COLORADO IMMUNIZATION INFORMATION SYSTEM
REMINDER/RECALL TRAINING GUIDE
(for Providers/Clinics, and Local Public Health Agencies)
TOPICS COVERED

- Reminder/Recall Definitions (slide 3)
- Add a Provider Reminder/Recall (slides 9 to 22)
- Add a County/Zip Code Level Reminder/Recall (slides 23 to 28)
- View Reminder/Recall Results (slides 29 to 33)
- Add a Reprocess Run (slides 34 to 35)
- Resources (slide 38)
**Reminder** – A list or report that pulls all patients meeting your search criteria who are **coming due** for immunizations.

**Recall** – A list or report that pulls all patients meeting your search criteria who are **overdue** for immunizations.

**Provider Reminder/Recall** – Allows you to run a reminder or recall for patients registered to your provider/clinic.

**County/Zip Code Level Reminder/Recall** – This type of reminder/recall can **ONLY** be run by a Local Public Health Agency (LPHA). Allows the LPHA to run a reminder/recall for patients within their county/counties or zip code(s).
At the provider/clinic level, access to the CIIS reminder/recall functionality is permission-based. A Data Quality Review may be required before your provider/clinic can receive access to reminder/recall.
DATA QUALITY REVIEW

- If it is determined that a data quality review is necessary, CIIS staff will review 30-40 patient records for accuracy and completeness. The process may require further clean-up depending on the accuracy of the data. Once a provider/clinic meets or exceeds CIIS data quality standards, they may move forward with reminder/recall. CIIS Staff will assist your clinic in this process.

- Data Quality Review is **NOT** required for LPHAs that want to run county/zip code level reminder/recalls.

- For more information about the Data Quality Review, contact the CIIS Help Desk at 1-888-611-9918, option 2.
The following CIIS Reports can be run by the provider/clinic and are recommended prior to conducting a reminder/recall. These reports can be accessed from the CIIS Reports/Forms module.

- **Patients with Possible Duplicate Vaccinations (Data Quality Report Category)**
  - Generates a list of patients that have multiple vaccinations within the specified number of days within the same vaccine group (e.g., two DTaP doses within 14 days of each other). Providers reporting to CIIS electronically will need to contact the CIIS Help Desk to resolve possible duplicate vaccinations on a patient’s record.

- **Vaccines Added But Not Administered (Data Quality Report Category)**
  - Generates a list of patients with vaccinations that have been added but not administered within the system. (Please note: Vaccines that are added but not administered are automatically deleted 35 days after the immunization date if they have not been fully administered on a patient’s record in CIIS.)
REPORTS FOR IMPROVING DATA QUALITY

- **Patient Roster (Patient Management Report Category)**
  - Generates a list of patients grouped by their default provider/clinic. Allows sites to designate clients who have moved or gone elsewhere (MOGE) and are no longer seen by the provider.

- **Possible Patient Duplicates (Data Quality Report Category)**
  - Generates a list of the clinic’s possible patient duplicates. Once identified, duplicate patient records will be reviewed and reconciled by CIIS staff.
Providers/clinics can identify patient duplicates in CIIS so that they can be reviewed and reconciled by CIIS staff. This will eliminate sending duplicate reminder/recall notices to the same patient.

View a short tutorial on how to Mark a Patient Duplicate by visiting www.coloradoiis.com. Next click on Training and select For general health care providers. Select Quick Guides and Job Aids. This tutorial will be listed under Job Aids.
ADD REMINDER/RECALL: KEY TERMS

- **Run Name** – Describes or identifies a specific reminder/recall run on the listing screen (e.g., Recall CDPHE 19-35 mos.)
- **Provider** – Patient’s Default Provider
- **Clinic** – Patient’s Default Clinic
- **County** – Patients with an address in this county will be selected in the reminder/recall.
- **Zip Code** – Patients with an address in this zip code will be selected in the reminder/recall.
- **Run Schedule Date** – Date when this reminder/recall run will be processed.

**Note**: Reminder/Recall requests are run overnight. For example, if your **Run Schedule Date** is 01/30/2014, your **Reminder/Recall report** will be processed by CIIS and ready for you to view by 01/31/2014.
ADD REMINDER/RECALL: KEY TERMS

- **Run Completed Date** – This is a read-only field and is set by the system when the job (reminder/recall) has been processed.

- **Reminder/Recall Date Range**:  
  - **From** – Earliest date of vaccinations for the reminder/recall run.  
  - **Through** – Latest date of vaccinations for the reminder/recall run.
ADD REMINDER/RECALL: KEY TERMS

- **Age Range:**
  - **From** – Minimum age in months or years for a patient to be included in the reminder/recall run. (Whatever age range you specify will be calculated off the *From* Date.)
  - **Through** – Maximum age in months or years for a patient to be included in the reminder/recall run.
  - **UOM** – Unit of measure (months or years)

**NOTE:** It is important that you *limit* the age range. Entering too large of an age range may overload the system. Keep in mind that the age range you enter will depend on the vaccine or vaccine series that you want to look at in your reminder/recall. For example, if you want to determine which patients are overdue for their fourth dose of DTaP, you might use an age range of 19 – 35 months.
Gender – You can select Male, Female, or Both.

Ignore Setting For “Do Not Include Patient in Reminder/Recall” – Checking this option will allow those patients to be included in the reminder/recall regardless of whether or not the “Do Not Include Patient in Reminder/Recall” option on the patient demographics screen has been indicated for the specific patient.

Only Include Patients With Address – Limit the results to only those patients that have an address within CIIS.

Please note: If you are interested in other options for targeting certain patients in your reminder/recall (e.g., VFC Eligibility) please contact the CIIS Help Desk for further assistance.
ADD REMINDER/RECALL: KEY TERMS

- **Increment Patient Reminders/Recall Count** – Indicates this reminder/recall should be included when counting the number of reminders and/or recalls for a patient.

- **Exclude Patients After Number of Reminders/Recalls Without Subsequent Vaccination** – Ignore patients with “X” number of reminders/recalls without a vaccination.
  
  - We recommend that patients be included in no more than 3 – 5 recalls within the same age range and criteria.
ADD REMINDER/RECALL: KEY TERMS

- **Generate Reminder Event** – Create a system-generated reminder event in the *Patient Events* screen.

- **Include Patients Due For Vaccinations (Reminders)** - Check this to target patients coming due for vaccinations.
Include Patients Overdue For Vaccinations (Recalls) – Check this option to include patients who are overdue for vaccinations.

- **Minimum Number Of Days Past Due To Include** – Optional field to specify the minimum number of days a patient must be overdue before they are included.

- **Maximum Number Of Days Past Due To Include** – Optional field to specify the maximum number of days a patient can be overdue and still be included.
Exclude Patients with Less than 2 non-Influenza/H1N1 Vaccinations – Filters out patients with less than two non-Influenza/H1N1 vaccinations in their record (e.g., a record that came from State Vital Statistics with only the birth dose of Hep B dose recorded).

Exclude Patients with One or More Vaccine Refusals – Filters out patients who have refused one or more vaccines.

Vaccine Series and Optional Dose – Allows you to select the vaccine series (and optional dose number, if applicable) that should be assessed when determining the patients who are included in the results.
To run a reminder/recall at the provider/clinic level, click the Patient Reminder/Recall link located in the Reports/Forms module.
Add a new Reminder/Recall Run.

To view/edit details of a reminder/recall run, select the corresponding radio button and then click the View button. To run a report that allows you to view those patients who are up-to-date and not up-to-date, click the Reprocess button. See slides 34 and 35 for more details on the Reprocess report.

Output formats include reports (PDF), extracts (Excel), and labels. See slides 29-33 for definitions/samples of output formats. Remember to click the radio button that corresponds to your completed reminder/recall before clicking one of the gray output buttons.
To add a reminder/recall, click the *Add Reminder/Recall Run* button located on the *Patient Reminder/Recall* screen.
Enter your criteria (see slides 9-16 for definitions). Note: Fields in bold are required. All other fields are optional.
You may select the additional filters used to define the patients who will be included in the results (see slides 9-16 for definitions).

Click the Create button to save your reminder/recall. You will now be taken to the Patient Reminder/Recall Edit screen, where you can view/edit your saved reminder/recall record.
EDIT REMINDER/RECALL (Provider/Clinic)

From this screen, you can view/edit the details of your saved reminder/recall record. Click the *Update* button to save any changes, or click the *Cancel* button to return to the *Patient Reminder/Recall* screen.

Note: Any edits made after CIIS has processed the reminder/recall run, will *NOT* change the report results.
To access reminder/recall for LPHA users, click the Patient Reminder/Recall (County/Zip Code Level) link located within the LPHA report group on the Reports/Forms screen.
Search for reminder/recall reports that you have run in the past by county or zip code.

Add a new Reminder/Recall Run.

Output formats include reports (PDF), extracts (Excel), and labels. See slides 29-33 for definitions/samples of output formats. Remember to click the radio button that corresponds to your completed reminder/recall before clicking one of the gray output buttons.

To view/edit details of a reminder/recall run, select the corresponding radio button and then click the View button. To run a report that allows you to view those patients who are up-to-date and not up-to-date, click the Reprocess button. See slides 34 and 35 for more details on the Reprocess report.
HOW TO ADD A REMINDER/RECALL (LPHA)

To add a reminder/recall, click the Add Reminder/Recall Run button located on the Reminder/Recall Home screen.
REMEMBER: You must select EITHER a county/quoties OR zip code(s) when running a reminder/recall at the County/Zip Code Level. Decide if you want to pull patients meeting your search criteria at the county level (i.e., all patients located in that county/quoties) or at the zip code level (i.e., all patients located within that zip code(s)).

Enter your criteria (see slides 9-16 for definitions). Note: Fields in bold are required. All other fields are optional.
Select additional filters and the Vaccine(s) to define the patients who will be included in the results (see slides 9-16 for definitions).

Click the *Create* button to save your reminder/recall. You will now be taken to the *Patient Reminder/Recall Edit* screen, where you can view/edit your saved reminder/recall record.
From the Edit screen, you can view/edit the details of your saved reminder/recall record. Click the Update button to save any changes, or click the Cancel button to return to the Patient Reminder/Recall screen.

Note: Any edits made after CIIS has processed the reminder/recall run, will NOT change the report results.
Reprocess – Clicking on the Reprocess button will take the original set of patients that appeared on the reminder/recall run and compare any updated data in the database against the patient’s original immunization recommendations. If a patient is now up-to-date, she/he will appear on the Up-to-Date report. If the patient is still missing one or more vaccinations he/she will remain on the Not Up-to-Date report.

View – Displays the Edit Reminder/Recall screen.

Unvaccinated Report – Shows all patients included in the Reminder/Recall run that have NOT come back for a vaccination.

Report – Detailed listing of patients included in the reminder/recall results.

Extract – Generates a character-delimited version of the results (e.g., Excel). Useful for importing the data into another system (e.g., a mail-merge application for generating custom letters) and for sorting/manipulating the results.
Dymo Labels – Generate labels (formatted for a Dymo Label printer) for each patient in the results.

Avery Labels – Generate labels (formatted for commercially available 5160 Avery label stock) for each patient in the results.

Postcard – Generate postcards (formatted for commercially available pre-printed postcard stock) for each patient in the results. Contact the CIIS Help Desk for information on how to order generic postcards.
Step 1: From the Patient Reminder/Recall screen, click the radio button that corresponds to your completed reminder/recall.

Step 2: Click the gray button that corresponds to the output format you would like to view. Output formats include reports (PDF), extracts (Excel), and mailing labels.
Example of the *Reminder/Recall Report* output in PDF format.

**Reminder Criteria**

<table>
<thead>
<tr>
<th>Reminder Run Name</th>
<th>Provider</th>
<th>Clinic</th>
<th>Run Schedule Date</th>
<th>Run Completed Date</th>
</tr>
</thead>
</table>

**Patient Information**

(lists patients alphabetically by last name)

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Info</th>
<th>Vaccinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fry Phillips (442320) - DOB: 01/24/2000</td>
<td></td>
<td>DTap (1), HepA, PED/DOL (1), HEPB, PEDACO (1), PEP (1), PEP/T (ACTHIB) (1), MMR (1), PCV-7 (PRIVAX) (1), VARIVAX (1)</td>
</tr>
<tr>
<td>1450 Colorado Blvd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denver, CO 80245</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age At Date: 06/11/00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Recent Vaccination: 09/02/2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VFC Eligibility: Not VFC Eligible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccination History: POLIO (08/02/2010)</td>
<td>PED/DOL (01/24/2008)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Harper (44232) - DOB: 08/25/2009</th>
<th>Contact Info</th>
<th>Vaccinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1420 N Y ST</td>
<td></td>
<td>HEPB, PED/DOL (2), HEBP, PED/DOL (4), MMR (2), VARIVAX (2)</td>
</tr>
<tr>
<td>Denver, CO 80220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age At Date: 02/15/2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VFC Eligibility: Not VFC Eligible</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example of the Reminder/Recall results in Excel (.CSV) output format.

<table>
<thead>
<tr>
<th>Patient Id</th>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Name</th>
<th>DOB</th>
<th>Gender</th>
<th>SSN</th>
<th>Address Line</th>
<th>Address City</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Patient Vacs</th>
</tr>
</thead>
<tbody>
<tr>
<td>444230</td>
<td>JOHN</td>
<td>JEREMIAH</td>
<td></td>
<td>4/2/2010</td>
<td>M</td>
<td>1252 W MI P.O. BOX</td>
<td>DENVER</td>
<td>CO</td>
<td>80333 DTAP (2) HEPB PED/ADOL (3) HIB PRP-T (ACTHIB) (1) INFLUENZA-TIV (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444232</td>
<td>TEST</td>
<td>HARPER</td>
<td>LEE</td>
<td>9/25/2009</td>
<td>F</td>
<td>1430 IVY ST</td>
<td>DENVER</td>
<td>CO</td>
<td>80220 DTAP (4) HIB PRP-T (ACTHIB) (3) INFLUENZA-TIV (2) PCV-7 (PREVNAR) (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444233</td>
<td>FRV</td>
<td>PHILLIP</td>
<td>J</td>
<td>1/24/2008</td>
<td>M</td>
<td>1450 COLORADO BLV</td>
<td>DENVER</td>
<td>CO</td>
<td>80246 DTAP (1) HEPB PED/ADOL (1) HIB PRP-T (ACTHIB) (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444239</td>
<td>WHITE</td>
<td>JACK</td>
<td></td>
<td>9/25/1981</td>
<td>M</td>
<td>2200 SUNSHINE WAY</td>
<td>DENVER</td>
<td>CO</td>
<td>80246 DTAP (1) HEPB PED/ADOL (1) HIB PRP-T (ACTHIB) (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444246</td>
<td>TEST</td>
<td>HENRY</td>
<td>JAMES</td>
<td>3/22/2006</td>
<td>M</td>
<td>1430 IVY ST</td>
<td>DENVER</td>
<td>CO</td>
<td>80220 DTAP (3) POLIO-IPV (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444247</td>
<td>ELWAY</td>
<td>JOHN</td>
<td></td>
<td>8/11/1999</td>
<td>M</td>
<td>55 MOUNTAIN CIR</td>
<td>SALT LAKE</td>
<td>UT</td>
<td>80240 DTAP (3) POLIO-IPV (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444248</td>
<td>TEST</td>
<td>KATHY</td>
<td>A</td>
<td>8/8/2009</td>
<td>F</td>
<td>111 TEST LN</td>
<td>DENVER</td>
<td>CO</td>
<td>89018 DTAP (2) HEPB PED/ADOL (2) HIB PRP-T (ACTHIB) (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444249</td>
<td>YORKE</td>
<td>THOM</td>
<td></td>
<td>12/19/2008</td>
<td>M</td>
<td>P.O. BOX 56</td>
<td>GEORGETOWN</td>
<td>CO</td>
<td>80419 DTAP (4) INFLUENZA-TIV (2) POLIO-IPV (4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444253</td>
<td>TIM</td>
<td>TINY</td>
<td></td>
<td>12/25/2000</td>
<td>M</td>
<td>111 PRINCESS WAY</td>
<td>MAGIC KINE</td>
<td>MN</td>
<td>DTAP (2) HEPB PED/ADOL (1) HEPB PED/ADOL (1) INFLUENZA-TIV (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444330</td>
<td>ELLA</td>
<td>CINDER</td>
<td></td>
<td>5/1/2010</td>
<td>F</td>
<td>4210 111 ROCKY RD</td>
<td>BERTHOULI</td>
<td>CO</td>
<td>DTAP (3) HEPB PED/ADOL (2) HIB PRP-T (ACTHIB) (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444331</td>
<td>FLEETON</td>
<td>FRED</td>
<td></td>
<td>9/8/2009</td>
<td>M</td>
<td>4210 111 ROCKY RD</td>
<td>BERTHOULI</td>
<td>CO</td>
<td>80513 DTAP (2) HEPB PED/ADOL (2) HIB PRP-T (ACTHIB) (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444334</td>
<td>HENLEY</td>
<td>DON</td>
<td></td>
<td>8/16/2000</td>
<td>M</td>
<td>4300 CHERRY CREEK</td>
<td>DENVER</td>
<td>CO</td>
<td>80246 DTAP (3) HEPB PED/ADOL (2) HEPB PED/ADOL (3) INFLUENZA-TIV (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>444335</td>
<td>LEE</td>
<td>HARPER</td>
<td></td>
<td>9/25/2000</td>
<td>M</td>
<td>123 SUNNY WAY</td>
<td>DENVER</td>
<td>CO</td>
<td>80246 DTAP (3) HEPB PED/ADOL (2) INFLUENZA-TIV (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**HOW TO REPROCESS A REMINDER/RECALL**

1. **Step 1:** Click on Reprocess.
2. **Step 2:** Click on Add Reprocess Run.
3. **Step 3:** Enter the date you want CIIS to reprocess your reminder/recall. Next, click Create. Remember: This report runs overnight.
Once CIIS has completed reprocessing your reminder/recall, you will be able to view an *Up-to-Date* and a *Not Up-to-Date* report by clicking on the corresponding *Printer* icon.

Here is an example of the *Reminder/Recall Reprocessed Not-Up-To-Date* report:

**Original Reminder Criteria**
- Reminder Run Name:  
- Provider:  
- Clinic:  
- Vaccine Series: Tetanus containing - All, Polio - All, MMR/Measles - All, Hib - All, HEPB - All, HEPA - All, Pneumo - All, ROTA - All, Varicella(CPOX) - All, Influenza - All, Meningococcal - All, HPV - All, Zoster - All  
- Other Criteria: Include Patients Due For Vaccinations (Reminders)? Y Include Patients Ovrdue For Vaccinations (Recalls)? Y Exclude Patients with Less than 2 non-Influenza/H1N1 Vaccinations? Y Gender: Both

**Reprocessed as of: 03/13/2014**
- Run Schedule Date: 03/11/2014  
- Reminder From: 03/11/2014  
- Run Completed Through: 03/11/2014  
- Age Range From (years): 4  
- Age Range Through (years): 5

**Name**  
- Big Bird  
- DOB: 09/15/2011  
- Gender: Male  
- Email:  
- Reminder Date: 09/23/2011  
- Age At Reminder: 1Y 9M 26D  
- VFC Eligibility:  
- Primary Contact:  
- Most Recent Immunization Date: 10/21/2011  
- Most Recent Refusal:  
- Most Recent Immunization Clinic:

**Immunizations Originally Recommended**
- Status: NOT UP TO DATE
- Series: Dose: Vaccination Date:
  - Influenza: 4
  - MMR/Measles: 2
  - Polio: 4
  - Tetanus containing: 5
  - Varicella(CPOX): 2

Based on reprocessing the reminder/recall, this patient is still not up-to-date on these vaccinations.
THINGS TO CONSIDER

- When running a reminder/recall, remember to **LIMIT** the **Age Range** so that the system is not overloaded.
- Patients can be included in many reminder/recalls.
  - To prevent notifying patients multiple times during the same period, some care should be given to how reminder/recalls are generated.
    - We recommend that patients be included in no more than 3 – 5 recalls within the same age range and criteria.
  - A **Patient Reminder/Recall** report is a static “snapshot” of the data involved.
    - If you do a reminder/recall run and then wait an extended period of time to send notifications, any immunizations administered to the patient during the interim will not be included in the report. This could lead to notifying patients who have received immunizations between the time you ran the report and the time you sent the notification.
Add a reminder/recall run

- **Note**: Remember, if you schedule your run for the same day it will take overnight to complete.

Once your reminder/recall run has been completed, practice:

- Viewing the details of the run.
- Generating a report in the different formats, e.g., Reports (pdf), Extract (Excel).
RESOURCES

- CIIS User Support: 1-888-611-9918, option 2
- CIIS General Email: cdphe.ciis@state.co.us
- CIIS Training and Outreach Coordinator: Phyllis.Bourassa@state.co.us
- CIIS Geographic Recall Coordinator Linda.Stremming@state.co.us
- For online training, webinars, job aids, and quick guides, visit www.ColoradoIIS.com. Next, click Training and select CIIS General health care providers. Now select the link that best fits your training needs.