Meeting Summary

Subject: Notes from BioSense Governance Group
Date: August 20, 2015 12pm – 1:30pm Eastern
Facilitator: Stacey Hoferka

Present on Call:

<table>
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<tr>
<th>Associations:</th>
<th>State Public Health:</th>
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<tbody>
<tr>
<td>ISDS: Joe Gibson</td>
<td>Stacey Hoferka</td>
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<td>CSTE: Jim Collins</td>
<td>Bryant Karras</td>
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<td>NACCHO: Bill Stephens</td>
<td>Caleb Wiedeman</td>
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Federal:
- CDC: Umed Ajani
- CDC: Ralph Coates
- CDC: Mike Coletta
- CDC: Alan Davis
- CDC: Roseanne English
- CDC: Deb Gould
- CDC: Matt Guajardo
- CDC: Paula Yoon
- CDC: Julie Zajac
- VA: Mark Holodniy

State Public Health:
- Stacey Hoferka
- Bryant Karras
- Caleb Wiedeman

Local Public Health:
- Atar Baer
- Harold Gil
- Jeff Lee
- Holly Whittaker

Additional Support Personnel:
- Scott Gordon (ASTHO)
- Mark Sum (ASTHO)
- Becky Lampkins (CSTE)
- Meredith Lichtenstein (CSTE)
- Laura Streichert (ISDS)
- Chris Aldridge (NACCHO)
- Sarah Chuughtai (NACCHO)

Non-Public Health:
- Laura McCrary

**ACTION ITEMS:**
- ASTHO and CDC will discuss with JHU APL on the possibility of joining the Governance Group calls. Also JHU APL will be engaged when the Technical Advisory Group (TAG) is engaged.
- ASTHO will share (either during the meetings or through email with the meeting materials) any updates regarding communications each month.
- CDC, Governance Group and Communications Workgroup will work on ways to help get that new website up for communications to the community about updates
- CDC will provide regular (weekly/bi-weekly) implementation plan updates to the GG that include task list with timelines, updates on ICF/JPH activities.
Meeting Summary

- GG chair to develop the process for supporting the task list provided by CDC, whom to work with on specific issues and how to get feedback from community. The Public Health Informatics Institute (PHII) Collaborative Requirements Development Methodology (CRDM) is being considered for requirements gathering.
- ASTHO will send out an email to the Governance Group and to ISDS to share with the community in regarding access to the draft implementation plan.
- If anyone feels like there is not enough time to look at the implementation plan before September 1st, please notify Stacey Hoferka and Mark Sum so we can let CDC know of your concern with the review timeline.
- ASTHO to send out a Doodle poll to have a separate call to further discuss the DUA with CDC and so that CDC can respond to each comment that was submitted.

MEETING NOTES:

Welcome Bill Stephens
Bill Stephens is the new NACCHO representative for the Governance Group and gave a brief introduction of himself. He is with Tarrant County Public Health and they have been involved in SyS since 2004. He was involved in the first BioSense 1 interim Governance Group.

Proposal for Communications Plan Acceptance
Harold Gil provided an update on what was modified in the Communications Plan. There were discussions at the last Governance Group meeting to outline processes for making decisions and improving communications between CDC and the Governance Group. The Communications Workgroup can’t really decide that for the Governance Group and so that process will be made available later on the Governance Group website once the new website is up and running. Coordination between the activities would be covered by ASTHO.

Discussion:
- Laura Streichert – Suggest that a brief update on the Communications Plan be a topic at each of the Governance Group meetings (or possibly an email update sent out) regarding some of the activities going on in regards to communications.
  - Stacey Hoferka – Having it on the agenda would be a mechanism to evaluate where communications is.

Motion: Joe moved that the Governance Group endorses the Communications Plan as -it has been submitted and the Governance Group get monthly updates from ASTHO.
Outcome: Bill Stephens seconded the motion. No objections.
Next Steps: Each month ASTHO will share (either during the meetings or through email with the meeting materials) any updates regarding communications.

NSSP Implementation Plan for ESSENCE/SAS
Stacey Hoferka mentioned that the Implementation Plan that CDC provided is still in draft form and could not be circulated by email. CDC did share it with ASTHO who posted it on the ISDS Community Forum in a specialized group (NSSP Doc Review) where you can go in and request access to it as CDC has requested that it be posted somewhere in a controlled space where a login is required. Please do not post this on public websites and note that this plan is not restricted to Governance Group only. CDC has
Meeting Summary

not mentioned anyone who should not have access to it and hopefully by the end of the meeting this plan can be shared with the user community. Mike Coletta clarified that that it does not necessarily just need to be the user community and that other partners who wish to look at it can go in and request access as well.

Mike Coletta indicated that the implementation mission is that by December 31st, 2016, DHIS will place RStudio Professional, ESSENCE, and SAS tools in the BioSense platform, transition all jurisdictions into the ESSENCE application, assess exposing SAS and RStudio to jurisdictions, and discontinue the use of the BioSense 2.0 front end user web application.

The implementation is broken out into four phases:

• Phase I – Planning
  o This is focused on identifying tasks and developing timelines for each task
  o Establish a staging environment as well a production environment.

• Phase II – BioSense Platform Development and A&B Testing
  o CDC will be working with pilot sites to create a more robust master facility table and a manual process for updating that table
  o Adding required variables from the PHIN Messaging Guide that the current legacy system that leaves behind.
  o Separate transactional data from report generation and data quality assessment activities. One item found in the pilot is that tables can lock for 2-3 days because of one large query and can actually stop transaction data flow.
  o Assess feasibility of Single Sign-On. CDC is trying to keep this on the radar and eventually move towards this.
  o Adjust settings in ESSENCE (i.e., which details should be available in the national picture and having validation capability for queries using chief complaint and diagnosis code).
  o Develop technical assistance documentation to be prepared for larger scale transition.

• Phase III – ESSENCE Transition (includes beginning assessment of RStudio and SAS tools)
  o Scale up transitioning remaining jurisdictions. Transition order is posted in Appendix D, those who are BioSense only jurisdictions, ready and willing, and then by largest ED visits.
  o Communicate with jurisdictions and get a commitment of time.
  o Reviewing and revising master facility table.
  o Moving three months of data into staging environment.
  o Conducting ESSENCE orientation and conduct any platform training.
  o Migrate to production environment and do quick tests to ensure everything is working as expected.
  o Load remaining existing data from existing BioSense 2.0 environment to production environment.
  o If there is time, one issue that CDC would like to work on in parallel is that when HL7 messages come in, they get dropped in S-3 storage area of AWS GovCloud that is difficult to retrieve. CDC will be gathering requirements for a raw HL7 archive. To what extent that part of the message would be archived is not clear yet. Another item CDC would like to work on is developing a more robust Facility Administration Tool.

• Phase IV – Sunset BioSense Web Application
Meeting Summary

- Ensuring there is a finalized structure for the HL7 archive before closing down the old structure.
- Ensuring all jurisdictions are properly functioning in the new environment.
- Ensuring BioSense 2.0 have been properly transition.
- Providing strategies for looking across old data structures to new data structures so it will be an easier transition of code.
- Give an opportunity of CDC leadership, Governance Group, and Community of Practice to voice any final concerns before shutting down the BioSense 2.0 front end user web application.

Mike Coletta mentioned that there is one major risk and one major assumption.
- The largest risk is to keep the data flowing in current BioSense. In recent weeks, there’s been increased failures that increasingly use resources. CDC would like to consider those failures/fixes on a one by one basis. The goal is to keep the data flowing.
- The assumption is that jurisdictions will be available at the scheduled times to help adjudicate their data issues and work through the process.

Mike Coletta indicated that there are a few things that are needed for the community and Governance Group:
- Is there anything major in the plan that you think is missing?
- CDC will need commitment from the pilot sites and from other jurisdictions (in Phase II).
- CDC will need quick input on various things as they are rolled out (master facility table, and PHIN guide data elements) in Phase II.
- CDC will need heavy input on various things (ESSENCE settings, ESSENCE administration tool – in phase II, facility admin tool, and findings/plans for exposing SAS/RStudio – in phase III).
- Other items that might roll into a Phase 5 are not lost and could include need for enhanced data models to support local data management.

Discussion:
- Stacey Hoferka – You mentioned you need quick input on some things. In your timeline Phase II starts 9/1. When you say quick input, what are you looking for and what does this mean?
  - Mike Coletta – Tomorrow, 8/21, we have an internal planning meeting on who is doing what tasks and when they need to be done and should have more information after the meeting. In the next 10-30 days, we hope to get something like the facility table out to gather input about it.
  - Stacey Hoferka – So the eight pilot sites will be actively engaged in all of this right? I’m trying to find a way that governance can actively facilitate things as you work with the pilot sites.
    - Mike Coletta – Yes, we will be working collaboratively with the pilot sites. One thing that I might suggest is that on a weekly or bi-weekly basis, we can provide you updates on things that are happening. Also I would like to know for things like the facility table, who is it that we work with to get feedback? Is it a whole group of people, one person, the TAG, etc.? Those are things we will have to work through. My goal is to keep everyone updated and keep the communications flowing.
- Bill Stephens – This is a really big deal transitioning to all these new capabilities. To the user community at large in terms of what it means of usability. It is almost a dream coming true. Has any thought been given in regards to messaging being a parallel key part of this? Getting the
Meeting Summary

messaging consistent and illustrating how things move ahead is a key part of this. What resources or things are being done in getting this message across the country?

- Mike Coletta – We are working to add a person to help work on communications. We also want to work with the Governance Group and Communications Workgroup to help get that new website up for communications.

- Atar Baer – Is there anyone from JHU APL on the call that can lend their perspective on how this transition will go in regards any potential issues that may arise, is the timeframe reasonable, etc.? I imagine that you have already been engaged with this and have already provided their feedback regarding the plan, but was wondering if they could speak to that.

  - Scott Gordon – JHU APL is not on the Governance Group. If there is a need for that input, we can mediate that type of discussion.
  - Atar Baer – I think it would be a good idea to have them routinely on these calls.
  - Scott Gordon – Assuming there is no technical issues regarding their contract, I do not see why not. We can talk with JHU APL to see if that is something they are willing to do.
  - Mike Coletta – They always seem to be responsive, but we need to be cautious about their billing hours. We do have weekly calls with them and now we are at a place where our contract team is ready to get more engaged to make sure knowledge is transferred. We expect those weekly calls to pick up. In general in the pilot, when we ask to make a change (e.g., having a site ID that would allow for us to keep patient resident vs hospital visit location in tact as a functionality within the group of hospitals that you have an agreement with) are easy to do on their end. They have also been looking into Atar’s idea about keeping chief complaint and diagnosis code separate in a place where you can validate the query and then share the query with another data source and not see those details in the result. JHU APL says they can make it happen and it would take about three days to adjust the settings in ESSENCE. JHU APL have already stood up the staging environment, so we don’t expect any problems there. The biggest issue at the moment is having the next contract in place before the previous contract ends. As far as that goes, we have been scoping out what needs to happen in the next contract period; which includes transitioning from the staging environment to the production environment. That is an issue because the staging environment is not the same number of servers (due reducing to cost and smaller loads). It is really there just to get a quick test and making sure things are working. Even in those discussions, JHU APL has indicated that they feel comfortable with what CDC is doing.

- Atar Baer – You mentioned that a single query could use up all the servers. Does that apply for the ESSENCE environment?

  - Mike Coletta – It is a little different. During the pilot, we shoved as much data into the system as possible (a lot of DoD and VA data) and APL were even impressed that the system could handle that with the back-end load. What we weren’t able to test is the front-end load and how that will affect the performance of the ESSENCE application. We have a plan that if thousands of users were to use it at the same time and that if apache couldn’t handle that, we would load balance it on the front-end. We probably won’t be able to test that until we have more users in the system. What I was talking about before was the way RStudio, phpMyAdmin, etc. were set up where you could write a query and use all the space on the hard drive and all the memory and then everything would be shut down. ESSENCE isn’t set up that way as it relies more on the apache web server for user load.

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• Roseanne English – The servers relating to ESSENCE and SAS/R are separate. To date, we have all been accessing the same data that is transactional data and data you are trying to pull. Part of the plan is to separating that out and having it on separate servers to prevent transactional interruptions. The tools are on separate servers. The SAS servers may not be powerful enough right now to handle wide spread load. We have to assess that.
• Atar Bear – Part of it depends on how much historical data are allowed to be transitioned. Is the plan really to only bring on three months’ worth of data?
• Mike Coletta – The plan is that in the staging environment is to do three months to make sure things are working correctly. When we go into production, it will be prospective and anything historic in the system. Everything BioSense 2.0 forward will be loaded into the system.
• Atar Bear – Are you imposing limits in the production environment of how much data a jurisdiction is allowed to port over?
• Mike Coletta – Not at the moment. Someday we will probably run into that question but at the moment we can handle quite a bit.

• Stacey Hoferka – One of the things is the suggestion of getting JHU APL more engaged. If JHU APL could be engaged can ASTHO coordinate this with the Technical Advisory Group (TAG) so that would connect some of the dots as they would all be assessing some of the same technical capabilities? Joe is working on a process of engaging the TAG, and that should include working with JHU APL along with the TAG.
  • Scott Gordon – Agreed. The contract with JHU APL is currently with ASTHO (through a cooperative agreement with CDC). We will discuss with JHU APL on how to do that as they are available on an hourly basis.
  • Mike Coletta – I mentioned it would be great to give you all regular updates on the progress of work (probably via email) and we could have a section on there for ICF and JHU APL updates and that could eventually lead to where more discussion is needed.

• Caleb Wiedeman – In regards to the administration tool being developed. It looks like the jurisdiction administration tool is being developed in Phase II and then a facility administration tool being developed in Phase III. I just want to clarify if that being two separate tools or a combined tool in ESSENCE?
  • Mike Coletta – We had originally thought of them being separate, but we could have the development effort separate and during the requirements gathering we can decide if they should really be separate. The most important need in Phase II is to develop it so that local admins can control their details. It is a good suggestion of maybe having it as one tool.

• Joe Gibson – How will CDC ask for requirements? It seems to me that it will be a big challenge so that CDC can identify what you need as early as possible so we can organize feedback.
  • Mike Coletta – I was thinking we could work with pilot sites as initial stakeholders and then get the artifacts that come out of that for you all to review. Also thinking about leveraging something similar to the Public Health Informatics Institute (PHII) Collaborative Requirements Development Methodology (CRDM) as people are familiar with it and that it works well.
  • Bill Stephens – I also encourage the CRDM process.
  • Joe Gibson – Do you have any sense of idea of how big the chunks will be? Will we need to create a facilities table and do requirements for that?
Meeting Summary

- Mike Coletta – The facility table, we have a solid idea that we would like to run past everyone to see if it works or if we missed anything. The admin tool is the harder one as we want to make sure it meets the needs that the Data Sharing Workgroup laid out. There are a lot of different components to the admin tool that we need to think through. For the facility table part, once we go through the admin tool one, we will be more confident on whether the CRDM process (or whatever process) will work.

- Roseanne English – We want to have a more interactive facility administration tool. While we wait to do that, we would like to introduce a more robust Excel file temporarily until we have a facility administration tool.

- Joe Gibson – For each of the rows in the work plan, do you see more granularity in that will be needed?
  - Mike Coletta – It will be mixed. The ones that are standing out represent the different levels of effort. For one would be an Excel spreadsheet to make sure it makes sense. On the other hand, we would have to develop an entire tool and test it to make sure it works as expected.
  - Joe Gibson – What is on my mind is how do we organize this? It seems like we would have a list of things from CDC and deadlines.
  - Mike Coletta – Yes, hopefully we can lay that out in regular updates. In my mind for right now we can work with the eight jurisdictions and share artifacts that come out with that work and then send to GG with a window of time for comment.

- Stacey Hoferka – One of the things regarding Phase II over the next nine months is involving the eight sites in feedback and development. Are there things where you may not want to limit it to just the eight sites? If you get a good facility table, does it make sense to share it more broadly so folks can use it now besides the folks at just the eight sites?
  - Mike Coletta – Yes, as an example, Washington State is about to take on 70 hospitals in October and there would be no point to re-do it in a few months. We would like to work with all jurisdictions if we can and you are right that there are things that will bleed over to beyond just the eight jurisdictions.

- Stacey Hoferka- What are the risks to the current flow? There are benefits early to all sites as you are onboarding during Phase II, but if some of the current activities are hampered by it, then the users may want to know. If data flows were to stop, then the jurisdictions would need to know.
  - Mike Coletta – Our plan is to not touch the current data flow and rather pull from it by doing a separate flow. Just on our resource side and keeping the current data flow flowing is much more manual and taking more resources than expected. Just wanted to point out that was a concern and there may be some tough decisions to make.

- Caleb Wiedeman – With the concurrent changes going on with the facilities templates, are those changes that are happening with facilities outside of the eight pilots, are those changes happening in a staging environment or going directly into production? Just based on whatever testing has been done in the staging environment?
  - Roseanne English – Once we have agreed upon layout of the enhance Excel file, the existing facility data that is in place will be imported into the Excel file and share with you and we will work with you on tweaks and changes. The final data that you agree to will be loaded in various places. One will be importing the overlapping variables from the new master into the existing system data flow master that is used. We won’t change anything about the existing facility master that is used in the current processing, but will update it based on anything that you want updated. The new facility master will also be

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Meeting Summary

available in MySQL database for your access in the current system and will be available in MS SQL database as we move to the new system. So the new masters will be available in current world and the old world for your access, review, and use.

- Holly Whittaker – You had mentioned bugs and potential delays. When do you have to have everything completed by your vendors? How would the jurisdiction be notified if there are delays?
  - Mike Coletta – We have a lot of communication needs that will be set up. I am awaiting new resources internally that will support that and we are waiting on the new website where we can put update on there. In terms of contracts, the contract with ICF is a multiyear option. The contract with JHU is one that we are in an extension period right now and there is one that is expected. Beyond that we would like to continue the contract with JHU, but there is no guarantee.

- Stacey Hoferka – If there are comments that haven’t been asked yet or you would like to raise, please send those to Mark Sum.
  - Mike Coletta – If you could have people make sure that they can look at the plan before September 1, 2015 so that we at CDC can make adjustments as needed.

- Bryant Karras – The jurisdiction list isn’t alphabetical. Was there process for choosing which states went when?
  - Stacey Hoferka – This order was included in the policy vote. We tried to prioritize the sites based on if they were a pilot, then next were BioSense only jurisdictions that have no other system and based order on ED volume (based on American Hospital Administration surveys). After that were jurisdictions that have another system, again ordered by ED volume.

- Caleb Wiedeman – Would this be okay to release these draft documents to the user community?
  - Mike Coletta – The best way would be to have them log into the group on the ISDS Community Forum. We aren’t restricting it to anyone, just need to login.
  - Scott Gordon – We will send a blurb to ISDS to share with the community so that they can request access to the group on the ISDS Community Forum.
  - Laura Streichert – There is a user group meeting on Tuesday, August 25th where the implementation plan will be discussed. We can share the link to the documents with the user community so they can look at it before the call. The link can go out with the meeting announcement.

- Stacey Hoferka – If anyone feels like there is not enough time to look at the implementation plan before September 1st, please notify Stacey Hoferka and Mark Sum so we can let CDC know of your concern with the review timeline.

CDC DUA

Mike Coletta gave an overview and background on the CDC DUA. The CDC DUA was shared with the Governance Group a few weeks ago and feedback has been received and shared with CDC. What the DUA tries to lay out is three levels of access:

- Operational
- National picture
- Collaborations that are controlled at the local admin level
Meeting Summary

In general CDC has gotten good feedback about the DUA, but also good ideas about how to readjust the language.

Ralph Coates said they (CDC DHIS) received additional comments from their Office of General Counsel. Mike Coletta mentioned that they are hoping in either September or October that they could start implementing the DUA.

Discussion:

- Joe Gibson – Is there some way that we could get feedback about the comments, and whether the CDC plans to make related changes to the draft DUA?
  - Ralph Coates – One of the suggestions was to refer to IRB. We consider SyS to be public health practice and so there is no involvement in IRB as we won’t be doing research. That is one of the main things that stood out that wouldn’t happen. Atar had good suggestions in regards to some of the data submitted doesn’t follow the PHIN guide so we have to revise the language. Some of the comments involve legal issues and we would need to take those to our Office of General Counsel. I didn’t see any deal breakers except the IRB one.
  - Joe Gibson – I thought in general it was very good. The section I was most concerned about was data sharing as there weren’t specifics about the data elements that everyone would be expected to share. We talked about some very general fields to share.
    - Mike Coletta – We left that loose as we haven’t finalized that yet, but also as a group we talked about keeping it loose in case we want to change it later on. As you know – having to go back and change a DUA is often quite difficult. On the other hand, it is nice to be specific so folks aren’t worried about it. We seemed to have identified the fields that we as the Governance Group were comfortable with and we just need to finalize those and the query validation capability that Atar had mentioned before.
    - Mike Coletta – In the last community call, I had heard that Wayne mentioned that if you want to be able to segregate ED data from ambulatory data (which I think people do), you will need to include something like patient class as part of the subset and that is something that we all have not talked about.
    - Ralph Coates – One of the suggestions was to take out Chief Complaints and Diagnosis Code, and we have to depend on the user community to see what people need to do this activity. What was suggested was: HHS region, age group, gender, and syndrome/sub-syndrome dispositions. I don’t know if that meets the needs of the users within CDC and the community if they need to drill down into the data.
    - Mike Coletta – Where I heard us going is having a validation tool that might be separated from the rest of the details from a record so you can validate chief complaint and diagnosis code, but then share it with different data sources that may or may not have access to those fields.
    - Ralph Coates – Another thing that has come up is regarding the data that comes to CDC and becomes subject to open record laws/FOIAs requests, the same privacy laws that you collect, protect the data that CDC has. The Privacy Act applies to data that CDC receives and CDC takes that very seriously and when CDC gets FOIA requests, CDC doesn’t give private identifiable data. The less clear part of this is when does the identifiable information come to CDC? If identifiable data is coming into the CDC through the firewall then it is clear, but if it going through this program through the Amazon
Meeting Summary

cloud through some uncertainty then there is not legal precedent for some of the questions received. Some things we can’t say absolutely this will or won’t happen.

- Mike Coletta – Something that we at CDC have been talking about is if it is a state question, then we will refer the FOIA to the state. If it is something that is about how to use the data or what are the answers from the data, then we will give an aggregate result. All those things can potentially be challenged.

- Joe Gibson – Regarding the DUA, it sounds like the decision about what field will be shared is either getting to list specific fields in the DUA, or to only include a general statement.

- Mike Coletta – If there was something general there so we wouldn’t have to re-do the DUA, which would be ideal.

- Stacey Hoferka – Since there is not enough time to discuss this right now. Can Mark send out a Doodle poll to have a separate call to further discuss the DUA and so CDC can respond to each comment to make sure they are all addressed?

User Group Capabilities Survey
Laura Streichert gave a quick update on the User Group Capabilities Survey that was funded by CSTE. The purpose was to respond to the community request to have a peer contact, not to have a big peer mentoring program, but have an idea of who in the community is experienced in SyS and wouldn’t mind being in a contact list. We did a quick survey and had 59 responses and what was sent out was the basic results. On the next user group call, we will discuss how to go forward with the list and the process for contacting users on the list. It can help guide certain training and webinar topics.

User Group Update
Caleb Wiedeman gave an update on the most recent user group meeting. The transition from BioSense to ESSENCE and summary of past Governance Group meetings were presented to the users. There were questions and participation from many users during the call. The next call is Tuesday, August 25th where there will be a discussion on the implementation plan.