Child Health Evaluation and Research Unit

University of Michigan

University of Michigan
C.S. Mott Children's Hospital

Meaningful Use Challenges and Opportunities for Reminder / Recall

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IIS Reminder / Recall Challenges

- What type of reminders do parents want?
- What types of reminders are providers able to send?
- What are the opportunities for IIS reminder / recall?

Disclosure

- Nothing to disclose regarding any commercial products discussed today, EXCEPT…..
- As taxpayers, we're ALL investing in electronic health record systems !

Collaborators

- Sarah Clark
- Anne Cowan
- Michigan Department of Community Health
- Centers for Disease Control and Prevention

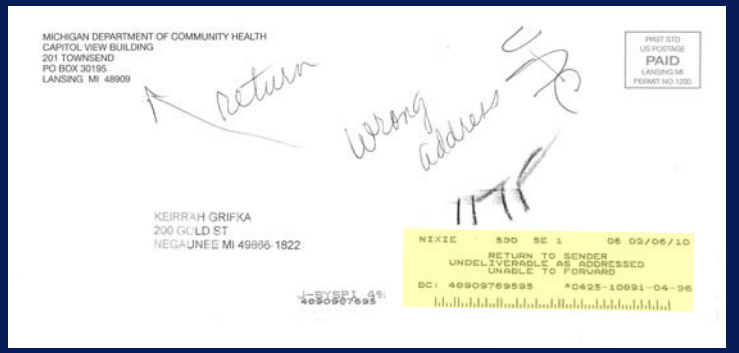
Reminder / Recall Use

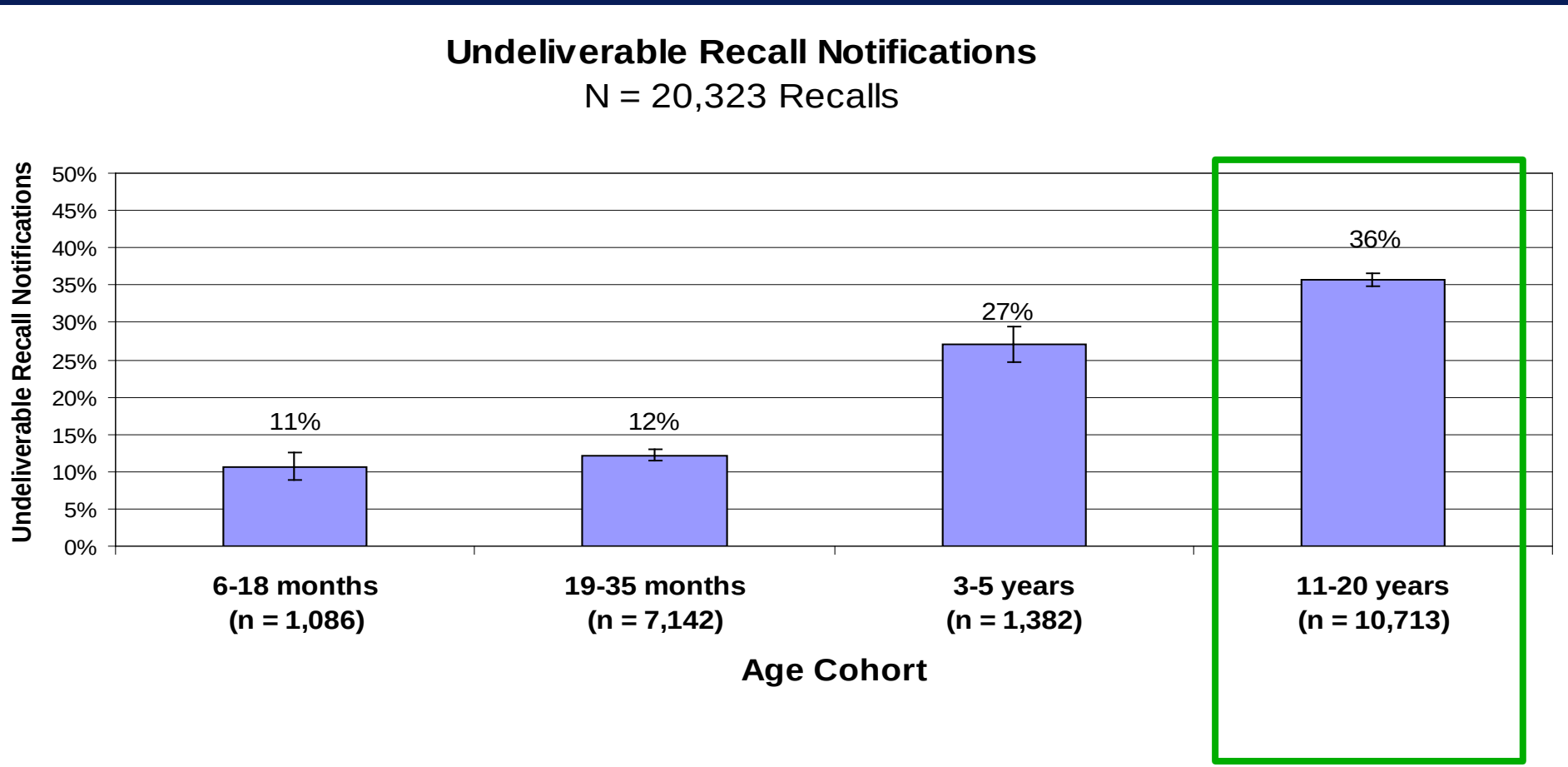
Reminder / Recall Considerations

- Reminder / recall is an effective method to increase vaccination rates
- Several important perspectives:
  - Health departments
  - Private providers
  - Parents

Health Departments

- Used widely by local health departments:
  - LHD immunization clinic clients
  - LHD jurisdiction residents
- Telephone / postal mail commonly used
- Can be a labor intensive process
- Undeliverable reminder / recall notices are commonplace





Dombkowski KJ, Reeves SL, Dong S, Stevenson J, Clark SJ. *Assessing the burden of undeliverable immunization reminder and recall notifications.* Prev Med. Dec 1 2011;53(6):424-426.

Private Providers

- Sustained IIS-based reminder / recall is difficult for many practices:
  - 20 practices in SE Michigan
  - Goal: 4 quarterly recall cycles in 12 months
  - Assessed labor costs and barriers identified by staff

Dombkowski KJ, Harrington LB, Allred NJ, Hudson E, Clark SJ. *Feasibility of initiating and sustaining registry-based immunization recall in private practices. Academic Pediatrics.* 2012.

Private Providers

- 16 practices conducted at least 1 recall:
  - ≥4 recalls: 9 practices
  - 3 recalls: 2 practices
  - 2 recalls: 3 practices
  - 1 recall: 2 practices
- IIS-based reminder / recall is difficult for many practices:
  - time constraints
  - staff turnover
  - difficulties with recall execution

Parent Perspectives

Parent Perspectives

- What form of reminder / recall notices do parents want?
- How stable is parent contact information?
- What types of reminders are practices able to send?

Parent Perspectives

- National perspective:
  - Web-based survey (2010) of parents of children 0-17 years
  - Stability of communication information
  - Willingness to register for immunization messaging

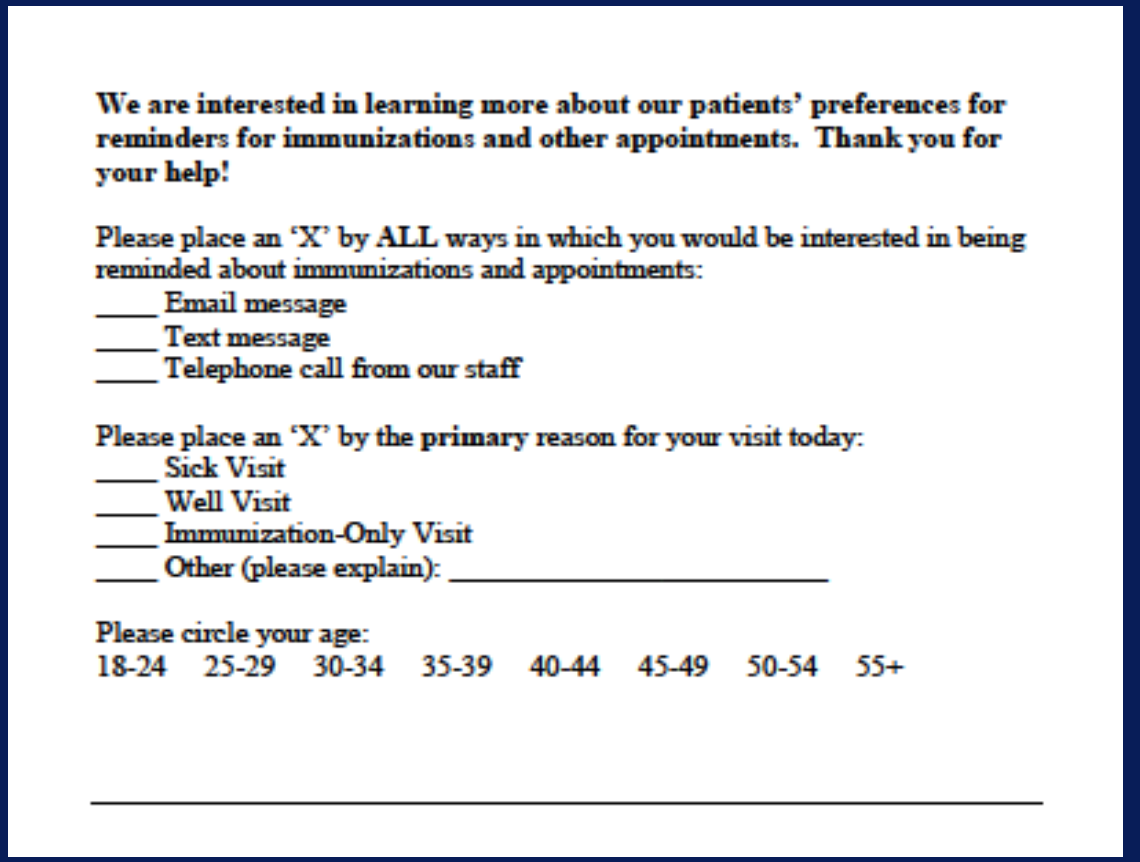
Clark SJ, Butchart A, Kennedy A, Dombkowski KJ. *Parents' experiences with and preferences for immunization reminder/recall technologies*. *Pediatrics.* Nov 2011;128(5):e1100-1105.

Parent Perspectives

- 1 in 4 parents prefer new technologies for reminders
- Most (56%) were willing to register their cell phone number for future immunization messages
- Email address less likely to have a recent change

Parent Perspectives

- Practice-based perspective
- Five provider sites (n=1,275 surveys):
  - 53% private practices
  - 47% LHDs



We are interested in learning more about our patients' preferences for reminders for immunizations and other appointments. Thank you for your help!

Please place an 'X' by **ALL** ways in which you would be interested in being reminded about immunizations and appointments:

____ Email message
____ Text message
____ Telephone call from our staff

Please place an 'X' by the **primary** reason for your visit today:

____ Sick Visit
____ Well Visit
____ Immunization-Only Visit
____ Other (please explain): _____

Please circle your age:

18-24 25-29 30-34 35-39 40-44 45-49 50-54 55+

_____

Parent Perspectives

- Respondents indicated interest in receiving reminders via:
  - telephone (59%)
  - email (45%)
  - text messages (28%)
  - no reminder (7%)
- Text or email reminders tended to be higher among younger respondents

Parent Perspectives

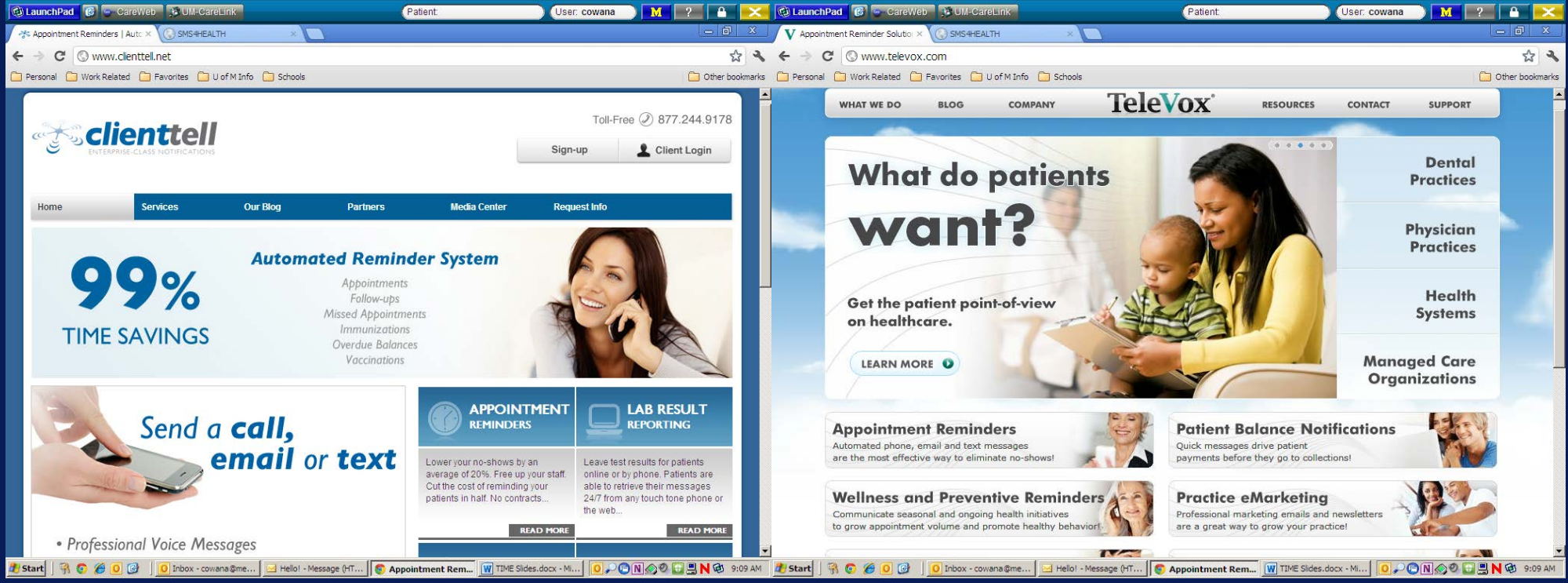
- Most respondents indicated preferences for reminders that include email or text messaging
- Many preferred to receive reminders *only* by email or text (34%)
- Others preferred these technologies in combination with a telephone call (27%)

If many parents prefer electronic reminders, can practices send them?

Provider Readiness

- Providers currently rely primarily on telephone or postal mail for reminders
- 3rd party vendors used for autodialer reminders
- These same vendors also support text, email messaging

Dombkowski, KJ, Harrington LB, Hanauer D, Kennedy A, Clark SJ. Current and Potential Use of New Technologies for Reminder Notifications. *Clinical Pediatrics*. February 14, 2012.



Text servers:

- http://www.txtmobster.com/
- http://www.textmagic.com/
- http://www.callfire.com/dialer/welcome.do

Time for Change

2010 May
Citizens
BERENDS - HENDRICKS - STUIT

Followers
August 2006
Month End
January 2007
May 2006
March 2006
Bankers Box
Fellowes

The “Tipping Point”?

- Health Information Technology for Economic and Clinical Health Act, or HITECH Act (2009)
- American Recovery and Reinvestment Act (ARRA) of 2009
- “ …. to promote the adoption and *meaningful use* of health information technology…..”

Meaningful Use

- EHR use in a meaningful manner, e.g.,:
  - demographics, vital signs, problem list, …..
  - e-prescribing
  - computerized physician order entry (CPOE)
  - active medication list
  - clinical decision support (CDS) rules
  - patient portals
  - patient reminders
  - submitting data to registries / IIS

Patient Reminders

- Send patient reminders for preventive or follow up care per their preference….
  - Appointments
  - Immunizations

From: ProMed Physicians - Pediatrics <ProMedPedsReminders@gmail.com>
To: Cowan, Anne
Cc:
Subject: Flu Vaccine is Now Available

Dear Parent / Guardian,

Influenza vaccine is now available in our offices. Because we support the American Academy of Pediatrics recommendation that every child over the age of 6 months receive an influenza vaccine, we are sending you this notification.

Please call us at either of the office numbers above to schedule an appointment.

We hope to see you soon! *If your family has already made or had an appointment for influenza vaccine, please disregard this message.*

Sincerely,
ProMed Physicians - Pediatrics

Please do not reply to this email address as we will not receive your response. To contact our office, please call (269) 329-0944 for our Portage clinic or (269) 552-2500 for our Richland location. Thank you.

From: Providence Medical Center - South Lyon <providencemedicalsouthlyon@gmail.com>
Sent: Wednesday, September 19, 2012 9:01 AM
To: Dombkowski, Kevin
Subject: Vaccine Reminder

Providence Medical Center
210 N Lafayette St.
South Lyon, MI 48178
(248) 437-1744
www.stjohndoctors.org/ProvidenceSouthLyon/

Dear Parent or Guardian,

As a reminder, we are encouraging all parents to keep their adolescent (11 through 17 years) up-to-date on recommended vaccines, including tetanus-diphtheria -acellular pertussis (Tdap), meningococcal conjugate (MCV4 or meningitis) and human papillomavirus (HPV4). **Our records indicate that your child currently needs one or more of these vaccines.**

Vaccination is the best way to protect your child from getting many preventable diseases.

Please contact Providence Medical Center at (248) 437-1744 to schedule an appointment or to find out more information about what is recommended for your child.

Sincerely,
Providence Medical Center South Lyon

Please do not reply to this email address as we will not receive your response. To opt out of future emails please click here: OPT OUT. To contact our office, please call (248) 437-1744.

at&t
Our records show that **your** child is due for shots. Please call ABC Pediatrics at 735-777-7777 to schedule an appointment. Txt STOP to OPT-OUT.
5:56 PM Tue, May 29
From: 71599
SAMSUNG

Patient Reminder Challenges

- Tracking alternative contact information:
  - is not typical
  - often not integrated with patient registration and clinical information
  - patient preferences not typically tracked

Patient Reminder Challenges

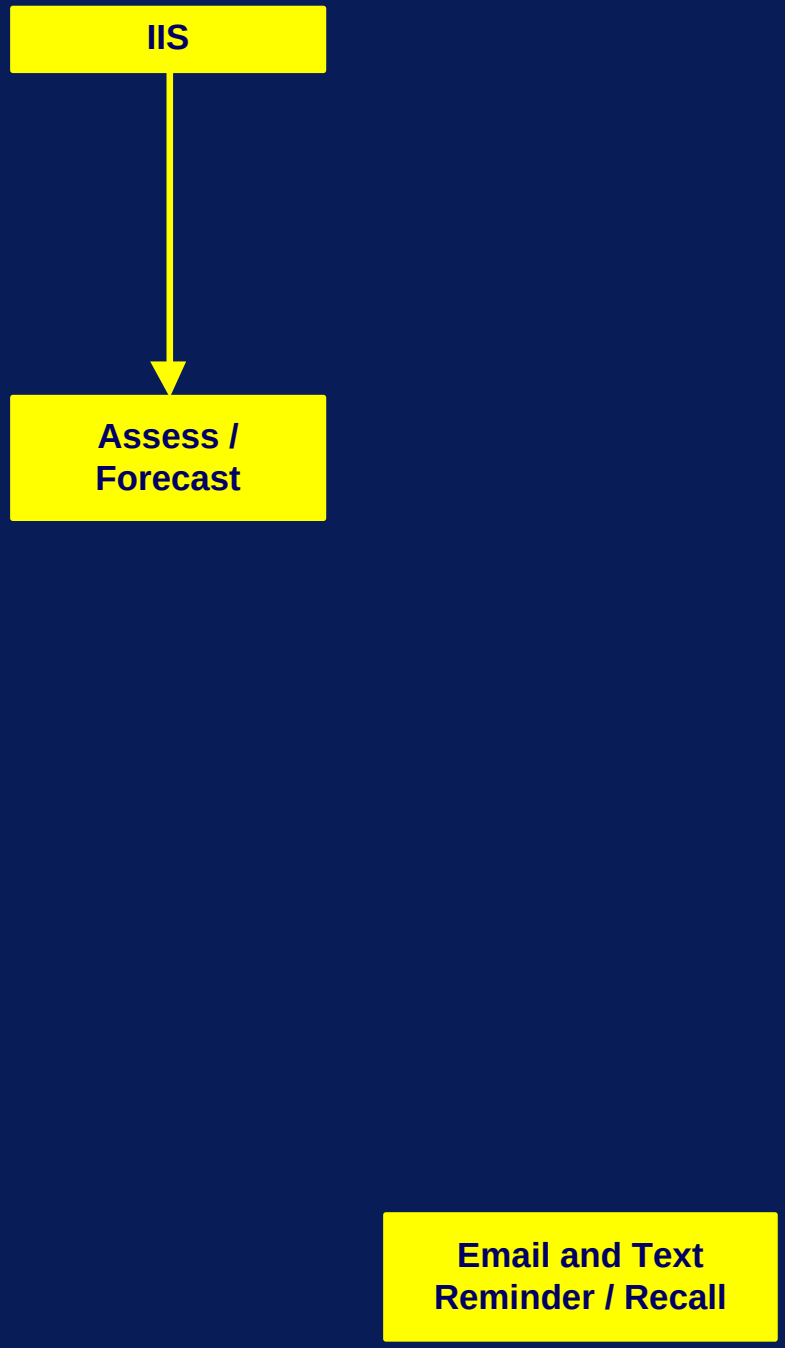
- How should practices assess vaccination status for reminder / recall?
- Which rules should be used?
  - EHR vendor?
  - IIS?
  - other options?

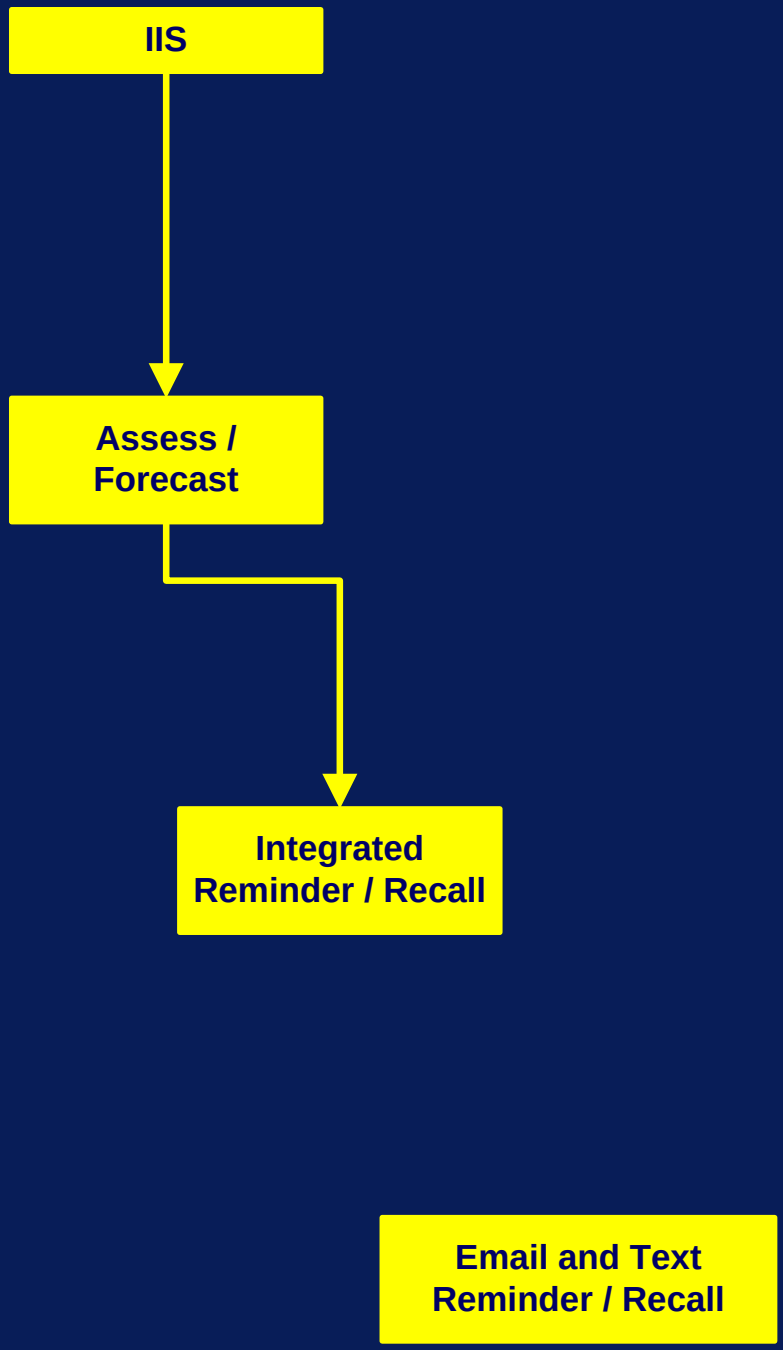
EHR Data Sharing Challenges

- EHR interoperability ≠ bi-directional interoperability
- What does 'bi-directional' interoperability entail?
  - Sending doses from IIS to EHR?
  - Sending assessment of vaccination status to EHR?

New Perspectives on Reminder / Recall

Email and Text
Reminder / Recall


IIS
Assess /
Forecast
Email and Text
Reminder / Recall


IIS
Assess /
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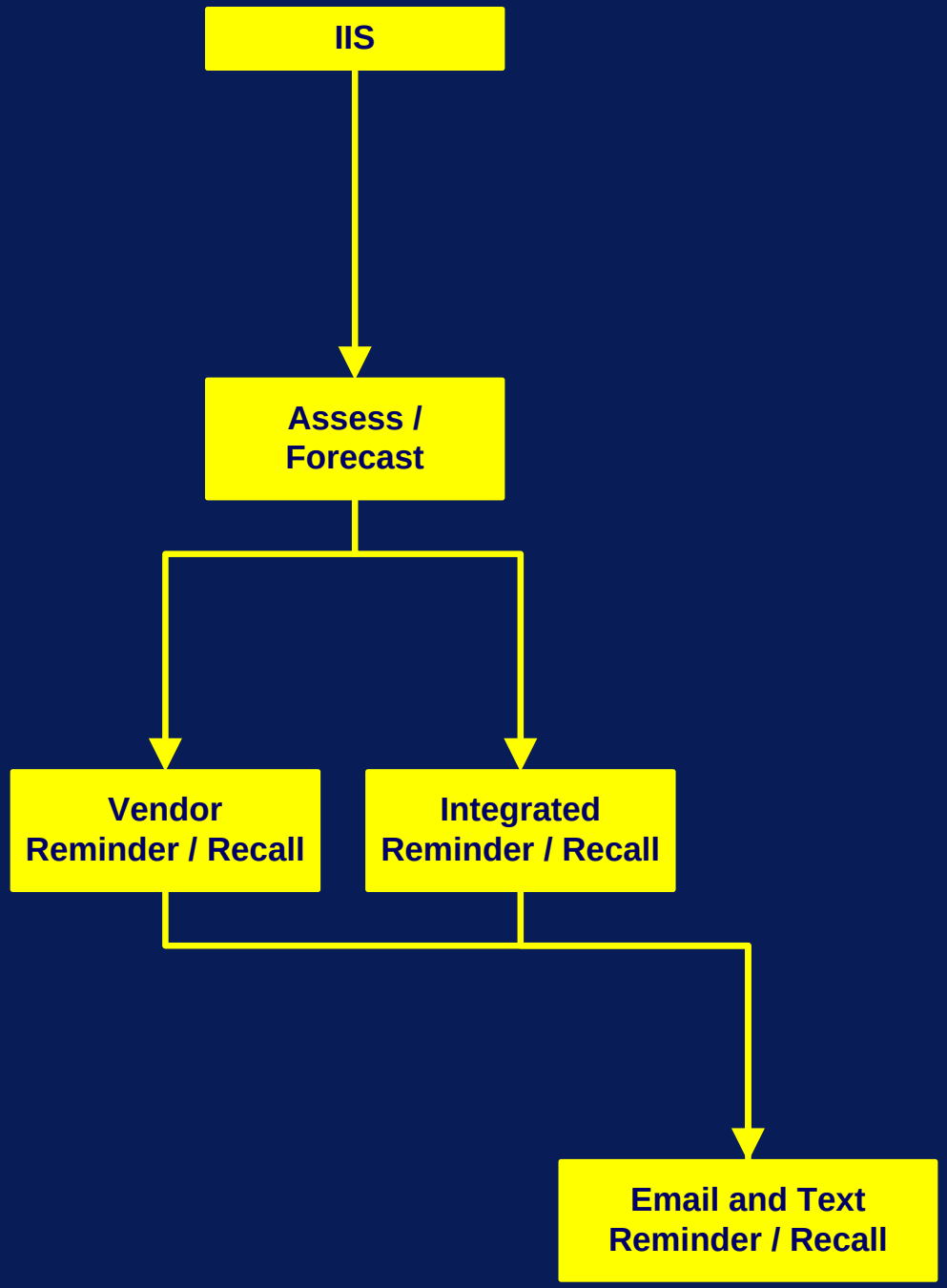
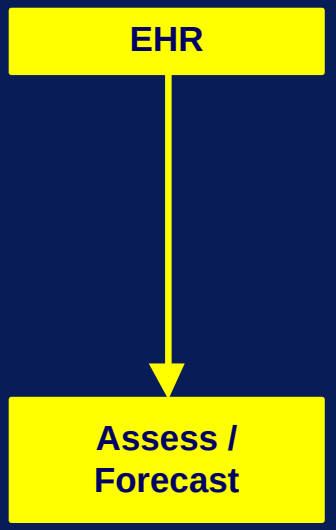
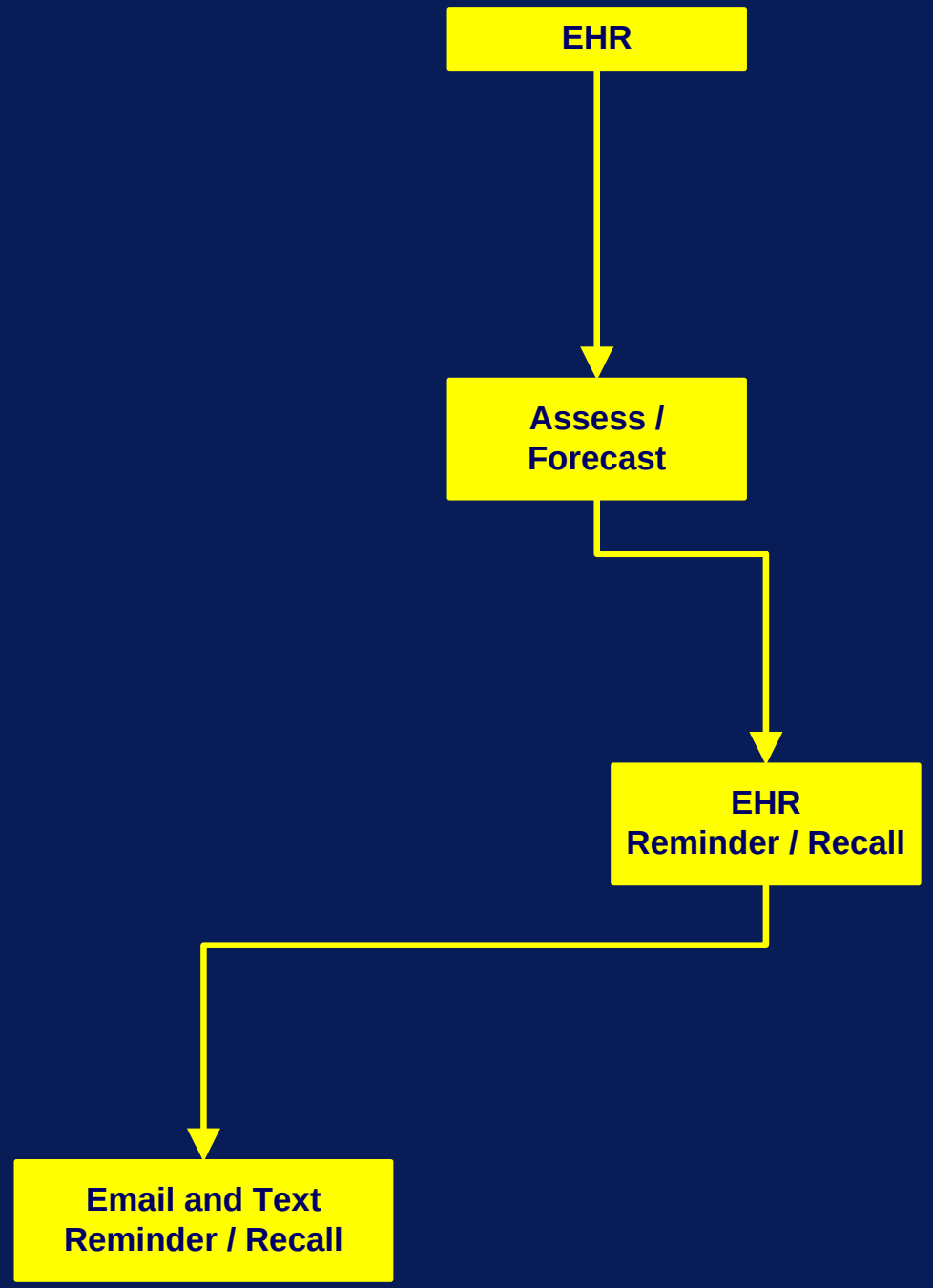
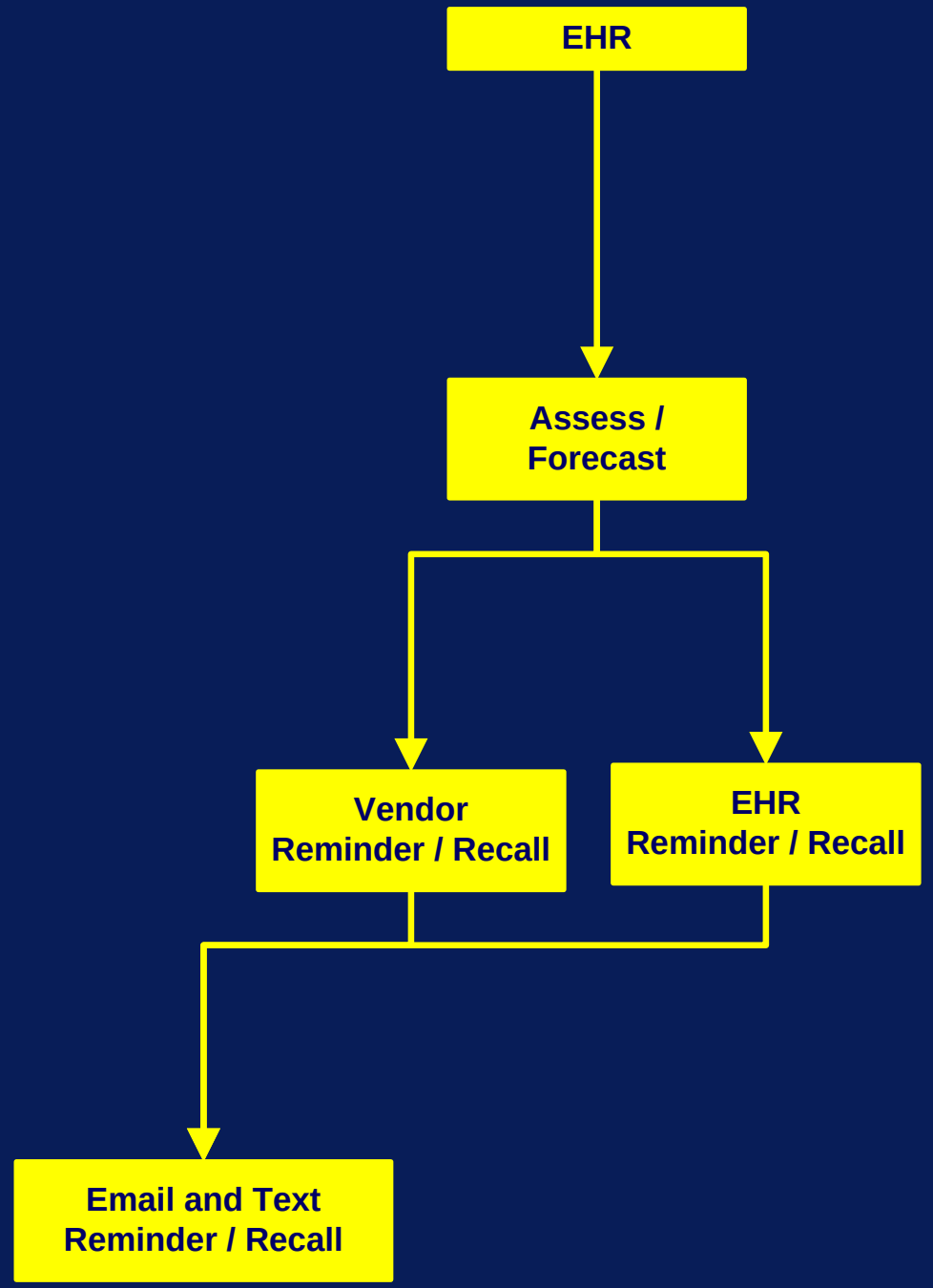
Integrated
Reminder / Recall
Email and Text
Reminder / Recall


IIS
Assess / Forecast
Vendor Reminder / Recall
Integrated Reminder / Recall
Email and Text Reminder / Recall



Email and Text
Reminder / Recall


EHR
Assess /
Forecast
EHR
Reminder / Recall
Email and Text
Reminder / Recall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Email and Text
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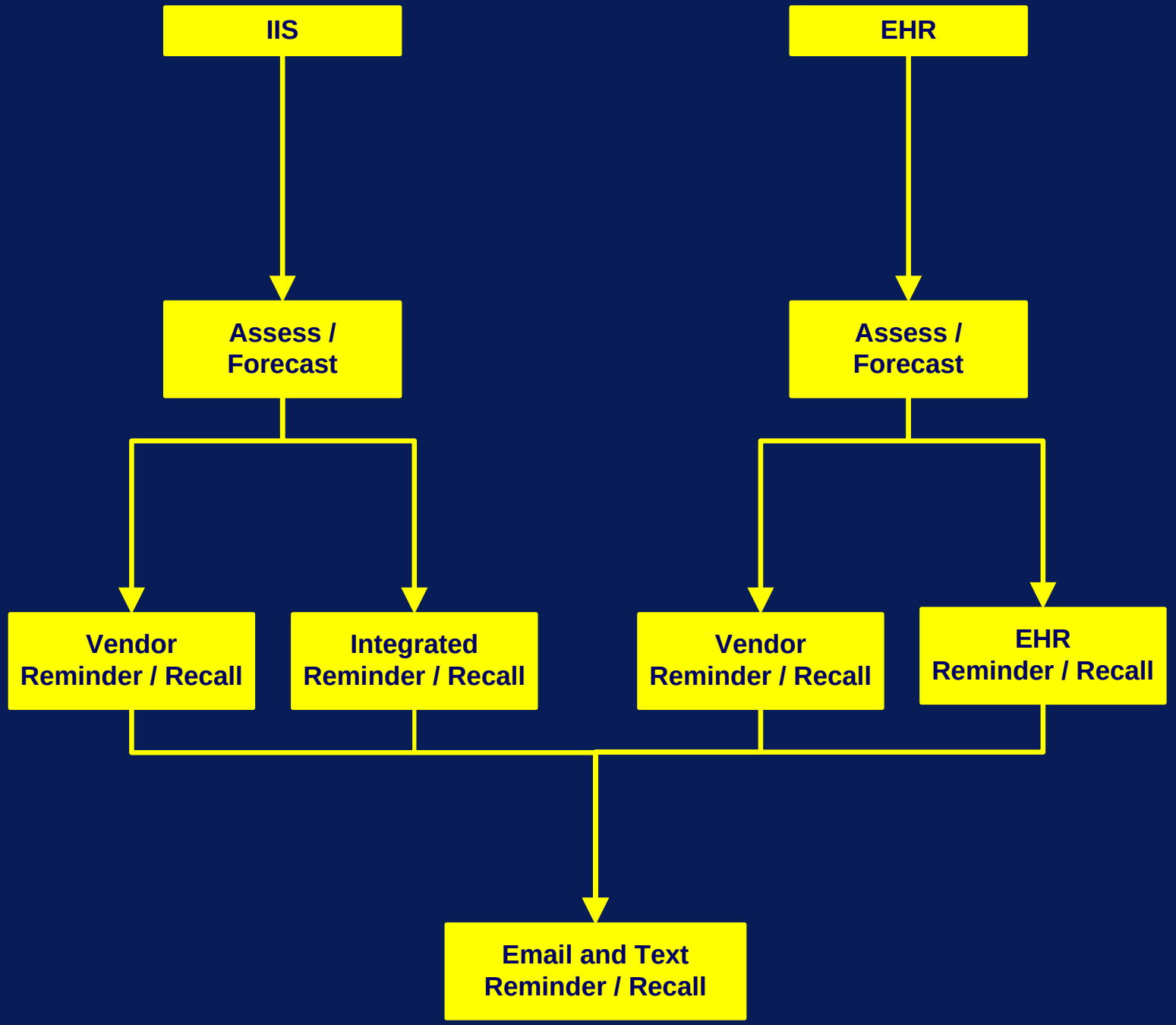
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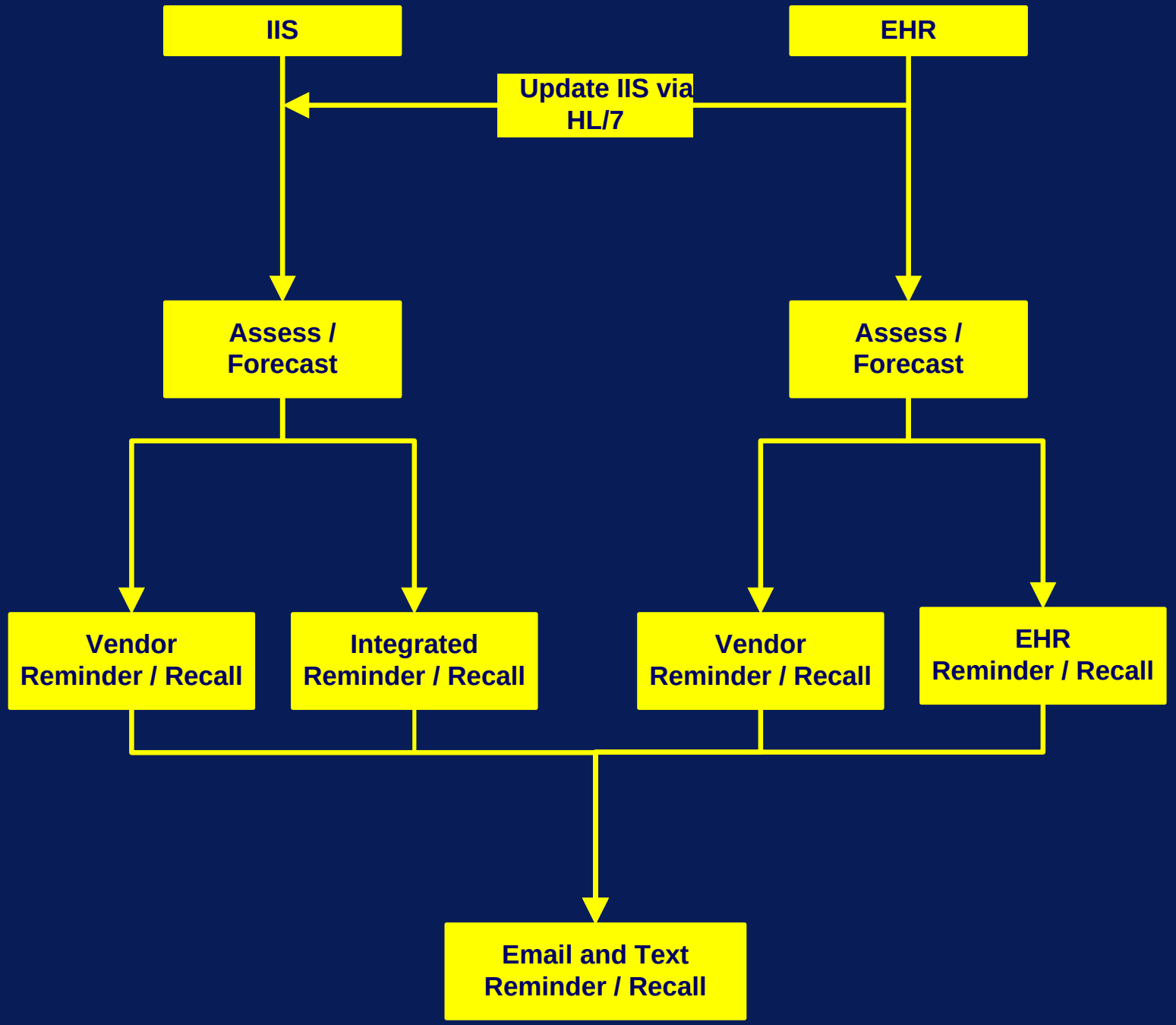
IIS
EHR
Update IIS via HL/7
Assess / Forecast
Assess / Forecast
Vendor Reminder / Recall
Integrated Reminder / Recall
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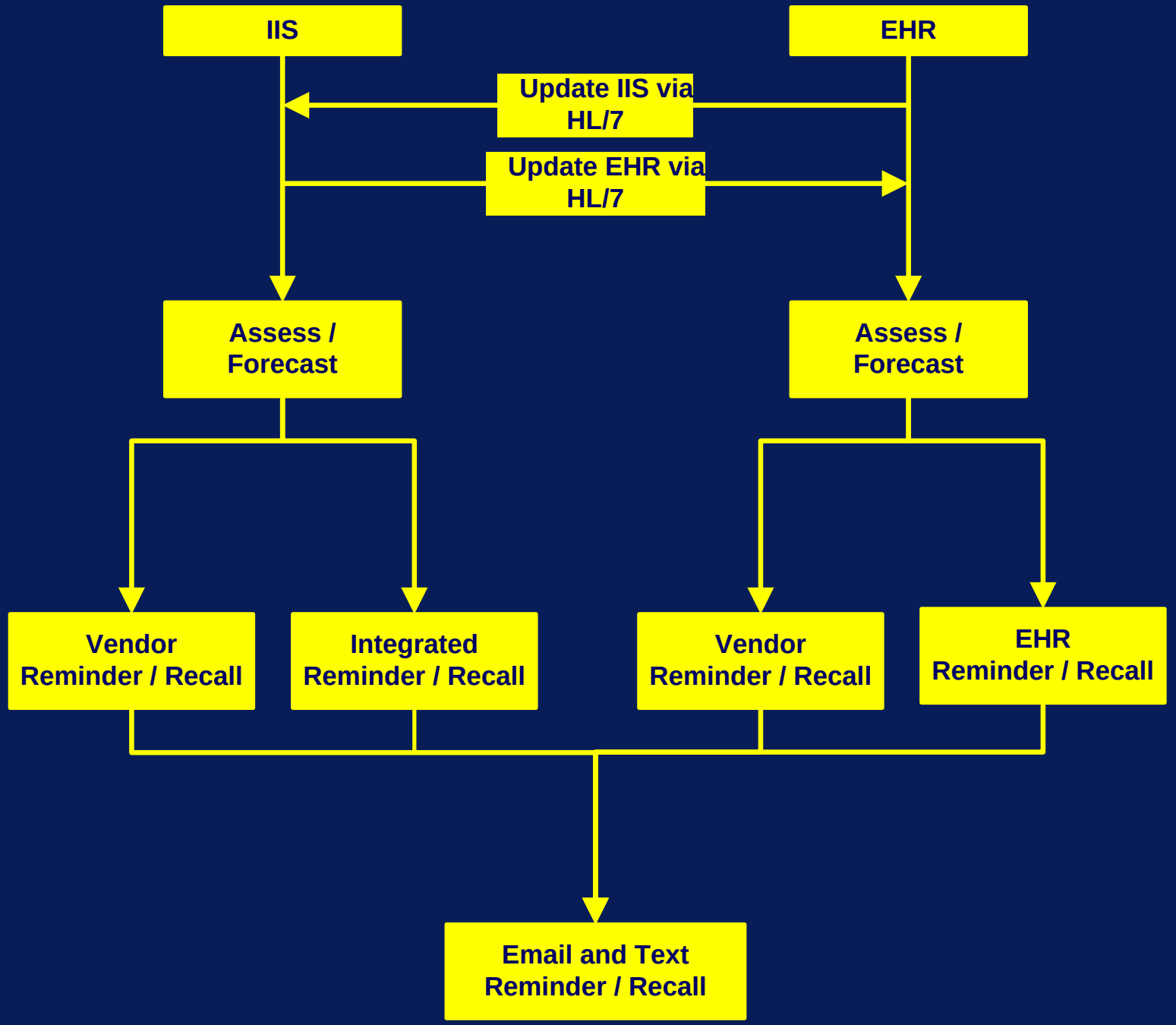
EHR Reminder / Recall
Email and Text Reminder / Recall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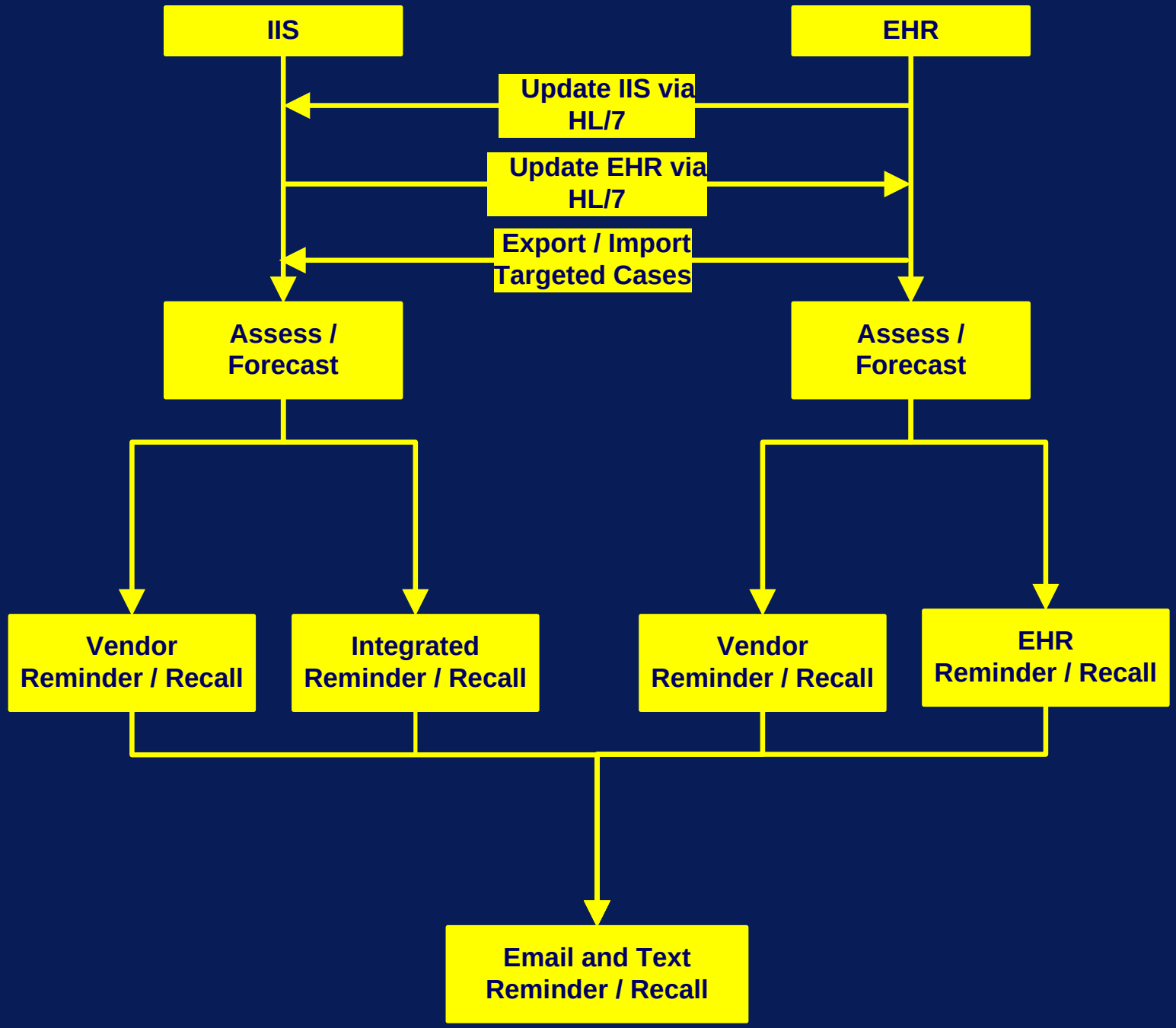
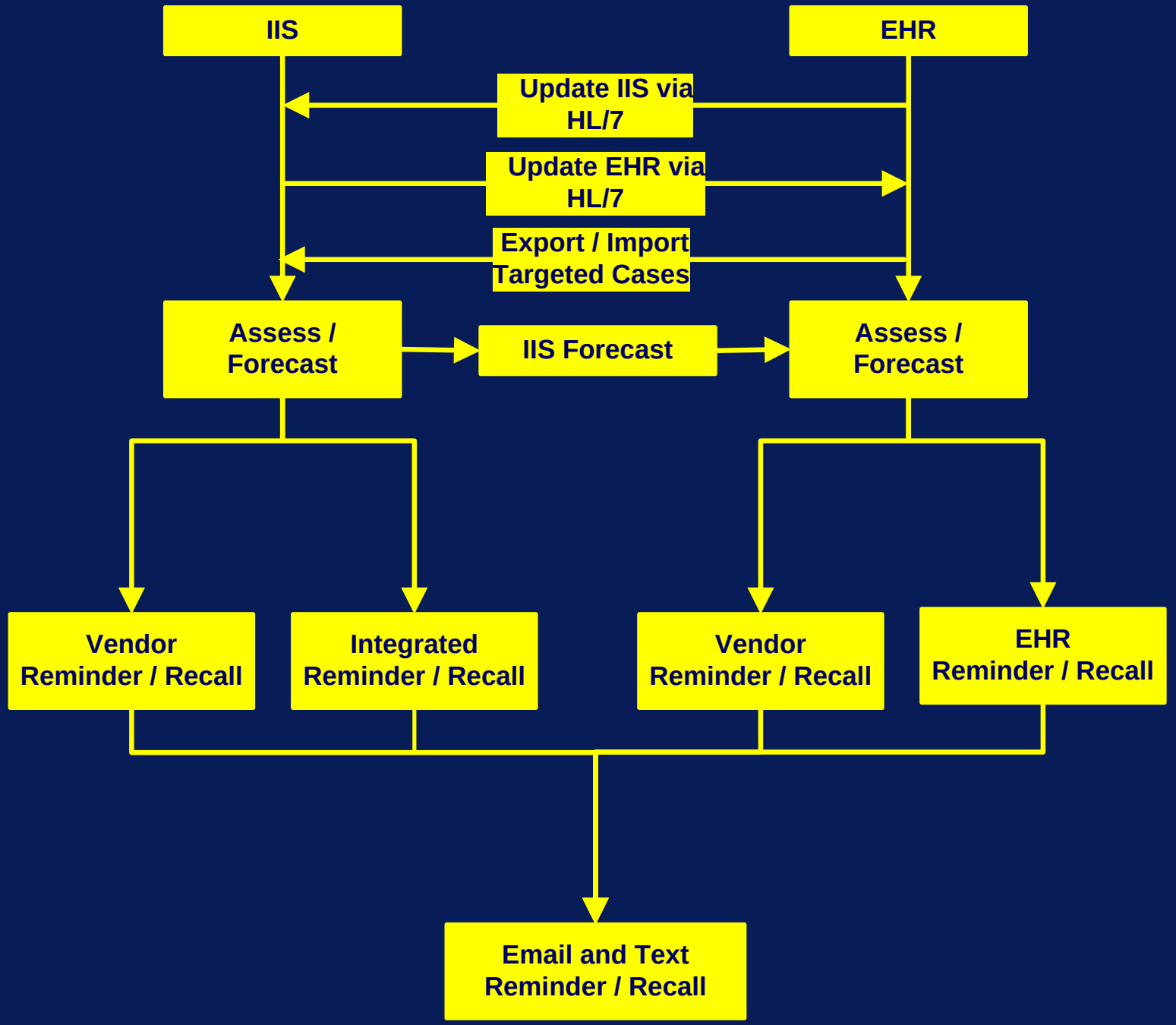

IIS
EHR
Update IIS via HL/7
Update EHR via HL/7
Export / Import Targeted Cases
Assess / Forecast
Assess / Forecast
Vendor Reminder / Recall
Integrated Reminder / Recall
Vendor Reminder / Recall
EHR Reminder / Recall
Email and Text Reminder / Recall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Update IIS via HL/7
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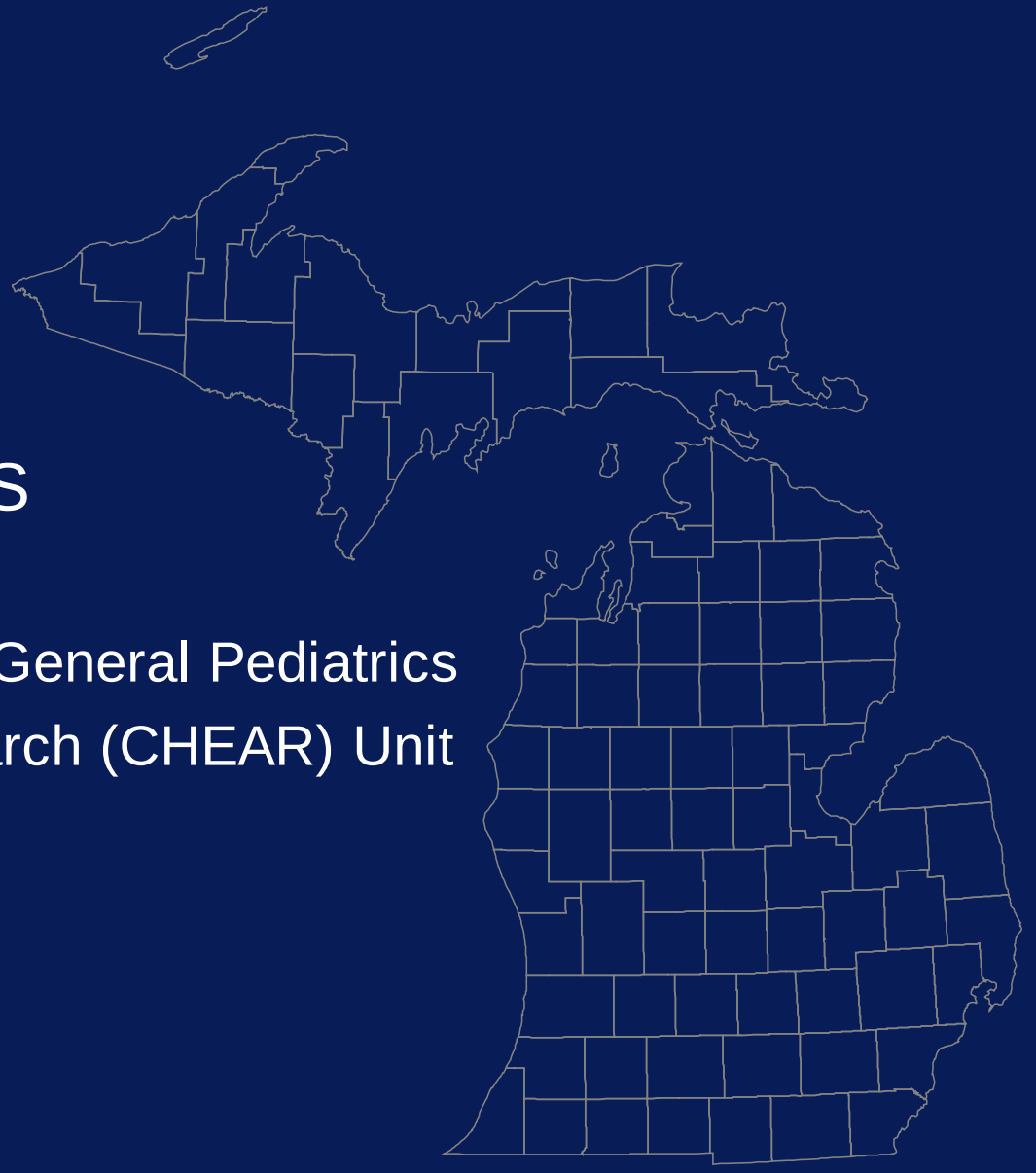
Export / Import Targeted Cases
Assess / Forecast
IIS Forecast
Assess / Forecast
Vendor Reminder / Recall
Integrated Reminder / Recall
Vendor Reminder / Recall
EHR Reminder / Recall
Email and Text Reminder / Recall

Opportunities

- The world surrounding IIS reminder / recall is changing !
- There are important opportunities to ensure the continued relevance of IIS

Opportunities

- Real-time bi-directional IIS/EHR interoperability
- Coordination of forecasting methods
- Mechanisms to foster IIS reminder / recall flexibility:
  - Import information from EHR for targeted conditions
  - Export cases to vendor systems, per patient preferences for reminders

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