Isn't it a requirement?
MR. FUTCH: Yeah. They're only going to become licensed in two ways. Either they're going to be licensed by exam where we sent them to the exam or by endorsement, and one of the requirements -- you're correct -- for endorsement is if you're going to use another license, it has to have substantially equivalent requirements to ours, which includes passage of the exam.
DR. JANOWITZ: But our exam is separate from these.
MR. FUTCH: It's the same. Yeah. We've used
```

ARRT's exam as our State exam since 1980 -- well, since the beginning.

DR. JANOWITZ: So that's the reason this is coming up.

MR. FUTCH: Yeah.

MR. RICHARDSON: Does anybody take the state exam?
MR. FUTCH: Well, how would you answer that question?

MS. CURRY: Well, they do, especially the people that -- it's kind of funny. If they apply for a temporary coming out of school, they'll take the ARRT exam, and if they've applied with us, we give them their regular certificate based on passing the ARRT, and they don't have to take it twice, one for national, one for state.

MR. FUTCH: But they do have to pass --
MS. CURRY: They do have to pass the exam.
MR. FUTCH: So if you come to us as an exam candidate, we -- and I defer to you guys because I haven't seen the nuts and bolts of it for about seven years now, but you're going to submit them to ARRT's website mechanism so they can go take the test with ARRT, and then we're going to --

MS. CURRY: Correct.

MR. FUTCH: -- license them based upon that
result.

MR. RICHARDSON: But they'll only have a State certification, not a national.

MR. FUTCH: Yeah. That's an important distinction.

MR. RICHARDSON: But does anybody do that? That's my question. If they're taking the same test --

DR. ATHERTON: Yeah. Why would they do that?
MS. CURRY: Very few. We have very few that -because most people coming from out of state come in by endorsement because they have the national. They have the ARRT, and we hardly ever have anybody that applies just to take the State exam. They usually apply for --

MR. FUTCH: They got to take it for both.
MS. CURRY: Right.
DR. JANOWITZ: And when they take the state exam, you usually use the passage of the ARRT as the criteria for passing the State.

MR. FUTCH: Yeah.
MS. CURRY: They're our national vendor, yes.
MR. FUTCH: They have a contract with ARRT to use their testing services for your services.

DR. ATHERTON: So should there ever be an issue where this will come up, I mean?

MR. FUTCH: I wouldn't put it past -- let me put
it to you this way. They may start with ARRT first, and ARRT will probably tell them to go pound sand. Then they'll come to us, and since they're probably practicing in Florida, that's mostly what they care about is the State license, and I don't want to -- I'm not saying this is going to happen. What I'm saying is it would be -- it would be best if we stayed with the number we had all these years and that the rest of the country is using.

There was one state that asked quite a few questions, I guess, of ARRT about this change, kind of like I did, and then they decided to do the same thing also, which was stay with the 75 that ARRT is using.

DR. JANOWITZ: Do you ever get the raw score for the ARRT exam, or do you always get the, what is it, scale score?

MR. FUTCH: No. They only report the scale score test for -- the only raw score we get is for limited scope, which is handled differently. So we're not going to know. This is the beauty of this. The regulation doesn't even need to be changed because the regulation folks is on the scale score, not on the test score.

MS. DROTAR: And if they do get a 74, it's not because they got one question wrong. It's because each
of them has a different rating, and our rating and the Z-Score and all of that gets thrown in psycho symmetrically so that it's not any one thing, and it's, you know, and if there's five different parts to the exam and they can do not so well, they can do below a 75 or 7.5 in one area and make it up in another, so it's the average of all five portions of it.

DR. JANOWITZ: Does the -- I don't know if the website available you have the requirements for licensure clearly state what the requirement is for passage.

MR. FUTCH: Yeah.
DR. JANOWITZ: So I think we should just endorse the current way.

MS. DROTAR: I agree.
DR. JANOWITZ: Unless anyone else wants to discuss it.

MR. FUTCH: And the question would be to retain the 75 scale score, as we currently are, in the future years.

DR. JANOWITZ: All right. So do we have a motion for vote?

MR. TINEO: Yeah. Move.
MS. BONANNO: I so move.

MS. DROTAR: Second.

DR. JANOWITZ: All in favor?

Aye.

MS. BONANNO: Aye.

MR. BURRESS: Aye.
MS. DROTAR: Aye.
DR. ATHERTON: Aye.
MR. RICHARDSON: Aye.
MR. TINEO: Aye.
DR. JANOWITZ: It's unanimous.

MR. FUTCH: That's pretty much it for everything that is known.

DR. JANOWITZ: Is there any old business or any council members that have a new issue they want to bring up?

MS. BONANNO: I brought this up to James, but I guess everybody should hear it because I had a technologist ask me what about PEM imaging, which is PET mammogram, basically, and, you know, the mammogram standards are very high, but yet, you don't want a mammo tech doing a PET scan, so he just wanted to know who could do it in their particular site, which is an outpatient center, and they just bought a PET machine.

DR. JANOWITZ: My understanding is it would be a nuclear medicine tech.

MS. BONANNO: Thank you. That's what $I$ want to
hear.
MR. FUTCH: Yeah. Since I got the regs in front of me and the statute too and I've answered this one a couple times for, I think, two facilities that I know of that asked me, if you go to 468.302(3)D, this essentially is a major portion of the scope of nuclear radiography.

It says "a person holding a certificate as a general radiographer may not perform nuclear medicine and radiation therapy procedures except as provided in this paragraph," and then I won't read you the rest of the paragraph, but that speaks to the whole radiation therapy assistance that we dealt with back in 2001 or so and all that. It doesn't have anything to do with nuclear medicine. So essentially, that first sentence right there says it all.

DR. JANOWITZ: So I guess if they took the PET exam.

MR. FUTCH: Yes. Thank you.
MS. BONANNO: You can take the PET exam, but that would be an awful lot of work just to do mammos.

MR. FUTCH: I said the same thing myself to a couple facility medical physicists asking me this question a couple years ago and pointed out to them how beneficial that would be if this law would pass.

MS. BONANNO: I think it's being reimbursed privately. I don't know if Medicare's paying for it. DR. JANOWITZ: But I'm not sure -- we have one, but $I$ don't know.

MS. BONANNO: There's one in St. Pete. That's who asked me.

MR. FUTCH: When I talked to NMTCB last year about this and then again this year, somewhere along the way, you know, that number of certified PET folks in Florida the list of 47 or 48 and then 6 or 700 nationally, I don't think there was any radiographer who was certified in PET in Florida.

MS. BONANNO: I don't think so either.
MR. FUTCH: I get the impression it's not that common.

MS. BONANNO: I think last time I asked Danny how many x-ray techs passed the PET it was two or three.

MS. DeLOATCH: Yeah. It's less than a handful, it truly is, nationally.

MR. FUTCH: I guess there's -- just not everybody is anxious to use a radiographer for nuclear medicine yet.

MS. BONANNO: Not too many small places have a PET scanner.

DR. JANOWITZ: But we do have a lot of dual-

```
certified RTs and NMTs.
MS. BONANNO: Yeah. 4 or 500 nationwide that are
sill certified. There used to be more, but they started retiring.
MR. RICHARDSON: And there are nuclear medicine programs that will take RTs an additional year, so there's a mechanism if somebody wanted do that.
MS. BONANNO: They do that at Florida Hospital.
DR. JANOWITZ: Are there any other issues? Then we can discuss the next meeting.
MR. FUTCH: Ms. Brenda?
MS. ANDREWS: I have calendars in the very back for October and November, and we need to come to an agreement on, between those two months, a date.
MR. FUTCH: Traditionally, of course, we've focused on October.
MS. ANDREWS: But \(I\) do have a request that we look closer at November because we have a council member who would not be able to make in November (sic) and really wants to, and November would be better for them.
DR. JANOWITZ: I can tell you I am away the first two weeks in November.
MS. BONANNO: I'm away the week of the 21 st in October.
DR. JANOWITZ: Actually, I will be leaving the
```

$27 t h$ of October.

MS. BONANNO: When do you get back? Are you back by the 12 th?

DR. JANOWITZ: I'm coming back on the 14 th.
MR. TINEO: The following week is Thanksgiving, isn't it?

MR. FUTCH: So that's not a good week to use. I think we're rediscovering why we usually pick early October. Yeah. Any problem with the first or second week of October that anybody has?

MS. DeLOATCH: Southeast Chapter is -- it's in September.

MS. BONANNO: Okay. No problem with that.
MR. FUTCH: All right. Well --
MS. DROTAR: So what? The 1st through the 8th, is that what we're looking at?

MR. FUTCH: It's Tuesday, so the 2nd or 9th. Is the 16 th just as good or is that --

MS. BONANNO: Yeah.

MR. FUTCH: So we'll have to send something out and look as those three with the rest of the members that couldn't be here and see what they say.

MS. ANDREWS: Okay.
DR. JANOWITZ: I guess we're ready to adjourn.
MR. TINEO: Move to adjourn.

MS. DROTAR: Second.

DR. JANOWITZ: Well, thank you, everyone.
(The meeting concluded at 1:56 p.m.)

C E R T I F I C A E
STATE OF FLORIDA
COUNTY OF PASCO

I, Penny M. Appleton, Court Reporter for the Circuit Court of the Sixth Judicial Circuit of the State of Florida, in and for Pasco County,

DO HEREBY CERTIFY, that $I$ was authorized to and did, report in shorthand the proceedings and evidence in the above-styled cause, as stated in the caption hereto, and that the foregoing pages constitute a true and correct transcription of my shorthand report of said proceedings and evidence.

IN WITNESS WHEREOF, I have hereunto set my hand in the City of Wesley Chapel, County of Pasco, State of Florida this $30 t h$ day of May, 2012.

Penny M. Appleton
Court Reporter
Notary Public
$\square$ A
a 2:1,1,1 3:6,20 5:7,15 6:8 7:1,3,19,22 8:10,12,13 8:18,22 9:7,9,21,22,22 9:23,24 10:7,9 11:17 12:16 14:11,18,25 15:2 15:4,7,8, 14, 14, 23,25 16:2,3,10, 13, 15,21 17:1 17:22,23 19:3,23 20:3 20:18,21,23,24 21:1,2 22:4,11,16 23:9,15,18 23:20 24:12,13 25:1,1,2 25:16,20,21 26:3,16,22 27:12 28:5,12 29:12,19 29:25 30:3,4,5,7,9,12 30:18,24,25 31:6,10,23 31:23,25 32:11,22 33:1 33:6,17,25 34:2,7,7,14 34:15,23,23,25,25 35:5 35:6,7,16,16,17 36:2,7 36:10,11,14,15,17,21 36:24 37:4,7,9,10,10,12 37:13,13,16,18 38:3,5,9 38:13,20 39:3,8,9,11,11 39:25 40:3,4,5,15,17 41:7,10,20 42:12,12,13 43:9,13,20,22,22,24 44:5 45:1,9,11,23 46:1 47:9,10,15,18,19 48:2,7 48:10 49:5,7,23,23 50:17,19,22 51:9 52:1,1 52:4,15,18,20,21 53:9 53:18,20,23 54:12,16 54:17 55:11 56:19,20 57:8,11,17,23,25 58:19 59:5 60:1,17,24 61:10 62:5,7,21 63:6,11,25 64:1,8,11,24 65:1,8,13 65:17 67:2,13,22,22 68:1,3 69:2,5,12,20,24 70:5,5,11,11,17,22 71:1 71:3,5,6,6,16,21 72:3 72:14,14,25,25 73:6,7,8 73:23 74:2 75:2,4,9 77:1,8,12,13,16,22,23 77:23,25 78:3,4,13,14 78:16,17,20,24,25 79:21,25 80:3,7,22,23 81:14 82:10 83:2,3,21 84:10,24 85:1,5,21 86:13,16,19,20,22,23 87:3,6,8,8,8,22,24 88:18,21,23,25 89:7,14 89:17,18 90:7 92:1,11
abbreviations 59:6
ability 62:10,15 66:18,21 71:18
able 15:2,7 16:5 21:25 52:12 55:7 72:11 89:19
about 5:16 10:1,2 13:21
13:21 16:7,14,16,19,24
17:3 18:8 22:18,19 26:1 26:13,14,17 28:4,9 29:6

33:7 34:13 37:13,23 38:7 39:11 41:2,16 42:13 44:19,21 45:15 45:21 46:21 47:20 48:15 51:16 57:8 59:19 61:21 65:10,25 66:11 73:2 74:5,9 76:20 79:1 79:6,21 80:18 82:20 84:5,11 86:17 88:7
above-styled 92:10
absorb 70:1
absorbing 21:6
accepting 42:22
access 29:1
accidents 11:6
accommodate 17:22 42:4
accreditation 48:22 49:10 68:22
accredited 69:1 72:6 accrediting 68:25 71:4 ACR 51:18
across 41:10 59:2,11 acting 11:20 12:3,8,9 activities $41: 11$ activity $36: 13$ actual 22:3 42:15 44:4 45:22 76:2 78:18
actually 15:11,13 17:17 18:11 23:1,2 27:4 28:2 32:18 42:6 44:8,13 48:5 51:8,13 56:9 58:10 59:4 59:22 68:20 73:21 75:1 76:9,9 77:15 80:1,5,7,8 80:14 89:25
add 17:8 56:15 59:25 60:3 62:4,10,14,18,24 63:11,18
added 62:13 63:2
additional 70:10,12 89:6
addressed 64:8
adjourn 90:24,25
adjusted 81:5
administer 62:7
Administrator 2:9,9
admit 77:16
adopt 41:18,20 51:21 52:11 54:15 66:1 69:17
adopted 51:13
adopting 52:8
advanced 41:16 43:9,16
43:18 50:6 62:24
Advisory 1:3 2:3
affect 11:14
afraid 8:4 19:13 62:2
after 22:21 25:10 28:15 42:13 50:12 62:12 64:2 73:6 74:24
again 4:25 9:21 28:21 32:22 35:8 66:3 88:8
against $34: 8$
agencies 49:11
agenda 13:12
ago 36:15 37:12,14 48:16

48:17 50:13 71:22 77:8 87:24
agree 53:11 64:22 85:15
agreed 27:12
agreement 89:14
agrees 53:9
ahead 5:25 6:5 18:21 39:7 76:8
air 8:5 13:2,3
airport 1:13,14 6:24 17:20
Alamos 21:18 23:23 25:6 alarm 25:19
alarms 20:5
Albert 4:5
Alberto 2:7 19:6
alerted 47:6
all 3:3 6:9,19 7:7 8:2 9:20 11:20 12:8, 14 13:14 14:5 16:19 17:9,25 19:19 20:15,17 21:10 23:15,17 25:10 26:9,21 27:23,25 29:3,7 30:8 31:14,16,19 33:7,25 37:2,4,25 38:15,16 39:10 43:3,3 45:1,10 46:16 48:24 49:1,8 50:12 51:7 55:25 57:1 57:21 58:4,5,7,18 59:16 59:17 60:8 64:4,17 66:1 66:17 69:17,20 70:15 72:8 75:7,8 76:1 77:3 78:11,23 81:1 84:8 85:2 85:7,21 86:1 87:14,16 90:14
allow 39:13 54:25
allowable 35:23 36:23
allowed 40:10
allows 40:5 46:4
almost 10:12 39:3,21
alone 49:3
along 48:21 88:8
alpha 40:25
alphabet 58:6
already $32: 15$ 47:5,5,18 47:22 48:2 55:9 56:9 58:22 66:19 73:19
also 5:12 6:8 8:5,8,16 11:11,24 19:16,16 21:17,18 22:9 24:15 25:9 29:12 41:17 44:21 46:15 51:18 57:15 59:24 60:18 62:13 63:8 63:22 68:23 71:13,15 74:6 78:16 84:13
Although 25:18
always $31: 7$ 51:10 75:10 77:11 84:15
am 5:9, 11 89:21
America 15:12,15
American 56:17
amount 38:16
an 7:6 8:14 12:8 15:16

16:4 17:12 23:14 25:19 26:17 28:20 35:7 42:25 44:10 45:22 50:9 55:9 58:6 64:7 69:17,22 70:5 71:14,20 72:13 74:15 74:17,18 77:2,21 78:2 82:18 83:4,23 86:21 87:21 89:6,13
analysis 45:4
anchor 78:11
and $3: 10,11,14,174: 11$
5:1,2,10,12,14,17 6:4,5 6:6,8,8,8,17,19,24,25 7:12,16,20,21,23 8:5,9 8:9,11,16,24 9:7,9,10 9:17,24,24 10:14,15,15 11:1,22,23 12:3,10,12 13:3,18,20 14:1,8,20,24 14:25 15:2,4,5,8,16,23 15:23 16:1,3,5,6,9,14 16:14,25 17:4,5,11 18:1 18:5,6,13,14 19:6,12,17 19:19,22,24 20:1,2,4,5 20:8,8,20,22,24,25 21:4 21:6,7,9,17,19,21,22,25 22:7,9 23:18,19 24:2,6 24:13,21,24 25:6,7,9,11 25:20,23 26:7,19,25 27:1,5,11,12,15,19,20 27:23 28:3,4,8,16,17,18 28:21 29:3,3,6,8 31:5 31:20 32:5,7,8,9,15,20 33:5,10,12,14,15,17,22 34:7,9,11,17,18,19,19 34:20,21,21,24 35:2,5,9 35:23 36:7,15,16,17,20 36:21,22,23 37:1,2,2,14 37:24 38:5,8,9 39:12,15 39:19,21,22,24 40:1,1,3 40:4,7,8,12,15,20,24,25 41:1,1,5,5,8,9,10,12,18 41:19,20,21,25 42:1,1,6 42:9,9,13,18,21 43:1,4 43:9,15,25 44:9,15,17 44:19,24,24,25 45:1,6,7 45:10,13,14,15,20,23 45:24 46:3,3,8,10,13,13 46:14,14,15,16,17 47:1 47:7,8,9,10,12,15 48:14 48:16,25 49:1,2,23 50:1 50:1,9 51:3,4,7,8,24 52:8,9,13,16,19,22,25 53:1,2,3,14,18,23 54:3 54:4,14,15,17 55:14,16 55:19,20,20,22,23 56:6 56:18,21,24 57:2,6,9,9 57:10,14,15,17,18,21 58:1,5,6,9,10,16,17,19 58:20,21,21,24 59:1,11 59:12,15,20,25 60:1,12 60:13,13,18,23,23,25 61:4,9 62:3,12,13,23 63:1,4,8,16,16,22 64:1

64:4,12,13,14,15,15,16 65:3,7,8,10,12,14,22,23 65:24 66:2,2,4,5,15,16 67:4,5,5,8,22 68:1,4,5,5 68:12,15,16,17,23 69:15,25 70:4,11,14,20 71:13,22 72:11,16,19 72:21 73:1,2,7,11,11,13 73:22 74:2,9,15 75:6,6 75:8,19,21 76:4,5,6,8 76:13,16,21 77:4,6,6,6 77:12,14 78:3,4,4,14,18 79:4,21,22,23,24 80:5,5 80:7,8,9,9,11,11,16,18 80:19,20,22,24 81:1,2,3 81:5,6,9,18 82:12,14,19 82:20,23 83:12,16 84:2 84:3,5,8,12,24 85:1,1,2 85:3,4,5,6,18 86:18,22 87:3,3,10,11,14,24 88:8 88:10 89:1,5,13,13,19 89:20 90:21,22 92:7,8,9 92:10,11,12
Andrews 2:10 4:2,2,15 5:24 6:1,16 18:8,13,15 65:19 89:12,17 90:23 animal 31:24
annual 17:12 29:13 35:24
another 31:23,23 45:6 57:10 58:4 74:11 75:4 78:7 79:5 81:20 85:6 answer 32:23 58:13 67:4 79:2 82:7
answered 78:15 87:3 anticipate 42:20 79:19 anxious 88:21
any $4: 16,216: 29: 4,5,8$ 9:11 13:23 16:2 17:6,7 26:23 30:1 37:19,21 39:6 44:23 45:19,21 59:21 60:20 62:16 65:12,24 67:2,19 75:19 76:17,19 78:2 79:19,21 85:3 86:12,12 88:11 89:9 90:9
anybody 9:11 17:25 22:19 27:5 53:15 62:6 65:7 66:18 68:18 82:6 83:6,12 90:10
anymore 36:3 73:14 anyone 85:16 anything 5:20 10:1 18:9 21:19 22:19 23:11 26:2 37:22 49:5 52:22 53:6 53:17 56:14,15 60:11 63:12,17 76:20 87:14
apparent 76:20
apparently $25: 10$
appear 32:5 41:19 57:11 59:4
appears 67:9
Appleton 1:19 92:5,23
applicant 77:21
applicants 16:22
application 14:17,19 15:2 34:18 70:3,6
applications 13:17 14:24 42:3,22 46:15
applied 15:4 82:12
applies 83:12
apply $17: 4$ 63:13,14 64:2 68:13 81:11,13 82:10 83:13
appoint 12:5,6,6
appointed 12:16
appointment 11:19
appreciate 76:18
approach 70:22
appropriate 33:3
approval 4:13 71:14
approve 4:18 55:14,14 71:15
approved 13:17 15:17 17:10 33:25 36:1 39:23 55:12 71:7,21
approves 71:9
approximately 45:5
apps 33:9
ARDMS 61:15,16,24 63:20 64:4 74:9 76:12 76:14
are 4:16 6:16 7:10,10,19 8:8,25 9:9 10:7,19,22 11:7 12:22 13:24 14:5,9 14:14,20,21 15:6,13 16:10,25,25 17:10,14 18:23 24:10 33:13 34:11 35:7 39:7 41:5,13 41:15 43:8,17,25 44:16 45:1,22 47:22 48:8 49:12 53:13,19,21 54:5 54:18 55:17 57:10,11 57:12,14,15,21,24 58:2 58:7 59:3,15,17,20,23 60:23,25 61:13,15 63:12,25 64:8,9,12,16 65:13 66:16 69:11,24 71:17 73:16,19 75:1 76:1,2,6,13,13 77:4,24 78:1,10,10,11 81:8,8 85:19 86:19 89:2,5,9 90:2
area 15:24 16:2,14,16 27:8 44:24 85:6
areas 39:14 40:6,7 50:9 61:2 65:5 77:5
aren't 16:9 54:19 58:6
argument 69:17
Armstrong 11:18
around 10:19 16:1 44:8 57:2 59:13 79:13
ARRT 13:23 40:6 43:3 44:21,24 46:22 56:13 57:6,7,24 58:10 61:14 62:19 63:19 64:1 65:22 67:2,4,11 68:4 72:9

74:7,17,23 75:3 76:3,12 77:2,19 78:12 82:11,13 82:23 83:12,17,21 84:1 84:2,11,13,15
ARRT's 51:13 82:1,21
as $7: 138: 13,13,149: 8,8,9$ 9:10 11:25 12:13 13:4,4 15:16,17 16:1 17:3,4 18:19 19:18,18 20:8,22 20:24 22:10, 13, 13 28:5 28:5,10,12,22,22 32:4 33:1 36:4,5,9 37:14 40:5,12 41:10,25 42:10 42:25 43:20 45:23 46:9 47:10,17,17,20 49:7 50:15 54:5,12 55:9,17 57:12,16 59:15 60:2 63:5,11,22 64:1 65:21 67:23 68:3 69:18,18,18 70:13,13,20,22,23,23 70:25 71:18 73:12 74:2 75:3 77:23 78:19 79:11 79:25 82:1,18 83:17 85:19 87:8,10 90:18,21 92:10
ask 40:20 47:24 73:18 86:17
asked 21:22 23:13,17 27:11 57:8 67:3 84:10 87:5 88:6,16
asking 64:23 87:23 ASRT 57:6 58:10 76:9 assigned 9:22
assigns 41:10
assistance 87:13 assistant 43:20 50:15 58:23
associate 43:16,18 associated 29:9,20 30:1 69:20
association 71:7
assume 74:22
assuming 7:7
Assurance 2:11
asterisk 44:10
at 3:24 6:24 8:5 12:20 14:14,21 15:5,12,14 16:7 19:16 20:12,12,24 21:9,23 23:13 25:6,10 28:7 29:7,16 33:9,10 34:18,19,24 36:22 37:7 37:24 38:5 39:16 41:23 43:8,11,19 44:13 45:20 46:7 47:8,23 49:8 50:5 51:21 52:5,15 56:13,19 57:7,13 59:8,11 60:22 62:19 64:14 65:16,20 65:21 68:21 69:5,11 72:4,6 73:3 74:2,2 75:20 78:2,23 80:9,11 80:12,18,21,21 89:8,18 90:16 91:3
Atherton 2:4 3:6,6 14:5

22:23 23:20 24:1,21
29:18,22 30:21 31:4
37:18 79:8 83:8,23 86:6
attempt 60:19
attorneys 52:5
authorized 92:8
automatic 15:16
automatically $34: 1$
available 5:17 27:13
32:14 57:16 65:23 66:14 85:9
average 79:2 85:7
aware 32:7 55:20
away 7:2 16:15 19:1 89:21,23
awful 87:21
axles 79:13
Aye 86:2,3,4,5,6,7,8 a.m 1:10 65:20

B
B 26:15
back 6:6,10,17,18,19 7:15 12:24 16:6 20:7,13,19 27:22,23 28:17 30:12 32:15 34:19,20 36:22 37:6 40:20 51:20 53:7 58:10 67:4 68:17 78:21 79:22 80:13 87:13 89:12 90:2,2,4
background 28:3,3
backgrounded 28:2
bank 15:11,15 78:3
banking 6:13
Baptist 3:24
barring 60:20
base 34:7 35:23
based 13:15 25:20 45:7 70:22 82:13,25
basic 14:7,10 43:12 64:1 68:23 72:15 75:16,25 77:3 80:23
basically 29:2 30:23 41:6 41:8,13 42:10 43:11 55:1 57:23 62:16 86:18
basics 14:12
basis 17:12
be 7:5,22,22 8:12,15,18 8:20 9:2 10:21 11:12 12:15 14:3 15:5,16 17:12,13,24 19:12 20:24 23:19 24:18 25:1 25:6,9 28:3 29:10,24,24 30:3,4,6,8,25 32:6,6 33:22 34:1 35:14,19 37:6 38:7,14 40:20 41:22 42:12,22 44:11 46:2,5 47:4,13,14,16 48:3,14 49:5 50:21 52:12 53:12 54:21 55:7 55:12 56:1 61:2 62:3,13 63:2,14 64:5,8,19,21,23 67:2,23 69:2,6 71:16

72:11 73:12,15 74:2 75:8,9,12,15,15 77:15 78:8 79:10 81:5,9,16 83:23 84:7,7,21 85:18 86:23 87:21,25 89:3,19 89:20,25 90:22
Beach 4:6
beaten 51:9
beautiful 60:17
beauty 84:20
became 21:20 51:15
because 7:1,2 9:9 14:18
14:24 15:22 16:12,18
21:3 22:20 27:8,13,24
29:22,24 31:2,6 32:14
32:17 33:9 37:4,10,15
37:17 40:16 47:25 48:7
48:15 49:15 50:8 52:2
55:12 61:24 62:14 63:5 63:10,12,15,25 64:8 66:1 68:20 71:20 74:21 77:19 78:16 79:18,23 80:12 82:19 83:10,11 84:21,25,25 86:16 89:18
Becker 2:9 3:21,21 6:22 6:23 8:1,4,7 9:13,15 10:6 11:17 12:8,18,24 13:3,6 18:22 19:8,11 21:14,16 22:24 23:11 23:19 24:5 25:13,16 26:10 29:21 30:3,17 31:7,18,22 32:12 35:16 38:20 39:6
become 23:14 81:15
becomes 21:25
becoming 7:17
been 9:3,17 14:25 17:20 25:12,13 32:2,17 34:16 34:17 77:18
before 5:20 12:16 14:2,18 17:17 19:1,2 27:5 31:8 34:13 37:5,16 55:22 56:2,4,14 59:4 61:11,18
beginning 20:15 82:2
begun 11:19
being 7:19 15:2,4 21:7,21 21:23 23:22 24:22
28:11 48:20 72:14 88:1
believe 12:25 16:16 21:18 28:10 50:17
below 57:23 58:5 85:5
beneficial 87:25
benefit 10:22 11:11
Berryhill 1:23
besides 25:25 29:17
best 17:5 55:25 84:7
beta 40:25
better 8:20 45:11 79:17 89:20
between 20:1 23:7,9 26:19,23 27:20 58:11 58:12 59:8 89:14
beyond 39:14 43:12 49:3 66:15
big 9:8 40:15 45:7,9 62:23 66:4
biggest 60:18 65:23 66:16
bill 3:6 30:10 39:19, 19, 20 40:2,14 41:7 45:4 50:10
Bill's 12:2
binder 27:17
binders 7:1 35:6
birds 27:14
bit 8:11,13 9:7 14:11 20:18 28:12 33:17 39:11
bits 9:7
Blackmore 12:19 13:1
blame 18:7
BMO 75:15
board 4:10 5:13 48:15,19 55:12,14 56:3,4,6 81:3
boards 53:23
body 28:7,9,16 37:21
bolts 82:20
Bonanno 2:4 3:10,10 4:20 7:25 8:3 9:12,14 18:14,16 21:15 23:4,8 24:3,9,17 25:9,15 26:7 30:15,19 31:5,8,16 32:11 33:1,5,16,24 34:6 35:3,5,17,21,25 36:11 37:8 38:2,19,21,24 39:2 40:17 43:22 47:14 48:1 48:6 49:8,12,21 50:1,12 50:19,23,25 51:12,22 51:24 52:10,12,18,24 53:7,12,19,22,25 54:16 54:23 55:9,13 56:8,10 60:15,17 61:16 66:12 74:13,21 75:22 85:24 86:3,15,25 87:20 88:1,5 88:13,16,23 89:2,8,23 90:2,13,19
bone 54:17 58:21 67:10
bonuses 39:3
book 43:10
border 20:1 21:9
borders 25:11
boring 19:12
both 16:5 17:22 45:24
46:21 74:8,21 83:14
bottom 31:21 44:13
bought 86:22
Boulevard 1:24
Braco 19:17 21:11,11,14 21:15,16 24:16 27:5 29:5 33:21 35:8,9 38:22 38:25
Braco's 32:24
brand 50:1
break 13:4 36:4,5 39:8 56:12,14 65:18
breakdown 45:14
breaking 21:6
breaks 63:24
breakthrough 32:16,20
33:22 34:15,16 35:12 35:14 36:23
break-through 20:10,23 22:3
breast 58:17,20 63:8
breathe 8:7
Brenda 2:10 4:2 5:22 6:25 8:25 18:1 89:11
brief $39: 9$
brightest 17:5
bring 26:16 47:7 52:17 86:14
bringing 22:19 71:2 79:18
broke 41:9
broken 8:10
brought 47:4 86:15
budget 11:14 16:12
build 63:1
building 16:17
built 23:9 31:4 33:25 52:7
built-in 63:7
bullet 32:14,21
bumped 13:25
burdensome 63:25
bureau 1:2 2:8 3:25 4:2 7:10,13,17,23 8:12,14 9:8,10 10:17 11:2,8,24 12:7,18,25 13:6,7 18:23 19:18
bureaus 8:8,11 9:10 10:17
Burress 2:5 3:8,8 12:17 35:12,19,23 36:14 86:4
business 2:10 4:13 86:12
busy 5:1,2
but 3:4 6:16 7:3,7,9 8:13 8:20 10:19 11:7,24 12:13 13:10,24 15:6,14 16:7,8,10,11,25 17:12 17:21 18:11 19:4,24 21:5,16 22:5,24 23:2 24:1 25:17 27:4,14 28:22 29:2,10 30:7,20 30:25 31:17 32:12,21 32:24 33:8 34:23,23 36:5,6,19,25 37:1,3 38:10,13 40:14 44:9,12 44:25 45:9 47:20,21 48:10,17 49:20 51:9 53:4,19,20 54:14,24 56:22 57:24 59:24 60:3 60:10 61:21,24 63:7 64:7,20 66:3,19 67:11 67:14 68:2,10,24 69:3 69:11 70:1,13 71:17 72:7,18,24 73:24 74:15 75:24 77:18 78:1 79:20 80:1,18 81:23 82:16,21 83:2,6 86:15,19 87:12 87:20 88:3,4,25 89:3,17
buy 29:25
by $1: 18$ 4:14 8:25 10:13 14:4 16:19 21:11 25:5 26:14 27:24 30:10 33:9 35:25 38:16 40:7,11 41:18 42:21 43:5 45:16 46:9 48:10 55:12 57:24 58:7,18 59:1 61:8,14,20 65:6,11 71:7 72:14 73:5 73:5 81:17,17 83:10 90:3

| $\mathbf{C}$ |
| :--- |
| $\mathbf{C} 2: 1$ 76:1 92:1,1 |
| calculated 36:21 |
| calculations 25:5,7 |
| calendars 89:12 |
| calibrated 34:11 |
| calibration 20:9 26:20 |
| calibrator 23:8,9 34:8,9 |
| calibrators 26:8 | calibrators 26:8

call 10:8 34:14,19 35:9,10 39:6 76:21 77:20
called 7:10 34:20 40:4 58:8,19
came 21:21 27:4 28:17 48:15 50:12 57:6,20 59:20 62:12 68:5 74:20 cameras 30:22
campuses 15:22,25
can 6:3,5,17 7:13 11:12
12:11,19,20 17:8,15,22
19:11,24 20:18 29:16
35:14 36:4,5 40:19 41:24 42:10,15,17,21 44:12,17 45:13 46:6,24 47:14,17,20,21 48:1 51:4 52:14,18 54:16 56:24 58:12 59:12,15
60:2 62:16,24 63:3 64:3 64:5,13,23 65:8 67:15 68:1 69:5,12,12,21,24 70:13,22,24 71:1,11 72:1,10,21 73:1,7 74:16 74:18 76:5,5 81:11,13 82:22 85:5,5 87:20 89:10,21
Canada 20:2
candidate 82:19
cannot 51:4
can't 7:2 9:5 18:8 19:1 66:18 69:12,13 73:8
capability $13: 24$
caption 92:10
card 15:3 58:1 72:20 73:3 73:4 75:3
cardiac 30:23 31:1 38:6 58:2 64:12,16 76:15
cardio 57:22
cardiology 31:1,19 43:13 43:25 44:4 48:25 49:3 49:15,22 56:18
cardiovascular 58:8 76:4
cards 75:7
care 16:4 17:19,25 66:11 84:4
careful 24:18 54:21 77:11
Carol 2:4 3:10 21:13 23:2 24:15 32:4,23
carotids 64:13
Carrabba's 17:21,24
carry 37:9
case 31:747:2
categories 43:4
category 43:6 58:16,22 60:9
caught 37:6
cause 92:10
CCSP 2:4
CDC 19:19 23:13 26:25
center 4:5 86:22
centers 31:13
certain 77:4 78:10
certainly $81: 13$
certificate 59:14 60:24 72:19 82:13 87:8
certificates 44:18 58:25 59:15,16,18,19
certification 4:8,10 5:19 43:1 44:22 45:6 61:7 62:1,17 64:24 68:5,6,9 69:2,5,7 71:14 83:3
certifications 62:25 63:23 64:5 69:14
certified 43:12 48:10 49:16 61:14 74:3 88:9 88:12 89:1,3
certifies 71:8
certify 40:7 69:9,11 92:8
cetera 16:12
Chair 3:13
change 7:22 40:11 42:4 46:14 53:16 77:7 79:6 84:11
changed 12:13 33:17 40:20 75:21 78:20,22 84:21
changes 12:14 42:1
changing 77:20 79:16
Chapel 92:15
Chapter 39:25 90:11
charge 70:2
chart 7:4,4
charts 20:12
check 58:19 70:11 75:7
checkbox 70:11
checked 21:18 34:8 36:6
checkpoint $37: 7$
checks $18: 4,5$
Chief 11:24
Chiefs 12:7
Chiropractor 3:7
choose 7:24
CHP 2:5
CI 58:1,5,6 76:6
Cindy 2:9 3:21 6:22 39:5

Cindy's 12:3 56:9
Circuit 92:6,6
circulation 78:2
circumstances 55:25
Citrus 16:14
city $34: 24$ 92:15
claimed 29:5
classes 14:25 16:24
clear 15:13 54:6
clearance 37:7
clearly $85: 10$
clients 31:24
clinical 5:11 72:25 73:4
74:4 75:24
close 69:18 72:14
closely 56:17
closer 89:18
closing 8:24
CMS 60:23
CNMT 2:4,7
colleagues 46:13
collecting 26:21 29:15
college 17:10 75:5
column 41:7
columns 41:10
come 5:15,15 22:20 29:4
37:23 40:12 45:10 46:3
50:2 56:23 69:19 79:22
82:18 83:10,24 84:3 89:13
comes 14:19 57:19 66:5 coming 5:1 17:1 47:2,9
57:2 65:16 68:16 82:3
82:11 83:10 90:4
commenced 3:1
comment 42:16 61:12
comments 4:16 17:7
committee 80:7
common 37:4 88:15
community 7:20 8:9
12:12,13 30:11 51:1
61:23 62:12 63:2
competent 60:25 81:9
complaints 63:17
completion 17:11
component 69:22
computer 33:10,25 34:2
computer's 43:7
concern 37:21
concise 44:5
concluded 91:3
condition 32:1
conditions 28:23
conference 19:16
confused 23:20
consider 30:7
considered 28:3
considering 28:20 30:4 49:21
consistent 41:22 46:5
constitute 92:11
Consultant 2:10,13
contact 27:11
contacted 27:11
contaminate 36:16
content 44:13 45:14 77:1
continued 65:21
continuing 64:25
contract 15:15 83:21
contrary 60:21
control 1:2 2:8 3:22 4:1,3
4:4 5:3 7:10,23 10:9
11:5 13:10 18:24 19:18
Cooksey 2:10 4:4,4 5:22
11:16 12:1
coordination 51:18
copyrighted 46:11
corner 72:21
corporate 33:23
correct 48:14 55:3,6
68:13 72:18 77:21
78:18 80:25 81:19
82:24 92:11
corrections 4:17
correctly 25:8 26:8 79:3
correlation 26:19 35:1
cost 38:22,25 69:20
could 15:14 17:18 21:13 21:19 25:9 26:23 27:9 27:11 30:25 32:23 45:10 47:16 49:7 51:3 52:4 54:13 56:1 62:17 62:18 63:16 68:6,9 69:2 86:21
couldn't 23:23 30:17 44:5 68:3 76:6 90:22
council 1:3 2:3 39:15 47:5 79:24 86:13 89:18
count 60:9
counted 27:17
counter 34:7
counterparts 42:1
counters 34:4
counting 28:7
country 30:15 38:14 49:19 53:13 59:1 84:9
counts 28:4,5
county 3:17 10:10,13,25 16:14 92:3,7,15
couple 20:3 30:18 39:12 44:3 45:1 52:4,21 70:17 87:4,23,24
course 27:12,24 28:17,25 57:2 58:21 70:1 89:15
Court 1:19,23 92:5,6,24
covered 58:7,18 61:8 65:6
created 48:16
creating 48:12
credential 57:11,20,25 74:25
credentialing 75:1
credentials 76:3
credit 15:2 75:4
cribbed 44:7
cripple 49:17
criteria 83:17

## crunches 16:12 <br> CT 38:17 43:1 44:25 <br> 47:21 49:23 51:24,25 <br> 53:22,23 54:4 58:21 <br> 59:12,23,24 60:13,23 <br> 61:4 65:8,24 66:6,9,10 <br> 66:10 67:23,23 68:2,3,6 <br> 68:7 69:13 70:14 74:8 <br> 76:16

curiosity 9:12
curious 30:21
current 7:4,5 40:24 47:15
58:13,25 67:25 70:7
78:21 85:14
currently 14:14 43:1 44:16,19 57:13 59:9,10 65:5,6,11 74:16 79:4,15 85:19
Curry 2:13 4:7,7 13:14 14:7,15,17 15:10 24:23 25:22 70:4 71:24 72:1,4 75:8 82:9,17,24 83:9,15 83:20
customs 20:1,4 21:9 37:7
cut 77:21
cutoff 25:10
CV 57:22,23 58:5,6
cycle 9:21
C1 39:24
C11 76:11
C2 41:3
C3 42:24 44:14
C4 57:5
C5 58:24
C6 72:13
C8 76:4
$\frac{\text { D }}{\text { D 76:18,23,25 }}$

DACBR 2:4
Dade 71:24
daily $33: 18$
dangerous 38:11
Danny 88:16
data 29:15,16 33:6
database 42:2 46:14
date 6:8 7:6 22:20 26:20
27:20 46:9 89:14
day 9:6 15:14 24:12 25:3 33:3,5,9 34:8 35:1,8 36:6 92:16
days $14: 14,15,22$ 15:13 22:17,24 27:18
Daytona 4:6
day's 33:11
DC 2:4
dead 30:23
deal 15:4 43:1 54:7
dealt 87:13
decayed 36:20,21
decide 17:18 18:1 41:16 63:19 65:18 71:11,19 decided 18:13 63:18 66:6

84:12
deciding 9:16
defer 82:19
deferring 51:10
define 51:18 56:24 61:18 71:3
defining 47:9
definition 40:11,21,24 52:15 56:19 62:4,5,10
degree 43:23,24
delineation 51:14
DeLOATCH 3:20,20 5:4,6 5:9,11 45:18 47:4 48:5 48:14 49:17,20 50:17 52:15 55:18 56:2,5,9,16 57:4 88:18 90:11
demographics 14:20
demonstrate 60:24
Dempster 1:23
densitometry 58:22 67:10 department 1:1 3:13,14 4:1 6:21 7:12 9:16 10:10,14 39:13 42:3 71:8,11,18
departmentally 11:23
departments 10:11,25
depending 78:25
depends 15:21
deposited 14:20
Deputy 12:5
description 44:6
design 77:13
detected 21:8
detection 20:2,5 21:8
detector 37:14
determine 27:1
develop 68:25 72:10
developed 51:3 55:17 70:19
development 42:11 71:1 device 22:9
devices 21:8,17,19,24 40:12
diagnostic 68:3,6 76:15
did 7:23 9:12,13 12:17 13:6,10 18:11 21:24 22:4,7,9,21 25:6 26:11 26:22 27:5,14 28:1,12 28:15,15,21 29:21 31:6 31:10 34:21,22 45:3
50:3,10 55:9 56:12
58:19 61:20 65:18
79:22 81:5 84:12 92:9
didn't 20:14 24:3,25,25 26:7 29:8 31:5 37:2 61:18 68:14 71:22 79:6
difference 26:22,23 48:3 57:18 67:6
different 9:23 10:23
15:22 17:13 34:13,23 41:11 44:7 46:17 49:23 49:24 59:5,18 62:5,24 64:4 65:10 67:10 71:17

72:25 74:10 80:10 85:1
85:4
differently 84:19
difficult 78:8,16
difficulty 54:4 78:12
digital-focused 77:9
digress 77:25
diluted 23:5
direct 51:6
Directives 41:7
directly 10:23 23:4,5
47:16 61:20
Director 2:12 3:16 4:9 11:24 12:9,10
directors 5:13 12:6 15:23 18:25
disciplines 81:6
discovered 20:5,20 32:17
discuss 42:1,3,7 85:16 89:10
discussed 65:22
discussion 5:16 60:20 65:24 76:17,18
discussions 51:16
distilled 24:19
distinction 74:16 83:5
distinguish 58:11,12
distributed 4:14
divine 76:6
division 7:11,14,17,19,20 8:8,11,14 10:7,11,16 11:24 12:6,9,9,10,11
do 5:3,20 6:5,9, 10, 12, 18 8:21 12:20 13:23 15:1,3 16:5 17:17,23 18:3 19:8 21:22 23:6,14,18 24:23 24:25,25 26:6 27:16 28:11 33:8 34:4 38:13 39:21,23 40:6,18 41:14 46:6,21,24 47:19 48:25 49:13,20 50:17,19 51:4 52:1,1,4,14,22 53:4,6 54:14,16 57:9,13 59:9 59:18 60:25 61:9 62:9 62:17 63:3,12 64:10 65:1,8,12 66:3,5,6,8,15 66:18,19 67:15 68:1,3,6 68:8,17 70:22 71:3,17 71:23 79:4,14,16,22 80:10 82:9,16,17 83:6,8 84:12,14,15,24 85:5,5 85:21 86:21 87:14,21 88:25 89:7,8,17 90:2 92:8
document 58:12,13 75:9 75:11
documentation 75:2
documented 32:9
documents 29:4,10
DOE 17:9
does 9:11 11:1,3,14 17:25 22:17 32:5 34:11 36:3 50:8 58:11,20 61:5 63:6

63:6,7 81:7 82:6 83:6
85:8
doesn't 18:11 32:21 54:25 62:6 74:19 81:6 84:21 87:14
doing 8:6,13 10:23 14:24 17:14 24:11 29:11 30:22 31:1,12 33:7
55:23 60:23 64:9,10,12
64:13,17,19 67:23
70:23 77:19 80:16 86:20
dollars 38:23 39:1,2
done 15:14 20:21 25:5,6
25:24 26:11 27:9,18
34:1 36:18 37:4 38:6
39:5 41:25 45:10 47:16 48:10,20 49:1 55:23 62:23 81:5
don't 3:4,5 7:5 8:7,21 9:19 11:9 13:4,22 18:1 18:6,8 25:16 29:6,7,25 32:20 33:12 34:10 36:25 37:22 38:12 44:11 47:19,23 48:8 49:4,6,10 51:21 52:2,22 53:15,16 55:21 56:13 57:13 61:22,24 63:10 64:18,22,23 65:17 66:2 66:3,5 69:3,8,18 72:15 73:14,14,19 74:8,8,15 74:16,23 75:22 80:1 82:14 84:5 85:8 86:19 88:2,4,11,13
dose 23:8,9 25:4 26:8 28:6,8 34:8,9 35:13 38:7,8,15
doses 24:7 34:5
down 5:15 8:10,24 9:19
11:22 12:8 13:4 15:24
18:19 27:13 31:2 33:14 34:21 48:8 49:13 50:2 57:23 58:2,4 62:11 63:24 70:20,25

## downturn 17:2

Dr 2:4,6 3:2,6,23 4:12,16 4:21,23 6:21 11:1,14,18 12:15 13:5,12 14:5 15:18 16:21 17:7,15 19:6 22:23 23:20 24:1 24:21 25:4 29:18,22 30:21,22 31:4,14 32:23 36:9,12 37:11,18 38:5 38:17,22,25 39:7 40:21 48:3,12 49:7,10,14,18 50:21 54:9,12 55:7,11 55:25 56:4,6 60:3 61:5 61:7,12 64:6 65:1 66:6 66:9 68:8,11 71:3,11,20 76:24 79:8 81:11,14,23 82:3 83:8,16,23 84:14 85:8,13,16,21 86:1,6,9 86:12,23 87:17 88:3,25

89:9,21,25 90:4,24 91:2 draft 40:9
drafts 55:17
drawing 24:7
driving 18:19
Drotar 2:5 3:13,13 10:4
12:2 14:23 15:21 16:23
17:8 18:3 51:17 60:8,22
61:4,6,8 63:24 66:23
67:7,12,14,18,21 68:20
69:10,16 73:21 74:25
80:3 84:24 85:15,25
86:5 90:15 91:1
dual 88:25
dumber 80:16
duplication 60:7
during 19:19 22:14,15 35:1

## E

E 1:24 2:1, 1 92:1,1
each 3:4 44:16 59:12 60:9
60:13 76:3 84:25
earlier 26:17 32:5
early 78:21 90:8
earned 78:17
earns 79:21
easiest 52:25
easily $36: 5,5$
easy 79:12
eat 17:21
economics 73:15
educational 69:1 71:9
educators 80:10
effect 37:25 39:20
effective 11:18
effects 37:20
efficient 14:16
eight 24:12
either 8:21 63:13 81:16 88:13
electronic 13:22 14:3
electrons 40:25
eligible 43:17 75:19
eliminate 47:15 49:14
else 5:20 10:1, 1 11:10
27:5 40:14 56:15 63:17
85:16
embarrass 37:2
embarrassed 24:25
emergencies 11:2
emergency 7:20 8:9
10:16 11:1,5,8 12:10,12
emission 43:14 44:1 45:12
EMT 4:7 5:13
EMTs 4:10
encompassed 16:13
encourage 48:25
end 11:25 12:17 53:2
ended 12:18 27:15,24 59:21
endorse 85:13
endorsement 40:7 43:5
70:4,7 74:17,18 81:18 81:19 83:11
endorsements 70:24
enough 5:14 17:20 49:20 54:24 55:2
ensure 81:7
entire 8:14 38:14
entry 49:4 80:23
envelopes 6:11
environmental 7:11,14
7:17,18 13:5,7,8
envisioned 50:10
epidemiological 23:14
Epidemiology 12:25 13:8
equals 60:4
equipment 20:3 27:16 28:4
equivalent $81: 21$
errors 34:2
especially $13: 25$ 82:9
essentially 40:14 72:24 87:6,15
established 35:25
estate 72:22
estimated 45:3,4
et 16:12
evaluation 77:6
even 15:5 22:5 25:12 32:21 34:20 36:24,24 37:24 47:23 60:6 62:14 73:8 78:15 79:15 81:3 84:21
event 19:23 37:24
eventually 29:24
ever 33:25 49:4 75:22 83:12,23 84:14
every 9:6 24:13 25:3 29:10 33:2,2,5,9 34:8 36:6 42:18,18,19 76:25 80:18
everybody 6:23 11:20 15:3 19:5 23:11 32:22 86:16 88:20
everybody's 55:20
everyone 3:2 4:12 5:1 6:1 8:16 12:15 30:9 35:5 53:9 91:2
everyone's 12:4
everything 15:17 40:3,14 46:21 59:7,9 74:1,24 86:10
evidence 92:9,13
exact 44:9
exactly $37: 3$ 39:21 60:16
exam 44:13 45:14 47:18 47:20,21 48:1,16 49:4 67:1,2,13 68:12,18 77:22,23 78:2,7,8,13,16 79:1 81:8,12,17,17,22 81:23 82:1,1,6,12,17,18 83:13,16 84:15 85:5 87:18,20
examination 77:2
examines 71:8
example 10:17 42:25 55:9 72:13
examples 54:5
exams 60:25 77:3,3,14 80:15
exceed 73:13
except 42:19 46:21 60:11
70:16 77:3 87:10
exception 51:10,16
excerpt 55:7
excerpted 44:2
Executive 2:12 4:9
existing 62:6 71:6
expect 73:11,25
expected 54:6
experience 49:3
expert 53:13
expertise 11:5 53:4
explain 77:16
explains 80:4
extender 43:21,22 50:9
50:22 51:19
extra 49:2,2
e-mail 4:14 33:8 76:21
F
F 92:1
FACC 2:6
facilities 16:3 20:19 21:23 21:24 26:21 27:3,7,10 27:10 31:10,18 76:20 87:4
facility 29:10 87:23
fact 65:13
facts 61:10
FAHA 2:6
fairly 46:1
fall 40:9 61:5
far 7:2 8:13 9:8 11:16,17 19:1 47:17 70:23
favor 86:1
FDA 19:18 21:10 23:13
27:24 28:25 36:1
FDA's 33:1
February 22:15 27:20,23
federal 66:17
fee 70:8
feedback 42:14
feel 6:17 46:18
feeling 12:4
feels 17:23
Fester 39:5
few 19:23 36:22 61:10 62:21 71:21 83:9,9 84:10
fewer 59:25 78:15
field $8: 16,22$
fields $69: 24,25$
figure 23:16 25:22,23
figures $37: 19$
fill 6:3,5,13,17 33:16
filling 16:11
film-focused 77:9
finalized 55:22
find 15:7 21:19,23 26:11 26:23 28:1 44:5,9 76:7
finds 79:21
fine 29:20 30:1,9 31:4 35:10
fines 29:18,21
finished 42:21 52:23
first 4:13 7:3,9 8:6 9:13 9:15 25:16 27:4,21 36:1 41:14,24 43:8,10,17 44:3 45:6 51:15 60:19 65:25 66:7 71:15 77:16 79:20 84:1 87:15 89:21 90:9
fiscal 13:15
fit 55:2
five $8: 1128: 139: 16$ 50:13 80:19 85:4,7
flavors 63:23
flexibility 54:25
flight $37: 10$
flip 44:15 58:24 73:22 76:5,8
Florida 1:15,25 3:7,8,11 3:18 4:1 5:3,10,17 14:6 19:24 20:8,20 21:22,25 22:14 25:24 27:1 30:20 31:16 38:1 41:17,19 42:23 44:17,19 45:8,15 46:2,12,13 47:7 49:17 49:18 50:24 51:14 57:14 59:9,10,14 61:23 62:25 65:9 67:15 68:1,5 68:17,18 73:20 78:23 84:4 88:9,12 89:8 92:2 92:7,15
Florida's 59:1 68:19
FMT 33:10
focused 10:22 89:16
fold 6:10 71:2
folks 8:19 10:14,22 11:7 12:17 20:3 40:6 44:16 46:17 57:24 60:21 61:25 62:23 66:11 67:8 77:18 84:22 88:9
follow 28:25 29:2,8 32:8
followed 46:19
following 3:1 46:18 90:5
follows 65:21
followup 37:19
for 3:17 4:10,25 5:11,13 6:1,8,11,25 8:20 9:2,4,8 10:16 11:5 12:4 13:22 13:25 15:4,8,19 17:4 18:9,12,24 19:5,14 21:4 21:4 24:6 25:13,24,24 28:4,7,15,16,18,19,23 30:17,23 32:1,14,22 34:22 36:2 37:21 40:20 41:4,11,12,19,20 42:9

42:16,19 43:3 44:13 45:4,17,21,23 46:6,21 46:23,24 47:10,11,17 47:22 48:9 50:8 51:9,11 51:14,19 52:1 56:12,14 56:22 57:1 59:6 60:12 62:25 63:14 64:4 65:5 65:20 66:4,10 67:2 68:2 68:13,18,22,23 69:2,4,6 69:10,12,13,19,23 70:16,24 72:6,9,22,25 72:25 74:1,8,17 75:2,2 75:19 76:3,14,15 77:1,3 77:25 79:23 81:11,19 82:10,14,15,20 83:13 83:14,18,22 84:14,18 84:18 85:9,10,22 86:10 87:4 88:2,21 89:13,20 92:5,7
force 18:19 48:24 62:2
foregoing 92:11
forget 10:18 72:1
form 33:16,17 67:19 78:7 78:8 79:1,2
forms 33:18 78:2,11,13
forth 10:15 46:14 72:9 73:11 77:6
fortunate 39:18
forward 20:16
found 26:17 27:22 28:9 28:10,12 36:17 46:7 48:17,19 81:1
four 8:23 16:24 17:3 27:18 39:16 50:13
fourth $32: 13$
fraction 77:17
fragment 36:24
frame 27:21
frames 26:20
free 6:18
free-standing 16:3
Fridays 17:21,24 65:19
from 9:3 10:12,20 11:19 11:21 13:15 14:17 18:23 19:12,18 20:7,8,8 21:8 22:21 26:21 27:4 29:4,15 30:11 33:21 34:14 35:7 36:19 41:9 42:9,14,22 44:2,7 45:12 46:20 47:2,6,14 51:25 53:1,7 55:4 56:23,24 57:6 60:21,22 61:21,24 62:8,19 64:25 67:4,11
70:14 74:10,18,25 78:20 81:23 83:10
front 16:6 53:9 87:2
full 67:13,13
fun 57:3
funds $15: 16$
funny $82: 10$
further 58:2 76:17
fusion 34:6,10
Futch 2:9 3:25,25 4:25

5:7,10,14,25 6:13 8:2,5 10:7 11:4,23 12:3,22
13:2 17:17 18:5,10,18
19:5,10 21:13 23:1,6,13
23:23 24:15 25:18,23
29:17 30:10,16 31:20
33:13,20 34:25 35:4
37:22 38:12 39:5,10
40:18,23 43:24 45:19
47:12 49:25 50:4,16,24
51:1,5,8,13,20,23,25
52:11,21,25 53:8 54:3
54:14,18 55:1,4,16,19
56:12 57:1,5 60:6,10,16
60:18 61:3,10,15,17
63:18,22 65:3,22 66:8
66:10,13 67:3,8,16,19
67:25 68:9,14 69:15,17
70:2,7,16 71:5,12,23,25
72:2,5 73:11,17,22
74:15,22 75:6,11,16,19
75:24 76:25 79:9 81:10
81:13,15,25 82:5,7,16
82:18,25 83:4,14,19,21
83:25 84:17 85:12,18
86:10 87:2,19,22 88:7
88:14,20 89:11,15 90:7
90:14,17,20
future 11:24 30:6 40:13 40:19 61:19 62:11
85:19
F18 26:1
G
G 8:22
Gail 2:13 4:7 41:25 57:19 75:6
gallbladders 64:14
gamma 25:20,21 40:24
gave 68:5
general 11:18 12:5 14:8,9 64:17 72:16 87:9
generator 20:22 23:5
24:10,13,20 29:6,25
31:25 32:2,10 34:23
36:2,9 38:14
generators 20:22 21:11
22:13,16 26:18 27:25
29:14,15 30:12 32:13
get 3:2 5:20 6:19 8:2 9:19 12:3,14 21:1 23:23 24:11,13,13 25:19 27:9 27:15 30:12 33:18 36:12 37:6 42:14 44:11 46:11 47:1 50:6 53:18 53:23 54:22 59:25 62:22 69:6,12,12,13 77:21,22 78:25 79:3,12 79:14,16 84:14,15,18 84:24 88:14 90:2
gets 7:7 14:20 33:25
36:10 55:22 63:25 85:2
getting 13:25 14:1 51:8

51:20 55:4 67:10 68:16 80:25
give 6:17 13:14 20:18
46:10 66:20 73:23
74:17,18 75:3 82:12
given 33:22 36:7 78:2
gives $71: 18$
giving 66:18 67:8
Glad 3:3
glucose 24:19
go 5:22,25 6:5 11:3 13:10
15:7 16:5 17:25 18:21
20:11,13,14,15 22:21
23:18 26:16 29:1 37:6 40:20 43:10 44:8,24 45:9 46:13,15 52:11,22 53:18,23 56:2 63:3,16 64:4 65:8 66:2 70:20,25 72:8 74:12 78:3 82:22 84:2 87:5
God 56:10 71:25
goes 16:23 24:9 77:13 78:4
going 5:15,16,21 6:9 7:25 8:14 10:3,4 11:21 13:20 17:9,10,18 18:7 19:20 20:3,14 21:20 26:1,3,4 26:16 27:2 30:5,9 32:16 37:17,17 43:7 44:11 45:22 47:4,7,24 48:8,11 49:13 50:2,14,21 52:3 52:16 53:2,5,16 56:2,20 57:19,20 59:11 62:9 63:12,13,13,14 64:24 64:24 67:1,23 68:15 69:6,11 70:1,10 71:16 71:17 72:8 73:15,16 74:1 78:5 79:23 81:15 81:16,19 82:21,23 84:6 84:20
gold 34:9
gone 21:3 80:4
$\operatorname{good} 3: 2$ 4:12 9:9 14:11
16:21 19:3 21:2,4 30:4
30:4 32:13 53:9 65:17
76:21,21 90:7,18
got 9:22 15:3 21:10 26:9
27:5 32:11 34:14,22
36:9 37:10 46:1,11,20 54:21 58:9,13 60:8 63:8 64:10 66:22 67:4,11,23 68:4 72:22 73:18,21 74:10,21 78:13,18 83:14 84:25 87:2
gotten 38:3 49:2 64:2 80:13,16
government 57:7 65:11
Governor 12:16
grabbed 27:7
graded 77:4
graduate 14:25 15:6 36:14 80:23
graduates 15:20 16:8
granting 75:21
gravitational 18:19
great 18:18 35:11
gross 25:20
group 9:22 17:22 37:12 37:13 55:19 71:9
growing 16:17
guess 6:21 9:15 10:8,21
14:13 17:15 19:22,24
20:25 23:13 41:14
43:15 50:1 54:8 55:11
55:24 60:4 62:21 73:14
74:11 77:13 84:11
86:16 87:17 88:20
90:24
guessing 26:8
guesstimate 45:9 60:11 guesstimates 45:8 guest 3:20 5:3
guidelines 17:9 56:21,22 guy 63:5
guys 15:8 37:13 53:4 82:19

## H

had 6:4 7:6 14:10,11
15:23 19:3,16,17,21,23
20:13,15 22:11 26:9
27:15,24 28:5,10 29:5,5
31:2,6,25 32:8,9,16,18
34:15,17,24 36:14,17
37:13,13 38:3 39:9 49:1
51:15 57:7,8 71:20
72:18 80:16 84:8 86:16
hair 38:18
half 15:14 $38: 7$
half-life 21:2 22:23 37:10
Halifax 4:5
hand 92:14
handful 88:18
handle 11:2,9
handled 84:19
handout 26:14
hands 17:23
hang 57:2
happen 7:16 8:20 13:11 28:21 32:22 47:12 48:11 52:3 54:7 55:22 64:25 69:15 75:23 84:6
happened 20:1,19 23:15 23:17 25:11 30:6 31:9 37:3
happening 21:5 47:7
happens 11:10 34:2
happy $33: 7$ 39:12 48:19 60:12
hard 30:8
hardly 83:12
harmful 37:20
has 10:8 13:23 14:2,25 17:20 20:2 21:1 26:5 32:2,6 33:14 35:6 39:16 40:3 43:9 49:18 53:15

55:12,13,14 59:13 63:5
66:16 68:22 73:5 74:7,7
75:20 81:20 85:1 90:10
hasn't 78:20,22
hate 21:16 52:6,7
have 5:3,16,17,20 6:1,2
6:11 7:5,6,19 8:18,21
8:23,24 9:3,6,11 11:4
11:17,19 12:8,11,14,16
13:18,18,22 14:13
15:14,17,18,22,24,25
16:4,8,14,19,21,24 17:3
17:4,9,10,18,18 19:8
20:22 21:24 22:16,19
23:6 24:12,18 25:12
27:11 29:1,13,14 31:6
31:10,14,14,20,24
32:17,19,20 33:8 34:2
34:17 35:5,10 36:2,10
37:5,8 38:3,8,21 39:18
40:10,18 41:14,17
43:11 44:23 45:10,19
45:21,25 46:5,15 47:19
50:2,14,17,19 53:4,13
54:18 56:8,15,19 57:9
57:24 58:22 59:9,10,24
60:6,13,15 61:18,22
62:1,7,15,16 63:6,6,7
63:14,15,19,22 65:8
66:6,8 68:12 70:10,18
71:13,14 72:8 73:19
74:8 75:10 76:19 77:4
77:18,24 78:7,15 79:2,8
79:13,16 80:3 81:12,20
82:14,16,17 83:2,9,11
83:11,12,21 85:9,21
86:13 87:14 88:3,23,25
89:12,17,18 90:20
92:14
haven't 17:1 23:1 82:20
having 7:22 10:22 15:1
25:24 30:14 32:19
42:20 53:3
he 16:23 20:14 37:15 72:2 86:20
head 3:23 61:11 63:5
header 59:6
health 1:14:1 7:11,12,14 7:17,18 9:16 10:10,13
10:18,19,25 13:7 18:24
hear 9:7 53:7 86:16 87:1
heard 8:18 9:6 11:21
16:19 19:22,23 25:4
hearing 51:21
heart 79:13
held 42:12
help 27:1 81:7
helped 16:3
helping 5:2
helps 7:1
hematology 73:7
her 33:9, 10 36:16 37:2 56:11
here 3:3 6:7 7:21 9:18
12:19,20 18:12 19:4,5,7
20:25 24:1 27:2,13 29:1
37:3 41:13,24 44:3,11
45:13,20 51:9 55:8
59:21 62:19 66:11
72:17,19 73:13 90:22
HEREBY 92:8
hereto 92:10
hereunto 92:14
here's 45:20 60:11,12
Hers 78:8
hey 26:25 62:12
he's 10:3
Hi 3:6
high 20:24 26:9 28:5,10
35:9 40:25 86:19
higher 28:12 34:15,17,20
highest 64:19
highlighted 7:21 44:17 59:1
HIPAA 37:2
hiring 80:11
his 19:2 46:13
history 20:18
hit 14:18 53:2
hold 37:22 59:15
holders 59:14
holding 59:17 87:8
Holley 8:22
home 6:19
Homeland 25:5
homes 9:3
hooked 23:2
hope 8:17 32:21
hopefully 8:15 12:15 14:3 39:25 72:11 79:23
hoping 80:2
hospital 3:24 8:22,24 36:3 89:8
hospitals 16:18
house 33:6 39:19,20 40:2 50:11
how 5:5 6:5 7:5 9:17 10:18 11:2 12:11 15:19 17:6 19:1 21:20,23 23:22 29:7,8 30:17 32:2 32:10 33:13 36:7 37:3 42:3 44:15 45:8 50:23 57:9,19 58:10 59:20 64:23,23 71:3 72:1,22 73:15,18 80:5 82:7 87:24 88:16
however 6:3 21:12
hundred 36:22
hundreds 38:22,25 39:2 45:1
hurricanes 11:10
hurry 32:11

## I

I 3:4,10,18 4:12, 14,23,25 5:9,11,12,22 6:1,11,21

6:25 7:2,4 9:5,6,15,17 10:8,12,18,21 11:9 12:20,25,25 13:8,10,21 13:23 14:10,10,13,13 14:23,24 15:3 16:7,10 16:24 17:1,8,15 18:8,20 18:22 19:1,3,4,11,20,22 19:24 20:13,14,18,24 21:16,17 22:17,18,19 22:20 23:1,11,13 24:6,7 25:4,18 26:4,7,11 28:3 28:6,10 29:25 30:3,6,10 30:12,21,24 31:8 32:20 33:9,12,16,20 34:13,14 34:17 35:10 36:5,17,21 36:22,25 37:2,3,11,14 37:14 38:9,12 39:16 40:1,8 41:5,14 43:15 45:3,9,16,21,25 46:10 46:11,20 47:1,1,19,22 47:24 48:6,8,11,14,14 48:15,17 49:4,5,7,10
50:1,4,6,9,17 51:17
52:1,2,2,4,6,16,21
53:11,12,14,16,17 54:1
54:3,7,14,14 55:11,20
55:24 56:2,16 57:4,7
58:19 59:23 60:4,9,19
60:19,19 61:12,17,19
61:20,24,24 62:21,21
63:10,14 64:7,13,14,20
64:22,22,23 65:6,17,25
66:1,3,8,14 67:3,4,5,9
67:11,13,16,16,19,21
68:14,17 69:3,8,12,12
69:13,16,18,21 70:7,12
70:15,21 71:15,20 72:8
72:21 73:8,11,13,14,18
73:18,25 74:6,11,16,18
74:22 75:1,22 76:1,6,18
76:23 77:3,13,18 78:3,6
78:13,22 79:19 80:1,7
82:19,19 83:24,25 84:5
84:11,12 85:8,13,15,24
86:15,15,16,25 87:2,4,4
87:11,17,22 88:1,2,4,7
88:10,13,14,16,16,20
89:12,17,21,21,25 90:7
90:24 92:1,1,5,8,14
idea 30:4
if $6: 2,3,4,9,12,177: 3,15$ 8:18,20 9:2,17 12:19
15:7 16:19 17:17 18:6 22:18 23:11 24:11
25:11,25 26:3,8,14,22
27:11 29:1,25 30:6,24
32:17 33:12,20,24 34:9
34:10 35:1,6,9 36:2,25
38:3,5 40:18 42:12,17
42:24 43:11 44:15
45:19 46:10,10 47:18
48:6,22 49:15 54:14,14
55:20,21,22 58:24 59:2

59:11,16,18,25 60:3,22 62:3 63:1,18 65:1,8,13 66:23,24,24,24,25 67:15,22,25 68:24,25 69:5,12,12 70:9 73:2 74:11 75:1,22 76:5,8,18 77:25 78:3,13 79:6 80:1 80:15,24 81:11,19 82:10,12,18 83:7 84:7 84:24 85:4,8 87:5,17,25 88:2 89:7
ignore 29:23
image 21:4 77:5
imaged 27:19
imagine 69:21
imaging 57:14,15 75:11
86:17
immediately 35:9 70:24
Immunohematology 73:10
implement 41:11 70:19 implementation 41:4 implementing 70:14
important 17:19 18:10 32:16 60:10,12 74:16 83:4
impression 88:14
in 3:7,24 5:3,10,15,17 6:6 6:7,10,12,13,18,20 7:11 8:16,19,23,25 9:1 10:11 10:14,20,23 11:8 12:18 12:22 13:2,6,9 14:2,5 14:20 15:22,24,24 16:2 16:5,13,25 18:9,11,25 19:2,24,24 20:19,20,20 21:24 22:14,16 23:7,8 23:14,16,24,24 25:11 25:13 26:3,14,16,25 27:4,7,18,18 28:11 29:19 30:6,12,20,25 31:4,11,16 32:11 33:2,6 33:15,25 34:1,13,23 35:2,6 36:2,6,15 37:1 37:13,15,17,20,25 38:8 39:11,14,18,24,24 40:3 40:6,7,8,10,12,13,19 41:3,7,13,17,24 42:1,4 42:23 43:5,5,10 44:6,11 44:16,19,23 45:1,6,6,8 45:15 46:25 47:2,5,7 48:3,6,15 49:3,18 50:10 51:14,17 52:1,6 53:8,13 54:5,9 55:8,16,24,25 56:1,3,6 57:13,17,19 58:15,20 59:1,3,6,7,9 59:10,14,21,23 60:9 61:17,19,23,23 62:1,3,5 62:10,25 63:3 64:3,16 64:24 65:4,9,14 66:13 66:22 67:6,15,19 68:1 68:17 69:18 71:5,13,17 72:12,17,20 73:1,13 74:17 75:1,8,9 76:4,11

77:1,8,21 78:1,2,2,4,5 78:10,21,22,24 79:10 79:10,11,11,16 80:8,21 81:6,9,16 83:10 84:4 85:2,6,6,19 86:1,21 87:2,10,13 88:5,9,12,12 89:12,19,22,23 90:11 92:7,9,9,10,14,14
inception 78:21 incidences 11:6 include 47:23 included 54:9 includes 11:23 81:21 including 10:20 income 30:24 incorporated 46:9 increase 35:7 increasing 38:15
index 27:3
indicate 74:19
indirect 51:7
individual 38:13 41:8 individually 41:9
individuals 71:9 indoor 13:2,3 information 6:14 17:13 18:24 44:2,5 75:4
infusion 33:24
initiate 42:15
injection 23:10
insert 29:1 71:8
inside 11:5,7 50:10 58:11 58:13
insight 5:18
inspect 29:16
inspection 9:4
instead 22:3 34:2 59:7 74:3
instituted 29:12 32:24 instructions 6:16 41:8 instructor 5:11 75:2 instructor's 29:9
instructs 29:2
insurers 49:12
intact 10:5 integrity 81:7 intend 57:4 intended 49:5 intensive 69:21 intent 46:18,19 interest 30:11 65:14 interesting 34:12 interim 11:20 International 1:14 internet 44:8 interstate 18:20 interventional 58:3,9 into 5:18 14:19 17:1 21:6 21:21 22:21 23:5,9 40:12 45:9 50:9 52:8,20 55:4 56:13 57:5 61:1,11 63:8 71:2 77:13
introductions 3:5
involved 8:19 21:10 23:14
ionizing 41:2
is $4: 135: 5,156: 8,217: 4$ 7:11,15,17 8:1,10,24 9:1,3 10:4,7,13,17 11:20,21,25,25 12:9 13:8,15,21 14:18 15:19 16:1,10,17 17:8 18:10 20:1,12,23 21:1,5,14,20 22:14,24,25 23:1,2,5 25:19,22,24 26:17,25 27:2,17 29:18,19 32:16 32:24 33:18,22 34:2,6,7
34:9,10,12 35:4,12,12 35:14,16 37:4,4,19,21 38:1,6 39:10,12,25 40:1 40:2,10,21 41:7 42:6,12 42:15,18,19 43:2,4,13
43:14,15,19 44:3,12,20
44:24 45:12,16,25 46:6 46:7,9,22 47:7,21 49:8 49:23 50:1,8 51:6,21 52:16,23 53:3,5,9 54:4 54:9 56:16 57:16,23 58:8,13,15,18,22 59:8 60:13 61:15,22 62:3,5 62:22 63:11,25 64:7,24 65:4,4,10,11 67:2,21 68:21,24 69:8,20,21,25 70:7,13 71:5,19 72:13 72:14,17,17,19,24,25 73:4,7,23,25 74:1 75:16 76:4,11,14,21,21 77:19 77:19,23 78:14,24 79:6 79:25 81:7,19,23 82:3 84:5,6,6,9,13,15,18,19 84:20,22 85:10 86:11 86:12,17,21,23 87:6 88:19,21 90:5,11,15,17 90:18
isn't 13:2 15:4 31:7 79:15 81:14 90:6
isotopes $36: 15$
issue 19:22 28:20 29:21 30:5 31:25 32:3,6 39:13 61:21 64:7 70:17 71:20 83:23 86:13
issued 28:23 57:24 58:25 59:15 65:11 72:14
issues 9:6 79:19 89:9 issuing 28:17
it 5:5 6:5,6,12,17,17,18 7:1,5 8:1,15,20 9:13,15 9:18,19,20,22 10:4,21 12:19,20,20 13:2,4,10 14:2,12,25 15:3,8,21 16:17 17:12 18:6,14,15 20:5,9 21:6,14,16,20 22:7,9,10,17 23:21,22 24:14,20,20,25 25:11 25:22 26:9,22 27:22 28:20,21 29:2,7,22 30:3

30:4,6,7,8,18 31:7,12 31:12 32:13,17,21 33:4 33:6,8,14,15 34:1,1,9 34:11,15,16,17,18,19 34:20,23 35:2,2,4,8,8 35:14,16 36:5,6,6,11,12 36:16,19,20,20,21,21 36:23,25 37:1,6,15,16 37:21 38:13,19,20,21 38:22 39:16,21 40:1,3,3 40:17,23 41:5,6,10,12 44:7,12,15 45:9 46:1,4 46:5,8,12 47:7,10,14,16 48:6,23,24 49:4,6,7,8 49:15,17 50:8,8 51:7 52:17,19 53:14 54:25 55:10,11,12,14,15,20 55:22,23 56:1,22,24,25 57:19,25 63:6,7,9,13,15 63:16,16,24 64:5,7,11 64:19,23 65:2 66:1 68:8 68:10 69:17,22 70:9,14 70:15,22 71:13,17,19 72:4,6 73:2,23,25 74:2 74:19 75:1,11,14,24,25 76:7 77:17,20 78:14,16 78:22,22 79:6,16 81:2,6 81:7,8,14,20 82:14,20 83:14,25 84:1,7,7,15 85:6,7,17 86:10,16,21 86:23 87:8,14,16 88:2 88:17,18 90:6
item 6:21 13:12
its 41:16
itself 55:21 73:13 74:19
It'd 8:20
it'll 15:5 56:2
it's 7:6 9:17,18,21 13:2,5
14:7,21 16:8,9,18 20:23 21:2,3,3,15 22:4 23:6 23:12 25:17 26:13 31:7 35:7,9,17,21,21 36:19 38:9,10,17 40:14,15 41:1 42:10 43:17,20,22 44:13,25 45:9 46:10 47:4,17 48:10 49:20,21 52:7,7 53:14,16 54:6,25 55:1 57:20 60:17 62:13 63:1,7,12,15 64:20 66:17,23,24 67:13,20 68:22 69:5,16 70:4,4,5 70:11 71:5,16 73:15 74:6 79:9,12 80:20 81:25 82:10 84:24,25 85:3,3,7 86:9 88:1,14 88:18 90:11,17
I'd 75:3
I'll 4:23 17:24 40:23 76:17 77:15,24
I'm 3:6, 11, 20, 21, 23 4:7 18:15,21 19:5,13,20 20:10,13 23:20 24:24 26:8 28:13 38:21 39:12

43:19 51:20 52:10,12 53:4 63:10 64:6 69:3 77:2,16 78:5 80:2 84:5 84:6 88:3 89:23 90:4 I've 22:20 46:20 52:11 58:13 60:8 73:21 87:3 I-center 75:8,9

## J

Jacksonville 78:5
James 2:9 3:25 4:24 10:1 70:24 75:13 86:15
Janet 2:10 4:4 5:20 6:25
Janowitz 2:6 3:2,23,23 4:12,16,21,23 6:21 11:1 11:14 12:15 13:5,12 15:18 16:21 17:7,15 19:6 25:4 30:22 31:14 32:23 36:9, 12 37:11 38:5,17,22,25 39:7 40:21 48:3,12 49:7,10 49:14,18 50:21 54:9,12 55:7,11,25 56:4,6 60:3 61:5,7,12 64:6 65:1 66:6,9 68:8,11 71:3,11 71:20 76:24 81:11,14 81:23 82:3 83:16 84:14 85:8,13,16,21 86:1,9,12 86:23 87:17 88:3,25 89:9,21,25 90:4,24 91:2
January 42:21 46:15 51:14
JD 2:6
job 15:7,19 17:11 53:18 53:24 63:16
jobs 16:1,8
Johnson 12:9
jokes 8:2
JRC 17:8 68:22
judging 30:10
Judicial 92:6
July 7:8 13:16 22:15 27:20,24 39:20 42:10
jump 78:1
June 8:24 47:5 56:3
just 4:25 6:4,18 9:12,21 13:14 14:23 15:2,23 17:24 18:3 26:13 27:14 30:19,21 31:1,8,12 34:13 35:1 36:4,21 37:6 37:18,25 38:20 41:5 46:21 47:16,17 48:15 48:15 49:2 57:20 60:15 61:10,12 63:4,10,19,22 64:22 65:12 66:1,3 68:13 69:9,16 70:10,13 70:19,21 71:16 74:11 76:3 77:7 80:4,20 83:13 85:13 86:20,22 87:21 88:20 90:18
$\frac{\mathbf{K}}{\text { Kathleen 2:5 }}$

Kathy 3:13 73:17 78:4,6 81:10
keep 13:25 20:14 32:2 55:4,16 65:4 74:22 77:11
Keiser 3:14
Kennedy 1:24
kept 22:8 37:15 40:13
key 71:12
kidneys 64:15
kind 5:14 12:3 13:14,24 16:6 17:20 23:12 30:8 34:4,12,25 44:7 48:21 48:24 50:9 62:16 65:12 82:10 84:11
kinds 59:18 62:24
knew 80:15
know 3:4 6:3,4 7:5,7 8:13 8:21 9:17,17 10:2 11:7 11:10 13:16,21,23 15:3 15:6,8 16:6 18:7 20:25 25:18 26:1,5 32:10 33:12 36:24,25 40:15 40:16 48:24 49:2,4,6,12 49:18 50:9 52:3 55:21 57:19 59:15,22 60:10 60:19 61:2,24 62:11,20 63:4,15 64:6,18 65:13 65:15,17 66:3,15 67:5 68:25 69:2,3,3,3,18 73:14 74:5 75:4,22 77:5 79:19 80:1,19,22,23 84:20 85:4,8 86:18,20 87:4 88:2,4,9
knowing 53:3 62:23
knowledge 48:23 63:1
known 86:11
knows 77:25
kudos 15:8

## L

lab 27:8 36:15 72:25 74:4 75:24
labor 69:21
Laboratories 10:18 21:18 28:8
laboratory 27:10 37:1
labs 10:19 48:22 73:4
Lake 16:14
language 72:10,11
Lantana 8:23
large 9:17,18 17:22 30:5 30:8 45:2 78:3
largest 28:2,6,8
last 13:21 15:23 18:25 19:2,6,12 22:21 25:17 32:21 33:12 39:23 40:9 88:7,16
later 5:15 6:14 21:7 42:13 47:3
Laughter 6:15
law 40:2,20 41:5 51:15
52:8 62:6 67:25 71:6,18

87:25
leaders 9:24
least 6:24 39:16 47:9 50:5 56:13,19
leave 56:14 72:6
leaving 89:25
left 18:20 34:14
left-hand 41:6 72:18 73:4
legislation 39:13,19,22 40:9 42:24 46:4 50:8
54:6 61:18 62:4,16 65:4 66:14,20 70:2 71:13
legislative 41:4 46:18,19 61:25
legislature 9:16 14:1 41:9 41:21 45:4
leisure 76:5
less 38:2 88:18
let 6:3 37:16 63:1 72:13 83:25
letter 35:5,6,7
letters 13:23 15:4 28:18 29:19 59:3
let's 24:12 32:21 58:24 62:22,23 64:10 70:13 79:1
level 12:21 43:19 49:4 50:6 64:3 65:16 80:23
levels 9:19,20
licences 39:14
license 15:3 28:23 31:25 41:19 42:5 43:5 46:2 57:12 59:5 62:7 64:1 65:1,8,11 66:21 67:9,14 67:17 68:13 69:12,24 72:14,15,17,22 73:6,14 73:20,23,24 74:17,18 74:19 75:13 81:11,20 82:25 84:5
licensed 13:18 14:5 42:23 62:3 81:16,17
licensee 32:6
licensees 28:21,24
licenses 13:19 14:5 40:6 41:17 43:10 65:14
licensing 32:7 42:2 68:24
licensure 5:17 43:12 85:10
life $22: 16$
lifetime 29:6
like 10:9 11:9 17:23 18:6 18:18 25:25 26:2 28:10 29:22 31:19 32:13,21 35:14 36:20 37:7 38:17 38:19 39:25 46:18,22 52:5 58:6 59:6 62:13 65:17 66:17,24 67:21 68:22 73:23 74:1 76:10 79:20 84:12
likely $24: 10$
likes 18:14,15
limit 35:23,24 69:4 73:12
limited 67:2 84:18
limiting 67:14,17
limits 22:6,7
lined 16:25
lines 11:14 48:21 59:8,10
list 58:2 70:20 73:7,14 76:9 88:10
listed 57:12,16 59:17
listing 74:23
lists 76:9
little 8:11,13 9:7,7 20:18 23:20 25:2 33:17 34:15 51:9 56:20 77:8,13
live $18: 11$
lives 5:2 24:6
lobbyists 61:21,22
local 9:19,20 10:13
locate 9:2
located 8:22,23 16:19
location 46:7
long 7:5 30:17 32:2
longer 7:18 13:23 37:10 39:17 57:23
look 26:14 29:16 38:5 43:11 46:17,22 52:5 59:2,11,16 60:22 65:13 69:4,11 73:3 80:18 89:17 90:21
looked 33:10 36:20,22 43:8 74:2 80:9,11,21
looking 47:8 62:19 64:14 68:21 69:5,6 75:2 80:12 80:21 90:16
looks 39:25 73:23
loop 55:16
Los 21:18 23:23 25:6
losing 38:18
loss 40:15
lot 7:1 10:9 16:2,3,10 23:18 26:19,23 27:12 36:10,11 47:15 52:18 53:20 60:1 63:25 64:8 64:11 70:5,5 77:12 87:21 88:25
lots $14: 2$
love 56:10
lovely $7: 1$
low 13:4 35:22 37:21 80:14
lower 35:21 36:23
lowered 25:10
lucky 9:10
lunch 17:19 18:12 56:12 56:14 61:11 65:20

## M

M 1:19 59:7 92:5,23
machine 14:7,11 16:4 23:10 68:24 72:16 75:16,25 86:22
machines 23:21 24:3
magnetic 57:14,15 mail 6:18
main 32:5
mainly 27:8
major 87:6
majority 10:12 14:9 61:13
make 6:10,19 18:3 26:22 46:16,17 47:1 50:4 52:19 55:1,20 63:16 76:20 77:14 79:6 85:6 89:19
making 15:8 54:22
malfunction 23:24 24:3
malfunctioned $24: 4$
malfunctioning 21:20
23:21 24:2
MAM 59:7
mammo 59:6 61:5 65:24
86:20
mammogram 86:18,18
mammography 44:25 58:21 59:12 60:13
66:16,16
mammos 87:21
manage 27:14
management 2:10 69:13
managers 80:10
mandate 41:12
mandates 41:8
manner 23:24
manual 29:3,9
manufactured 21:11
manufacturer 19:17
21:17 29:3,4 32:7
many 9:18 10:18 16:1 17:3 22:13 25:24 28:20 35:15 36:7 37:12,12 44:15 45:8 49:21 60:2 62:11,11 63:22 64:18 69:24,25 70:13 73:15 73:18 88:17,23
Marion 3:17 16:14
Mark 2:12 4:9 41:25 46:13 57:18 73:12 75:6

## Marriott 1:13

master's 43:23,24 50:6
match 34:10 59:4
material 21:2 25:23
math 59:19
matter 11:4 32:5
maximum 38:8 73:12
may 1:9 5:24 8:19,20 9:2 13:16 16:24 32:17 41:25 48:14 52:2,12 53:12 54:20 59:24 60:6 64:19 65:15 69:15,19 69:19 73:12 76:23 78:7 78:8,15 79:21 84:1 87:9 92:16
maybe 6:24 18:3 22:13 33:21 37:18 39:17
48:23 64:14,16 66:3
68:14 69:4
McDonald 5:4
MD 2:6
me 6:3,6,10,17,18 7:1 9:20 18:8 34:18,19 37:22 43:7 46:10 53:9 55:16 60:12 72:13 76:20,21,22 78:16 83:25 86:17 87:3,5,23 88:6
mean 8:15 26:4 28:15 30:24 38:9 48:6 52:2 53:17 63:14 65:7 67:19 67:21 69:16 70:12,15 71:15 73:18 74:6 83:24
means 40:24 71:6
measure 34:5 36:3 54:12
mechanism 82:22 89:7
med 2:5 20:25 47:18,21 47:22 48:2 52:13 54:19 66:25
medical 2:11 4:5 28:23 30:11 37:24 71:24 87:23
Medicare's 88:2
medicine 3:11,24 5:7,12 13:8 14:8 26:6 36:18 39:15 43:13,16,18 47:3 52:19 53:20 54:10,15 55:5 56:18,24 65:7 66:10 68:11 74:13,18 86:24 87:9,15 88:21 89:5
Medicine's 46:8
meet 17:8 41:25
meeting 1:3 14:4 15:23 18:25 33:10 42:7 65:20 65:21 89:10 91:3
meetings 23:18
meets 56:6
member 89:18
members 2:3 86:13 90:21
mention 45:3 76:12,12
mentioned 54:5 61:17 66:13
mentions 42:25
mess 32:22 38:20
messy 23:12
met 9:23
Miami 3:7,24
micro 35:15
microbiology 73:8
microcuries 36:7
middle 12:23 19:2 63:8 73:1
might 10:8,21 26:4 30:6 32:19 42:14 45:5 47:12 50:6 57:11,25 61:1
Mike 18:23 19:14 39:6
mileage 6:4
millicurie 36:8
millions 38:6,23,25 39:2
millirem 28:9
mind 65:4
mine 78:9
minute 26:16 52:1
minutes 4:14,18 19:12
miracles 55:22
missed 22:19 23:11 38:21
mixed 63:8
mixed-use 30:24
modalities 67:1
modified 77:7
molybdenum 36:4,4
moment 77:25
monetary 29:19,24 30:1 30:13
money 14:20 15:12
monitor 37:17
month 11:25 42:13,13 72:12
months 16:16 21:7 27:22 30:18,23 89:14
more 9:7 10:22 16:24 17:23 21:5 24:9,10,11 24:24 31:20 32:19 34:22 36:10,11 49:5 50:4,5,21 52:9,9 54:2 56:20 59:19 61:10 63:16,17,25 70:5 71:2 77:8,25 78:8,16 79:2,14 89:3
morning 3:2,3 4:12 34:14 35:2
most 3:4 29:11 31:12 49:18 66:11 73:6 77:2 83:10
mostly 44:24 77:2 84:4
motion 4:18 85:21
mouth 37:23
move 8:18,25 9:1 11:22 17:15 18:16 41:10 42:24 57:5 76:17,23 85:23,24 90:25
moved 4:19
moving 9:4 10:7,12 15:18 57:5
MQA 2:12,13 13:13 42:1 72:14 73:5
MQSA 61:6,9
MR 3:8,16,25 4:5,9,19,25 5:7,10,14,25 6:13 8:2,5 10:3,7 11:4,23 12:3,17 12:22 13:2 14:13,16 15:11 16:13 17:3,17 18:5,6,10,18 19:5,10 21:13 23:1,6,13,23 24:15 25:18,23 29:17 30:10,16 31:10,20 33:4 33:13,20 34:4,25 35:4 35:12,19,23 36:14 37:22 38:12 39:5,10 40:18,23 43:24 44:25 45:19 47:12,24 49:25 50:4,14,16,24 51:1,3,5 51:6,8,13,20,23,25 52:11,21,25 53:8,11,16 53:20,23 54:1,3,11,14 54:18,21,24 55:1,3,4,6

55:16,19 56:12 57:1,5 57:21 59:24 60:6,10,13 60:16,18,23 61:3,4,10 61:15,17 63:10,18,21 63:22 64:22 65:3,10,12 65:14,22 66:8,10,13 67:3,5,8,13,16,19,25 68:9,12,14,22 69:8,15 69:17,20,22 70:2,7,9,11 70:12,16,18,21 71:5,12 71:23,25 72:2,5 73:10 73:11,15,17,22 74:15 74:22 75:6,11,13,16,18 75:19,24 76:25 79:9 81:10,13,15,25 82:5,6,7 82:16,18,25 83:2,4,6,14 83:19,21,25 84:17
85:12,18,23 86:4,7,8,10 87:2,19,22 88:7,14,20 89:5,11,15 90:5,7,14,17 90:20,25
MRI 59:12 65:24 66:16
Ms 3:10, 13,20,21 4:2,4,7 4:15,20 5:6,9,11,22,24 6:1,16,23 7:25 8:1,3,4,7 9:12,13,14,15 10:4,6
11:16,17 12:1,2,8,18,24
13:3,6,14 14:7,15,17,23 15:10,21 16:23 17:8 18:3,8,13,14,15,16,22 19:8,11 21:14,15,16 22:24 23:4,8,11,19 24:3 24:5,9,17,23 25:9,13,15 25:16,22 26:7,10 29:21 30:3,15,17,19 31:5,7,8 31:16,18,22 32:11,12 33:1,5,16,24 34:6 35:3 35:5,16,17,21,25 36:11 37:8 38:2,19,20,21,24 39:2,6 40:17 43:22 45:18 47:4,14 48:1,5,6 48:14 49:8,12,17,20,21 50:1,12,17,19,23,25 51:12,17,22,24 52:10 52:12,15,18,24 53:7,12 53:19,22,25 54:16,23 55:9,13,18 56:2,5,8,9 56:10,16 57:4 60:8,15 60:17,22 61:4,6,8,16 63:24 65:19 66:12,23 67:7,12,14,18,21 68:20 69:10,16 70:4 71:24 72:1,4 73:21 74:13,21 74:25 75:8,22 80:3 82:9 82:17,24 83:9,15,20 84:24 85:15,24,25 86:3 86:5,15,25 87:20 88:1,5 88:13,16,18,23 89:2,8 89:11,12,17,23 90:2,11 90:13,15,19,23 91:1
much 20:24 24:7 28:22 29:11 41:2 59:12 61:8 72:22 86:10
multiple 31:24 59:13,16 74:5 78:1 80:19
must 17:24 33:22 77:21
my 15:24 18:9,13 32:24 36:6 37:18,23 43:7 53:1 53:5 55:17 63:5 70:12 83:7 86:23 92:12,14
myself 25:24 87:22

## N

N 2:1
name 7:22,24 12:13,14 21:12 41:18 46:1,2
named $8: 12$
Nancy 3:20 5:3,14 45:16 47:1 55:17 56:15
Nancy's 44:11
narrow 54:23,24,24 55:1
national 21:18 28:8 40:5 41:15,22 42:7 43:2 44:18 45:23 47:4 66:22 68:15 71:3,5,6 74:5 75:20 79:25 82:14 83:3 83:11,20
nationally $45: 1588: 10,19$ nationwide 89:2
NCOR 52:17
NCT 44:6,13,18 45:17,23 46:7 47:17,21 48:10 51:20,21 56:20
necessarily 78:5
need 9:19 20:15 32:1 40:19 42:2 46:20 47:23 60:24 61:9 63:11,15 65:1 74:23 81:5 84:21 89:13
needed 41:11 42:12 76:2
needless 17:4 22:11
needs 42:4 64:8 75:11
neither 45:24
neutrons 41:1
Nevada 19:18,24 20:8,20 21:22 27:1 28:10,13 37:24 38:8
never 36:6,19,21 49:12 50:10 62:9
new 5:16 10:16 11:17 12:4,5,6,16 14:23 15:19 16:2 28:23 29:12,25 31:25 33:24 34:23 39:4 40:12,12,18 42:4,22 50:1 52:20 68:9 71:1 74:1 75:2 79:11,11 86:13
news 9:7,8
next 6:21 8:10 13:12 14:4 15:7 19:25 20:11,14 23:19 26:12,25 32:4 41:3 63:3 64:3 66:16 72:12,13,24 73:9 77:19 78:25 79:3,14,20 89:10
nice 40:17 44:5
nicer 15:5
nine 28:6
NMAA 50:1
NMTCB 40:6 43:4,9,11 44:2 45:12,21,23 46:22 52:13,16 55:12 56:14 72:9 74:7 88:7
NMTCB's 5:18 44:9 46:7
NMTs 89:1
no 7:18 11:4 13:6 23:7,8 24:17,17 26:19 29:21 30:24 34:22 36:19 39:3 39:4 47:17 48:3 51:22 54:9 56:16 57:18,23 58:14 65:11 67:6,13 69:10 70:15 74:25
75:16 79:9 84:17 90:13
nobody 36:3 48:1
nobody's 49:15 53:17
None 4:22
noon $34: 19,19$
normally 25:19 72:15
not 6:10,24 7:5,23 8:18
8:20,20 9:2,8,10 11:11
11:16,17 12:20 13:5,6
13:10 16:1,9,11,17
17:20 19:4,5,23,24 20:23 21:19 22:4,7,8,9 24:18 25:1,7,16 26:1,11 26:23 27:13 28:13,19 28:21 29:10,21 30:4,14 31:12 32:13,14 33:7 36:5 37:17 38:9,10,17 40:7,10,13,15 45:2 47:18 48:5,11,14,19 49:20,21 52:7 53:3,3,6 53:14 54:24 56:24 57:18,19 58:20 59:9,22 60:2,10 61:14,20 62:14 63:12,13,13,15 64:6,9 64:19 66:17 68:10,18 69:4,10,10 70:5,5,15 71:16,21 72:2 75:19 76:2,12,13,21 77:16 78:5 79:7,18 80:20 81:12 83:3 84:6,19,22 84:24 85:3,5 87:9 88:3 88:14,20,23 89:19 90:7
Notary 92:24
note 37:9 57:23 58:4
notebooks 6:2
notes 19:20 58:9
nothing 10:3 14:13 26:5
notice 28:17 42:11 44:20 70:22 71:1
November 80:8 89:13,18 89:19,20,22
now 4:23 6:4,17 7:9 8:2 10:11 11:17 15:12 19:1 20:18 22:20,24 24:20 27:2,17 28:9 29:14 33:2 33:12,14 35:10 40:23 41:23 52:2,21 53:5 59:14 62:9,14,18,19,21

64:7,13,20 65:14 66:4 68:22 72:3,6,7 73:23 74:6 82:21
nu $66: 25$
nuclear 3:11,24 5:7,12 14:8 31:22 32:1 36:17 39:15 41:1 43:12,13,16 43:18,25 44:4 46:8 47:3 47:16,18,21,22 48:2,13 48:25 49:3,14 50:5 52:13,19 53:20 54:9,15 55:5 56:17,18,24 60:4 65:7 66:10 68:11 74:13 74:17 86:24 87:6,9,15 88:21 89:5
number 22:3 26:20 28:11 45:11 49:22 60:5 77:11 77:20 78:18 84:8 88:9
numbers 13:15 26:23 32:18 33:13 44:23 45:2 45:14 58:25 59:11 62:19
numerical 79:15
nuts 82:20
O

Oak 28:7
objection 60:20
Ocala 18:9,11,14,15
occur 58:20
occurred 28:20
October 27:18 39:23 80:8 89:13,16,24 90:1,9,10
of $1: 1,22: 83: 4,14,17,18$ 3:23,25 4:1,2,10,13,13 5:1,2,12,13,16,18,18 7:6,10,11,12,14,17,18 7:20,23 8:9,13,21,25 9:1,5,6,12,16 10:9,13 10:16,17,17,24 11:8,8 $11: 25,2512: 3,10,10,11$ 12:25 13:7,7,14,16,17 13:18,24 14:2,9,11,12 15:1,12,13,15,16,19,21 15:25 16:2,5,6,8,10,12 16:21,24 17:19,22,23 19:2,18,22,23 20:3,18 20:24 21:10,17,24 22:1 22:3,4,6,11,14,15,16,23 23:12,15,16,18 26:5,10 27:12,12,24,25 28:1,5,8 28:17,17,20,25 29:11 30:8,8 31:3,6,12 32:2,7 33:1,7 34:4,12,25 35:13 35:17 36:7,24 37:12,12 37:16,19,20,23,25 38:6 38:7,15,22,23,25,25 39:2,2,3,7,13,14,21,22 40:9,11,21,24 41:16,20 41:22,25 42:8,9,10,11 42:18,19,25,25 43:3,9 43:12,16,19 44:4,6,7,12 44:14,16,16,18,19,22

44:25 45:2,14,16 46:3,6 46:7,9,20,21,22,23 47:2 47:3,10,15,15 48:4,12 48:20,21,24 49:22 50:7 50:9,17,19,22 51:11,19 52:2,18,18,19,20 53:1,9 53:20 54:10,19 55:5,20 55:25 56:17,18,20,21 56:22,23,23 57:2,3,6,8 58:4,5,7,21,25 59:7,13 59:13,14,18,18,20,24 60:1,2,5,8 61:13,25 62:4,6,15,17,21,24 63:5 63:7,8,16,23,23,25 64:8 64:11,15,17,18 65:12 65:24 66:1,19,23,25 67:5,10 68:8,20,21 69:14,17,25 70:5,5,14 70:15,16,17,19 71:1 72:10,14 73:4,6,18,22 74:3 75:10,19 76:1,3,10 76:13 77:2,11,12,14,17 77:18,20 78:2,7,8,11,11 78:12,13,18,21 79:1,4,5 79:21 80:24 81:8,18,22 82:10,11,20 83:10,17 84:8,11,11,20 85:1,2,7 85:7 87:3,5,6,6,11,21 88:9,10,25 89:15,23 90:1,10,21 92:2,3,6,6,6 92:12,12,15,15,15,16
off 15:18 20:4 37:15 51:9 63:4 65:25
offended 18:15
offer 57:8
offered 57:9
office 4:10 11:7 14:18,19 14:21 31:1 33:23
officer 31:11,15
offices 8:22 31:19 64:11
official 7:6 42:11
often 31:24
oh 6:23 9:18,19 14:15 18:5 20:11 22:4 28:13 30:9 32:19 56:10 65:13 67:7 71:25 73:17
okay 6:23 8:3 13:12
17:15 19:8,14,25 20:11 20:17 21:16 24:1 26:11 26:14,20,24 28:14 29:22 32:4 36:18 40:1 46:6 49:25 51:23 52:14 52:25 54:3 55:18 56:10 56:11 60:1 61:10 62:9 67:7,18 68:20 72:5 73:22 76:23,25 78:1 79:13 90:13,23
old $24: 17,18,2179: 11$ 86:12
older 36:10
on 2:3 5:13 7:9 8:9 10:22 11:21,22 12:22,24 13:12,15,24 15:12,21

16:18 17:12,15 18:12 19:8 20:15 21:20 22:9 23:20 26:4,15 27:2 28:4 30:5 31:21 32:13 33:4,6 35:23 38:6 39:20 41:6 41:19 42:6 44:3,10,14 45:8,13 46:2,7,12 48:18 48:22,23 52:14,15 57:11,22,25 59:4,5 66:21 67:9 69:23,24 70:5,17,22 72:16 73:3,6 73:11,19,23,24 75:4,13 76:11,17,17,23 77:6,22 77:23 78:6,17 80:3,7 82:13 84:22,22 89:14 89:16 90:4
once 35:2 37:11 69:18 73:13 76:25
oncology 30:25
one 5:3 8:21 10:17,20 12:22,24 14:13 17:21 23:13 24:6,13 25:4 26:10 27:15 28:10,12 28:25 31:14,17,20 33:11 34:12,14 37:12 40:8,13 41:15 42:18,19 43:2,13,15 44:3,6 45:16 45:24,24 47:17 49:14 50:23 51:10 52:14 57:10,22 58:7,11,12,18 61:12 66:11,15,25 68:21,23 69:13,13 70:18 72:17 73:9 76:4 78:7 80:20 81:18 82:14 82:15 84:10,25 85:3,6 87:3 88:3,5
ones 57:9,12 59:3 62:23 66:4,4 67:4 72:9 73:19 74:7,13
one's 72:17
online 14:24 15:2 42:3 73:24
only 13:20 19:24 22:8, 15 29:23 31:2 37:1 44:22 47:22 48:7 53:12 54:4,4 59:17 62:20 67:4,23 68:2 69:25 73:21 76:12 81:15 83:2 84:17,18
onto 48:15
open 16:1
openings 16:10
operative 71:10
operator 14:7 72:16 75:17,25
operators 14:11
opportunity 55:21
opposed 4:21
opposition 50:7 61:23
or $4: 167: 8$ 11:2,15 12:11
12:20 13:10 16:17
17:10,21,24 21:11 23:15 24:16,19,25 26:20 29:9,9,18,23

31:11,12 34:7 35:14,16 36:14,25 37:5,6 40:6 45:5,24,24,24,24 46:8 48:9 50:13 53:1 54:1 56:21 57:21 58:12 59:13 60:20 62:14 63:11,13,19,24 65:12 65:23 66:25 67:19 69:13,18,19 71:7,9,9,22 72:12 73:5 74:18 79:9 79:19,19 80:8,21,23 81:17 84:15 85:6 86:12 87:13 88:10,10,17 89:2 90:9,17,18
order 4:13 23:16 42:4 77:22 79:16
organization 40:5 41:15 45:23 71:4,5,6
organizational 7:4 9:6
organizations 41:23 42:7 43:2 74:6,9,11
originally $27: 19$
Orlando 18:25 27:7
other 3:4 7:13 8:8 9:5,5 9:10 10:8,22 11:9 13:20 13:25 15:25 17:7 19:8 34:24 41:1 43:4 45:24 50:23 52:1 60:20 61:12 62:15 65:3 66:23,24 67:1 68:21,25 69:14,16 73:19 74:7 76:10,19 79:9 81:6,6 89:9
Otherwise 6:18 19:11
ought 65:25 66:14
our 7:4 8:17,22 9:1 10:23 11:7,23,24 12:14 13:15 14:2,10,18,21 15:15 16:2,8,16 18:23 27:8,9 27:16 28:4,17 43:3 46:17 47:6 51:14 52:5 61:21 78:24 79:24
81:23 82:1 83:20 85:1
ours 81:21
out 5:1,2 6:4,5,17 8:2,16 9:12,24 11:10 13:17 14:4 16:23 21:23 23:16 24:14 25:21,22,23 28:5 29:19 33:16,21 36:17 36:25 37:1,16,17,23 41:9 52:18 53:17,18,23 55:19 64:3,9 65:14 72:22 76:6 77:9 79:4,5 79:21 80:7 82:11 83:10 87:24 90:20
outpatient 16:2 31:12,16 31:18 86:22
outside 59:10 68:8
over 4:23 14:1 22:5,6 24:10,10,22 26:16 42:24 43:10 44:15,24 46:17 57:5 58:24 66:2,2 66:2 77:7 80:16
overall 38:15 58:16
overlap 74:8
own 10:23 25:6 60:13
$\qquad$
P2:1,1
pack 61:10
package 28:25
packet 6:7,10 39:24
packets 6:1
page 7:9,15 8:10 12:24
44:14 45:13 57:6 59:4
72:24 76:11
pages 33:19 41:5 44:3 92:11
paid 30:13,15
paper 73:13
paragraph 44:4,6,9 87:11
87:12
Paramedics 4:7,11
Pardon 43:7
parenthesis 59:3,7
part 8:21 15:21 40:13
59:20 60:12 62:5 71:12
particles 40:25 41:1
particular 41:4 50:7
61:21 79:1 86:21
parts 10:24 62:15 85:4
party 48:8
Pasco 92:3,7,15
pass 36:10 68:12 79:8 82:16,17 87:25
passage 39:12 81:21 83:17 85:11
passed 39:20 40:2 51:15 53:14 81:12 88:17
passing 37:14 77:22,23 78:14,14,24 79:10 80:14,15 81:4 82:13 83:18
past 24:5 25:11 29:6
39:11,18 83:25
path 51:9 70:25
pathway 43:18
patient 21:4 23:3,4,5 26:19 27:21
patients $20: 7,8,9,19$ 21:7 22:9,11,14 23:15,16,17 24:12 27:2,4,6,12,13,15 27:16,18,19 28:1,6 34:22 37:5
patrol 20:1,4 21:9
Paul 2:5 3:8 37:19
pay 18:9 48:9 70:10
73:16
payers 48:8
paying 88:2
PEM 86:17
penalty 30:13
Penny 1:19 92:5,23
people 10:23 11:8,12 16:25 17:4 20:25 24:24 25:11 26:7 31:5 37:8 38:7,8,16,18 42:22 45:2

45:5,8 47:22 48:18,23 48:25 49:1 53:12 54:18 59:17,20,22,24 60:1,23 63:12,25 64:8,16 65:15 69:9,19 71:2 73:16 74:21 75:1 80:10,10,13 81:8,11 82:9 83:10 per 36:7 70:3 73:16 percent 16:8,15,16 21:2 35:19,20 59:19 79:5,8 percentage $35: 13,13,16$ 80:24
perfect 20:17
perform 54:1 63:16 87:9
performed 10:13 25:7
performs 43:3
perhaps 42:19
period 22:15
permission 46:10,11
person 26:3 33:6 34:18 50:3,6 57:7 70:9 73:7 73:24 79:20 87:8
personal 52:7
persons 33:9
perspective 10:21
PET 20:7 43:1 45:24 47:2 47:9,11,20 49:22 51:24 52:1,22 53:6,14,17 54:4 54:9 56:22 66:6 86:18 86:20,22 87:17,20 88:9 88:12,17,23
Pete 88:5
PET's 66:13
pharmacy 4:10 31:22,23 32:1
phased 70:22
phone 34:14
phrase 46:24
physical 8:18 69:24
physician 50:22
physicists 87:23
physics 64:3
pick 17:5 51:25 90:8
picked 15:24 20:3 25:12 78:24
picking 20:6
picocuries 36:22
piece 50:7
pieces 9:7
place 7:7 14:2 18:2 19:23 31:11 37:1 65:17 69:2
placement 16:15 17:11
places 16:4 17:21 44:7
71:17 88:23
plan 9:24,25 41:4
plant 37:16
play 21:21
plenty 15:19
point 15:5 22:20,22 23:13
37:11 45:20 47:23
48:12 49:9 51:21 53:1 66:19,20 74:12 75:20 78:2
pointed 87:24
policies 75:21
pool 16:21
pops $40: 19$
population-wise 16:17
portion 56:22 66:7 70:14
72:19 87:6
portions 85:7
position 43:21,22 53:5
56:16 70:13
positions 16:11,11
positron 34:7 43:14 44:1 45:12
possibilities 52:21
possibility 48:7
possible 28:22 54:4 63:1 69:18
post 17:11 41:16 44:23
57:16,21 58:16
potential 37:20
pound 84:2
PowerPoint 80:4
practice 41:20,22 42:9
46:3,6,22,23,24 47:10 47:10,15 48:4 50:18,20 51:11 52:2,19,20 54:10 56:21,21,23 58:7,18,20 60:14 63:6 70:16,19
practices 49:22
practicing 5:7 54:19 62:8 84:4
preface 61:20
Preparedness 7:20 8:9 10:16 11:1,9 12:10,12
present 78:10
presentation 19:3,19
presented 81:3
presents 55:21
pressed 30:8
pressure 29:23
pretty $14: 11,16$ 16:13 19:3 29:11 30:13 32:25 33:11 41:2 47:16 59:12 61:8 74:6 86:10
prevent 7:25 28:22
preventing 8:5
Prevention 7:23
previous 39:22
primaries 58:17
primary 41:16 43:4,5,9
44:23 57:12,16,21 65:6 67:1
print 33:21
priority 37:4 64:20
private 64:11
privately 88:2
probably 7:8 15:14 16:7
18:16 22:12 25:16
32:23 36:19 38:2,10,22
38:24 45:10 47:14
50:16,21 53:5 62:20 84:2,3
problem 31:6 34:3 36:19

63:7 72:3 90:9,13
procedure 36:18
procedures 30:23 54:1 87:10
proceeding 62:22
proceedings 3:1 92:9,12
process 8:25 9:1 14:18
15:1,9 42:14,20 46:16 52:23 71:15,16 80:20 81:2
processes 80:20
processing 14:14
product 20:23 35:14 36:1
production 77:5
profession 17:1 41:19,20 46:25 72:25 73:5 75:14 81:9
professional 71:7
program 3:16 5:12 15:23 18:24
programs 17:10 68:23 69:1,1 71:10 89:6
prohibit 62:6,7 64:25
promulgation 42:11
pronounce 5:5
properly 25:1
proposed 7:16 42:16
proposes 70:2
protection 2:3 77:5
provide 17:20
provided 6:11 27:3 87:10
psycho 85:2
psychology 77:13
public 10:18,19 17:13 92:24
publish 17:9 42:16
pull 25:20 52:18 55:9
pulled 20:12 47:14
purpose 50:8
purposes 68:2,19
pushback 50:14
pushed 51:1
put 6:19 14:2,20 18:23
20:15 43:10 46:12 48:6 53:1 55:23 59:7 64:11 69:24 72:10,15 77:8 83:25,25
putting 6:25 16:18 19:14
p.m 65:21 91:3

P32 36:16
$\bar{c} \mathbf{Q}$
QA 32:25
QA/QC 37.4

QA/QC 37:4
QC 24:25 33:2
qualification 74:2
qualifications 73:2
qualified 64:10 77:16 81:9
quality 2:11 48:20,24 69:13
question 26:4 37:18 47:25 68:15,19 78:3

80:25 82:8 83:7 84:25 85:18 87:24
questioning 80:13
questions 6:3 9:11 39:6
45:19 57:8 58:10 67:3
77:4,9,10,12,20 78:6,10
78:11,15,18 79:3,4,14
79:19 80:9,22 84:11
quick 58:19
quickly 18:5 21:3 27:9 47:17
quite 28:12 39:11 84:10

| $\mathbf{R}$ |
| ---: |

R 2:1 92:1
RA 51:9,14,19
$\operatorname{rad} 4: 8,1162: 1774: 1$
radiation 1:2 2:3,8 3:14
3:21,25 4:2,4 5:2 7:10 7:23,25 8:6 10:9 11:5,6 13:9 14:8 19:18 20:2,5 21:8 31:10,14 38:2,15 40:11,22,24 61:19 62:5 62:7 66:25 67:22,24 68:1,3,4,8 77:5 87:10 87:12
radio 36:15
radiographer 14:8 72:16 87:9 88:11,21
radiographers 14:10 54:19 55:2
radiographer's 65:8
radiography 39:15 58:3
65:7 77:8 87:7
radiologic 3:17,18 11:2 39:14 43:2 62:25 65:6 74:3 75:15
radiological 11:11
radiologist 43:20 58:23
radiology 3:14 48:18 50:3 50:15,24,25 51:1
radon 12:17,18
rads 60:4
range 43:9
rate 16:15 20:24 78:12
rates 17:11 24:11
rather 10:24 24:14
rating $85: 1,1$
ratio 35:17 36:7
raw 81:5 84:14,18
rays $40: 25$
RDCS 76:15
read 7:2 19:11 33:14 40:23 73:9 87:11
reading 25:20
ready 53:21 90:24
real 72:15,22
realize 20:14 32:15 36:9 64:13
realized 28:19
really 9:8 21:19 27:2
43:17 44:5,22 49:8
54:22 64:9 66:19 69:4

70:11 74:8 76:2 79:12
80:11,15 81:7 89:19
reason 29:23 61:22 62:3
70:15 82:3
recall 22:18 51:13
recalled 21:10 27:25
receipts 6:20
recently 80:4
recess 39:9
recessed 65:20
recognition 49:5,7
recognize 40:5 41:14
45:23 49:1
recommend 47:8 62:22 70:21
recommended 24:12
record 22:5 32:12 75:10
recorded 22:4
recording 22:2 28:18 72:5
records 20:9,10 26:21
red 59:3
rediscovering 90:8
refer 56:25 60:15
reference 46:9
referred 77:23
refers 71:14
reflect 66:21
reflected 79:11
reflective 35:4
refresher 29:13
registered 58:23 76:15
registers 71:8
registries 66:22 76:10
registry 51:10 68:15 71:7
75:20 76:13,25 79:25
80:3,9,12,16,21 81:3
regs $87: 2$
regular 24:17,18 82:13
regulate 40:19 64:23
regulated 73:5
regulation 40:11 41:18
45:22 50:22 52:6 78:24
84:21,22
regulations 10:15 46:13 52:8 60:22
regulatory $2: 1322: 6,7$ 46:16 52:3,5
reimbursed $88: 1$
reimbursement 61:1
relate 57:9
related 9:11 67:23 68:2 71:10
relations 57:7
relative 78:12
release 15:16
relevant 62:13
rem 28:11,13,13
remaining 43:25
remember 28:11 61:17 71:20,23,24
Rena 12:19 13:1
renegotiating 15:15
renewed 13:18
renewing 57:25
reorganizational 9:23
repeat $34: 1835: 8$
repeated $34: 11,19$
replaced 58:1
report 7:19 22:7,10 84:17
92:9,12
reported 1:18 32:18 78:19
Reporter 1:19 92:5,24
reporting 1:23 28:19
32:16 33:13
represent 3:18
representative 47:6
represented 3:10
reproduce 19:20
request 33:2 89:17
require 49:15
required 11:7 22:10 42:18 63:15
requirement 29:12 63:11 81:14 85:10
requirements $32: 7$ 61:9 66:17 81:18,21 85:9
requires 41:21 61:7
requiring 49:11
rescanned 37:6
resonance 57:14,15
response 11:2,6 12:11 67:11
responsibility 43:20
responsible 41:12
rest 37:25 44:12,25 54:19 55:5 57:3,21 60:2 76:1
84:8 87:11 90:21
restructuring 6:22
result 33:1 83:1
results 22:1 34:11
retain 85:18
retired 3:12 31:8
retiring 11:25 12:2 89:4
return 6:11
revenue 70:12
review 2:10 33:5
reviewing 33:7,11
RIA 54:17
Richardson 2:6 3:16,16 16:13 17:3 18:6 34:4 75:13,18 82:6 83:2,6 86:7 89:5
Ridge 28:7
right 5:14 7:9 8:7 10:11 15:12 16:15 17:25 20:17 22:18 24:20 26:11 27:8 33:2,12 34:21 37:5 39:10 40:23 45:17 47:1 53:5 54:11 57:1 59:17 60:5 62:21 63:21 64:7,20 66:12 67:2,15 70:18 72:3,8 74:6 76:1 78:1 79:14 83:15 85:21 87:16

90:14
right-hand 72:20
road 48:8 49:13 50:2 62:11
role 51:14,18
room 37:15
rough 34:25
roughly 42:12 43:19 79:5
round 52:22 63:3
roundabout 9:21
RRA 58:22
RT 2:5,6 71:21
RTs 89:1,6
rubidium 17:16 21:1 22:25 31:3 35:18 48:9
rubidium/strontium 20:21
ruin 24:19
rule $42: 11,11,16$
rulemaking 42:15 70:23 70:25
rules 52:8 71:1
RVT 76:14
S

S 2:1 57:20
safest 52:25
safety $31: 11,15$
said 23:21 26:25 32:4,19
34:18,20,21 48:22
61:25 62:12 67:5 72:2
73:12 78:22 87:22 92:12
sales 39:3,4
saline 24:9,16,18,18 36:11,12
salt 24:7
same 8:6 31:25 34:24
36:1 37:15 43:19 45:10
46:2 50:2,14 52:16
68:11 72:16,24 73:3
74:23 75:3 76:8 77:12
78:6 79:25 80:6 81:4,25 83:7 84:12 87:22
sampling 23:16
sand 84:2
Sarasota 15:25 27:4 34:13
sat 33:9 48:18
save 66:4
saw 33:16 36:6 39:22 40:9 67:11 76:3 78:6
say 4:25 10:3 13:10 14:23
16:7,9 17:5,24 21:12,16 22:11 24:12,25 25:17 28:7 30:9 37:3 46:6 48:8 52:7 54:15 56:2 57:20 59:23 61:24 62:3 62:20 64:12 67:16 74:3 75:25 78:13 79:2,21,22 79:23 80:1,2 90:22
saying 32:1 34:14 61:20 68:17 69:3 84:6,6
says 16:23 20:9 32:13
35:6,8 41:7 45:22 46:5
62:16 66:5 75:14,24
87:8,16
scale 30:5,8 78:19,20 84:16,17,22 85:19
scaled 77:24 79:25
scan 27:16 37:13 38:4 48:9,9 53:14 54:17,17 75:9 86:20
scanned 22:12
scanner 30:25 88:24
scanners 38:17
scanning 21:3
scans 20:7,21 28:16 37:9
schedule 39:7
scheme 79:11,12
school 3:17 82:11
schools 13:22 17:14 71:21
scope 41:20,21 42:9 46:3
46:6,22,23 47:9,15 48:4
50:17,19 51:11 52:1,19
52:20 54:10,15,20,22
56:21,23 70:16,19
84:19 87:6
scopes 76:2
score 77:21,22,23,24
78:14,14,19,19,20,24
79:15 80:1,5 81:4,4,5
84:14,16,17,18,22,23 85:19
scores 80:14
second 4:20 24:13 42:6 43:14 45:7,12 57:17 85:25 90:9 91:1
seconds 22:25
Secretaries 12:5
section 5:18 13:1,9 55:13 57:17
Security 25:5
see 3:3 7:3,9,13,21 8:7,10 12:19,20,20 13:4 16:10 17:13 23:11 25:1,25 26:3,15,22 35:7 38:10 40:1 41:3,6,24 42:17 44:12,17 45:14 49:7,10 52:14,21 54:14 57:10 57:13,25 58:24,25 59:2 59:8,12 60:2 63:10 64:22,23 65:13 72:20 72:21 73:1 76:5,11 78:6 90:22
seeing 32:19
seek 45:5
seemed 29:10 32:10
seems 29:22 32:6
seen 9:18 15:25 17:1
20:24 23:1 65:23 82:20
SEMI-ANNUAL 1:3
Senate 39:19
send 33:6 55:19 90:20
sending 15:4 68:18
sends 33:2
sense 50:5
sent 14:21 29:5, 19 32:15 81:17
sentence $87: 15$
separate 18:4,5 68:24 81:23
separated 76:6
separately 57:17
September 56:1,7 90:12
series 57:8
services 10:9,23 83:22,22
set 10:15 20:4 26:9 29:7,7 29:7,8 40:3 92:14
setting 37:15
seven 30:19 82:20
several 10:19 48:16,17
shall 17:23
shape 67:19
she 18:10 33:10 34:18,20 36:16,25 78:7,15,16
sheet 6:8
she'd 36:17
she's 9:1 47:7 56:10 73:18
shoot 55:17
short 23:6
shorthand 92:9,12
should 8:15 13:10 23:19 25:1 28:7 34:17 35:8 45:3 48:3 55:7 56:23 61:19 64:14,21 66:1,3 73:18 80:22,23 83:23 85:13 86:16
shoulder 46:17
shouldn't 52:7 59:23
show 17:23 72:11,13,21
showing 8:11
shows 44:15
shut 31:2 34:21
sic 89:19
side 7:15 37:24 41:6 52:1 69:16 73:4,22
sides 16:5
sign 6:8
significant 38:13
sill 89:3
similar 58:15
simple 74:7
simply 22:3 46:5
simulation 68:2
since 7:18 15:18 46:5
77:24 78:20 82:1,1 84:3 87:2
single 47:19
sir 5:6 45:18
sister 10:17
sit 5:12
site 20:13,13 27:3 29:2 33:2 34:23,24 73:24 80:3 86:21
sites 22:2,4 24:23,24 32:8 34:13
situation 15:19
six 16:16 30:23 53:12 79:2,4
Sixth 92:6
skip 20:10
sleep 43:7
slide 19:25 20:10,11,14
20:17 23:19 26:12,17
32:4
slides 18:22,23 19:8 26:15
slight 7:22
slightly 59:5 79:16
small 14:18 88:23
smaller 43:9
smooth 15:1,9
smoother 15:5
SNM 56:6
snow 27:14
so $4: 12,196: 13,167: 18$ 8:4,24,25 9:11,20,22 10:1,15,20 11:11,16,17 11:18,20 13:22 14:3,12 14:16,21,25 15:16 16:3 16:4,16,21,24 17:1,4,12 17:23 19:20 20:18 21:3 21:10,20 22:8,11 23:6,7 24:11,21 25:11 27:2,7,8 27:10,17,17,23 28:15 28:19,20 29:7,15 31:4 31:25 32:8,15 33:11 34:25 35:14,19 36:18 37:25 38:8,9,21 39:5 41:1,3,23 42:17,24 43:8 43:10,24 44:7,8,12 45:1 45:5,19,20 46:20 47:19 47:22 48:21 49:25
50:21 51:20 52:21 53:4
53:4,14 54:1,6,7,12,25
57:5,25 59:22,25 60:8
60:11,11,15,19 61:1
62:17,21 64:3,5,15,19
65:12,13,22 66:14,17
68:18 69:24,25 70:4,9
71:11,15 72:6,12,21
73:7,11,11,11,25 74:22
75:9,18 76:12,17 77:6,6
78:13,17 79:5,15,18
80:18,20,24 81:9 82:3
82:18,22 83:23 84:19
85:3,5,6,13,21,24 86:20
87:14,15,17 88:13 89:6
90:7,15,17,20
societies 46:23 76:19
society 3:18 46:7,8 47:3
51:11 55:14 56:17,18 56:23
solution 69:23
some 5:18 10:21 11:8, 11 11:12 13:15 15:13,25 19:22 20:12 21:22 24:1 24:21,21,23,24 26:5,7 31:5 32:24 44:2 45:7 50:7 58:9,9,10 59:5,24

61:23,25 63:14 66:23
71:21 73:12 74:21 76:9
76:13 77:9,18 80:22
somebody 19:17 48:10 53:8 66:4 69:5 77:25 89:7
somehow 55:21
Someone 33:14
something 25:2,2,25 29:24 30:7 33:14,20 35:25 38:10 39:25 40:18 44:20 52:11 53:1
53:8 54:6 64:20 66:18
71:22 79:20 90:20
sometime 72:12
sometimes 37:9 38:9
somewhere 14:10 33:15 79:10 88:8
sonographer 76:16
sonography 57:14,15 58:15,15,17,17,19 60:24 61:4,13,23 62:1 62:14,18,22 63:2,6,19 64:1 65:10,12,15 67:5 74:10,10 76:8,10,11
soon 15:17
sooner 32:17
soonest 47:12
sorry 18:21 20:13 28:13 38:21
sort 26:5 64:15 68:20
sound 22:17 58:6
sounds 65:17
soup 58:6
source 31:3
sources 71:10
southeast 47:6 90:11
space 9:2
span 22:16
speak 61:20
speaks 87:12
spec $25: 21$
special 40:3
specialist 2:10 9:1
specialists 48:18
specialized 69:6
specialty 40:4 41:17 42:8 47:11
specific 75:18 76:13
specifically 42:25 54:5
specifications $77: 1$
specificity $52: 6,9$
specify $45: 25$
SPECT 48:9
speed 40:25
spelling 72:22
spent 70:5
spoken 39:11
spot 44:6
spots $17: 4$
St 88:5
staff 2:8,11 8:17,23 9:4
10:4,14 29:14 57:18

61:25 69:25 75:6
standard 34:9 56:22 58:8 58:18,20 60:14 63:7
standards 10:15 46:23 47:10 86:19
standpoint 46:20
start 3:5 9:13 11:21 19:25
29:14 30:20 35:6 42:8
42:10,21 44:21 46:14 47:8 53:5 56:8,13 62:23 64:13,14 65:15,25 70:14,14,23,25 71:1 74:9,23 84:1
started 3:3 9:15 18:22 27:5 28:17 30:19,20 50:12 56:9,10 68:23 75:21 89:4
starting 58:5
starts 19:2 45:13 73:2
state 3:8 10:20,24 11:17
15:21 35:10 43:3 59:14 65:11,16 66:21 69:8 82:1,6,15 83:2,10,13,16 83:18 84:5,10 85:10 92:2,6,15
stated 92:10
states 20:2 44:17
statewide 10:8
statistics 77:12
status 11:20
statute $87: 3$
stay 10:4 13:6,9 18:13
79:24 84:13
stayed 84:7
staying 9:9
stays 80:6 81:4
Stephens 18:23 19:14
stepped 26:25
steps 42:18 50:9
sticks 53:8
still 7:10 8:12,12 11:4,20
13:2 16:17,21,25 23:20 32:6 36:2 49:20 57:24 72:8
stool 36:16,20
stop 18:11
stopped 22:8
straightforward 46:1
stretching 24:14
strict 33:12
strictly 70:4
stringent $32: 25$
strips 24:20
strontium 20:6,22 21:5 22:23,24 24:11 26:3 27:22 28:4 34:16 35:17 37:20
student 36:14 80:22,23
students 15:1,6
study 23:15 38:6
stuff 20:15 47:15 64:15 79:12
sub 64:4
subject 11:4 77:4 submit 82:21 substantial 30:13 44:23 substantially $81: 20$ such 15:8 30:5,7 40:5 sudden 30:9 64:17
sue 71:22 72:2
sued 71:22
suffer 31:6
suggested 79:24
Suite 1:24
supervise $31: 11$
supervision 51:6,7
Support 7:21 8:9 12:12 12:13
supported 39:16
suppose 20:24 24:15 32:20 77:15
supposedly $25: 7$
sure 6:10,19 18:3 19:5 46:16,18 47:1 54:22 55:1,20 64:6 76:24 77:14 88:3
Surgeon 11:18 12:4
surprise 18:1
surveys $80: 12$
sweated 36:25
symmetrically 85:3
syringe 23:7
system 14:24 33:21,24
34:7,10 75:11 78:21
S-5 76:11

## T

T 92:1,1
tab 7:3 26:15 39:24 41:3 41:3 42:24 44:14 57:5
72:13 76:11,18,23,25
table 12:22 47:8
tabs 76:1
tackle 64:7
take 7:6 17:19 37:9 39:8 47:18,20,21 48:1 52:13 52:13 53:18,22 55:11 63:13 70:13 78:3 79:13 82:6,11,14,22 83:13,14
83:16 87:20 89:6
taken 53:14 78:7 81:2 takes 39:20 64:2 78:4
taking 5:1 46:14 64:15
67:2 80:21 81:8 83:7
talk 13:20 72:9,9 76:19
talked 13:21 79:24 88:7
talking 26:13,14 41:15
44:21 45:21 73:2 74:5,9 77:2,18 79:1
talks 26:17
Tallahassee 8:19 10:14
Tampa 1:13,14,15,25 6:24,24 10:20 17:19 78:4
target 53:2,3
team 9:23,23
tech 34:24 36:20 43:13 44:4 47:19 48:2 52:13 52:19 55:13 60:5 62:17 86:20,24
technetium 25:25 36:2
technical 37:22
technician 73:8,8
technologies 40:12
technologist 5:8 40:4
43:14,15,25 44:1 56:4 73:1 74:3,4 75:15,25 86:17
technologists 3:11,19 24:4 42:8 56:19 61:13 69:11
technology 3:17 5:12 39:14 43:2 62:25 65:6 76:15
techs 4:8,11 20:25 47:20 47:21,22 53:13,21 74:1 88:17
tell 21:13 84:2 89:21
temporarily $27: 14$
temporary 54:12 82:11
tens 45:1
ten-minute 39:8
test 48:22 53:18 64:3
77:15,15 78:4,4,6,11,17 82:22 83:7 84:18,22
testing 21:22 23:24 27:6 28:16 32:14 35:1,2 43:3 83:22
tests 27:9
TGI 17:21,24
thallium 37:8,13 38:3,5,6 thallium's 37:10
than 9:5 10:24 24:11,14 24:24 28:12 32:20 34:15,17 35:21 36:24 38:3 39:17 49:5 59:20 63:17 66:23,24 77:25 78:8,15 79:3,14 88:18
thank 6:25 15:10 19:14 39:6,10 57:1,4 81:10 86:25 87:19 91:2
thanks 4:25
Thanksgiving 90:5
that 5:5,17 6:5,12,18 7:2 7:7,12,12,24 8:8,10,15 8:19,21,23 9:5,22,23 $10: 1,2,7,10,11,11,20$ 11:3,6,12,12,21,23,25 12:4,11,20 13:1,4,11,16 13:23,24 14:1,2,3,19 15:13 16:4,9,10,24 17:8 17:12,17 18:3,23 19:1 19:12,23 20:5,6,12,17 20:20,21,23,25 21:8,24 22:1,11,15,17,21 23:6 23:19,21 24:9,13,19,23 24:24 25:4,5,9 26:2,5 26:10,15,16,17 27:18 27:19,21,22 28:1,9,10

28:11,15,19,22 29:1,4,5 29:8,10,14,15,23 30:4,5 30:6,7,13 32:3,6,9,16 32:22 33:5,8,12,16,17 33:21,22 34:1,13,24 35:1,6,8,12,21,25 36:15 36:19,24 37:20 38:8,19 39:13,17,22,25 40:2,6,6 40:8,9,10,13,13,15,18 40:19 41:2,12,13,18,19 41:20,21 42:2,3,12,13 42:14 43:8,17 44:9,20 44:23,24 45:3,7,13,22 46:16,25 47:6,8,12,18 47:20,23,24 48:1,7,9,17 48:18,18,19,20,23,25 49:1,4,6,11 50:4,5,8,9 50:12 51:7,8,9,15,16,17 51:17,19 52:2,12 53:2,9 53:21 54:3,6,7,14,25 55:20 56:16 57:10,11 57:12,13 58:1 59:3,4,12 59:23 60:4,23,23,25,25 61:7,22,24 62:5,7,9,15 62:18,23 63:1,3,11 64:2 64:2,7,15,20,25 66:11 66:15,15,19 67:5,9 68:6 68:19,22 69:2,5,6,15,21 69:23,23 71:8,13,18,21 71:23 72:6,7,7,12,18 73:5,6,12,13,17,19,23 74:12,23 75:1,10,22 76:3,14,17 77:13,14,21 78:6,10,11,12,13 79:3 79:10,19,20,22,24 80:1 80:2,4,7,10,12,13,14,14 80:25 81:1,1,2,3,4,8,8,9 82:7,10,25 83:6,8,9,12 84:8,10,13 85:2,3 86:11 86:13 87:4,5,12,13,14 87:15,20,25 88:9,14 89:2,6,7,8,17 90:10,13 90:16,18,22 92:8,11
that's 6:7,9 7:21 9:9 14:12,17 16:3,9 20:17 21:21 23:17 26:5 27:20 31:8,23 32:12 33:6,8,18 33:25 34:8,12 35:10,11 37:8,23 38:15 40:1,10 41:23 42:21 44:10,10 45:25 47:2,16 48:11 49:8,14,23 50:2,14,21 52:25 54:2 59:20 60:10 61:8 63:4,24 65:12 66:11,14 69:17 70:21 71:12 72:2 74:1,11,15 78:19 79:6 80:4 82:3 83:4,6 84:4 86:10,25 88:5 90:7
the $3: 1,10,184: 13,13,13$ 4:18 5:11,11,13,16 6:7 6:10,16,21,24 7:3,11,12 7:13,14,15,15,16,17,20

7:22 8:2,6,8,8,10,11,11 8:16,19,22,25 9:1,3,4,8 9:15,16,19 10:4,9,11,12 10:13,14,15,15,17,17 10:19,23,24,24 11:1,4,8 $11: 8,14,19,19,21,25,25$ 12:3,4,5,6,6,8,10, 11,17 12:18,22,23,24,24 13:1 13:6,7,12,12,20,21,23 14:1,4,9, 17, 17,19,19,19 14:23,24 15:1,1,1,3,4,6 15:7,11,19,21,22,25 16:11,19,20,25 17:1,5,5 17:9,13,19,19 18:12,16 18:19,20,22,24 19:2,6,8 19:11,16,17,19,20,22 19:23 20:2,11,12,13,14 20:15,21,25 21:1,3,4,4 21:6,8,9,10,17,17,19,24 22:1,2,2,3,4,6,6,8,12,14 22:20,23,24 23:2,4,4,5 23:15,16,17,19,21,24 24:3,4,6,7,9,10,10,15 24:19 25:4,10,10,11,11 25:17,18,18,23 26:8,10 26:12,15,18,21,21 27:2 27:3,3,6,7,7,9,10,14,18 27:20,21,21,22,23,25 28:2,6,8,16,16,20,25 29:3,3,4,6,7,8,9,9,13,14 29:15,15,16,18,18,22 29:23,23 30:1,6,11,11 30:15,22 31:2,4,7,20,21 31:22,24 32:1,3,4,5,6,7 32:8,9,10,13,13,18,21 33:1,2,3,9,10,13,18,21 33:22,22,24 34:6,8,9,9 34:10,11,12,16,17,23 34:24 35:1,2,10,12,13 35:13,13,23,24 36:1,1,4 36:9,12,16,20,23 37:1,1 37:4,5,5,13,13,14,15,16 37:19,20,23,24,25,25 38:7,12,14,14,15,16,17 39:11,12,13,15,21,22 40:2,2,8,8,8,9,11,13,13 40:14,19,20,21,23 41:3 41:3,6,8,9,10,15,18,19 41:21,21,21,22,24,24 42:2,2,6,6,9,10,15,16 42:17,19,20,22,24 43:4 43:5,5,8,10,12,14,15,17 43:18,19,20,24 44:2,3,4 44:8,12,12,13,13,16,18 44:23,25 45:1,3,4,5,6,6 45:10,12,14,14,16,16 45:24,25 46:2,2,3,3,4,6 46:7,12,12,14,16,17,19 46:20,22,23 47:2,6,8,8 47:9,14,20,21,21 48:8,9 48:12,12,15,16,19,19 48:21,21,24 49:1,2,3,10 49:13,18,19,21,22 50:2

50:2,3,5,5,10,10,11,14 50:15,23,25 51:1,9,9,10 51:10,11,11,16,18,20 51:24,24,25,25 52:3,4,6 52:8,13,13,15,16,17,19 52:25 53:2,3,3,13,14,18 53:22,23 54:2,4,4,5,9 54:15,18,19,22 55:2,5,5 55:12,13,14,16,19,21 55:25 56:3,4,6,19,21,22 56:22,23 57:3,3,6,7,11 57:12,13,13,18,21,22 57:22,22,25 58:2,11,11 58:12,13,13,15,16,19 58:20,22,22,25 59:1,2,2 59:3,4,6,8,8,10,11,14 59:16,16,19,24 60:2,3,4 60:11,12,12,18,20,22 61:5,9,13,17,18,19,19 61:20,22,23,25,25 62:3 62:4,4,6,10,10,11,11,12 62:15,15,19,21,22 63:1 63:2,3,4,4,5,7,8,11,16 64:1,3,19 65:3,4,5,11 65:16,20,21,23,23,24 65:24 66:3,4,6,10,11,13 66:13,15,17,18,19,20 66:20,20,22 67:1,1,4,4 67:11,14,17,23 68:9,12 68:14,15,19,21 69:8,11 69:14,16,23 70:2,7,9,10 70:14,16,19,20,23,25 70:25 71:2,6,7,11,12,13 71:14,15,18,18,18 72:4 72:10,10,12,13,16,18 72:19,19,20,20,24,24 73:1,3,3,3,4,5,6,9,13,14 73:16,19,22,23,24,24 73:24 74:2,19,23,25,25 75:3,3,7,14,20 76:1,2,3 76:4,8,10,11,13,18,18 76:25 77:1,3,7,11,12,13 77:16,18,20,20,22,23 78:4,6,6,7,8,11,11,12 78:13,17,17,19,19,20 78:20,21,21,25 79:1,2,7 79:9,10,11,11,13,15,20 79:25,25 80:3,5,5,6,8,9 80:11,11,12,13,14,15 80:16,16,21,24 81:2,3,4 81:4,4,4,7,8,8,12,17,18 81:22,25 82:2,3,6,9,11 82:13,17,20,22 83:7,11 83:12,13,16,17,17,17 83:18 84:5,7,8,8,12,13 84:14,15,15,17,18,20 84:20,21,22,22 85:1,4,7 85:8,8,9,10,14,18,19,19 86:18 87:2,3,6,11,12,12 87:17,20,22 88:8,10,14 88:17 89:10,12,21,23 89:23,25 90:3,4,5,9,15 90:15,17,18,21,21 91:3

92:5,6,6,9,9,10,11,15 their 9:3,24 12:13 13:9 17:11,11 20:4,4,23 21:12 24:5,25 25:6 27:11 29:2 34:15 35:6 38:18 42:1 45:14 46:11 46:23 48:23 49:3 56:16 60:13,24 66:21 67:9 68:24 75:6,21 82:13 83:22 86:21
them 6:11 14:9 22:8
23:23,25 24:5 27:11,16 29:2,4,11 30:14,17 32:3 32:8 34:14 37:9 40:7 41:9 42:19 43:10 44:10 44:19 45:1 48:25 53:7 55:4,17,19 59:13 60:8 60:15 62:2,8,21 64:2,18 66:20 67:3 69:10,10 70:17 75:21 80:24 81:17 82:12,21,25 84:2 85:1 87:24 89:20
then 6:5 8:25 9:22 11:22 12:6 14:20 16:15 17:24 21:25 22:9 24:2 25:6,20 27:23,24 30:25 31:20 33:5 34:10,21 36:7,22 41:10,12,20 42:9,13,17 42:20 44:15 45:25 46:3 46:10 53:4 54:16,20 55:14 56:13 58:16,21 63:1,19 64:1,17 66:15 68:5,6,12,16 69:1 70:20 70:25 72:20 73:2,22 76:8,16 78:18 82:23 84:3,12 87:11 88:8,10 89:9
therapist 67:22 68:1,4 therapy 3:15 14:9 39:15 60:4 65:7 66:25 67:24 68:3,8 87:10,13
there $4: 16$ 6:16,20 8:1,8 8:18,23 10:18 11:10,12 11:12 14:18 15:16 16:1 16:5,9,10 17:2 18:11,18 19:9,17,19 20:8,15 25:1 26:13 27:5,8 28:11 29:18,19 30:1,5,10,12 30:24,25 31:20 32:14 34:6,7,21 37:12,19 39:3 41:5,13 42:10 44:7,14 44:16 45:8,15 48:3,7 53:12,18,19 55:16 57:17,22 59:1,6,17,20 59:23 60:6 61:1,15,15 61:22 64:8,9 65:10,13 65:14 67:6,9 69:20,23 69:25 71:15,17 73:1,12 75:9 77:24 78:1,10 80:8 80:9 83:23 84:10 86:12 87:16 88:11 89:3,5,9
thereabouts 7:8 therefore 46:9

Thereupon 3:1
there's 6:7 8:12 10:9,19 10:21 11:11 14:1 16:2 23:9 25:2,2 30:19 33:6 33:20 34:25 44:10,18 44:19,22 48:5,7 52:4 53:20 57:18,23 58:4,16 59:19,22 60:1,2,3 61:1 62:20 63:14 64:11 65:14 69:22,22 70:15 73:3 74:13 75:16 77:12 78:3,17,17,19 85:4 88:5 88:20 89:7
these 6:25 15:14 18:23 20:7,19,22 21:7,24 22:16 23:18 25:19 27:19 28:18,23 30:12 30:22 38:9 42:4,18 44:3 44:16 46:21 48:23 57:10,10 59:14,18 66:24 68:21 72:10 74:7 74:7 75:20 76:1,2 77:3 77:6,14 81:24 84:8
they 4:14 9:2 11:19 12:13 12:19,24 13:6,7,9 15:6 15:7 19:16,16,19,21 20:3,5,6,7,20 21:10,17 21:22,23,25 22:3,5,7,7 22:8,9,16 23:22,24 24:2 24:5,6 25:6,7,9,12,19 26:8,9,11,17 27:12,13 27:22 28:10,12,16 29:5 29:7,8,13,14,25 30:13 30:17,19,20 31:1,11,14 31:16,18,24 32:8,9,9,9
32:11,15,17,18,19 33:5 33:6,8,8,13,16 34:4,10 34:19,20,21,22,22 35:5 35:10,23 37:9,17 38:3 43:11 46:10,12,22 48:17,19,22 49:15 50:17,19 51:3,3,4 52:6 52:8 54:6,16 57:8,9,9 57:20,24 59:6 60:25 61:9 62:2 63:22 64:3,12 65:8,15 66:18 67:5,15 68:12,16,25 71:22,22 74:8 75:15 76:9,12,12 76:12 77:4,7,14,20 78:13,22 79:6,24 80:3 80:15,15,18,18 81:12 81:13 82:9,10,14,16,17 82:22 83:8,11,11,13,14 83:16,21 84:1,4,12,17 84:24,25 85:5,5 86:13 86:22 87:17 89:3,8 90:22
they'd 37:16 38:3 they'll 18:3 25:20 54:16 82:11 83:2 84:3
they're $8: 12$ 11:21 15:17 16:5,11 21:1,21 33:7,11 45:2 47:18 48:2 52:16

53:2 56:20 57:16,17 58:18 60:18 64:10,15 64:17,19 67:8,15 68:15 68:16 69:6,9 70:9 72:6 75:19 77:11,15,19 81:15,16 83:7,20 84:3
they've 25:13 31:2 33:17 46:1 58:1 59:5 64:2 66:21 68:23 80:13 81:5 82:12
thing 13:20 14:13 16:6 24:6 25:4 34:12 36:2,24 38:13 40:8 41:24 42:6 45:10 47:19 49:23,24 52:16 53:10 60:12,17 65:3 68:11 72:24 73:3 76:9 84:12 85:3 87:22
things 11:9 13:25 14:2 15:24 17:19 25:19 26:10,11 41:2,13,14 52:4,18 62:10 68:21 73:6 77:6
think 3:4 4:12,14,23 5:22 9:5 10:12 12:25 13:8 14:10 19:1,3 22:17,20 24:6 25:18 26:1,4,7,12 27:21 28:3 30:3,6,10,12 33:17 35:11 38:12 39:16 40:8 41:2,5 45:16 47:2,19,23 48:11,14,17 50:4,6 51:17 52:16 53:12,15,16 54:2,3,16 56:16 60:20 61:13 64:7 64:20 65:25 66:8,14 67:9,13,17 69:8 70:7 76:2 77:3 78:22 85:13 87:4 88:1,11,13,16 90:8
thinking 52:10,12 79:5 third 43:15 48:7
this 3:3 4:23 5:15 6:3,8,9 6:11 7:9 8:10,14 9:12 9:24 10:16 11:14 13:15 15:5 18:18 19:2,14,22 20:10,12,13 21:7,25 22:12,14,21 23:1,2,2 25:24 26:16,16,25 27:17 28:19 29:6 31:2,9 32:2,24 36:25 37:4,25 39:4,10,12,18,21 40:1,2 40:4,10 41:4,7 43:18 44:4,19 45:20,21 46:7,9 47:1,3,6,23 48:15 49:8 50:7,13 51:21 52:22,23 53:9 57:6,20 61:20,21 62:13 63:2,5 64:7,11 65:4,17 66:1,2,5 68:17 69:21,21 72:14,17,17 72:18,21,25 73:7,22,25 75:13,20 78:1 79:6,12 79:13,18,21 80:18,22 80:24 81:6 82:3 83:24 84:1,6,11,20,20 86:15 87:3,5,11,23,25 88:8,8

92:16
thorough 19:3
those 11:7 13:17,18 14:5 14:11,12 28:8 29:20 31:6,10 33:7,18 34:5 38:16 40:7 42:9 43:8,16 44:25 54:1,7 58:4,5,7 59:3,24,25 60:1,19,25 61:3 64:4 67:3 70:20,24 73:19 75:8 76:13 79:4 89:14 90:21
though 18:10 22:5 36:12 61:12 78:15 79:15 81:3 thought 22:13 36:18 63:4 65:25 66:1 74:11
thoughts 32:4 76:19
thousands 59:13
three 14:25 24:13 26:15 27:3,7 33:19 41:14 43:4 43:11,16 44:22 58:4,5,7 58:11,12 60:1,8,18 61:3 65:23 73:21 88:17 90:21
threshold 37:24
through 10:10,24 20:4 21:6 25:12 30:14 36:4,5 36:11 37:14 42:17 43:17 46:16 64:3,24 66:2 76:5 80:19 81:1,2 90:15
thrown 85:2
thyroid 54:17
ties 61:1
$\operatorname{Tim}$ 3:16
time 5:1 8:6 14:17 15:19 19:6,12 22:15,21 24:10 25:16,17 26:20 27:21 38:16 69:18,25 70:5 72:4 76:5 77:24 78:3 88:16
timeframe 22:14
timeline 41:11,24 42:6,17
times 15:12 17:3 28:2 87:4
Timothy $2: 6$
Tineo 2:7 4:5,5,19 31:10 33:4 47:24 50:14 51:3,6 53:11,16,20,23 54:1,11 54:21,24 55:3,6 63:10 63:21 64:22 67:13 68:12 69:8,20 70:9,12 70:18 73:10,15 85:23 86:8 90:5,25
tiny $66: 4$
title 45:25
titles 41:18,21 57:11 76:14
to $3: 34: 18,23,255: 14,15$ 5:16,17,22,22,24 6:5,6 6:8,9,10,11,12,17,18,18 6:24,24,25 7:3,6,19,19 7:20,25 8:12,14,16,17 8:24 9:2,19,19,20,22

10:3,4,7,22 11:6,6,11 11:21 12:5,14,14,25 13:7,9,14,16,20,23 14:2 14:21,23 15:2,3,7,7,8 15:13 16:5,9,23 17:4,5 17:8,8,9,9,10,11,13,13 17:15,18,18,20,21,25 18:7,13,16,16,20,20 19:11,14,20,20 20:10 20:11,13,14, 15, 19,24 21:1,2,12,16,22,23,25 22:10,11,15,20,20 23:2 23:4,6,13,14,16,17,23 24:11,15,18,19,25 25:6 25:17,22 26:1,3,6,16,22 27:14,16,16,23 28:3,19 28:21,22,25 29:1,2,4,7 29:8,10,14,23,25 30:8,9 30:9,11,20 31:2,6,11,14 31:25 32:1,5,6,6,10,10 32:20 33:3,8,9,14,22 34:5 35:6,7,9,10,17 36:9,10,12 37:2,5,6,9 37:19,22,23 38:10,12 38:14,15,21 39:8,12,13 39:18,23 40:3,5,11,19 40:20,20,23 41:5,11,14 41:17 42:2,4,4,7,8,22 42:24 43:7,10 44:8,11 44:11 45:22,22,25 46:3 46:4,5,11,15,21,23 47:1 47:4,4,7,7,19,23,24 48:6,8,9,11,24 49:1,5 49:13,14 50:2,2,7,14,21 51:10,11,18,20,21 52:3 52:3,11,13,16,17 53:2,4 53:5,6,10,16,18,18,18 53:21,22,23 54:7,21,22 55:2,7,12,13,14,19 56:2 56:8,12,15,19,20,25 57:2,4,5,6,10,18,19,20 57:20 58:6,10,24,24 59:16 60:11,15,15,20 60:24,25 61:9,10,18,19 61:20,25 62:2,2,3,4,6,7 62:9,10,10,12,13,13,13 62:17 63:2,2,5,11,12,13 63:13,13,14,14,15,15 63:18,19 64:6,8,10,23 64:24,25 65:1,3,12,16 65:17,25 66:2,6,8,15,18 66:20,21 67:1,9,14,17 67:23,24 68:2,5,12,15 68:17,17,18 69:3,4,6,8 69:9,10,11,17,19 70:1,2 70:10,10 71:10,14,16 71:17,18 72:8,9,9,11,12 72:14,18,21 73:15,16 74:1,12,23 75:11 76:8 76:18,19,20,20,23 77:11,14,15,16,16,18 77:22,23 78:5,12,25 79:2,3,5,8,12,13,14,16

79:16,18,22,23,24 81:2 81:5,7,9,15,16,17,19,20 81:21 82:14,16,17,18 82:19,21,21,23 83:13 83:14,21 84:1,2,3,5,6 84:12,20,21 85:4,16,18 86:13,15,20,25 87:5,12 87:14,21,22,24 88:7,21 89:3,13,13,19,20 90:7 90:20,24,25 92:8
today 53:17 78:4 79:18 today's 42:7
together 7:1 9:20 18:24 19:15 53:2 59:25 72:11 told 43:19 tomography 43:15 44:1 45:13
tomorrow 11:18 78:5 ton 22:11
tonight 56:8
too 6:20 9:16,18 24:7,21 25:9 26:9 35:10 37:21 54:24 61:1 63:24 73:17 74:14 75:8 87:3 88:23
took 19:20,23 37:16 41:8 77:9 78:7 80:8 87:17
top 9:24 11:19,21 57:13
57:22 59:2,8 63:4 74:2
topic 15:18 19:21 39:11
total 35:13 60:4
towards 56:20
traced 20:7
tracing 20:19
track 32:2
tracked 75:12
Traditionally 89:15
trained 34:24 64:16
training 29:12,13 32:8,9
transcription 92:12
transfer 75:4
transferred 7:19
transparent 8:16
travel 5:23 6:1
treatment 37:5
tremendous 30:11
tremendously 38:11
tried 13:9
trouble 44:12 55:4
true 31:8 32:18 92:11
truly 32:22 88:19
truthfully 64:18
try 17:5 19:20 25:22
40:17,20 51:21 53:1,18 55:23
trying 9:2 20:10 21:1 23:14 26:22 28:22 50:7 62:2 69:8,9
tsunami 25:10
Tuesday 90:17
Turkey 37:11
turn 4:23 6:6,9 7:3,15 15:25 18:20
tweaking 8:13
twice 26:1 28:1 38:9 82:14
two 17:21 34:22 41:5,13 43:1,8,17,25 48:16 54:7 57:13 58:16 59:8,25 66:24 67:10 71:17 74:10,13 81:16 87:4 88:17 89:14,22
two-step 71:16
type 33:15 45:12 50:22 64:17
types 5:16,18 42:5,8,25 43:12 44:22 63:23 71:14 72:23 73:6
typical 38:7
$\overline{\mathbf{U}}$

Uh-huh 12:1
ultrasound 62:4 64:16,18
ultrasounds 64:9,12
umbrella 7:12
unanimous 86:9
Uncle 39:5
under 7:11 37:25 38:1,2 39:19 51:6 61:5 67:25
underneath 6:2 39:24 76:4,10
understand 7:16 23:12 24:8 68:14
understanding 32:24 86:23
unit 4:8 35:16
United 20:2
units 35:14
University 3:9,14
unless 48:1,10 68:4 75:20 85:16
until 13:16 34:11,22 52:22 53:6 66:4
up 5:15 11:19,21 12:17 12:18,19,20 15:24 16:25 20:3,6,12 22:19 23:2 25:12 26:16 27:15 28:6 40:3,19 44:6 45:10 47:9 48:24 53:3 55:10 59:21,21 60:3 74:2 76:21 80:4 82:4 83:24 85:6 86:14,15
update 13:13 19:4,6 77:1
updated 17:12 18:22
updates 29:3,9
upon 25:20 45:7 78:25 82:25
upper 72:18,20
urgent 16:4
urinated $36: 25$
us 3:4 5:2,17 8:20 9:2,8 13:10 17:20 18:1 21:13 22:10 23:17 27:1 28:15 28:19 34:20 37:12,16 39:23 40:5,11 46:4 56:24 57:6 62:12 65:16 69:19 71:18 73:6 79:22

82:12,18 84:3
usage 26:5
use 12:14 15:2 21:2 22:16
22:17 24:15,17,19 25:13 26:7 28:23 29:6 29:14 30:12,17 31:24 32:10 34:4 40:12 46:24 50:7 53:10 81:19 83:17
83:21 88:21 90:7
used 21:21,23 22:9 23:22 24:22 25:5 32:2,15 59:5 62:5 67:9 73:5 81:25 89:3
uses 42:3 78:12
using 20:21 $22: 8,8,12$ 24:5 27:9 36:15 38:14 64:1 76:14 84:9,13
usual 24:24
usually 83:13,17 90:8
$\frac{\mathbf{V}}{\text { vagueness 52:6 }}$
values 26:19
vascular 58:17 60:23 61:4 63:8 76:14
vascular-interventional 58:3
vast 10:12 61:13
vendor 83:20
verification 13:22 14:3 73:25 75:14
version 40:9,10
versions 39:22
vertical 59:8
very 8:15 19:12 21:2,3,4 27:9 35:21 47:9 48:19 49:21 56:19 58:15 60:2 75:18 77:11 83:9,9
86:19 89:12
vetting 77:14
VI 58:1,5,7 76:6
vicinity 79:10
Victor 12:9
view 53:1
Villages 16:19,20 18:17
violation 28:18 29:19 30:2
visit 21:25 22:1
visiting 37:11
volume 24:7 32:5
vote 85:22
VRA 51:2
W
wait 52:22
waiting 12:4 15:12 53:17 wall 72:19
wallet 18:13 58:1 72:19 72:20 73:3,4
wallets 75:7
wallet's 18:9
want 4:25 9:20,20 17:25 21:12 25:17 28:21

29:25 37:2 38:10,12,14 39:8 41:17 44:11 47:1 48:6,9 51:24,24 52:8 56:12 58:24 62:17 63:18 64:6 66:2 67:17 68:16,17 69:19 74:25 75:3 76:20 84:5 86:13 86:19,25
wanted 6:12,25 13:14,16 14:23 18:20 29:1 39:23 40:15 56:15 61:19
62:10 72:21 86:20 89:7
wanting 65:15
wants 5:22 18:16 63:2 70:9 85:16 89:20
warnings 29:5
Warren 2:6 3:23
was 5:14 9:16,22,24 13:1 18:18,25 19:1,4,5,17,22 20:6,8 21:5,5,6,7 22:17 23:22 25:4 26:10 27:4,8 27:18,22,22 28:2,3,9,19 28:21,25 30:1,5,7,10,12 30:18,21,24 31:2,4,12 32:3,22 33:10,20 34:15 34:16,20,23 35:25 36:1 36:7,16,20,21,23,23 37:1,11,12,14,15,18 38:8,20 39:9 40:2,8,13 40:13,17 41:25 44:6 46:4 47:24 48:12,16,17 48:20 49:4,6 50:23 51:7 51:8,10,16,17,17,18 56:2 61:22 65:5 66:20 67:4,6,10 68:19 72:4,7 72:7 78:14,16,22 80:7 80:12,12,21,22 81:1,2 84:10,13 88:11,11,17 92:8
wasn't 23:21 34:16 36:16 37:23 38:13, 19 50:5 66:19
watch 57:3
water 8:5 24:19
way 6:12 9:3,4 12:8 13:11
16:2 18:12 24:6,23
25:19 26:15 27:23
36:23 38:1,1,2 39:7
45:16,21 46:4 49:14
50:2 55:17 59:16,21
61:19 62:21 64:11 65:4 67:2,19 74:19 79:5,7,9 84:1 85:14 88:8
ways $67: 1081: 16$
we $3: 4,5$ 5:3,17,20,20 7:5
7:6,9,10,16,18,19,21,22
7:23 8:13,16,18,21,21
8:23,24,25 9:3,6,9,18
9:19,20 10:7 11:4,12,17
12:3,8,11,14,16,20
13:14,16,17,18,20,21
13:24,24 14:14,21
15:13,17,18,22,23

16:14 17:3,4,5,5,15,17 17:17,18,23 18:6,11 19:3,8,24 20:12 21:21 22:11,13,21,21 24:12 26:13,20,22,23 27:2,7,8 27:11,14,15,17,21,23 $28: 1,4,9,12,15,16,19,22$ 29:1,12,15,16,21 30:7 31:25 36:6,14,18 39:5,7 39:18 40:4,6,14,18,19 40:19 41:7,13 42:2,10 42:20,24 43:1,5,8,10 44:5,7,11,17,21 45:3,3 45:4,7,22 46:3,5,6,14 46:15,18 47:2,8,23 48:21,22 49:20 50:9,10 50:12 51:13,15,15,24 51:24 52:14 53:4 54:21 54:22 56:12,13,14,24 57:5,7,13 58:6,22 59:9 59:10,20,21 61:18,19 61:22,25 62:2,9,9,12,14 62:15,17,18 63:2 64:23 65:22,25 66:1,2,3,6,8 66:14 68:5 69:12 70:13 70:19,20,25,25 71:1,3 71:13,14,20 72:10,15 72:18 73:13,14,23 74:8 74:9,12,15,16,22,23 77:24 78:24 79:23,24 80:7,8,11,20 81:1,17 82:12,19 83:9,12 84:7,8 84:18 85:13,19,21 87:13 88:3,25 89:10,13 89:17,18 90:8
website 44:3,9 46:8,12 82:22 85:9
week 15:7,24 18:25,25 19:1 27:15 37:14 89:23 90:5,7,10
weeks 24:14 34:22 89:22
welcome 6:23 57:2
well 6:23 12:13 18:8 19:18 20:9 23:23 28:6 28:15 33:24 34:6 36:18 39:10 48:22 52:14 55:16 57:1 60:6 62:20 64:13 65:1,3 67:3,16,21 70:16,18 72:2,8 73:17 75:6 76:1 79:22 81:13 82:1,7,9 85:5 90:14 91:2
went 12:19,25 13:7 25:12 27:23 28:6,16 48:21 68:4
were 4:14 9:10 13:20 14:12 19:19 20:6,20,21 21:7,8,11,17,23,25 22:2 22:5,6,12,16 23:21,22 23:24 24:1,2,5,6,21,21 24:23,24 25:5,7 26:11 26:13,21,22 27:10,13 27:13,19,19 28:1,18

29:11 30:22,23 31:1,12 31:16,19 32:14,15,18 38:18 39:3,18 45:8 48:19 49:1 59:4 61:3 62:2,2,3,9 67:5,25 71:21 75:2 80:7,9,13,14 80:14,15
weren't 19:6
Wesley 92:15
we'll 6:13 34:2 44:24 51:25 54:7 55:19,23 56:13 72:6,10,11 75:9 90:20
we're 5:16 7:7,13,13,25 8:5,6,14 10:11,12 14:16 15:11,12,15 16:7,13,18 17:9,18 18:6,19 26:15 30:9 32:19,20 41:23 45:20,21 46:18 51:8 52:14,15 55:22,23 56:17 66:17 67:14,16 67:17 68:18,21 69:4,23 70:1 71:16 72:5 74:5 79:18,23 82:23 84:19 90:8,16,24
we've 11:20 13:17 39:11 41:25 44:2 47:5,5 58:9 72:22 74:10 81:25 89:15
what $6: 47: 16$ 10:1,8 11:10 15:21 16:10,23 17:13 20:1,18 21:1,5,20 22:21 23:15,16 25:13 25:22,23 26:13,17 27:1 28:15 29:11 31:11 33:8 33:18,21 34:4 36:22 37:3 38:7,24 39:21 40:4 40:21 42:1,7 44:6 45:25 46:5,20,24 48:12,17 49:12 51:3,4,6,7,18,20 52:1,14 53:3 57:8 59:8 61:9 63:11 64:10,19 65:18 66:21 67:8,8,15 67:21 69:3,4,19 70:21 70:22 71:19 73:23,25 76:21,21 77:15,19 79:22 80:11,11,15,20 80:24 81:1,7 84:4,6,15 85:10 86:17,25 90:15 90:16,22
whatever 11:10 38:16 42:14 46:24 55:23 68:16 78:13
what's 7:15 18:10 22:23 26:4 52:3 55:8 65:10,22 80:24
when 6:19 7:6 15:5,6 25:1 26:20,25 27:21 29:15 32:12 34:1 36:1,21 42:21 44:20,20,21 45:3 50:10 51:15,15 56:12 57:19 66:14 67:21 68:21 80:19 83:16 88:7

90:2
where 7:7 9:13 12:17 14:19 16:1 17:18,25 21:21 27:3 29:13 31:1 38:17 41:6,7,23 42:15 48:22 59:2 63:24 65:24 70:24 71:13 73:1 75:14 75:14,24 76:6 81:17 83:24
whereas 49:22 80:5 wherefores $80: 5$
WHEREOF 92:14
whether 62:14
which 7:11 8:15 9:3 12:22 13:21 17:22 18:25 21:1 21:11 23:24 27:12 30:22 34:2 36:3 38:6 39:20 41:15,16 42:8,15 57:9,16 58:2,8,18 61:3 62:16 64:12,18 68:24 72:17 74:19 78:14,25 79:25 81:21 84:13,19 86:17,21
whichever 18:2 70:18 72:9
while 37:16 55:11 77:1,8
Whitten 2:12 4:9,9 10:3 14:13,16 15:11 69:22 70:11,21
who 9:12 10:22 11:9,24 12:5,6 14:11 17:23 23:17 31:5,6,24 37:8 43:3,4 46:17 47:22 52:5 53:13,13 54:18,19,20 57:24 61:25 62:6 63:5 64:9,16 79:20 86:21 88:5,11 89:18
whoever 46:8
whole 8:14 9:9 28:7,9,16 30:15 31:23,23 49:23 49:23 53:13 66:19 87:12
who's 41:12 48:10
why $3: 3,418: 137: 844: 10$ 45:20,20 56:13 57:16 62:20 66:5 69:11,13 70:15 72:17 83:8 90:8
will $7: 3,5,9,16,18,22,22$ 8:7,15,18 11:12 12:15 14:3 15:16 17:12,12 24:19 26:15 27:1 33:12 34:1 41:18 42:12 46:1 48:23,24 54:3 55:11 73:17 74:3 75:7,8,9,22 75:25 77:1,7 79:2 83:24 84:2 89:6,25
William 2:4
wings $16: 18,25$
with 3:5,8,13,21 4:7 5:2
6:9 7:13,14 8:8,19 9:15 9:23 11:13 12:19 13:10 13:25 14:1,23 15:11,15 17:20 18:22 21:20

22:12,12 23:15,17 26:6 26:18 27:2,15 28:20 29:13,20 30:1,5,24 32:3 33:4,25 34:18 36:17 37:2,9 39:5 41:22,25 42:8 43:1,22,24 44:24 45:11 46:12 47:9 48:18 48:19 50:12 51:18 52:22 53:5,6,9,17 54:7 54:7,21 55:5,23 56:17 58:1 59:21,23,24 62:22 63:10 64:4,22 66:23 68:9,11 69:20 70:23 71:21 81:6 82:12,22 83:21 84:1,7,13 87:13 87:14 90:9,13,21
within 16:16 34:6
without 24:7 62:15 68:10
WITNESS 92:14
wondered 29:25 37:3 wondering 33:20
won't 44:8 45:9 61:24 87:11
word 58:19
work 5:2 7:4 10:13 11:12 15:7 25:19 48:18,20 49:2,2 52:5 54:3 56:20 87:21
worked 9:24 36:15
working 9:3 10:24 13:24 14:21 15:11 36:17
52:14,15 56:17 69:23
works 10:10 79:4
worksheet 6:7
workshop 42:12,20
world 57:6
worry $18: 8$
worth 33:11 39:3
would 16:7 19:12 29:24 30:4,7,8 33:18,21 35:19 37:6 38:3,7 39:13,21 40:10 41:2 42:2 47:12 49:17 50:4 60:19,19 62:12,20,21 70:21 73:25,25 74:22,22 75:14,15 79:10 82:7 83:8 84:7,7 85:18 86:23 87:21,25,25 89:19,20
wouldn't 25:12 30:3 67:16,17 75:3 83:25
Wow 26:13
wrapped 79:12
write 10:14 33:14 45:22 63:5
written 46:4 65:5 wrong 84:25

| X |
| :--- |
| x-ray 14:7,10 16:4 40:24 |
| 47:20 72:15 75:16,25 |
| 88:17 |

Y
yeah 9:14 12:12 13:3,3,8 14:15 16:23 17:10 23:8 24:9,23 25:15 26:10 30:3,16 31:5,18,22 33:11 35:3 38:19 43:24 47:24 49:17 50:4,19 51:1,5,12,25 52:12,24 53:8,25 54:21 55:11,13 61:8 62:24 65:3 67:12 67:25 71:12,12 72:2,5,5 73:17,21 74:15,22 75:24 81:15,25 82:5 83:4,8,19 85:12,23 87:2 88:18 89:2 90:9,19
year 13:15,21 14:25 38:9 39:4,18,21 45:6,7 47:3 77:19 78:25 79:3,14,20 88:7,8 89:6
years 9:18 25:14,25 36:6 36:15 37:12 39:12,16 39:17 48:16,16 50:13 62:11 71:21 77:7 80:17 80:19 82:21 84:8 85:20 87:24
year's 39:3
yellow 59:2
yes 4:15 5:6 10:6 12:24 19:10 24:5 33:1 45:18 56:5 60:8 83:20 87:19
yesterday $18: 12$
yet 8:21 30:20 86:19 88:22
you 3:3 5:5,24 6:2,3,4,4,5 $6: 8,9,10,11,12,17,19,19$ 7:3,3,7,8,9,13,15 8:7 9:17 10:2,8 12:18,22 13:3,14,16,22 15:6,8,8 15:10 16:5,19,21 17:25 18:1,7,7 19:11,14,22,23 20:18,25 21:12 23:6,20 24:10, 13, 17,18 25:1,18 25:25 26:1,3,4,5,14,15 27:1 28:11 29:1,19 31:20 32:1,12,15,23 33:16,18 35:6,7,8 36:2 36:3,9,10,24 37:17 38:5 38:10,12,13 39:6,7,10 39:22 40:9,15,16,23 41:2,10,17,24 42:14,14 42:15,17,21 43:11 44:8 44:12,15,15,17,20,20 45:9,13,19 46:24,24 47:19 48:6,24 49:2,12 49:18 50:6 51:13 52:18 53:4,7 54:12,18 55:7,9 56:15,15 57:1,4,25 58:24 59:2,2,4,7,11,11 59:15,15,16,18,22,25 59:25 60:2,3,6,10,15,19 60:21,22 61:2,17 62:3 62:11,16,17,19,20,24 63:4,10,15,18,18,19 64:6,6,10,22 65:1,5,13

| 65:13,15,18,24 66:5,15 | 17th 27:20,23 | 7.5 85:6 |
| :---: | :---: | :---: |
| 67:11,25 68:1,3,4,5,6,9 | 18 22:4,6 | 700 88:10 |
| 68:13,25 69:1,2,3,24 | 1980 82:1 | 710 45:15 |
| 70:22 71:23 72:1,12,13 | 1980's 78:22 | $7379: 9$ |
| 72:20,21,21 73:1,2,6,18 |  | 74 79:21 84:24 |
| 73:19 74:5,17,18,19,25 | $\frac{2}{23519,19}$ | 75 16:7 21:2 22:25 77:23 |
| 75:1,3,4 76:3,5,5,8,18 | 235:19,19 79:9 | 78:14,17,20,25,25 79:3 |
| 77:5 78:18 79:2,3,13,14 | 2nd 90:17 | 79:25 84:13 85:6,19 |
| 79:16,18,19,22 80:19 | 20 28:5 30:20 | 775 1:24 |
| 81:10 82:7,18,19 83:17 | 200 77:4 79:4 | 78 79:8 |
| 84:1,14,15 85:4,9 86:18 | 2001 87:13 |  |
| 86:19,25 87:5,11,19,20 | 2005 51:14 | 8 |
| 88:9 89:21 90:2,2 91:2 | 2011 22:15 | 8th 90:15 |
| your 5:1 6:2,2,7,13,19 | 2012 1:9 92:16 | $8131: 25$ |
| 26:14 27:17 36:3 39:24 | 2012-168 40:1 | 82 17:16 |
| 39:24 61:11 68:13 71:9 | 2013 16:23,24 42:21 |  |
| 76:4,19 83:22 | 21 21:23 22:2 26:21 | 9 9 |
| You'd 79:8 you'll 7 7.21 8.10 41:36 | 21st 89:23 | 922:2 9th 90.17 |
| you'll 7:21 8:10 41:3,6 44:20 57:10,12 58:25 | $\begin{array}{\|l\|l\|} \mathbf{2 1}, \mathbf{7 0 0} 59: 17 \\ \mathbf{2 2} 1: 925: 13 \end{array}$ | $\begin{aligned} & \text { 9th 90:17 } \\ & \mathbf{9 , 8 0 8} 13: 18 \end{aligned}$ |
| 76:11 80:1,2 | 22nd 27:20,24 | 9:00 1:10 |
| you're 6:9 15:22 24:11,15 | 229-8225 1:25 | 90 16:15 |
| 26:1,3 35:1,2,9 41:15 | 25 22:17 | 99 36:20 |
| 57:2,19 66:24,25,25 | 27th 90:1 |  |
| 67:1,22,22,23 68:1 79:1 | 28 22:17 |  |
| $\begin{gathered} 81: 18,1982: 21 \\ \text { you've } 9: 17,18 \text { 65:23 } \end{gathered}$ | 3 |  |
| 67:22 | 3 45:13 79:5 |  |
| Z | 3,600 59:22,23 |  |
| zero 22:4 25:1,2 29:8 | 30 21:24 |  |
| zeroes 22:5 26:9 28:18 | 30th 8:24 92:16 |  |
| 29:17,23 32:12 33:4 | 309 39:19,20 40:3 |  |
| zeros 22:2 | 33602 1:25 |  |
| Z-Score 85:2 | $336071: 15$ |  |
| \$ | 35,000 $22: 13$ $\mathbf{3 7} 45: 15$ |  |
| \$40 73:16 | 376 39:19 |  |
| \$45 70:2,10 | 379 20:9 |  |
| 0 | 4 |  |
| 02 35:13,19 | 489:2 |  |
| 1 | 429 28:9 |  |
| 17:8 44:14 | 45 70:7 |  |
| 1st 13:16 39:20 42:10 | 468.302(3)D 87:5 |  |
| 46:15 90:15 | 47 88:10 |  |
| 1,508 13:18 | 48 44:19 45:16 88:10 |  |
| 1,619 13:17 | 482 14:12 |  |
| $1.714: 14,15$ $1.7814 .2115 \cdot 13$ | 5 |  |
| 1:16 65:21 | 522:6 37:24 |  |
| 1:56 91:3 | 50 28:4 59:19 |  |
| 10 36:14 | $50089: 2$ |  |
| 100 16:15 | 501 1:24 |  |
| $\begin{aligned} & \text { 11:41 65:20 } \\ & \mathbf{1 2} 15: 2228: 2,11,13 \end{aligned}$ | 6 |  |
| 12th 90:3 | 628:5 88:10 |  |
| 123 27:15,16,17 28:1 | 600 45:5,6 |  |
| 14th 90:4 | 64 22:24 |  |
| 15 13:16 36:14 80:9 | 640 59:21 |  |
| 15th 41:25 | 682 44:18 |  |
| 16th 90:18 | 7 |  |

