DEPARTMENT OF HEALTH AND HUMAN SERVICES

ADVISORY COMMISSION ON

CHILDHOOD VACCINES (ACCV)

September 3, 2010

Parklawn Building
5600 Fishers Lane
Rockville, Maryland

Proceedings by:
CASET Associates, Ltd.
Fairfax, Virginia 22030
703-266-8402

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Agenda Item: Welcome & Unfinished Business from Day 1,

Charlene Gallagher, Chair

MS. GALLAGHER: Good morning, everyone. Welcome to the continuation of the 77th quarterly meeting of ACCV. I would like to start off the meeting by welcoming Dr. Rosemary Johann-Liang and Dr. Sarah Atanasoff. They will be giving us a clinical case update in DVIC, for which we thank you very much. We were having some difficulties yesterday and so you have to try to speak both into this microphone and into that microphone and use your best stage voice to project as much as you possibly can.

Agenda Item: DVIC Clinical Case Update

Dr. Rosemary Johann-Liang, Chief Medical Officer, DVIC, and Dr. Sarah Atanasoff, Medical Officer, DVIC.

I am one of those people that nobody accuses me of not speaking out loud, so it should be hopefully okay. Thank you for having us back. We do want, as a part of trying to really share information in a timely manner with everyone, just like Mark Rogers from DOJ yesterday, expanding on different vocabularies, et cetera, we also from the clinical aspect we want to bring you timely updates.

You realize that when we review case by case we are really protecting the confidentiality of the petitioner. We want to stay away from any case by case discussion; rather we are going to try to put things in more of a case series group information. We want to approach it in more of a clinical, special project type of situation, where we can share with you what experiences we are having in the program from a clinical perspective, but put it more in the group format type of data so that we

can all come away with some understanding.

This is nothing new. It is just in graphic format. Actually the fiscal year 2010 data is approaching 400 cases, but this shows you our non-autism claims -- these are the claims filed with the program – are on the rise. As you heard already the autism Omnibus Proceeding claims are on the decline. So that is kind of the landscape of what the claims are coming in.

Remember yesterday when Mark Rogers from DOJ spoke and he talked about looking at a sort of time and space, so he is looking at it from the perspective of the work at the DOJ when cases have gone to either settlement negotiations or to hearing, et cetera, this is approaching it more from the front end. The numbers do differ because the claims come in but our medical officers really cannot review the case material until we have something substantive to review. So this is actually reporting the number of new reports that medical officers have generated, meaning there was enough case material to actually put a story together and have some sort of a recommendation as to what is happening with those records.

So these are the numbers, ten months so far, up to the end of August – 601 reports in total, and that is because we are still, as time allows, doing medical reviews of activator autism cases of those cases that actually have case material to be able to review, pending on what the court's decision would be.

Again as you have heard our program is no longer just pediatric claims. We do have non-autism claims in pediatrics still coming. They are about 35 percent in the last three months, but the majority actually is adults. There are some autism claims as well that are not reported in this graph. But we are about fifty percent adult claims in the program.

Then moving on to which vaccines in the last three months were alleged

in our claims, influenza continues to be our highest vaccine being alleged. Human papillomavirus claims are really now second to influenza. We are seeing more and more of those claims. Then we have a spattering of other vaccines being alleged singly, and then also many of our pediatric claims, they are receiving the childhood vaccines so they would not really be alleging DTAP, for example, but actually coming with a whole host of the vaccines series as the vaccines being alleged.

MS. HOIBERG: Can I ask a question? My question is, with the influenza being the number one culprit it seems to injury, is it is the safety of this vaccine in question as far as – it is really being looked at as to why is it that this causes so many alleged injuries?

DR. JOHANN-LIANG: I think what would be helpful, maybe next time, to put it in context, is that we should maybe provide some data on distribution of vaccines. It really has to with – influenza became covered under the program and then claims started to come in, and really the number of claims probably has to do with how many vaccines are being given out there in proportion. I think what I will do next time maybe – our distribution of how many vaccines are being distributed out there is always a lag, where this is more of a – but again, actually, thinking about it now, when the claims come in remember we have a three-year to file for the petitioner. So it may be that the timeframe of when the data that we would have and when the vaccine were actually given may not be so off. So for next time let me see if I can work on trying to get some context for you. That is probably more of the answer than anything else, because human papillomavirus as well, there are a lot of vaccinations being given and that is probably why the claim numbers or the proportion of claims coming in are rising.

DR. HERR: There is a corollary to that. The fact that this is essentially a new vaccine every year – is that looked at as well as when we get claims that we start

tabulating what year people are alleging as far as injuries, so that we can look back on a particular year of the vaccine?

DR. JOHANN-LIANG: Yes, we can definitely do that. We can look at how many, by year, we can look at which vaccines were alleged per year. That is definitely possible. Break it down like that. That way we could actually look at that in the context of the vaccine distribution data, how many doses were distributed. Remember we don't – there is really no repository where one can get exact numbers and which vaccines were actually administered to how many doses. You know, it is all on the shelves and stuff, but CDC certainly had data on which vaccines where distributed, how many doses were distributed throughout the country and where they went and things like that.

DR. HERR: Were there more claims that came from an occurrence in '93 versus '97? That we haven't seen.

DR. JOHANN-LIANG: We did have – remember, recall the very first slide, you see it is 2007 there is a blurb here and it goes back down in 2008? This is overall claims, but if you look at it how many are flu claims – this was the year that we had what we called the flu bolus. There is an eight-year look-back where you have to file the claims, so there may be some things about the subtleties of the program that may make your numbers change. But certainly after 2007, 2008 and on, we can actually look at the year-by-year number of claims and juxtapose that to the background of distribution of doses and see if there is anything. That may be a very good idea. We will work on that.

MS. HOIBERG: I guess my main concern with the distribution of the influenza vaccine is really in its distribution and how they did a whole bunch in schools and they were being kept at the right temperature. I feel like the vaccine is not given the

treatment that it deserves. I mean, vaccines are really a good thing, but if they are not being treated with the care that they need to be treated, they are not being administered -- they are being administered willy-nilly. So a lot of times there are no background checks on medical history of a patient. They just go through a drive-thru and get a flu shot or they line them up in the school cafeteria and give them the H1N1 shot. I guess my concern is that a lot of these claims are coming in because of how the shot is administered, the carelessness in how – I really feel that the flu shot is not given the treatment that it deserves. I think it needs to be treated with more care. So I think that is why we see so many injuries with it.

DR. JOHANN-LIANG: I think that, speaking as a medical person, I think in general medical personnel really do try to do their very best to carry out – maybe a lot of these are government saying we need to give these shots by a certain amount of time. Remember last year with H1N1 there was a lot of push to get the vaccinations, whether it is at schools – you are absolutely right. Your point is well taken, but in general I guess people do try to do their very best, but one aspect is, even in the programs, and this may be a message we do want to discuss, is many times, especially for these adult vaccinations and these folks who get it at CVS or in some sort of drive-thru, as you say, the vaccination records are missing.

The childhood vaccination series is actually much more helpful for us, the medical reviewers, because they actually have a vaccination record with all the signatures and it is in there – more for adults, and especially for adults receiving vaccinations at sites other than their primary physician, we have difficulty tracking down vaccination records, even, and that is one of the missing records, because that is by jurisdiction. That is a jurisdiction issue. We need to actually see that a vaccination was given for someone to allege that they were hurt by a vaccine.

So I think that is a good point. That may be something you want to bring out in the outreach group. That is maybe a point of discussion with CDC and these vaccination information sheets that go out. I think that is an important point.

But in general, and I think we will have to show the data to actually make that determination, is that the proportion of vaccines alleged coming into our program is probably related to the number of vaccines that people are seeing out in the community. So I don't think there was anything that struck us as strange, but again I don't have the distribution data here to actually say that. So we will track that down for next time.

MS. GALLAGHER: I understand that you don't have the distribution data but is there any vaccine other than influenza that the recommendation is as wide for the population as it is for influenza? I think that if we assume that people are following recommendations, many, many, many more people would be vaccinated with influenza than any other vaccine. Therefore, if you are looking at injuries as a percentage of people who receive it you can't just look at the numbers received; you have to look at how many people received it without any issues. Then you get a percentage. Then I think probably it falls more in line.

This is supposition on my part but if you just base it on the recommendations it is much more widely used.

MR. SCONYERS: Numbers are numbers. What would be useful would be to see rates, because that would tell us the incidence. So 39 percent of what just doesn't tell us much. I understand that is compared to your number of claims, but in terms of overall safety it just really doesn't really say anything.

DR. JOHANN-LIANG: I think you all have kind of rephrased what we are trying to say – we will do it next time. As you said, the distribution also, as Charlene said, impacts on the populations given – for example, HPV is really a more narrowly

focused recommendation to adolescents. But flu, the populations have expanded very substantially over the last several years so it is pretty much inclusive of everybody six months and up. That is a perspective, as well. We can also show what population – I guess we can go and look at what populations it has been given to. CDC hopefully will have that data. We can ask them if they can provide some of that information for you next time, in context. We don't have that information here, Jeff, so we will have to work with CDC to get that.

MR. SCONYERS: Right, I understand.

DR. JOHANN-LIANG: This slide is just to set the stage for again our program's experience with when the medical officers review the cases what diagnoses or actually adverse event has been determined. Because there are a lot of acronyms being thrown around we thought it would be good to just give you a slide that spells out what these letters mean. For example, Guillain-Barré syndrome, you guys are so intimately familiar with it but we had a case of this as well and we got a little bit of a confusion – GBS is also a pediatrician talk about with Group B Strep. We had a patient Group B Strep with Guillain-Barré that was – so we had a lot of GBSs in that report.

Then just briefly, the chronic inflammatory demyelinating polyneuropathy that you may also hear about, the CIDP is a chronic sort of remitting disease of people having weakness and tingling, whereas Guillain-Barré is more of what we call a monophasic illness meaning it is something that happens acutely and then and then it really should resolve.

So even though people may think of these demyelinating diseases sort of all the same they really are not. There are many, many different sort of entities, disease entities that fall under demyelinating, meaning the myelin is the substance that coats your neuronal pathways. So demyelinating means that there is something that is

damaging that sheath. It can happen many different ways. There is trauma, there is something that is attacking it, there is inflammation and it gets slowly destroyed. There are many different pathophysiological ways that you get demyelinating disease, but the end result is that the sheath that coats your neuronal pathways gets destroyed and that is why people result in all sorts of different kinds of neuropathies, whether it is central, meaning it is in your brain and your spinal cord, or whether it is peripheral, meaning it is the nerves that are extending out to the rest of your body.

You may also see ADEM. It is an illness that is still pretty much hard to really get a handle on, but it is another acute disease. It is a central nervous system, in the brain and spinal cord. Transverse myelitis is probably something you also ehar about. This is also again more of a acute illness and transverse because it is really at a certain level of your spinal cord. It kind of transects so that you will have symptoms of organ systems that we enervated by your nerves that are below that transaction. That is why it is called transverse myelitis.

You are all familiar with multiple sclerosis, which is again another type of central demyelinating illness, but like CIDP it is a chronic remitting type of disease and not a disease that comes once and is gone.

So these are some of the adverse events that you will see associated with this program because these are becoming the most common adverse event allegations to the program. Other common adverse events – brachial neuritis, as you know, is on the table for tetanus. This is a very common – well, not very – for the program it is, it is not a common illness, but we do have a number of brachial neuritis claims every quarter, as well as something that is not as well understood, but I wanted to call it to your attention, which is the complex regional pain syndrome. This is really – in the past this was known as causalgia or reflex sympathetic dystrophy. This is another

still not well understood illness of the nervous system where things just seem to go awry. It could be a very small sort of an incident, a small trauma. Let's say somebody was running in a football game and happens to hit something and not really result in much injury, sports injury, per se, but then they go on to have pain and some motor symptoms, sensory symptoms, and especially pain that is really not going away that seems to be disproportionate to whatever the acute injury was.

So this is something we are still trying to understand, but we do have claims that come in with CRPS and upon medical review the diagnosis of CRPS, and upon medical review the diagnosis of CRPS based upon what we know medically thus far seems to be appropriate. So these are some of the adverse events would be helpful as you look at this table, which is the adverse events of non-autism claims just for the last three months. Again I am just reporting our program's experience here. These are, based upon our medical officers' reviews, the diagnosis that they determine that the claim had. I mean, claims come in with different types of diagnoses, but upon review, because we have some pretty good – if we can get all the records as requested, many of these claims we are able to get a very good assessment from many years back to see what actually happened to the patient. Again, our medical officers are not at the bedside, it is not real time diagnosis, it is really doing a medical records very comprehensive analysis.

But it is GBS and not Group B Strep, but Guillain Barre syndrome that is really the number one diagnosis upon review, and other demyelinating diseases as we just discussed. In the different types of immunological or rheumatological autoimmune, things like lupus injuries that people claim, based upon the medical officer's review the diagnosis is that type of a disease entity.

The relationship of what the diagnosis is to the vaccination or other

antecedent illnesses is not part of this slide. This is just talking about what the diagnosis was upon review. Many children actually do have seizure disorder and do have encephalopathy as their primary diagnosis. One other thing to point out here is that this is really reporting out the primary diagnosis relevant to the current timeframe that we are looking at.

Some of the patients, actually, really the primary diagnosis was one of psychiatric in nature. Then we have a whole host – a few diagnoses here and there that is really bumped into this miscellaneous column, such as things like blood disorders, cardiac disorders, gastrointestinal disorders. There is really a huge gamut of different types of medical disease entities that, upon review, has been determined by the medical officers.

MS. HOIBERG: These are things that are being claimed? Or this is what you have found to be –

DR. JOHANN-LIANG: When the records are reviewed by the medical officer this is the primary diagnosis as determined by the medical officer review.

MS. HOIBER: Okay, so this is what you determined.

DR. JOHANN-LIANG: Yes, because in the end that is what we base our analysis on. If you are interested we could do some sort of what came in and what was reported out actually. There is sometimes a lot of discrepancy between what people are actually claiming and what actually based upon a good medical records analysis you end up with as a diagnosis, too.

MS. HOIBERG: I would like to see that.

DR. JOHANN-LIANG: The only problem with that is I have to think of a way to do that in more of a group format. Again we really want to protect – if you were the petitioner I am sure people want protection of their identities, so we really want to

protect anything that may be more focused on one case or even a couple of cases. We really want to try to share with you more of the clinical information about the program in sort of this kind of clinical project. We were trying to think, how could we share but do it in a way that would be helpful but would also really protect patients.

MS. HOIBERG: Are these cases that have been settled already or are these ones that you guys are working on right now?

DR. JOHANN-LIANG: It is really important, the timelines – remember the program has sort of a life cycle, the petition's life cycle. Mark Rogers talked about the point, and he had a whole lost of different injuries, those were the settled cases, and he is reporting out actually the alleged – because what goes out on the decisions, on the top, actually is the vaccines alleged and the adverse events alleged. This is really looking at it from the clinical team where we are reporting to you based upon the medical reports that came across my desk from June to August of this year, what the primary diagnosis of those reports are. So this is very early. This hasn't gone even to the DOJ yet.

DR. HERR: Maybe it is appropriate, but how often does the medical diagnosis from the review differ from what is alleged.

DR. JOHANN-LIANG: It would be hard for me to give you a percent without actually looking at the data.

DR. HERR: That might be an interesting question because if somebody alleges these particular injuries, okay, well, it is just affirming at least what the thought is. But if there is something entirely different that may answer Sara's question. I think that is what you are getting at.

MS. HOIBERG: Yes, what I am trying to think is, okay, you determined in 35 percent that GBS is what the diagnosis is – do all those cases get compensated

because you said it was GBS? Or do some of them, go by the wayside and not get compensated?

DR. JOHANN-LIANG: This is probably not a time to talk about compensation. Remember that comes later. This is the initial adverse event review and the diagnosis that you arrive at, and remember that GBS is not on the table right now. But what we could probably do in a future time, another clinical update, is that's maybe a good way to approach a group sort of information, how much in that way. We could take some major diagnosis and see if there is a really proportionally too much of a difference.

When we did the review it seems like a lot of difference. When you are doing individual case by case and the person comes in like this and you say no, that is really not what happened and that type of thing, so we may be looking at it more – there is a lot of difference. But when you actually group by certain types of illnesses it may not be that different proportionally.

I will take a look and see what would be a good way to share that information with you.

MS. HOIBERG: You could always take a case that has been decided and that the petitioner – I remember I had to sign all sort of things saying it is okay to use her name, because it is all public record – but to take a case and say this is what it came in as and just take us step by step through from the medical review to the final judgment, just to kind of see – especially when the new people come in, for them to see exactly how it is that the program works. And this is what it looks like, you know, all tied up in a nice neat bow. Instead of having like the little boxes that you kind of have to sit there and look at, but if you could just say this is what we did here, this is what we did here, this is what we did here. You don't have to put what the final judgment was, but that it was compensated.

DR. JOHANN-LIANG: That is a good step. That is a very good suggestion. When you guys get your orientation that may be a good time do that.

MS. GALLAGHER: May I make another comment? I have actually been practicing law so long that I was involved in some of the 1976 influenza cases. Can you imagine remembering that far back? That was when the government had taken on the liability of many of those vaccines and they had put a time limit of, I believe, 42 days between the receipt of the vaccine and the onset of GBS and the onset of GBS for compensation, because you have to remember, many people get GBS who never got any vaccine. So if we compensated every single case of GBS that comes in without any time association we are probably not doing it the right way.

There were other cases that came in during that litigation where they alleged GBS and upon looking at the medical records they had MS. So this is just my personal experience from many years ago. I am suggesting it is identical today. But those are the sorts of issues. So just because, on looking at medical records, the medical officer has decided on the diagnosis, it doesn't mean that will or will not get compensated because there are many other factors to take into consideration.

DR. JOHANN-LIANG: Thank you, that is very helpful. An example would be, this is a diagnosis of GBS, as Charlene was saying, but if the GBS symptoms of onset of weakness is occurring let's say a day after vaccination, that would be for the medical officer's review to say that the vaccination is temporally – it is way too early for GBS to happen within 24 hours. It is an immunological disease and it would be happening usually at the least four days, maybe five days.

There was a campylobacter infection that was a week before and that is much likely the antecedent to the GBS symptoms. So this is just reporting on the diagnosis. It is not necessarily reporting out what is the antecedent or the associated

symptomatology leading up to the GBS. So that is I think the point you are trying to make, right?

MS. GALLAGHER: Right, because campylobacter is very strongly associated with causing GBS and certain individuals are susceptible. So you have to look at all of the factors in the medical record.

DR. JOHANN-LIANG: Thank you. Those are very good suggestions. It is like how medical schools are trying to teach the doctors now, instead of doing pathology and anatomy and all of this you give a patient case and then you look at the whole spectrum of what needs to go in. That is what it kind of reminded me, so okay we would like to share some information about some interesting things that come up when we review these cases. I think they are instructive and important for public health and vaccine safety.

In June – it doesn't seem that long ago – we were here in June when it was hot then – it is still hot now – so I introduced a little bit about the demography of clinical characteristics of the HPV petitions that we have been receiving because we are getting more of them, and I also introduced to you, and these are really introductions at that time, not much in depth, of a project that we are working on. We came up with a good way to say this whole bunch of shoulder injuries related to vaccine administration and we are calling it SIRVA.

I am happy to report that you all urged at that time to really get to this and try to do some more analysis on it, try to get a handle on it, so we have done that over the summer and I wanted to introduce you to Dr. Atanasoff, who is our medical officer in our branch,. She is also the team leader for the adult medical officers because we do have a lot of adult cases now and she is taking the lead on this project. So I am just going to come out of this – I will come back once Sarah is done with her presentation to

finish off. But I am going to actually switch over to her and see if we can get out of this slide set – that's yours, right there – and turn it over to Sarah.

DR. ATANASOFF: Good morning. I wanted to go a step further in updating you in that we did create a paper from all the information that we gathered on these cases and we have submitted it to a journal for publication. It is under review now.

The background of this – I think Rosemary explained in June that there were certain cases we saw where there were claims of shoulder injuries due to vaccination. We noticed a pattern emerging where there were certain features of these cases that appeared to be in common and we thought there might be something there.

So what we did was we had our database of cases and wanted to make sure that we got all of the cases that this may have occurred, so our query included a number of different terms based on claims coming in claiming arm pain, shoulder pain, shoulder dysfunction, frozen shoulder, adhesive capsulitis and shoulder bursitis. These were claims submitted between 2006 and 2010. We did also include brachial neuritis, which is a neurological injury. We didn't think what was going on was neurological but in many instances, as Rosemary explained, a claim can come in for a certain injury that is actually not the diagnosis, and many times we have seen claims of brachial neuritis come in when that wasn't the true diagnosis but it was something else going on in the arm, either complex regional pain syndrome, or we did find one or two where we thought they just fit with our cases.

Once we reviewed all of these reports we did exclude some cases, those that were confirmed brachial neuritis, it was just localized or superficial pain or scarring, and also the complex regional pain syndrome.

For results, some of this is pretty interesting – 85 percent were female and there did not appear to be a pattern of age. It ranged from 26 to 83. Sixty-two

percent were obese, with a mean BMI of 27.2. None of the claims patients were underweight. That will come into play later on.

As far as the vaccines claimed, the bulk of them were influenza vaccinations. Thirty percent were tetanus-containing and there was one HPV case. We also wanted to look at whether or not it was a repeat vaccination. A lot of vaccinations come in a series, including HPV, which is a series of vaccinations. Influenza is something that most folks get every year; tetanus is every ten years. So we wanted to look at that as well.

We could confirm in almost 70 percent of the cases the patient did get a prior vaccine of the same type. Thirty-one percent were unconfirmed but in all four cases those were tetanus vaccinations. And most times I can say the adult cases, it is not as nice as the pediatric cases. The pediatric cases come in and they have a nice pediatric record of all the immunizations they have ever gotten. That is very rare in adult cases. Sometimes they will say, well, I did get the influenza vaccine last year and nothing happened and we can say they had gotten it in the past, bus especially tetanus, which is very ten years, we normally don't go back ten years in the record. So we are under the assumption that since these are adult patients that they did have a prior tetanus vaccination at some point, either during childhood or early in their adult life.

As far as the histories, none of them had any report in the medical record that they had ever had a problem with their shoulder in the past. As far as onset, most of them, 93 percent, had onset of pain within 24 hours; 54 percent reported immediate pain; 46 percent voiced concern over the vaccine administration itself, with many of them saying they saying they thought the vaccine was given too high and one or two patients said that the vaccination hit something hard.

Physical findings in common with most of these patients were, number

one, all of them had limited and painful range of motion. They did not report any problems with the actual injection site, swelling or redness, et cetera. Sensory symptoms were uncommon. Tingling and numbness and weakness were reported at times, but the weakness was found to be due to pain rather than a true neurological weakness. And when reflexes were tested they were normal.

As far as the diagnostic studies in these cases, about 40 percent, they did no EMG and CV studies, which is essentially you take needles and stick them in to test how well the nerve conducts its signal. In those cases they did not find any neurological disorder, and this is the test that is normally use to help tell whether a patient had brachial neuritis or not.

MRIs are performed in a bulk of the cases. There were unusual findings, abnormal findings, including fluid collections that were in the deep deltoid or overlying tendons. Bursitis was very common and at times the radiologist would point out that the fluid in the bursa seemed to be a larger amount than typically seen. Tendonitis and also subchondral changes which means change within the bone itself, right beneath the surface, with tendonitis, and that was seen in one patient.

X-rays were done in over half but were really of no benefit at all. As far as the clinical course, more than half required one or more steroid injections into the joint, steroid injected into the joint itself to help reduce inflammation. Thirty-one percent required surgical intervention and half of those required a second surgical procedure later on. One case in particular that was very compelling, they replicated the path of vaccination according to where the patient said she was vaccinated during surgery to repair damage. They found that the needle ended up passing through an area containing abnormally inflamed and scared bursa, thickened tissue around the damaged tendon, and then beneath that there was abnormal bone tissue where the bone was

actual necrotic and some of it needed to be removed.

In all of these patients their symptoms persisted at least six months and for some of them many years. As far as follow-up it is sometimes difficult for us to state a timeline because sometimes we only have six months after vaccination; sometimes we have several years. But is appears that in some cases this pain can be persistent for quite some time. Less than a third had complete recovery. The predominant residual that we found within these patients was essential limited range of motion that was painful.

I think Rosemary back in June, brought up the one literature article that we did find when we were thinking that something might be going on and that was essentially two cases in which patients reported pain within two days following vaccination and the author speculated on the possibility that perhaps the vaccination was given too high. So we searched more in depth into the literature and there were several large studies using body mass index, which is basically the determination of how overweight a person is, and what they did was they looked at BMI to determine appropriate needle length to insure that the vaccine goes into the deltoid. They did not look into whether the needle itself could penetrate further.

We did find one article that dealt with this in particular, and this was in a pediatrics journal where they did assess the risk of over-penetration in children ages 3 to 18. They used MRI and CT scans in a range of patients and according to the needle length specified for a specified age they determined, based on the depth of the tissue, what the risk of over-penetration was, and they found that it ranged anywhere from – they looked at both thigh and shoulder, but in the shoulder evaluation they found that the risk ranged anywhere from 11 to 61 percent of over-penetrating the deltoid. We didn't find any studies looking at this in adults.

We also worked with a rheumatologist on figuring out how this would come about, why such a severe reaction? When you think about injecting an antigen into tissue, if you inject something that is non-antigenic, like salt water saline, you wouldn't expect it to cause any kind of immune reaction. Even if you did inject a vaccine with an antigen that the body had seen before, if it goes into the deltoid you might get a temporary, transient, localized immune response, but nothing that would be as major as what we are seeing. Perhaps we were thinking was that if you take this antigenic substance, particularly if the body has seen it before and already has antibodies to it, and you inject it into the synovial space, which is the actual joint capsule – no muscle, just the open space with tissue – what might happen is that the existing antibody would react to that causing a very robust reaction and perhaps leading to a prolonged inflammatory response.

One piece of supportive literature that helped us in our thinking that perhaps this was what was going on is an older article back in 1952. What they did was exposed rabbits to an antigen, let the bodies respond to that and then later on they injected antigen directly into the joints. So they had been previously exposed and now they were injecting antigen into the joints. And when they took a look at the joints what they found was the antigen was being bound to existing antibody within the joint as well as there was a formation of antigen antibody complexes and significant inflammation that lasted six weeks or more.

So in looking back at our series we wanted to find out how we could identify this type of case in the future. The commonalities in our cases, none of them had any prior shoulder injuries, they had all received a vaccination to which they had previously been exposed, all had relatively rapid onset of shoulder pain, the symptoms were limited to the shoulder, all had symptoms consistent with a local immune mediated

inflammatory response, and all had limitation of range of motion of the shoulder with pain.

Some additional considerations – we don't think it is due to any particular vaccination but rather one that the person has been exposed to before. We don't think needle length is an issue in all cases considering that in our series the BMIs were all either elevated or normal, and there were no persons who were underweight. So thinking about the studies where they looked at BMI we don't think that is the issue in our case. But we do think there is a strong possibility of improper vaccination technique.

We did also consider, although I don't think we identified any in our cases in particular, that muscle mass may be an issue, especially in older female adults. One other thing that we considered when we looked at all of the diagnostic studies in our cases, with the abnormal MRI findings, is that many times patients can have either asymptomatic MRI findings, such as rotator cuff injuries or tears, that may predate the vaccination, and it may not be involved in the particular injury at the time or it may the condition may have been aggravated by the localized immune response.

So what we concluded was that vaccines can be unintentionally injected into tissues of the shoulder rather than the deltoid, either due to improper vaccination technique or to inappropriate needle length. And there is a potential for prolonged immune mediated reaction when the synovial joint tissue is exposed to the vaccine. As a result of this shoulder pain and dysfunction can occur from either improper vaccination technique or inappropriate needle length.

What we are recommending for consideration is during vaccination avoiding the upper third of the deltoid and that when the vaccination takes place the provider and the patient should be at the same level. If the provider is standing and the patient is seated there is a tendency to go further up aiming down. Preferably the

patient should be seated, both should be seated, because syncopal or fainting episodes can occur – very common with vaccination. So that would be the optimum way to have a vaccination occur.

The vaccination is not just a simple act and then it is done. We think what you should actually consider as well is that definitely the appropriate needle length based on BMI and perhaps in certain individuals you might even want to consider an alternate injection site, particularly if they have a low amount of muscle mass.

One additional thing was that the rheumatologist suggested was that the MRI and diagnostics should be performed prior to any steroid injections, because steroids are useful but they can actually cause harm. They can cause tissue atrophy and damage them themselves, so you would want to get a good picture of what is going on in the shoulder before injecting.

This was a team effort. So I would like to thank Tom Ryan, who is in the back --he is another medical officer -- as well as Rosemary and Dr. Robert Lightfoot.

MS. GALLAGHER: Thank you very much. That was an extremely interesting presentation. I think it gives the health care providers a lot of food for thought about how they might structure their programs in the future.

DR. FISHER: I think this is something that we probably have not thought about as much in the past as maybe we should. Going back to Sara's point about the fact that adult immunization is frequently done outside the medical home by pharmacists – not that pharmacists can't be trained to do it correctly – but of course it may be a different group. In addition, if you look at the internist's office versus pediatricians' offices frequently there is not a nurse that is doing the administration of the vaccines, because they don't hire nurses in their private offices. So I think it would be very important, particularly with this season's influenza we are really pushing for all adults to

be immunized, it is important to try to do some educational stuff for the non-office setting or even for the internist's office setting because I am not sure that they are nearly as comfortable as pediatric offices with giving vaccines. The idea that you would sit down and give a vaccine I think is new for probably most of us.

MS. GALLAGHER: You are making such good comments and I am told that people on the phone cannot hear. Is there any way you could step up here so that the people on the phone could have the benefit of your comments?

DR. FISHER: So in a quick summary my point is that this is kind of new information and especially this year, as we are really trying to get all adults immunized for influenza, we should insure that when the vaccine is given in a non-medical home or in a medical home setting where the internist is not as comfortable with giving lots of immunizations, that there be appropriate training to pharmacists, to technicians, to airport centers where they are giving vaccines, to all those other places which are great places to get the vaccine and a great way to get it out, but we need to insure that it is being given in a safe method. I wanted to thank them for doing this study. It is really incredibly useful.

MS. CASTRO-LEWIS: I have a question. Once you publish your paper this will be out in the scientific community, but is there a plan to provide CDC or those that make recommendations to the provider community to pass on these recommendations? What is the process after you publish a paper and then what happens?

DR. ATANASOFF: This is not a hypothesis-driven randomized clinical trial. We are reporting on an experience that we are seeing in our program, which we have to say is probably unique in the country. This is not doing passive surveillance or even doing large database BSC type of studies. We do have a unique story to tell.

However, we do want to work within the medical community. We thought the first thing to do is to put this together with our references and evidence cited and then put it out. What happens is once it goes to a journal it will be peer reviewed by experts in that field. Usually what happens is that they give feedback and we thought that would be a good place to start.

So once we are able to get that we should aggressively communicate this to as many public agencies as possible because the flu vaccination season is coming and the concepts – I know that when I get flu shots I stand up, you kind of stand up and you leave. We have some unique stories to tell regarding syncope as well. So for us, if you had to say how would I vaccinate my teenager I would have her sit and the person injecting – you are right, in the adult office it is really a medical tech and not a nurse, that they sort of sit side by side and go right into the deltoid, lower, more anterior, rather than higher up and down, inject her standing up, because also the adolescent standing up may be prone to a syncopal episode as well.

So those are some of the thoughts that we have based on our experience with the cases coming in in the program, which is large databases may be diluted just because – you know, how many people just do fine? I mean, people just do fine with injections. So these are cases that we began to see a pattern and we felt it was something we felt we should put together and try to get it out into the medical community and see what their thoughts are.

We went from the introduction in June, worked really hard to try to get a paper – you know how hard it is to get that out. It is out and we are waiting for reviewers to bring back their comments and then we will continue to keep you updated as this moves forward. We are still in a little bit of a time pressure because, as you said, we want to try to get this information out to the public before there are mass vaccinations.

I think our time is up.

MR. SCONYERS: I just want to point out that even though it has not been submitted yet, and you've not gotten feedback from peer review, there is nothing to prevent us from sharing the slide presentation with the National Vaccine Advisory Committee, which at this time of year always spends a good percentage of time on the flu campaign, the upcoming flu campaign and the communications aspects of it. Also Rosemary is going to be attending the ACIP meeting in October in my place because I will be up here spending time with you all. During her update for the program, either during that or just sharing some handout materials, there is nothing that prevents her from making it known that this is something that we have been working on. So there are ways that we can get some information out for this upcoming flu season.

MS. CASTRO-LEWIS: Thank you, Jeff, that is what I was saying, for a more formal presentation.

MS. BERNSTEIN: I am not sure you said this, but what is the sample size for this study?

DR. ATANASOFF: Thirteen. There were 13 cases that we found between 2006 and 2010. Those were in our case series.

DR. GIDUDU: Rosemary, I wanted to share with you – I have been meeting with the Brighton Group that is defining pain at injection sites for the last four and a half years. We have some of that data and you may want – if you can share yours – it could be too late, but the people have been working with this and discussing pain, it is a very difficult concept.

DR. JOHANN-LIANG: Is it injection site pain you guys are discussing?

DR. GIDUDU: Yes.

MS. BUCK: I'm sorry, but I can't hear any of you.

MS. GALLAGHER: Dr. Gidudu said her group, the Brighton Group, on injection site pain has been studying the issue and would welcome sharing of the draft of the article and now Rosemary is going to respond.

DR. JOHANN-LIANG: Right. As Sarah was discussing, the mechanism behind this type of injury we think is probably different than what goes on at the local injection site, which is actually antigen in the muscle mass or subcutaneous tissue and a local inflammatory reaction. We really think this is a problem, a very rare thing that happens, because we have lots of people alleging shoulder pain, et cetera, but the actual underlying of what causes the pain is variable and this is probably a rare incident where the antibody that is already in the synovial tissue is being met by another, a similar type of antigen. Because remember from flu there are different antigens every year, different make-up every year, but probably similar enough so there is a robust immune response in the synovial sites. It is a little bit different we think than the local injection site reactions that we are used to, which are much more common. Some of the vaccinations you can have local injection reactions in the 20 percent range, et cetera.

So this is really probably a very rare entity. And something that adds – we are mass vaccinating adults in settings other than medical offices, so people would be a little bit more aware about and practice good techniques. But your point is well taken. The more we can get experts in the field to sort of look at the thoughts the more helpful it will be and that was my thought in getting outside people, because this is obviously something we have worked up internally, but we would like to get some reviewer comments from other rheumatologists. It is really more of a rheumatologic issue, I think, before we go out there and say this is what is happening. You know what I mean, because we want to be really sure with what we have before we do massive communications efforts.

DR. GIDUDU: My last question is did you look at another site? Did you compare another site of the body with the deltoid area?

MS. GALLAGHER: The question is did you look at a site other than the deltoid area?

DR. JOHANN-LIANG: This really has to do with when the medical officers start reviewing the cases we began to see sort of a pattern, and they all arose out of shoulder. This is really again not a pediatric issue. Remember the age range goes from the 20s to the 80s, so this is an adult phenomenon. Most adults are injected in their deltoid and not in their legs or such, like kids do. So we have not seen this with any other joints. Again, the commonalities of these cases, as Sarah pointed out, is that these are people without any shoulder complaints in the past, who have pretty bad pain just limited to the shoulder where the injection happened. So if you got injected on the right it is really the right, not the CPRS type of picture or even the brachial neuritis picture, where you can cross extremities of your complaints. That is more of an immunological process that is systemic rather than a local synovial tissue site.

So we do think the story kind of medically, pathophysiologically makes sense. But again we wanted to get some input from outside folks and we usually utilize the mechanism of peer reviewed journals to see what they think. So that is kind of where we are at. We don't want to say something too much until we are a little bit more secure with our understanding that this is actually what is going on.

Once we get the input from the leaders in the field then we should really try to aggressively target some sort of communication to the outside.

MS. BERNSTEIN: One more question. Can you just tell a little bit more about how the sample was selected?

DR. ATANASOFF: We have a database where we can do queries on

claims that come in. So what we did was we ran queries on a bunch of different phrases, including anything to do with the arm – arm pain, shoulder, that type of thing, as well as brachial neuritis. We then pulled all of those reports out, the medical reports, and in some cases went back to the records. That is essentially how we did it. Does that answer your question?

MS. BERNSTEIN: It does, and I assume that these 13 people, the sites were all different – I mean not the body sites, but the geographic sites where the vaccines were given.

DR. ATANASOFF: That is interesting. I don't think we looked at that. What we could do is pull those same 13 cases and see if they were different. I don't recall a particular pattern of the 13. I have gotten to be very familiar with those cases and it seems they received vaccinations in all different sorts of circumstances, some in pharmacies, some in the doctor's office, et cetera. I didn't remember seeing a particular pattern, but that is something we could add.

DR. JOHANN-LIANG: That is a very good point. We can get geographic locations. So those are some of the comments that we want to try to get feedback from people, what possibly we might have missed. We try to think through with a well known rheumatologist, but I am sure we missed things that we should really be thinking about. So that is kind of where we are at. So we are just trying to report out to you. We think it is a very important case series to share with you and get your input.

Any other questions? Very good questions, by the way. Anybody else?

Let me just finish up. Some of the other clinical projects that we are doing – we are fortunate that Dr. Shoback(?), another adult rheumatology medical officer, joined us around the time when HPV claims first started to come in. It is nice in the sense that we are able to get a handle from the very beginning. So we are trying to

more systematically collect information on HPV claims, and we have 79 cases this far. Wherever the cutoff – I think it was 71 – we are probably going to be presenting a little bit of this experience in October at ACIP, and I did bring you some of the preliminary results. One of the take home messages from the HPV from our program's perspective as opposed to more large database samples, where again things like syncope really get sort of diluted out, we do see from our much more smaller but very well characterized cases, because we are able to really get our hands on the medical records in detail, that syncope is another sort of vaccine administration related communication to the public that we probably need to do more of, given the fact that more and more adolescents are getting vaccinated now. The population of vaccination is really increasing, and influenza as well.

Then another project that we are hopefully starting to wrap up is an anaphylaxis project, and this is because – and you have heard this so many time – Kathleen Stratton has come by to talk to you, that HRSA is in the middle of having IOM review a very comprehensive list of adverse events. And this is all in preparation to get the current science overview so that we can update the table of injury. It is really due for an update but we really need some current science to go to do that. So IOM is working very hard, a committee on this. However the IOM is really charged with looking at the published literature. Once in a while they will FOI FDA for an interesting VAERS case, for example. I mean the committee wants to look at it. But in general their charge is to look at published literature because those are peer reviewed and in the public domain.

What they don't have, because our program really has not done in the way of any of these sort of group collection of clinical cases and reporting those out to literature for many years, and we really want to try to start doing that. They don't have that information as part of their charge.

So what we in the program have been trying to do is also look at some of these more like – especially this general consideration – anaphylaxis is an adverse event that kind of crosses many vaccines, and we kind of wanted to know what is the program's experience with anaphylaxis cases coming in. So that is kind of what we are looking at right now and we are hoping that we can have the program's experience to supplement the IOM review report when HHS, when the Secretary goes to revise the table of injury.

Interestingly when you take out all of the database of how the reports double and triple and when you really clean up what you query from our administrative program's database, in the last ten years we identified 54 unique cases. And we have been working with an adult allergist as well as a pediatric allergist to try to really do a very good case review of each of those cases so that we know is there – for example, our current table of injury has zero through four hours following vaccination as the window for them to get presumption of causation. Is that the right time interval based on what is out in the literature as well as our program's experience, et cetera. So you kind of get the point of this exercise.

I am hoping that this is something – I've got to get my act together – too many projects – but I am hoping that this is something that we can give you more detail update on in the March meeting, because remember in October I will be at ACIP and you guys have the Judicial Conference. But when we meet again in the new year – temporally it is 2011 that I am hoping that I can share with you some of the anaphylaxis information.

Then also the other case material that we should share with you as a group is an update on meningococcal cases, because there was a lot of activity and discussion of meningococcal vaccine at the ACIP in June. Dr. Ryan Thomas actually is

taking the lead of our case material in our program for meningococcal, so I am hoping he can do like what Sarah did and come up and share with you some of his group information on the meningococcal vaccine.

Then there are many other projects that we have started and are working with the appropriate specialists in the field to understand it and to share with you and share with the public, if there is something that really impacts on vaccine safety. I think that is my last slide.

Any questions now?

MR. SCONYERS: Could I just say this? This is really good work. I appreciated the presentation and also just the effort in sharing it with us, both of you. Thank you very much for coming and talking to us.

MS. GALLAGHER: And I just anted to say the same thing. They were excellent presentations, great information. I think your projects are very interesting and it is very creative of you to take this information we are getting on claims and use it towards trying to point us towards better medical practice. So we really appreciate your efforts. I think this is great work. Thank you.

I believe that our next presentation will be by Dr. Marie McCormick. Is she joining us by telephone?

Agenda Item: H1N1 Vaccine Safety Update -

Dr. Marie McCormick

DR. MCCORMICK: Yes, I am here.

MS. GALLAGHER: Great, than you very much. You are going to give us an update on H1N1 vaccine safety.

DR. MCCORMICK: Let me talk a little bit about the background to the activity that I am going to describe. Last summer when it became clear that we were going be mounting a major vaccine program a subgroup of the National Vaccine Advisory Committee met over the summer and made the recommendation that there should be some independent oversight of the safety information that was going to be generated as people looked at this vaccine.

So they recommended establishing the H1N1 Vaccine Risk Assessment Working Group, which unfortunately rapidly became the VSRAWG. The charge was to conduct independent rapid reviews of available safety monitoring data for the 2009 H1N1 influenza vaccine. Since the working group was created fourteen times to review available data, and I will give you a little flavor of that in a moment.

In addition we reported out monthly the findings from this surveillance activity to the full National Vaccine Advisory Committee in public meetings.

In essence VSRAWG was designed to be an independent body whose members were selected for a variety of expertise in vaccine safety. I think importantly they had to meet very stringent conflict of interest standards so that there could be no consideration of conflicts in terms of their review. These standards precluded anyone with financial ties to vaccine manufacturers or their parent companies, including employment, stock, patens or funding. In addition, members also had to abstain from consultation, advisory panels, expert witness activity, and honoraria or travel reimbursement from vaccine manufacturers for the duration of their tenure on the working group.

Of the eight members of the working group three, including myself as the chair, were also members of the National Vaccine Advisory Committee to which we report. Based on these reports the National Vaccine Advisory Committee may make

recommendations for further action to the Assistant Secretary for Health.

We were actually looking at data from some 12 different surveillance systems that use multiple complementary comparisons to assess the potential of the novel H1N1 influenza vaccine for adverse events. Among these data were data from the NIH-sponsored trials. These were trials that were largely looking at different dosage levels and the use of adjuvants, should those become necessary. In addition we had presentations from the Vaccine Adverse Event Reporting System, VAERS, in a variety of combinations. Some of these comparisons looked at the rate of adverse events after H1N1 compared to the trivalent seasonal flu vaccine being offered. Others looked at comparisons between all other live vaccines versus live H1N1 or all other killed vaccines versus killed H1N1. In addition we were also provided with descriptions of all deaths following H11N1 immunization.

In five of the systems they were conducting rapid cycle analysis. Basically what these are a screening of diagnoses, basically almost any diagnosis that has ever been associated with a vaccine, and comparing those with the diagnoses, whether they have had or not had H1N1.

There are preset issues beyond which you would say maybe there are problems. After that there are a variety of quite sophisticated analyses that try to tease out whether it was a preexisting condition, whether it was a seasonality effect and so forth. So these were highly complex analyses and one of these was actually a system that was set up de novo for H1N1 comparing patient registries to medical records.

I would also say there were a couple of systems that we put in place in other agencies like the VA and Indian Health Service that have not done these kinds of sophisticated analyses. So it was quite an effort.

In addition we had a web-based computer tracking system that tracked

the emergence of symptoms or adverse events in real time. There is a special system for enhanced surveillance for Guillain-Barré and there was a system specifically examining the incidence in pregnant women. I would just simply say the last never came on line because it is really quite a long-term effort, including following the children. We did have data on pregnant women from some of these other rapid cycle analysis systems.

Following a presentation by the federal agencies the VSRAWG met in closed session to evaluate the information provided. We had previously articulated the types of decisions made and in brief these decision were there is no evidence of an adverse event to signal detection, which is an elevation of one or more adverse events that might or might not be related to the vaccine but was occurring in time through a decision that there really is an association.

Let me say that for the data that we are being presented the decision we had to make was whether there was a signal or not. As of the end of April there were 105 million doses of H1N1 inactivated vaccine and some 21 million doses of live attenuated H1N1 that had been distributed. Those are pretty close to final numbers. Preliminary results from four reporting systems tested potential signals for three adverse events – Guillain-Barré, thrombocytopenia and Bell's palsy. Again a signal is defined as an event that could be temporally occurring more often after the vaccine receipt than anticipated by chance alone.

DR. EVANS: Dr. McCormick. Are you speaking to a speaker phone or a handset?

DR. MCCORMICK: I am using a speaker phone.

DR. EVANS: The stenographer would like to know if you could pick up the hand set and speak into that instead because you are cutting out a little bit for him.

And I would also like to point out that there was a handout that was distributed just as you were beginning to speak. This handout is not for your presentation but from a presentation that will be following as part of public comment. I just want to avoid any confusion in that regard.

DR. MCCORMICK: Is this better?

DR. EVANS: yes.

DR. MCCORMICK: So what we were saying is that from four systems, and I want to underscore that that is not all of the systems, we were seeing potential signals for Guillain-Barré, thrombocytopenia and Bell's palsy. More specifically a signal is defined as an event that could be temporally occurring after the vaccine receipt than anticipated by chance alone. The detection of a signal does not necessarily indicate any association and that for protocol several steps must be taken to validate that signal.

Validation of such signals is required as most of the systems, as I mentioned initially, rely on summaries of diagnoses emerging from the health care system. Just to give you a flavor of that in terms of talking about validation, one of the systems in which we are seeing thrombocytopenia was the VA system. We discovered that the VA system, for its patients, and it gives you a flavor of the patients, only digitizes the top ten diagnoses. So they had to go back into the medical record, for example, to see whether the condition had preceded the vaccination or not, because it may not have made it into the top ten.

In addition individual cases had to be reviewed to check for coding errors and other supporting evidence of the diagnosis, and included lab tests and, for example, for thrombocytopenia one had to check to make sure whether in fact this represented a steady state or whether it was an exacerbation that might have been caused by the vaccine.

Current estimates indicate that most of the individual monitoring systems will complete these end of season analyses by late October barring unforeseen difficulties. In addition, there has been a protocol developed to combine data across four systems to assess the risk of GBS, and these are the rapid cycle analysis systems.

So we are anticipating that we will be able to review the end of season analyses by the middle of November and have a final report planned to the National Vaccine Advisory Committee by February 2011. Again, when we are talking about a potential signal we are talking about quite weak signals here. Generally the odds ration is less than one, with fairly broad confidence intervals. And as I said, a number of these really have some diagnostic specificity that needs to be generated. So at this moment this is where we are in terms of the H1N1 surveillance.

DR. EVANS: Thank you, Dr. McCormick. I may have missed this earlier. Is there any data regarding pregnant women and adverse events associated with the vaccine?

DR. MCCORMICK: Sure, there is one system that has been specifically set up for this. This is based on the congenital malformation monitoring system called VAMPS, vaccines and medical something or other in pregnant women surveillance. This system is up and running but we have seen no data from it because they are actually going to be following these people out through infancy.

We did have data from the VSD, Vaccine Safety Data Network, and from PRISM, which is this new system that is set up between the immunization logs and medical records of insurance companies. They did provide data on pregnant women. We saw no adverse events, no signals in pregnant women.

MS. GALLAGHER: Are there any other questions? Thank you very much, Dr. McCormick. We really appreciate your update.

DR. MCCORMICK: You're welcome.

Agenda Item: Future Agenda Items

MS. GALLAGHER: I would now like to move on to the future agenda items. I would need to have an agenda committee for the next meeting and Jeff Sconyers has kindly volunteered to be part of that agenda committee. Sara Hoiberg will also be part of that agenda committee. Thank you very much. And Meg? Meg Fisher will also be part of the agenda committee. So without having to twist any arms I have been able to get an agenda committee together.

I just wanted to know from any of the commissioners who are either present in the room or on the phone if they had any ideas about agenda items for the next meeting, which will be in October. It will be October 28th, just to remind you. And that will start in the morning and go as long as we need to cover the agenda. So we are not clear yet how long that will be.

MS. HOIBERG: Banyan will be making a presentation. I would like to allow them to have at least an hour to make their presentation. I would also like to have at least a 15 minute, if no 30 minute break in between the presentation and our questions and answers, and I would like to allot an hour of discussion and then if we use it all we do and if not then we will move on. But I don't really want to limit out time top discuss because I feel it is very near and dear to our hearts with the outreach. Just to have significant time for that.

MS. GALLAGHER: And there is great anticipation of that report.

MS. HOIBERG: We are all very excited. It is like Christmas morning.

MS. GALLAGHER: I think that is a good suggestion. We will try to arrange it so that Banyan presents, we then have a break of the lunch break, and then we have the Q&A session thereafter.

MS. HOIBERG: Right, and I believe there will be some new VISs to look over as well as another medical report from Dr. Johann-Liang – from her or somebody else. Or are we not going to do that now?

DR. JOHANN-LIANG: (Off mic Dr. Johann Liang explained that she would be attending another meeting and would make the presentation in March.)

MS. HOIBERG: You will be doing it in March? So we won't have the medical review then.

MS. BUCK: Would you repeat that?

MS. GALLAGHER: Yes. We are going to have some VISs to look at but because Rosemary is going to another meeting her next report will be at the March meeting.

MS. BUCK: So we are not going to get a report from the DVIC in October?

MS. GALLAGHER: She cannot be physically in two places at once. She will be at another meeting, ACIP, I believe. She said she needs a little time to work on the project and finish it and then report on it.

MS. BUCK: Her report was excellent.

MS. GALLAGHER: Is there anyone else? Of course, we will do as we did that last time. Once we have the preliminary agenda we will send it out to the entire group for comment before we put it up as a draft on the web site. So if anyone has thought of something in the meantime you can also e-mail me or Geoff and just let us know what you are thinking – any member of the agenda committee – so don't feel under pressure to have to come up with everything right now.

MS. HOIBERG: I am sure there will be a lot of things to discuss from what we have heard at the Judicial Conference as far as new items.

DR. FISHER: I think it is useful to have the Food and Drug Administration Report each time. I can be short and sweet, but it is always useful to know what is happening there.

MS. HOIBER: And CDC as well.

DR. GIDUDU: (Inaudible comment off mic.)

DR. EVANS: Dr. Gidudu just raised the question, and Sara was part of this discussion, too, about whether there would be something regarding the communication plan with CDC in the upcoming influenza season. We have to look into that. That is something that we will get back to the agenda committee on.

MS. GALLAGHER: If there is anything she discussed perhaps we can have another one of these interim telephone conference meetings to accommodate any issues that are of immediacy. So I will leave it to you, Geoff, to let me know if we need to do that.

I think we have it pretty much in hand now to develop the next agenda. I guess I would say everyone maybe should plan on the full day on Friday, the 28th, because it sounds like we are going to have quite a bit to discuss.

MS. BUCK: Thursday?

MS. GALLAGHER: Yes, I can correct that, Thursday the 28th, please plan on a full day because I think after the Judicial Conference we are going to have quite a bit to discuss – we are having the Banyan report. So while I don't know for sure right now, just don't plan on a short meeting next time. If we finish early you can be delightfully surprised. But I think we will have quite a bit to discuss, several presentations.

Agenda Item: Public Comment

MS. GALLAGHER: Now I would like to turn to public comment. I think I

will do it the same way that I did yesterday, the people who are in the room to give public comment, we will start with you, and then anybody who is on the line to give public comment after the people who are here present have done so. So, operator, could you now just ask anyone on the line to give you the queue that they are wiling to make public comment and while we have our first person here making public comment you can be collecting names of people who want to follow. So we will have a little efficiency.

OPERATOR: (Invited anyone on the phone wishing to make a public comment to so indicate.)

MS. GALLAGHER: I was told that Ms. Eileen Dannemann would like to make public comment and I am going to ask her to please step up to the front and sit in this seat and speak very loudly into the two microphones that we have so everyone can hear you.

MS. DANNEMANN: I want to thank you, Geoff, for asking that very poignant question of Marie McCormick. I am glad to support the CDC by giving you our analysis and evaluation of the pregnant women who received the H1N1 vaccine, since Marie McCormick did not find any adverse events regarding pregnant women.

REPORTER: Would you identify yourself for the record, please?

MS. DANNEMANN: I am Eileen Dannemann, and I am the director of the National Coalition of Organized Women. We have at this count, and all of the reports are not in yet, we have found 248 cases of H1N1 vaccine-related miscarriages – 178 reports from VAERS and 70 from other sources, which basically were Internet blogs of women who claimed that H1N1 killed their babies.

I have spoken to nearly 20 of the mothers who miscarried and have declarations from about 10. Out of the 248 reports, 7 were overlaps, meaning that 7 women from the one Internet source had reported their adverse events to VAERS. With

this we were able to do a capture-recapture statistical analysis, taking into account the under-reporting of VAERS.

The capture-recapture estimate, while not a hundred percent accurate, is very well accepted in a cost effective way in attempting to get a complete count of cases when two or more ascertainment sources, which was VAERS and our NCOW survey, have failed to collect all existing cases. The ascertainment corrected estimate for the total number of 2009 A-H1N1 flu-related miscarriages and stillbirths during 2009 and 2010 flu season, this is the average, is 1,588, which is a confidence interval between the lower range of 946 miscarriages and stillbirths to the higher range of 3,587 miscarriages and still births.

That is the lower range and upper range probability of miscarriages and stillbirths due to the H1N1 vaccine according to the capture-recapture analysis.

The CDC ascertained that there were 56 maternal deaths, assuming that the fetuses died with them. Dr. Alicia Siston's study acknowledged that most of these deaths were unconfirmed as being H1N1 virus cause of death, despite the fact that the CDC had tests that could verify for certain that these were H1N1 virus-related deaths. Initially, at the beginning of the H1N1 pandemic consequence management drill, there were allegedly 30 maternal deaths. It was these deaths that the CDC used as propaganda to initiate a campaign to vaccinate the pregnant population. The gals that I spoke to stated that they were coerced in the most aggressive manner, that their doctors told them that they would die or kill their baby if they did not get the H1N1 vaccine.

Simplistically speaking, not vaccinating would have been at the low range 85 times safer for the fetus than vaccinating, or at the high range 192 times safer. From the growing child in utero point of view it would have been safer not to vaccinate.

Since the variables, the components or synergy of components in the

2009 H1N1 vaccine, they have not been identified as the cause of H1N1 vaccine related fetal deaths. We recommend that the ACIP-CDC cease recommending to vaccine providers and to the public flu shots for pregnant women, that they adhere to the FDA manufacturer's warning that the flu shots be given to pregnant women only if clearly needed. The new 2010-2011 season combination flu shots contains variables, the major variables, found in the 2009 H1N1 flu shot, including the controversial thimerosol.

Considering that the 56 maternal deaths in Dr. Alicia Siston's study, allegedly due to the H1N1 virus itself, are unverified H1N1 virus related, we emphasize that inoculating pregnant women with another untested vaccine containing a combination of components found in the offending 2009 H1N1 vaccine is insupportable. We emphasize that it can be argued that it was an act of gross negligence that the CDC failed to inform their vaccine providers of the incoming VAERS data of the reports of suspected H1N1 vaccine-related fetal demise. It can also be argued that the CDC willfully withheld the information to vaccine providers that the original 30 maternal deaths were mostly unconfirmed.

We recommend strongly, considering the same major questionable components, the H1N1 component and the thimerosol, will be used in the 2010-2011 season in a combination flu shot that all vaccine providers are apprised on last season VAERS reports as it concerns pregnant women, and that the pregnant women be given the vaccine information that properly advises of the benefit and risk as stated herein, and that the CDC withdraw their recommendation to pregnant women and adheres to the FDA manufacturer's warning on the insert packages that the flu shot not be given to pregnant women unless clearly needed.

It is my understanding that the CDC got away with transcending the FDA warning and the vaccination of the pregnant women with an untested vaccine because a

pandemic engenders the clearly needed caveat, that vaccinating pregnant women was clearly needed during a pandemic or potential pandemic. Moreover the CDC's proof in the pudding for this egregious initiative was the 30 maternal deaths, albeit unconfirmed. Thank you.

Any questions?

MS. GALLAGHER: We don't take questions. Thank you for your comments.

MS. DANNEMANN: I do want to say one thing. I do want to say that yesterday I gave this information to a couple of congressmen and senators, so they have that.

MS. GALLAGHER: Thank you. I would now like to take the opportunity to give my sincere thanks to Annie Herzog and Kay Cook, who have spent a lot of time arranging the meeting and the logistics and have had some incredible challenges during this meeting that they seem to have overcome, notwithstanding the short time. So thank you very much. Keep up the good work.

(Applause)

MS. GALLAGHER: Now I would entertain a motion –

M. SCONYERS: We have someone on the line.

MS. GALLAGHER: I'm sorry. I am terribly sorry. I forgot about asking for public comment on the line. My apologies. Is there anyone on the line who would like to make a comment?

Who is first?

MS. WRANGHAM: I am Theresa Wrangham and I am the executive director for the National Vaccine Information Center, NVIC, a consumer advocacy organization founded in 1982 to prevent vaccine injuries and death through public

education and to protect the informed consent ethic in medicine. We thank the committee for the opportunity to comment.

Recent national polls reveal a growing concern about vaccine safety and the desire for more informed vaccine decision making by Americans as affected by the many questions raised by the public during the 2009-2010 H1N1 pandemic public health emergency declaration. With the continued increase in vaccine injury claims for the vaccine we have concerns regarding how claims from the H1N1 pandemic vaccine will be looked at by the ACCV in terms of a possible relationship that the 2010-2011 influenza that now incorporates the 2009-2010 H1N1 pandemic vaccine into this season's trivalent influenza vaccine.

This additional concern is due to the adverse effects, including convulsions in children, that have been reported in children during the use of the trivalent formulation in Australia earlier this year. There are also outstanding potential safety signals for GBS and thrombocytopenia for pandemic H1N1 vaccines, reported by the Safety Assessment Working Group that are not completely understood at this time.

Due to the presence of the 2009-2010 H1N1 vaccine in this season's trivalent formulation, NVIC maintains that there is a need to thoroughly and accurately evaluate data pertaining to this season's influenza vaccine. We would also support the breakdown that the DVIC has today stated they would provide in future meetings in terms of which years influenza vaccines are responsible for what number of influenza vaccine injuries that were filed. Claims that are filed with the 2009-2010 H1N1 pandemic it would be important for the ACCV to understand the number of claims for this year's influenza vaccine base don't eh outstanding signals reported for the H1N1 pandemic vaccine and/or what was co-administered with that influenza vaccine.

NVIC is also concerned that once again pregnant women are a target for

this year's influenza vaccine even though the vaccine remains a category C drug, which means that these vaccines have not been fully studied in pregnant women. NVIC therefore would support a further breakdown from the DVIC for what percentage of claims for influenza vaccine come from pregnant women.

In closing, and in the interest of medical informed consent and government transparency with the public, we encourage the ACCV to recommend that settlements made through litigated risk be made public in a manner that respects the privacy of claimants and allows the public a greater understanding of which vaccines may be causing injury as well as what injuries may be involved.

Thank you for the opportunity to comment.

MS. GALLGHER: And thank you for your comment. Is there anyone else on the line who wishes to comment?

MR. MOODY: Thanks to the committee for the opportunity. This is Jim Moody with SafeMinds. I would like to address my comments today to thimerosol, which is the mercury preservative, still found in the flu vaccines.

There were two articles recently out in August, in scientific chronicles, which need to be brought to the attention of the committee. The first is from Neurochemical Research and it is a rat study, neonatal administration of thimerosol. There were persistent changes in brain opioid receptors. This is one of the theories, or one of the several hypotheses, underlying the mechanism of causation of autism. It did find significant changes were caused in the brains of rats by the equivalent dosage of thimerosol. One of the conclusions of the authors, Woolsach(?) and colleagues, is that analogous changes occur in the brain of some children who are likely to have profound neurological, physiological and behavioral consequences which may be relevant for certain developmental disorders. These data argue for removal of thimerosol from all

infant vaccines.

The other study, the second study, is from Neurological Experiments, by DeSoto and colleagues, who has written several times on this issue and she reviewed 58 papers looking at the epidemiology of thimerosol and autism. Overall the reviews were of relevant scientific literature that showed that, and this is a quote from the paper, of the 58 empirical papers on autism and heavy metal toxicity 43 suggest some link may be present while 13 reports found no link. In sum, the evidence bears(?) a link.

In 1999 the CDC, FDA, AAP and AAF called n industry to remove thimerosol from vaccines as soon as possible. We are now in our tenth year or eleventh year, we have new recommendations concerning thimerosol-containing vaccine for babies. It is incumbent on ACCV to basically have the backs of children in the war against infectious disease and must speak up and must speak up strongly and regularly on the question of safety, certainly until this issue is resolved to a level of scientific certainty, and in view of the CDC recommendation, should take strong action and I suggest this go on the next meeting's agenda – should take strong action on behalf of the children to cause the immediate removal of thimerosol, a known neurotoxin, from all vaccines given, at a minimum to pregnant women and infants. That recommendation has been extant now for ten years. Public confidence at a minimum requires these kinds of recommendations be carried out, and I quote the CDC, as soon as possible.

Thank you very much.

MS. GALLAGHER: Thank you for your comment. Is there anyone else on the phone who wishes to comment? If not is there anyone here in the room who wishes to make a comment? Thank you. Now I would entertain a motion to adjourn.

(On motion duly made and seconded, the Commission unanimously approved adjournment.)

MS. GALLAGHER: The meeting is hereby adjourned.

(Whereupon, at 10:47 a.m., the meeting was adjourned.)