

NWX-DISEASE CONTROL & PREVENTI (US)

Moderator: Dale Babcock
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11:00 am CT

Coordinator: Thank you for standing by. At this time all participants are in a listen-only mode. After the presentation we will conduct a question and answer session. To ask a question please press the star 1 and please record your name.

Today's conference is being recorded. If you have any objections you may disconnect at this time. I would like to introduce your host for today's conference, Dr. Andrew Kroger. You may begin.

Dr. Kroger: Thank you very much. Welcome to Current Issues in Immunization Net Conference. I'm Andrew Kroger. I'm a Medical Officer in the Immunization Services Division of the National Center for Immunization and Respiratory Diseases, or NCIRD, at the CDC. And I'll be the moderator for today's session.

To participate in today's program, you need a telephone connection and a separate Internet connection. The learning objectives for this session are to: describe an emerging immunization issue; be able to list the recent immunization recommendation made by the Advisory Committee on

Immunization Practices, or ACIP; to locate resources relevant to current immunization practice; and to obtain, assess, and apply patient information to determine the need for immunization.

Today is August 5, 2015. We have one topic for today's Net Conference. Dr. Raymond Strikas, Team Lead in the Communication and Education Branch, Immunization Services Division, in NCIRD, CDC, will discuss immunization strategies as presented in the CDC textbook, "Epidemiology and Prevention of Vaccine-Preventable Diseases," also known as the pink book, whose 13th edition was published this year.

A question and answer session will follow today's presentation, and we will offer another question and answer session on Thursday, August 13, at 10:00am Eastern Time for those who could not attend today's session or did not have time to ask a question.

Please make a note of the following information. If you have technical trouble, please dial star 0 on your telephone. If you'd like to ask a question when we get to that segment, please press star 1 on the phone.

Continuing education, or CE, credit is available only through the CDC ATSDR training and continuing education online system at www2a.cdc.gov/TCEOnline. CE credit for this session today expires on September 7, 2015.

CDC, our planners, and our presenters wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters. Planners have reviewed content to ensure there is no bias.

Presentations will not include any discussion of the unlabeled use of a product or a product under investigational use. CDC does not accept any commercial support. So I will now turn the microphone over to Dr. Strikas. You may begin.

Dr. Strikas: Thank you, Dr. Kroger. Today I'll talk about some strategies to improve immunization coverage, or vaccine uptake as some call it. And an important component of an immunization provider's practice is ensuring that the vaccines reach all people who need them.

While attention to appropriate administration of vaccinations is essential, it cannot be assumed that these vaccinations are being given to every person at the recommended age. Immunization levels in the United States are high, but gaps still exist.

We still see outbreaks of vaccine-preventable diseases, such as recent measles, mumps, and pertussis outbreaks. And providers can do much to maintain or increase immunization rates among patients in their practice.

Vaccine-preventable disease rates in the United States are at very low levels. For example, in 2014 only 8 cases of Rubella, no cases of diphtheria, 21 cases of tetanus and no wild type polio cases were reported to CDC.

Given these immunization successes, one might question the continued interest in strategies to increase immunization levels.

Resurgence of some vaccine-preventable diseases such as pertussis, expanded recommendations for influenza vaccination and HPV vaccination, and gaps in sustainable immunization efforts highlight the need to focus on immunization rates. The viruses and bacteria that cause vaccine-preventable diseases disease and death still exist and can be passed on to unprotected persons or

imported from other countries, as likely occurred in the recent measles outbreak that began in California and did occur with measles in Amish populations in 2014. In the latter case, measles disease was imported from the Philippines.

Although levels of disease are the ultimate outcome of interest, these are a late indicator of the soundness of the immunization system. Immunization levels are a better indicator for determining if there is a problem with immunization delivery and this presentation will focus on increasing immunization levels and the strategies healthcare providers can use to do this.

In the next few slides I'll review national immunization coverage data for selected populations to identify gaps in where we need to improve. In 2013 national vaccination coverage data among children age 19 through 35 months with the combined vaccine series of the vaccines listed on the bottom of the slide was 70.4%, similar to coverage in 2012 with a slight improvement.

The 2014 data should be published by September of this year. The data on the slide were published from the National Immunization Survey in August 29, 2014, Morbidity and Mortality Weekly Report.

Data from the 2014 National Immunization Survey for Teens, which were published in the MMWR last week show some progress has been made in HPV vaccination coverage in girls since 2012. That's demonstrated in the dotted lines in the middle of the graph.

From 2007 to 2011 vaccination coverage significantly increased each year for all doses of HPV vaccine, but the rates lagged behind those for Tdap and meningococcal conjugate vaccine, which were the two lines at the top of the graph in the image.

HPV coverage increased between 2013 and 2014 from 56.7 to 60%, which is the third line down with the small dots for one or more HPV doses among females 13 through 17 years of age, and from 33.6% to 41.7% for one or more HPV doses among male, the line with one bar followed by two dots in the middle of the graph.

Completion of the three-dose HPV series increased since 2013 but is still low at 39.7% for females and 21.6% for males. Also coverage varied by state and local jurisdiction. The dotted vertical line at 2013 indicates a revised adequate provider data, or APD, definition, which makes the data prior to 2013 not directly comparable to 2013 and 2014 data.

The strong coverage rates for Tdap and meningococcal vaccines demonstrate that most preteens and teens are getting to their provider for these two vaccines, but opportunities are being missed for HPV vaccination. We'll talk more about missed opportunities later.

In a February 2015 MMWR publication, CDC found that the adult immunization coverage rates remain low for selected vaccines overall in the United States. These data are from the CDC's National Health Interview Surveys.

For example, at the top of the graph, the pneumococcal vaccination rate for adults 19 through 65 years are at high risk for pneumococcal disease is 21% in 2013, far below the Healthy People 2020 target, and the target there at 60%.

The pneumococcal immunization rates for all adults 65 years old or older was 60% in 2013; also well below the Healthy People 2020 target of 90%. The coverage rate for Zoster vaccine, which is recommended for persons 60 years

of age or older, was 24% in 2013, improving but still below the target of 30% for the year 2020.

Rates of influenza immunization were also unacceptably low among healthcare providers, an important target population for vaccination. Typically, fewer than 70% of healthcare providers receive influenza vaccine.

Sustainable systems for vaccinating children, adolescents, and adults must be developed and employed in the context of a changing healthcare system. High immunization rates cannot follow one-time or short-term efforts.

Greater understanding of strategies to increase and sustain immunization levels is necessary to create lasting, effective immunization delivery systems. Many strategies have been used to increase immunizations.

Some, such as school entry laws, have effectively increased demand for vaccines, but the effect of other strategies such as advertising is less well-documented. Some proven strategies, such as reducing cost, linking immunization in Women, Infants, and Children, or WIC services, and home visits are well-suited to increasing rates among specific populations, such as persons with low access to healthcare or immunization services.

One key to a successful strategy to increase immunizations is matching the proposed solution to the current problem. Although a combination of strategies directed at both providers and the public is necessary for increasing and maintaining high immunization rates, this presentation and the pink book chapter on immunization strategies will look at healthcare providers and practices for immunization strategies relevant to those situations.

CDC, through state and other grantees, administers a program designed to move healthcare personnel to being knowledgeable, concerned, and motivated to change their immunization practices and being capable of sustaining new behaviors to improve them.

The acronym used for this approach is AFIX, which stands for Assessment of the immunization coverage of public and private providers, Feedback of diagnostic information and improved service delivery, Incentives to motivate providers to change immunization practices and recognition of improved or high performance, and lastly eXchange of information among providers.

First conceived by the Georgia Division of Public Health, AFIX is now used nationwide with both public and private immunization providers and is recommended by government and non-government vaccine programs and medical professional societies.

First, AFIX focuses on outcomes. It starts with an assessment, producing an estimate of immunization coverage levels in a provider's office or clinic. And these data help identify specific actions to take in order to remedy deficiencies. Outcomes then are easily measurable.

Second, AFIX focuses on providers, those who are the key to increasing immunization rates in those settings. AFIX requires no governmental policy changes nor does it attempt to persuade clients to be vaccinated, but instead focuses on changing healthcare provider behavior.

Third, AFIX when used successfully is a unique blend of advanced technology and personal interaction. Much of the AFIX process can be done electronically, increasing speed and accuracy of assessment and feedback, and streamlining reporting.

However, the personal skills of the assessor and that person's ability to establish a rapport with and motivate a provider are critical to achieving lasting results.

Assessment refers to the evaluation of medical records to ascertain the immunization rate for a defined group of patients, as well as to provide targeted diagnosis for improvement. This step is essential, because several studies have documented that most healthcare providers, while supportive of immunizations, do not have an accurate perception of their own practice's immunization rates.

Pediatricians in these studies grossly overestimated the proportion of fully immunized children, often twofold higher than actually existed in their practices. Assessment increases awareness of a provider's actual situation and provides a basis for subsequent actions by provider's staff.

CDC has developed a software program, the Comprehensive Clinic Assessment Software Application, or CoCASA, which enables assessment to be done electronically, which is a flexible system that can accommodate whatever assessment parameters are desired.

It also provides results that can be printed immediately. I'll describe CoCASA in more detail later.

Feedback is informing immunization providers about their performance in delivering one or more vaccines to a defined client population.

The work of assessment is of no use unless the results are fed back to the persons who can make a change in their practice. Assessment together with

feedback creates the awareness necessary for behavior change amongst providers.

Feedback usually includes the immunization program representative at the state or local level who meets with provider staff and discusses the results of the assessment to determine next steps to be taken. This may take one to two visits.

If the CoCASA system has been used, the summary report that is generated can identify specific subsets of patients, such as those who have not completed the series because of a missed opportunity of immunization that, if found in substantial numbers, can provide clues about which changes in the provider's practice would be most effective in improving coverage levels.

The personal element of feedback is also critical to its success. An involved reviewer who is committed to the AFIX process, who addresses deficiencies without judgement and respects the confidentiality of the data and the practice and the efforts of the provider will be likely to gain trust of the providers and motivate them to increase rates of immunization in the practice.

An incentive is something that insights one to action or effort. Incentives are built into the AFIX process, recognizing immunization providers, like everyone else, will accomplish a desired task more successfully if motivated to do so.

The assessment and feedback components are not intended to be done in isolation. Providers may have sufficient data about their practice's immunization rates, but they must recognize high immunization coverage as a desirable goal and be motivated to achieve it.

Incentives vary. No one thing will be effective for every provider, and a single provider may need different types of motivation at different stages of progress. Small tokens of appreciation and providing resource materials at meetings have helped providers approach their task positively and create an atmosphere of teamwork.

But longer-term goals must be considered as well. Because the effort to raise immunization rates may involve an increase in duties for staff, offering assistance in reviewing records or sending reminder notices might more directly address a provider's needs.

Incentives pose a challenge to the creativity of the program representative but they also offer the opportunity to try new ideas. Finally, incentives are opportunities for partnerships and collaboration. Professional organizations or businesses and other groups have been solicited to publicize the immunization efforts in a newsletter or provide funding for other awards for provider's staff.

The final AFIX component, exchange of information, goes hand-in-hand with incentives. The more information providers have about their own practice's immunization coverage status, how it compares with state norms and with other providers in their community, and what strategies have been successful with other providers, the more knowledgeable and motivated they will be to increase their immunization rates.

It is up to the AFIX representative to provide appropriate statistical and educational information and create forums for exchange of information among providers at meetings and other venues.

Staff members at all levels can benefit from the exchange of ideas about immunization practices and increasing rates of coverage, what has worked or

not worked with another provider, streamlining office procedures, or where to obtain educational or other resources.

The forms for such exchanges vary widely, from informal meetings on the local level to more structured meetings structured by government or professional organizations. Electronic media can also be used to exchange information.

Private providers now vaccinate nearly 80% of all children in the United States. Many of these providers participate in the Vaccines for Children, or VFC program, a federal program whereby funding is provided for state and other immunization programs to purchase vaccines and make them available at no cost to children who meet income eligibility requirements.

CDC launched an initiative in the year 2000 to link some AFIX and VFC activities and incorporate AFIX activities during VFC provider site visits to avoid duplication of staff time and effort. However, reported concerns with proper storage and handling of vaccines led the federal VFC program to revise this approach.

Beginning in the year 2013, VFC program staff have been encouraged to perform VFC compliance visits separate from the AFIX visit to focus on the core components of each program, including the assessment of and provider training related to proper vaccine storage practices.

VFC programs may choose to continue to combine these program efforts, if the state has a robust Immunization Information System, or IIS, that assists with performing the AFIX assessment portion of the visits.

The Vaccines for Children, or VFC, program serves more than 40,000 private provider sites and every state participates in the program. VFC provider site visits are conducted to review compliance with federal program requirements, including VFC eligibility screening, and to evaluate vaccine storage and handling procedures.

CDC developed the software program that I mentioned earlier, the Comprehensive Clinic Assessment Software Application, better called CoCASA, to enable electronic entry of AFIX and VFC site visit data. CoCASA was first released in December of 2005 and is an update of previous versions of Clinic Assessment Software Application, also known as CASA.

Using CoCASA, a reviewer enters appropriate basic information about an individual provider and conducts an assessment of patient records. The user also has the option to record AFIX visit outcomes and VFC site visit information.

CoCASA can provide immediate results of the assessment, supplying a reviewer with the information needed for use in the feedback session, and noting errors that need further follow-up. CoCASA reports provide estimates of immunization coverage levels and potential reasons for the coverage inefficiencies, such as missed opportunities for immunization and patients who did not return to finish an immunization series.

The program can generate reports on subsets of patients. Data from an immunization registry or patient management system can be imported into CoCASA and data collected during the visit can be exported for further analysis.

Additional resources available for AFIX include the AFIX guide to the core elements for training and implementation document. This document generalizes the AFIX process so it can be applied to any age group, and when differences between populations do exist with respect to AFIX this document clearly identifies the difference and provides helpful strategies for modifying the AFIX methods. The CoCASA and AFIX website are at the bottom of this slide where you can have more information on both of these programs.

Although a substantial portion of this presentation and the related pink book chapter are devoted to AFIX, other strategies for improving immunization levels deserve emphasis.

These are complementary to AFIX and their adoption will support the goals of AFIX that is raising immunization coverage levels. And they also will facilitate the AFIX process and insure a favorable outcome of an assessment.

These include accurate record keeping, Immunization Information Systems, or IIS, recommendations and reinforcement of vaccination procedures, reminder and recall to patients, reminder and recall to providers, reduction of missed opportunities, and reduction of barriers to immunization.

Immunization records should meet all applicable legal requirements as well as requirements of any specific program, such as VFC, in which the provider participates. These records should be available for inspection by an AFIX or VFC representative and should be easy to interpret by anyone examining the record.

Immunization records must be accurate. The active medical records must reflect which patients are actually in the practice. Charts of persons who have

moved or are obtaining services elsewhere should be clearly marked accordingly or removed from the files.

Records should be kept up-to-date as new immunizations are administered and all information regarding the vaccine and its administration should be complete. The information that should be on records includes which VIS, or Vaccine Information Statement, was given, which edition of that VIS was used and its date, the date the VIS was provided, the name, address and title of the vaccination provider, the date of the vaccinations, and the vaccine manufacturer and lot number of the vaccines used.

Because patients often receive vaccines at more than one provider office, communication between sites, such as schools and pharmacies, is necessary for maintaining complete and accurate immunization records.

Many record-keeping tasks, as well as patient reminder recall activities can be greatly simplified by participation in a population-based Immunization Information System, or IIS, also known as an immunization registry.

An IIS is a computerized information system that contains information about the immunization status of each person, adults and children, in a given geographic area, usually a state or large metropolitan area.

An IIS provides a single data source for all community immunization providers, enabling access to records of children receiving vaccinations at multiple providers. Nearly all states have IIS, which have been active for a number of years.

The Task Force on Community Preventive Services, a group of public health experts supported by CDC, recommend use of IIS on the basis of strong evidence of effectiveness in increasing vaccination rates.

The taskforce concluded IIS are directly related to increase in vaccination rates by creating or supporting effective interventions such as client reminder and recall systems, provider assessment and feedback, and provider reminders.

IIS generate and evaluate public health responses to outbreaks of vaccine-preventable diseases. They facilitate vaccine management and accountability. They help determine client vaccination status for decision making by clinicians, health departments and schools. And they also aid surveillance and investigations on vaccination rates, missed vaccine opportunities, invalid dose administration, and disparities in vaccination coverage.

A goal with the Department of Health and Human Services Healthy People 2020 program is to increase to 95% the proportion of children younger than six years of age who participate in fully operational, population based IIS.

In 2012, approximately 86% of children in this age group met this participation goal, defined as having two or more doses of vaccines recorded in an IIS. Federal, state, and local public health agencies are continuing their efforts to improve the registries themselves and to increase participation by immunization providers.

The recommendation of a healthcare provider is a powerful motivator of patients who comply with vaccination recommendations. Studies demonstrate that parents of pediatric patients are likely to follow vaccine recommendations of the child's doctor or nurse.

And adults who were initially reluctant were likely to receive influenza vaccination when the healthcare provider's opinion of the vaccine was positive and a recommendation followed. It is important for patients to have the next appointment date in hand at the time they leave the providers office, and additional reminder strategies to link the timing of the return visit to some calendar event, such as the child's birthday or an upcoming holiday.

Even with written schedules and reminders, a verbal encouragement reminder can be an incentive for a patient's completing the immunization series and can ultimately result in higher coverage levels.

Patient reminders and recall messages are messages to patients or their parents stating that recommended immunizations are due soon (reminders), or past due (recall messages). Both reminders and recall messages have been found to be effective in increasing attendance at clinics and improving vaccination rates in various settings.

The image here is part of an immunization reminder card developed by the Arizona Partnership for Immunization. Cost is sometimes thought to be a barrier to the implementation of a reminder recall system. However, a range of options is available, from computer-generated telephone calls and letters to a card file box with weekly dividers, and these can be adapted to the needs of the provider.

The specific type of system is not directly related to its effectiveness and the benefits of having any system can extend beyond immunizations to other preventive services and increase the use of other recommended screenings.

Both the standards for child and adolescent immunization practices, and the standards for adult immunization practices, call upon providers to develop and implement aggressive tracking systems that will both remind persons of upcoming immunizations and recall those who are overdue.

The National Center for Immunization and Respiratory Diseases at CDC provides state and local health departments with ongoing technical support to assist them in implementing reminder and recall systems in public and private provider sites.

Providers can create reminder and recall systems that help them remember which patient's routine immunizations are due soon or are past due. Provider reminder recall is different from feedback, in which the provider receives a message about overall immunization levels for a group of clients.

Examples of reminder and recall messages for providers are a computer-generated list that notifies the provider of the children to be seen in that clinic session or day whose vaccinations are past due,

A stamp with a message such as "No pneumococcal vaccine on record" that a receptionist or nurse can put on a chart for a person who is 65 years of age or older.

Or, a clip saying "Immunization due" that a nurse or medical assistant attaches to the chart of an adolescent who has not had HPV, Tdap, or meningococcal vaccine yet, and

An electronic reminder which appears in the provider's access and electronic medical record.

Reminder systems vary according to the needs of the provider. In addition to raising immunization rates in the practice, they can serve to heighten the awareness of staff members about the continual need to check the immunization status of their patients.

A missed opportunity is a healthcare encounter in which a person is eligible to receive a vaccination but is not vaccinated completely. Missed opportunities occur in all settings in which immunizations are offered, inpatient and outpatient, whether routine or not.

Here we see a physician chasing after a patient who did not receive an indicated vaccine at a just concluded clinic visit.

Missed opportunities occur for several reasons. At the provider level, many nurses and physicians avoid simultaneous administration of four or even three injectable vaccines.

Frequently stated reasons have included concern about reduced immune response or adverse events and parental objection. These concerns are not supported by scientific data. Providers may also be unaware that a child or an adult is in need of vaccination, especially if the immunization record is not available at the visit, or they may follow invalid contraindications, as discussed in our general recommendations presentations in previous weeks.

Some of the other reasons for missed opportunities relate to larger healthcare systems that has a clinic that has a policy of not vaccinating at any visits except well childcare or not vaccinating siblings at the same visit when one of the children is present.

Other reasons relate to large institutional bureaucratic regulations, such as state insurance laws that deny reimbursement if a vaccine is given during an

acute care visit. The degree of difficulty in eliminating the missed opportunity may vary directly with the size of the system that has to be changed.

Several studies have shown that eliminating missed opportunities could increase vaccination coverage by 20% or more. Strategies designed to prevent missed opportunities have taken many different forms, used alone or in combination.

Examples include the following:

Standing orders. These are protocols whereby non-physician immunization personnel may vaccinate clients without direct physician involvement at the time of the immunization. Standing orders can be implemented in settings such as clinics, hospitals, and nursing homes.

Provider education. Anyone responsible for administering immunizations should be knowledgeable about principles of vaccination and vaccination scheduling to the extent required for their position.

Numerous educational materials in a variety of formats are available from CDC, the Immunization Action Coalition, and state health departments, hospitals, and professional organizations.

Incorporating some AFIX principles, including assessment and feedback into a provider education program may have a greater effect on provider behavior than education effort alone and only at increasing knowledge.

Provider reminder and recall systems are to be remembered as well. These systems were mentioned earlier. These reminder systems, while effective at increasing immunization levels can also help avoid missed opportunities if they are a component of other practices directed towards this goal. For

example, if a reminder system is used consistently and staff members are knowledgeable about vaccination opportunities and valid contraindications, the reminder or recall system can be an additional aid in promoting appropriate immunization practices.

Obstacles to vaccination of patients may exist within the practice setting, sometimes unknown to the provider. Barriers to immunization may be physical or psychological. Physical barriers can include things such as inconvenient clinic hours for working patients or parents, long waits at the clinic, or the distance patients must travel to the clinic. The provider should be encouraged to determine the needs of their specific patient population and take steps, such as extending clinic hours or providing local immunization clinics to address obstacles to immunization.

Cost can also be a barrier to immunization for many patients. And in addition to evaluating their fee schedule for possible adjustments, providers should be knowledgeable about such programs as Vaccines for Children, the state's Children's Health Insurance Program, or CHIP, and the provisions specific to their state. Enrollment as a VFC provider is recommended for those with eligible children in their practice.

Psychological barriers to healthcare are often more subtle, but may be just as important. Unpleasant experiences, such as fear of immunizations, being criticized for previously missing appointments, or difficult leaving work for a client appointment may lead clients to postpone receiving needed vaccinations for themselves or their children. Concerns about vaccine safety are also preventing some parents as well as adult patients from receiving vaccinations for themselves or their children. Overcoming such barriers calls for both knowledge and interpersonal skills on the part of the provider, knowledge of vaccines and updated recommendations, as well as knowing about reliable

sources to direct patients to find accurate information. These attributes can lead to smiling faces from all concerned, such as depicted in the lower image on this slide.

There are numerous resources describing immunization strategies and their implementation. I cited many on the specific strategy slides in this presentation, and they're also cited in the pink book.

In addition, CDC has developed tools for conversations with parents and information about the Vaccines for Children program that you'll find useful cited on the slide that you see now.

The Task Force on Community Preventive Services has reviewed many strategies for most preventive services, including immunization and their web site is listed here if you wish to read their reviews of the evidence behind the recommended strategies we've talked about today. Their guide to community preventative services for immunization and many other preventive services is at the web site listed.

As I mentioned, there are standards for both pediatric and adult immunization practice, promulgated by the National Vaccine Advisory Committee, which advised the Department of Health and Human Services about immunization policy issues.

In addition, the references at the end of the strategies chapter in the pink book detail specific examples of strategies and their implementation, and particularly references 7-21. I trust you'll find these resources useful and thank you for joining us today for this presentation of immunization strategies. Let me turn the microphone back to Dr. Kroger.

Dr. Kroger: Thank you very much, Dr. Strikas. We're going to move to a question and answer session soon, but while the queue fills I'm going to give you some information about continuing education.

If you do have a question, please dial star 1 to get in the queue for the operator. We will have a recast of this program available on the Internet on our web site at www.cdc.gov/vaccines/ed/ciinc. This will be available the week of August 10. The slides will be there as will the audio portion and other resource information.

For continuing education credit, go to www2a.cdc.gov/TCEOnline. The course number for this program is date specific and its letter is E as in Edward, C as in cat, 2064-080515. And that last part, that's today's date, 080515.

You need that for completing CE requirements. The verification code is Strategy5 with no space, and this applies to today's program only. I'll repeat the verification code. It's S-T-R-A-T-E-G-Y, no space, and the numeral 5.

CE credit for this program expires September 7, 2015. I will repeat this information at the end of the question and answer period as well. So let me know turn it over to the operator to please let us have our participants ask the questions they wish to ask. Operator?

Coordinator: All right. Thank you. And once again if you do have a question, please press star 1. And our first question comes from (XXXXXXXX).

(XXXXXXXX): Hi. Can you hear me?

Dr. Kroger: Yes.

(XXXXXXXX): Okay. So I have a question about ways to identify or how to estimate who falls through the cracks as far as adult patients, patients who need home visits, people that maybe aren't being - you know, getting to the doctor or can't get out and if you have any recommendations for how to identify them and how to estimate the number of them in a particular geographical area? How you can direct me to something like that?

Dr. Strikas: I don't have - this is Dr. Strikas. I don't have specific recommendations. It's an important question. I don't know what setting your work in, but I presume either you or colleagues in your setting could identify or already know about organizations, businesses that do home visits for clients who are housebound or cannot seek medical care otherwise and reaching out to them to understand who their populations are that are already being served is one thing to do.

And ask if they have protocols for preventive healthcare, including vaccinations. And of course there are lots of other preventive healthcare activities that those people should receive. So that's one thing is to find the existing strategies.

Otherwise it's a challenge. This is where one could work with local inpatient settings for hospitals to identify persons perhaps - this is, as you said, adults who are either indigent or on Medicaid and only go to emergency rooms or hospitals when they're very sick and therefore may also not be receiving preventive healthcare visits.

So there may be a census that could be taken from the local hospital settings. And the other options might be talking to, if there are homeless shelters in your community, people who seek assistance there but also aren't getting medical care.

So these are just some ideas sort of off the cuff, and I hope they might offer some assistance. You may no doubt have other ideas as well.

(XXXXXXXX): Thank you.

Dr. Kroger: Thank you very much. We'll take the next question in the queue.

Coordinator: The next question is from XXXXXXXX().

(XXXXXXXX): So I work with many different private providers and the challenge that they often cite in terms of even starting the process is the vaccine carrying costs associated with private supply vaccines that they're now obligated due to the restrictions in 317 funding to carry. Do you have any thoughts or suggestions for them in how to sort of maximize reimbursement or minimize that cost to them?

Dr. Strikas: So let me make sure I understand. You cite the 317 program, which is evolved and its funding has been static for a while. So these are not children who are eligible for the Vaccines for Children program, these are other people?

(XXXXXXXX): Exactly, privately insured patients.

Dr. Strikas: Okay and so the payment for vaccination services...

(XXXXXXXX): Is low but it's also...

(XXXXXXXX): There's startup costs as well.

Dr. Strikas: Yes, they've got to stock vaccines. I don't have a ready or quick solution. And if you could email your question, - to NIPINFO@cdc.gov, because I would benefit from chatting with colleagues at CDC and I will try to seek more information.

What occurs to me is what one can think about is, you know, are there resources that state or local public health can offer? Those are limited as well. And the other option is to some extent pharmacy programs.

You know, if a practitioner has difficulty overcoming the barriers you've identified, which are real, some pharmacies because of infrastructure and the size of their businesses can absorb those costs and offer vaccinations to people, which may be an alternative that is viable. It's not that every physician or every clinical setting has to offer vaccines.

What is in the standards for adult clinical practice is that they should be aware of these preventative services, counsel the patient, and if they for whatever reason don't stock the necessary vaccine, refer the client to a place that does have it available and can provide the service.

And that's not as convenient perhaps, but we don't want to insist that all clinical settings, all physicians, nurse practitioners, whoever is an independent practice, have to provide all immunization services.

They should, however, be knowledgeable and refer people to an appropriate setting. So that's one thing to be aware of. You know, maybe not as satisfactory as folks would like, but it is an option.

(XXXXXX): Thank you.

Dr. Kroger: Thank you. We'll take the next question.

Coordinator: Next question is from (XXXXXXXX).

(XXXXXXXX): Hi. I was just calling to see if the CDC has any recommendations for the phone reminder recall system programs out there? If they recommend any specific programs? I know often they're offered through pharmaceutical companies, but was wondering if there's any better more generics?

Dr. Strikas: I don't know of any and generally CDC doesn't point to specific vendors. You know, I will check and if we can identify any, we'll try to make that available on our resource page. I'm not aware that we do.

You may wish to check with your state or local health department, which may have had success or other recommendations at your level, but I'm not aware that CDC has identified any particular vendors for those services.

(XXXXXXXX): Thank you.

Dr. Kroger: Thank you. We'll take the next question.

Coordinator: The next question is from (XXXXXXXX).

(XXXXXXXXLita Christie): Hi. I have a question about the CoCASA program. We participate in that, having a VFC program. But I was wondering for our private clinics, who is allowed to train and to run these? Can anybody, you know, who is in charge of vaccines for that clinic, can they learn how to do this process and run them?

Dr. Strikas: I will not acknowledge more expertise on CoCASA than I have, and I think that's within the prerogative of the state or local health department. I'll have to do some checking for you. So if you'd be good enough to email us at NIPINFO@cdc.gov to remind me to check on that and get back to you? But I don't think it's restricted to state or local health folks, but it may vary from jurisdiction to jurisdiction.

(XXXXXXX): Okay. Would you mind repeating that web site again - or the email?

Dr. Strikas: Yes, the email address is NIPINFO@cdc.gov.

(XXXXXXXX): Okay. Thank you.

Dr. Strikas: And you can say it's to my attention and I'll get it. Thank you.

(XXXXXXX): Okay. Thank you.

Dr. Kroger: Thank you. We'll take the next question in the queue.

Coordinator: The next question is from (XXXXXXX).

(XXXXXXX): Some insurance companies offer financial incentives to providers when they meet certain immunization coverage levels, and those levels may not be consistent with ACIP recommendations. So if a vaccine, such as HPV, is not included in that incentive, how is that - how does that get addressed?

Dr. Strikas: So let me repeat the question so I'm understanding it or you can clarify for me. Some insurance companies offer incentives, which we'd like to think is a good thing to reach certain vaccination levels. But you say they're not consistent with ACIP recommendations. And if I understood you correctly,

you're saying for example HPV is not included as a vaccine where if you reach a certain target level an incentive would be offered. Is that the question?

(XXXXXX): That is HPV may not be included. So for example when the children with the 4313314 vaccine series, an insurance company, and I think it's more public insurance, requires a lower coverage level. And I'm concerned that HPV for adolescents may not be something that the providers receive incentives for, which may create a challenge for us in increasing coverage rates.

Dr. Strikas: Well, I guess, you know, without knowing the specifics, I think it's great that the insurance companies are at least offering incentives for some vaccines. And one would want to encourage them to both pay for vaccines such as HPV and also to include incentives for reaching some coverage levels.

They don't necessarily have to be the year 2002 Healthy People objective. They might be an interim objective, something less than that. So I think, you know, I'm going to say - as I said, the glass is half full. This is a positive thing. Can we seek to improve it?

And it probably will require, you know, detailed discussion with the insurance company of, you know, how did you choose what you chose and can we make it comprehensive that it's all vaccines on the recommended - on the schedule recommended for the population in question, in this case perhaps it's adolescents, are included.

So I don't have an easy answer. I think it's going to require some negotiations and that sort of thing.

(XXXXXXX): Thank you.

Dr. Kroger: Thank you. We'll take the next - actually as an aside, let me welcome Hanan Awwad, our AFIX lead in the Immunization Services Division. And we'll take the next question.

Dr. Strikas: Yes, and actually let me ask Hanan to address a question that came up just before she got here, which was can the CoCASA software be made available to private providers to do their own assessments independent of or before they're visited by AFIX colleagues from the state or local health department? And I was not sure of the answer. I asked the person to email me. Hopefully the questioner is still on the line. But, Hanan, could you address that question?

Hanan Awwad: Sure, absolutely. Thank you. So CoCASA can be made available to any user that needs to use the software. And providers can definitely use it to run their own assessment rates and look at their quality improvement strategies prior to an official AFIX visit.

Dr. Strikas: Great. Thank you very much.

Hanan Awwad: You're welcome.

Dr. Kroger: Thank you. We'll take the next question now in the queue.

Coordinator: All right. The next question is (XXXXXX).

(XXXXXX): Yes, hi. I'm sorry, I had another question that I didn't ask earlier about the immunization information system. I was wondering if you could comment on its usefulness if not everyone is using it.

For example, if I wanted to try to increase vaccination rates in my area, I'm a pharmacy provider. I work with a university. I'm trying to increase

vaccination rates in our area, especially targeting, you know, patients that need home visits, patients that can't leave their home. And we do have a physician that we work with.

So if I had access to this system, for example, and I was looking up patients that had signed up to receive a vaccination, how would I be certain that the information is accurate and complete?

And do what I have to, you know, just rely on the patient's, you know, own history, you know, historian capabilities? I just wanted to know if the immunization information system would be, you know, something like a sole thing that I could rely on or do I need to dig further?

Dr. Strikas:

I think most of our colleagues in the states would say with a few exceptions, particularly for adults which I think is the population you're referencing that you are most interested in, there are fewer data about vaccinations for adults in most immunization information systems or registries.

Some states, you know, do pretty well with kids, but adults, particularly older adults, its catch as catch can. And many practitioners, internists, and family physicians who don't see children are not in the practice of entering data in the immunization information system.

So, you know, we are working hard and encouraging folks at all levels to enter those data. And it's worth becoming one who can access it in your data, and we encourage you to make sure that all the patients you see and vaccinate and/or your colleagues in your various settings do so, so it becomes valuable.

But I must say that my understanding is for adult populations, it is - unless they're young adults who've "aged" into the system and all their data stays

there. They're going to have probably limited data, and you're going to have to seek information from the patient. Does the patient have a record of healthcare or their previous care providers?

The registry immunization information system is less likely for middle aged and older adults to be a complete source. And it may not be as useful as we would like. Hence the effort to have colleagues, such as yourselves in pharmacies and other settings, making sure that henceforth all data for vaccination on clients you see and serve enters those systems so henceforth it becomes useful and one records that.

(XXXXXXX): Okay. Thank you.

Dr. Kroger: Thank you. We'll take the next question in the queue.

Coordinator: There are no other questions at this time. If you would like to ask a question, press star 1.

Dr. Kroger: While we wait, why don't we ask a question that we frequently receive. Dr. Strikas, you talked about strategies for healthcare settings to improve vaccination coverage. What are some strategies that can be used for the public?

Dr. Strikas: Yes, and we've talked about some of these already and briefly in the presentation and more in the questions that we've already received. Home visits obviously for person who cannot leave their homes are how they get their healthcare. And that's sort of an absolute necessity that those people are served during the home visits.

I mentioned decreasing cost. That is seeing if individuals, be they children or adults, fit into some program, such as Vaccines for Children, and then can access medical care and in this case immunization services.

I mentioned client reminder and recall notices, which are both related to healthcare settings, but they are specific to the client or community. Then vaccination in convenient places. And we've seen an increase over the years of school vaccination programs for back to school and influenza programs in the fall.

So, or Women, Infant, and Children centers, because many children, newborn children and their mothers, go to those places for supplemental food services. And they can access immunization there or be directed to a clinic nearby.

Lastly, vaccination requirements. We're all familiar with those for childcare and school entry. They can also exist for, as they do for many clinical settings, for employees in healthcare institutions and the like. And these, you know, work well on their own accord. They work better if they're used in combination. So those are some examples in settings other than necessarily the healthcare setting.

Dr. Kroger: Thank you for that answer. Do we have any other questions on the phone?

Coordinator: We do have one more, XXXX).

(XXXXXX): I have a question. Last week the webinar went over storage and handling, and its impact on vaccine effectiveness. Do you have any concerns about home visitors bringing vaccine with them to vaccinate their clients, in regards to the storage and handling of it as they travel around their areas in the winter time or the hot summer and the vaccine being out?

Dr. Strikas: I think that's a very important question. I appreciate your bringing it up. I think it's fair to say that there are standards, there are recommendations for how to transport vaccine off site away from the primary storage area to remote clinics, or in this case the clients at home. And portable refrigerator units are the standard, in short.

But I commend you to look at - go to cdc.gov/vaccines and search for Storage and Handling Toolkit, and you'll find all the details there as well as its discussed in the presentation last week and in the pink book.

So I think it's very important people follow the guidelines CDC's established for transportation of vaccines. And it can't be as simple as a Styrofoam cooler and a bucket of ice. That doesn't fly. So it's very important people be geared up to do that.

And if they are not equipped to do that, and it can be a significant outlay of expense to buy the appropriate equipment, then on the infrequent time that the client who gets home visits comes to a facility that you try to ensure that they receive necessary vaccines then if you cannot bring them to the client.

But hopefully you can bring them to the client as necessary. And adults fortunately don't need vaccines as often as children do, although there are certainly some children who are receiving home visits as well. So it is a challenging problem, and I appreciate your pointing it out.

Dr. Kroger: Thanks for that question. Are there any more? I guess we have time for one more question that's in the queue.

Coordinator: There are no questions at this time.

Dr. Kroger: Okay. Well why don't I ask one last question that we receive often as well. How is the CoCASA variable, the number of children eligible in the practice, best determined? Many providers don't know how many children they have, for example, in their 24 to 34 month old age group. So how is this done?

Dr. Strikas: Let me offer a brief answer and then ask Ms. Awwad, who's an expert in CoCASA, to make sure I've got it right. My understanding is the number of eligible children in the practice is not a required field in CoCASA. And to get this information, most people doing AFIX assessments have to ask the provider for an estimate or determine it from a computerized list of age eligible clients or patients.

If the assessor thinks the provider cannot give a good estimate or doesn't have a computerized list, then my understanding is that field can be left blank. Ms. Awwad, can you amplify or clarify if there's more information our audience needs on that?

Hanan Awwad: That is correct. That is a response that I would share as well.

Dr. Strikas: Okay. Thank you. Thanks very much for the questions. I'll let Dr. Kroger finish up. If you have more of those, please, you can email them to NIPINFO@cdc.gov.

Dr. Kroger: Well, thanks to you both. So we'll move on to our continuing education information. I will mention that we are going to have a question and answer session at 10:00 am Eastern Time next Thursday, August 13. At that time, we are going to stay on the line as long as we continue to receive questions up to one hour.

But now let me repeat the CE information. For CE credits, you see the web site, www2a.cdc.gov/TCEOnline. The course number, which is a date specific number, is E as in Edward, C as in cat, 2064-080515. Please note the date specific extension, the 080515.

The verification code is Strategy5 with no space. Be sure to write this down. The code again is S-T-R-A-T-E-G-Y, no space, and then the numeral 5. CE credit expires September 7, 2015.

For help with the online system, available 8:00am-4:00pm Eastern Time, please dial 1-800-41T-RAIN. This corresponds to the number 1-800-418-7246 or you can email CE at [cdc.gov](mailto:ce@cdc.gov).

You can email immunization questions to us if you did not get to ask them today and cannot participate in the question and answer session next week. And you do that NIPINFO@cdc.gov. And we'll try to respond to those as quickly as possible.

You can also call immunization questions at 1-800-CDC-INFO, CDC INFO. That's from 8:00am-8:00pm Eastern Time, Monday through Friday. Additional resources that you can use include the pink book. And the web site for the pink book is www.cdc.gov/vaccines/pubs/pinkbook/index.html. It is available on line or you can also purchase a hard copy at the link for the public health foundation learning resource center.

Next resource down, our CDC Vaccines and Immunization homepage is www.cdc.gov/vaccines/default.htm. And then we have a resource guide for healthcare personnel entitled CDC Immunization Resources for You and Your Patients. It's listed at www.cdc.gov/vaccines/ed/downloads/imz-resources.pdf.

Follow us on Twitter for immunization news, information, and resources for private and public healthcare personnel. That's @CDCIZLearn or L-E-A-R-N. And that's on Twitter. So that concludes our program. I want to thank Dr. Raymond Strikas and Hanan Awwad for the presentation and the question and answer covering many topics in great detail.

Thank you very much and have a great day from Atlanta. Good-bye.

Coordinator: Thank you for joining today's conference. This does complete today's conference. You may disconnect at this time.

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