In reminder/recall, an individual or responsible party is notified that the individual is due now or on a future date (reminder) or is overdue (recall) for one or more immunizations. The decision to initiate reminder/recall is based on policy and resource considerations and can be initiated by a variety of parties—a provider for its patients, a health plan for its enrollees or a state or local health entity for the individuals for whom it is responsible. The reason for initiating reminder/recall could be to improve immunization coverage levels for a certain age group or to notify individuals that a booster vaccine is available following a vaccine shortage. Reminder/recall notifications take many forms, including a phone call, a letter or postcard, or an in-home visit.

Reminder/recall prevents disease by improving the timeliness and completion of recommended immunizations. In fact, research shows that reminder/recall systems can improve immunization coverage rates anywhere from 5 to 20 percentage points.[1] Reminder/recall also improves data quality in Immunization Information Systems (IIS) by providing additional and up-to-date information to the IIS through responses to the notifications. Finally, reminder/recall strengthens relationships between IIS and providers because IIS frequently lend support to providers in their reminder/recall efforts.

In this reminder/recall mini-guide, we highlight the key points from *Reminder/ Recall in Immunization Information Systems,* best practice recommendations that reflect peer-reviewed literature and consensus among subject matter experts. This mini-guide discusses:

- Major considerations of the reminder/recall process
- Recommended functionality IIS should have to support reminder/recall
- Ways to measure and prove the effectiveness of reminder/recall efforts
- Challenges IIS face when initiating reminder/recall
- Lessons learned from previous reminder/recall efforts

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Conclusion

Reminder/recall is an effective method to ensure complete and timely vaccination. But reminder/recall takes some upfront planning to determine how to use financial and human resources most effectively. Determining who is responsible for reminder/recall, coordinating among all entities with responsibility for individuals eligible for reminder/ recall, and evaluating the results of reminder/recall activities are all critical to ensure effective, efficient use of limited resources. In addition, IIS must take the initiative to provide functionality and support for reminder/recall that benefit IIS as well as the providers that interact with IIS.

By applying the best practices in the *Reminder/Recall in Immunization Information Systems,* and thoroughly understanding the reminder/recall process, both IIS staff and providers can better ensure the reminder/recall process is performed optimally and that individuals receive the immunizations they need, when they need them.

Learn More

Download the original best practice guidelines document from the AIRA web site:

http://www.immregistries.org/pdf/AIRA_MIROW_RR_041009.pdf

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Reminder/Recall
IN IMMUNIZATION INFORMATION SYSTEMS

10 STEPS OF REMINDER/RECALL

STEP 1 Formulate Reminder/Recall Criteria

STEP 2 Define Additional Conditions/Filters (optional)

STEP 3 Generate List of Potential Reminder/Recall Individuals/Patients

STEP 4 Revise Individuals/Patients List Based on Limitations/Restrictions (optional)

STEP 5 Select Reminder/Recall Notification Method

STEP 6 Change Notification Method for Some Individuals/Patients

STEP 7 Convey Reminder/Recall Notifications to Reminder/Recall Recipients*

STEP 8 Collect Reminder/Recall Responses/Outcomes and Update Reminder/Recall Status

STEP 9 Update Individual/Patient Information in IIS

STEP 10 Evaluate Reminder/Recall Results and Return to Step 6 OR Conclude Reminder/Recall for Individual/Patient

* A Recipient may be the individual/patient targeted for the immunization(s) in the reminder/recall notification or may be an entity responsible for the individual/patient.

Benefits of Reminder/Recall

- Improves timeliness and completion of recommended immunizations

- Increases data quality in IIS through more complete and up-to-date information

- Improves relationships between IIS and providers because IIS support providers and provide tools to conduct reminder/recall more efficiently

Highlighted Principles and Business Rules

The original document, *Reminder/Recall in Immunization Information Systems,* provides guiding principles and business rules for conducting reminder/recall. The following sections highlight some of those principles and business rules.

BEFORE INITIATING REMINDER/RECALL

Determining which entity is responsible for initiating reminder/recall—a provider, health plan, or public health entity—is the first step in reminder/recall. Select principles and business rules that establish responsibility for reminder/recall include:

- **P203.** The IIS or other state or local public health agency should be available to assume the responsibility (and cost) of conducting reminder/recall on behalf of other parties (e.g., providers).

- **BR201.** If the immunization home is known, that provider is primarily responsible for reminder/recall for routine immunizations.

- **BR202.** If the immunization home is not known, state and local public health agencies are primarily responsible for reminder/recall for routine immunizations.

Once the responsible entity has been determined, that entity should consider any policies and resource limitations that may impact its ability to conduct reminder/recall.

SPECIFYING THE GOAL OF REMINDER/RECALL

The entity that initiates reminder/recall determines the goal for the particular reminder/recall process. Select principles and business rules that define when to initiate reminder/recall include:

- **P301.** Reminder/recall should be initiated on a regular basis (for example, weekly, monthly, annually) and as needed.

- **P302.** The reminder/recall process could be initiated based on: (a) ACIP schedules; (b) standard well child visit timeframes; or (c) state-mandated requirements (e.g., school and child care entry requirements).

- **BR301.** A single reminder notification should be considered two to four weeks before the recommended due date/date range for each recommended vaccine/vaccination visit.

- **BR305.** One reminder and up to three follow-up recall notifications for each recommended vaccine/vaccination visit should be considered for children 0-6 years of age.

RESOURCE AND OTHER RESTRICTIONS AROUND INITIATING REMINDER/RECALL

The entity initiating reminder/recall must also consider resource and other potential restrictions when determining whether or not to initiate the process. Considerations may include data completeness and accuracy, timeliness of reporting data to the IIS and baseline immunization rates.

If restrictions put limits on reminder/recall, principles and business rules help prioritize when to initiate the process, for example:

- **P501.** Reminder/recall must be in line with available resources. Accordingly, not every recommended vaccination will result in a reminder/recall notification.

- **P505.** Priority should be given to recall notifications for children 0-24 months.

THE RECIPIENTS, TYPE, FREQUENCY AND CONTENT OF THE NOTIFICATION

The entity that initiates reminder/recall determines who should receive the notification, what type of notification to use, how frequently to send it and the exact content of the notification. Principles and business rules define the criteria to use in selecting the reminder/recall recipients and the content of the notification. Select principles and business rules related to the method for the reminder/recall notice include:

- **P602.** Effectiveness of reminder/recall could be increased by combining various reminder/recall notification methods.

- **P604.** Reminder/recall should employ the most cost-effective reminder/recall notification method based on resources available.

- **BR602.** Cost-effectiveness of reminder/recall notification methods to improve timeliness and completion of immunizations, ranked from most to least cost-effective is: telephone call (person-to-person), letter, postcard, auto-dialer, home visit.

COLLECTING THE RESULTS AND FOLLOW-UP ACTIONS

After issuing a reminder/recall notice, the IIS or other party collects the results. The following select principles and business rules provide guidance on what actions to take based on the response—or lack of response—to a notification:

- **BR801.** If no state guideline exists, three reminder/recall notification attempts should be made before terminating the reminder/recall process.

Cost-effectiveness of Reminder/Recall Method

MOST 1. Telephone call (person-to-person)

2. Letter

3. Postcard

4. Auto-dialer

LEAST 5. Home Visit

- **P802.** After an unsuccessful reminder/recall attempt, if the reminder/recall process is not terminated, a different reminder/recall notification method should be considered; for example, escalate from a post card to a telephone call method.

- **P803.** After a certain period of time and a number of unsuccessful reminder/recall attempts the responsibility for a patient should be transferred from the provider level to the geographic jurisdiction level.

General IIS Functionality to Support Reminder/Recall

Specific functionality and capabilities in the IIS design facilitates effective reminder/recall, including:

- **GR105.** The ability to track patient active/inactive status at both the provider and geographic jurisdiction level.

- **GR202.** An algorithm that supports newly introduced vaccines, including combination vaccines, within 90 days of notification from ACIP or CDC (or as soon as possible).

- **GR104.** Functionality to allow:
    - Providers to use reminder/recall for its patients.
    - Local and state public health agencies to perform reminder/recall on behalf of a provider for the provider's patients.
    - Local and state public health agencies to perform reminder/recall at the geographic jurisdiction level.

- **GR201.** Functionality that includes an algorithm for:
    - ACIP recommendations
    - State school entry requirements

Evaluating the Effectiveness of Reminder/Recall

Evaluating the effectiveness of reminder/recall to demonstrate its value is critical for gaining support from providers, funders and policymakers. Evaluation is also necessary to ensure effective and efficient use of available resources. Measures that may be used to evaluate effectiveness are the response to or outcome of a reminder/recall notification. Compiling and evaluating these responses and outcomes provides proof of reminder/recall effectiveness and helps identify which notification methods or approaches work best for given populations or circumstances.

Challenges, Lessons Learned and Examples

Reminder/Recall in Immunization Information Systems provides specific recommendations to meet the challenges involved in the reminder/recall process, such as data quality and limited functionality. The document also includes lessons learned by IIS that have undertaken reminder/recall along with examples of forms and documents used by IIS in reminder/recall.

1 Szilagyi PG, Bordley C, Vann JC, et al. Effect of patient reminder/recall interventions on immunization rates. JAMA October 11, 2000;284:1820–1827.