Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Study Title and Key Personnel

All items marked with a red asterisk (*) are required. Items without an asterisk may or may not be required depending on whether the items are applicable to this study.

1.0 ***Full Title of the Submission:**
Improving Influenza Vaccination Delivery Across a Health System by the Electronic Health Records Patient Portal

1.1 **Protocol Version Date and/or Number:**

2.0 ***Working or Lay Title:**
Patient Portal - RCTs

3.0 **Principal Investigator:**

3.1 ***Name:** PETER SZILAGYI
Degree(s): If degrees are not shown here, please add them to the next section, Section 1.1a/Item 1.0, which will then update the Principal Investigator's webIRB account information.
MD, MPH

3.2 **UCLA Title:**

3.3 ***Will the Principal Investigator conduct the informed consent process with potential study participants?**

- ○ Yes
- ○ No
- ◉ **Not Applicable**

3.4 ***Is the Principal Investigator an undergraduate student, graduate student, post-doctoral fellow, or resident physician?**

○ Yes ◉ **No**

3.4.1 **If you answered "yes" to the above question, indicate the Faculty Sponsor for this study.**

3.5 **UCLA Policy 900 defines types of UCLA employees who may be eligible to serve as a Principal Investigator. Check the policy to see if the Principal Investigator for this study needs an exception to the eligibility requirements.**

If an exception is needed, either attach the letter of exception here, or indicate a Faculty Sponsor in the above item.

Document Name	Document Version #
There are no items to display	

4.0 **Study Contact Person: Indicate the person, in addition to the Principal Investigator, who should receive all of the study correspondence.**
CHRISTINA ALBERTIN

5.0 **List the key personnel and study staff below.**

Note: All personnel listed below are required to complete CITI training courses (except for Fund Managers and Regulatory Coordinators). Please verify CITI training completion for all personnel prior to submitting a New Study application or Amendment application to add personnel. Verify using the Training Log tab in the application workspace (accessible by clicking the Exit button at the bottom of this page). HIPAA training is also required if personnel will be accessing protected health information.
Please make sure to have all personnel update their webIRB profile and contact information. Instructions on how to update the webIRB profile are available here.

	Name	Department	Role	Other Role (if applicable)	Will Obtain Consent?	Manage device accountability?	Access to personally identifiable info?	Access to code key?
View	CHRISTINA ALBERTIN	PEDIATRICS-GENERAL PEDIATRICS	Study Coordinator		no	Not Applicable	No	No
View	JONATHAN BOGARD	ANDERSON GRAD SCH OF MANAGEMENT	Other	Working with Craig Fox and the rest of the study team; advising on the wording of the reminders and the pre-commitment questionnaire.	no	Not Applicable	No	No
View	ALEJANDRA CASILLAS	MEDICINE-GENERAL MEDICINE & HLTH SRVCS.	Co-Investigator		no	Not Applicable	No	No
View	OBIDIUGWU DURU, MS, MD	MEDICINE-GENERAL MEDICINE & HLTH SRVCS.	Co-Investigator		no	Not Applicable	No	Yes
View	CRAIG FOX, PhD	ANDERSON GRAD SCH OF MANAGEMENT	Other	Consulting with the group on specific wording for the reminders and pre-commitment questionnaire	no	Not Applicable	No	No
View	SARAH FRIEDMAN	PEDIATRICS-GENERAL PEDIATRICS	Study Coordinator		no	Not Applicable	Yes	No
View	CARLOS LERNER, MPhil, MD	PEDIATRICS-GENERAL PEDIATRICS	Co-Investigator		no	Not Applicable	No	No
View	DAVID OKIKAWA	DEANS OFFICE-SCHOOL OF MEDICINE	Other	Medical student who will be assisting with the multi year project in the design and analyses phases.	no	Not Applicable	Yes	No
View	MICHAEL ONG, MD, PhD	MEDICINE-GENERAL MEDICINE & HLTH SRVCS.	Co-Investigator		no	Not Applicable	No	No
View	CHI-HONG TSENG	MEDICINE-GENERAL MEDICINE & HLTH SRVCS.	Statistician or Data Analyst		no	Not Applicable	Yes	No

	Name	Department	Role	Other Role (if applicable)	Will Obtain Consent?	Manage device accountability?	Access to personally identifiable info?	Access to code key?
View	SITARAM VANGALA	MEDICINE-GENERAL MEDICINE & HLTH SRVCS.	Statistician or Data Analyst		no	Not Applicable	Yes	Yes

ID: IRB#17-001889 View: NEW 1.1a - Other Personnel

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Other Personnel

All items marked with a red asterisk (*) are required. Items without an asterisk may or may not be required depending on whether the items are applicable to this study.

1.0 Principal Investigator

1.1 **Name:** PETER SZILAGYI
***Please type the Degree(s):** MD, MPH

1.2 **Principal Investigator's UCLA Department:** PEDIATRICS-GENERAL PEDIATRICS

1.3 ***Protocol's UCLA Home Department:** PEDIATRICS-ADMINISTRATION

This response defaults to the PI's payroll department. If you wish to affiliate this protocol with another department, please select the department from the list above.

For tips on effective search, please see guidance to the right.

2.0 If there will be other types of personnel working directly under the PI's supervision on aspects of the study, provide their name, title and institution, indicate their responsibilities, training and qualifications and complete Item 2.1.

Please also indicate, if applicable, whether that person will obtain consent, manage device accountability, have access to personally identifiable information and/or have access to the code key.

Please use a new entry to add each individual unless describing a class of individuals who rotate through the study team (see guidance area to the right).

Note: If there will not be other types of personnel go to Item 3.0.

Name, title, institution	Study role(s): e.g., conduct interviews/surveys, recruit participants, obtain consent, review records, etc.
There are no items to display	

For existing protocols: Item 2.0 has been modified and this item cannot be edited. When submitting an amendment please use the information found in the text box below to complete Item 2.0 above.
Briefly describe the other study personnel.

2.1 **Indicate the human subjects research training these personnel have or will receive. If training is required in a language other than English or if research is occurring in a**

location where research personnel do not have access to the internet (e.g., rural community without internet capability), please describe how human subjects training requirements will be fulfilled.

Check all that apply:

- ☐ CITI Training
- ☐ UC HIPAA Training
- ☐ Other

2.2 **If you indicated "Other" to item 2.1, describe:**

3.0 ***Will any of the study procedures or analyses be contracted to a consultant or an organization?**

○ Yes ◉ **No**

3.1 **If yes, specify the consultant(s) and/or organization(s) and the work that they will do for the study.**

ID: IRB#17-001889 View: NEW 1.1b - Type of Study Review

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Type of Study Review

1.0 ***Indicate the level of risk involved with this study.**

(if there are multiple groups or phases associated with this study, select the highest level of risk.)

- ◉ **Minimal risk or no known risks - Click here for the OHRPP tip sheet on minimal risk.**
- ○ Greater than minimal risk

2.0 ***Indicate the type of review that you are requesting for this study.**

- ◉ **IRB Review: Expedited or Full Board**
- ○ Certification of Exemption from IRB Review

2.1 **If you indicated "IRB Review: Expedited or Full Board" as the type of review in item 2.0, select the IRB that you think best matches your research.**

	Name	Description
○	Medical Institutional Review Board 1	MIRB1 reviews general and internal medicine, infectious diseases and ophthalmologic research.
○	Medical Institutional Review Board 2	MIRB2 reviews oncology and hematology research.
○	Medical Institutional Review Board 3	MIRB3 reviews neuroscience, neurology, psychiatric, drug abuse and dental research.
○	North General Institutional Review Board	NGIRB reviews research from the College of Letters & Science and the Professional Schools.
◉	**South General Institutional Review Board**	SGIRB reviews social-behavioral research from the Schools of Public Health, Nursing, and Medicine.

***Please note**: The above requests are for initial routing purposes only. The final decision as to committee assignment and type of review, rests with OHRPP and/or the IRBs.*

ID: IRB#17-001889 View: NEW 1.2 - Conflict of Interest Information

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Conflict of Interest Information

1.0 * **Does the Principal Investigator, any of the key personnel, or their spouses, registered domestic partners, or dependent children, have a financial interest in the sponsor (profit, non-for-profit) of the research?**

○ Yes ◉ **No**

1.1 **If yes, attach a completed copy of the Financial Interests Form for each person who indicates a financial or related interest:**

Document Name	Document Version #
There are no items to display	

2.0 * **Does the Principal Investigator, any of the key personnel, or their spouses, registered domestic partners, or dependent children, have any financial interests related to the research sponsored by a government agency?**

○ Yes ◉ **No**

2.1 **If yes, attach a completed copy of the Financial Interests Form:**

Document Name	Document Version #
There are no items to display	

3.0 * **Indicate whether any of these financial interests have been submitted to or reviewed by the UCLA campus Conflict of Interest Review Committee (CIRC):**

○ Yes ◉ **No**

3.1 **If you have received a response from CIRC, attach it here:**

Document Name	Document Version #
There are no items to display	

ID: IRB#17-001889 View: NEW 1.3 - Study Locations

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Study Locations

1.0 ***Indicate the locations where any research activities will be performed by the UCLA research team with participants and/or private information obtained.**

Check all that apply:

- ☑ **a. UCLA Sites or UCLA Health System Sites**
- ☐ b. Off Campus (in California)
- ☐ c. Outside California (in the U.S.)
- ☐ d. Outside the United States ***See note at right**

☐ e. Internet

1.1 **If you selected b, c or d above, please provide your assurance that documentation of each site's permission to conduct the research at the site(s) will be obtained and maintained by the UCLA PI as applicable:**

Agree ☐

2.0 ***Is this a multi-institutional study (i.e., a collaborative project with other sites that have their own IRBs or principal investigators)?**
(Includes but not limited to UC MOU and CTSI MOU collaborations where UCLA IRB review is requested.)

○ Yes ◉ **No**

If no, please skip directly to the next page, do not complete the questions below.
If yes, please answer items 2.1-2.3:

2.1 **Will UCLA be responsible for the overall direction of the study at the other institutions?**

○ Yes ○ No

2.1.1 **Indicate the measures that will be taken to assure regulatory compliance at each site and that the following types of information will be communicated to the other sites: study procedures; modifications to the protocol and related documents; and safety updates, interim results and other information that may impact risks to study participants.**

Check all that apply:

- ☐ Conference calls or meetings with minutes distributed to each site
- ☐ Timely e-mail communications
- ☐ Postings on the study website
- ☐ Other

2.1.1.1 **If you chose "other", describe.**

2.1.2 **If you answered "yes" to item 2.1 above, please provide your assurance that the current IRB approval for each site(s) will be obtained and maintained by the UCLA PI as applicable:**

Agree ☑

2.2 **Will the UCLA principal investigator specified on this application be responsible for the data coordinating center?**

Yes

2.3 **Indicate the anticipated total number of study participants that will be enrolled across all of the institutions.**

Study participants will only be recruited and enrolled in the study procedures from the UCLA Health System primary care practices. This included 385,000 patients for RCT #1. For RCT#2, we estimate approximately 480,000 patients will be enrolled (ISS-generated data extraction: ~430,000 patients; IP-generated data extraction: ~50,000 (MRNS only)).

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Project Identification Information

1.0 ***Type of Submission (Select one)**

- (●) **Research Study**
- ( ) Application for Approval of "Research Participant Pool" or recruitment database only

2.0 ***Type of Submission (Select one)**
For Amendments, do not undo the response below. Undoing the response may remove sections of the original application.

- (●) **New Submission**
- ( ) Transfer of Ongoing Research from Another Site from Investigator moving to UCLA. Please complete Item 2.1.

2.1 **If you selected "Transfer of Ongoing Research" in Item 2.0 indicate the current status of the study and a brief summary of the work to date.**

3.0 ***Who developed this study?**

Check all that apply:

- [x] **UCLA investigator**
- [x] **Investigator from another institution**
- [ ] Industry/Pharmaceutical Company
- [ ] Cooperative Group (e.g., Children's Oncology Group, AIDS Clinical Trial Group)
- [ ] Other

3.1 **If other, specify.**

4.0 **Review For and Reliance Upon External IRBs.**

***Indicate if one of the following applies to this study. (Select one)**

- (●) **None of the options apply.**
- ( ) UCLA IRB to serve as IRB of record for another institution.
- ( ) UCLA to RELY on another IRB.
  This includes reliance using UC MOU, CTSI, NCI, RAND, and Western IRBs.

5.0 ***Is this study cancer related,** including the recruitment of individuals with cancer, collection of cancer human biological samples, specimens or data, or the recruitment of individuals because they are cancer survivors or at risk of developing cancer?

( ) Yes (●) **No**

Note: If you answered "Yes", you must submit an application to the Jonsson Comprehensive Cancer Center (JCCC) Internal Scientific Peer Review Committee (ISPRC). Click here for instructions for submitting to the ISPRC. The ISPRC approval notice or letter of exemption should be attached in Section 2.1/Item 7.2 of the webIRB application.

6.0 ***Nurse Involvement:** Does this study involve any nursing time, effort, and/or resources at UCLA Health System sites, including as subjects, investigators, clinical care providers or data or specimen collectors?

○ Yes ◉ **No**

Note: If you answer "Yes", please submit an application to the Nursing Practice Research Council (NPRC). For contact information or for more information about NPRC and how to apply, click here. ***IRB approval is not contingent on NPRC approval and you do not need to upload documentation of approval from the NPRC into webIRB.***

7.0 ***Federal regulations (45 CFR 46.111) require scientific review before an IRB approves a study. For the majority of studies being reviewed and approved by the UCLA IRB, the IRB performs this review.**
See http://ora.research.ucla.edu/OHRPP/Documents/Policy/4/Scientific_Review.pdf for additional details.

Do you want the IRB to consider external scientific or scholarly review?

◉ **Yes** ○ No

7.1 **If yes, indicate the source of scientific or scholarly review for the study.**

Check all that apply.

- [x] **National Institutes of Health (NIH)**
- [ ] The funding agency (other than NIH)
- [ ] Faculty Sponsor
- [ ] JCCC – Internal Scientific Peer Review Committee (ISPRC)
- [ ] Clinical Translational Research Center (CTRC)
- [ ] UCLA Department
- [ ] Other

7.1.1 **If you checked "other", describe.**

7.2 **Attach a copy of the scientific or scholarly review, if applicable.**

Document Name	Document Version #
Szilagyi R01 AI 135029-01 Impact Score.pdf	0.01

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Lay Summary and Keywords

Please provide the following information about your study.

1.0 ***Provide a brief lay summary describing this study. (limit 500 words).**
The overarching goal is to evaluate the effectiveness, cost effectiveness and sustainability of a portal based reminder/recall (R/R) for patients at the primary care practices within the UCLA Health System in improving seasonal influenza vaccination rates. This projects uses collaboration from multiple departments within the greater UCLA Health System (Pediatrics, Internal Medicine, Information Technology, UCLA Leadership etc.) to coordinate this effort.

We will implement and evaluate a UCLA-wide portal R/R system for influenza vaccination and will test, with 4 serial RCTs across 4 flu seasons, the impact of increasingly complex portal design features on vaccination rates for the overall population and subgroups.

In Year 1 we will adapt methods from our prior R/R studies to the portal, grounded in the Chronic Care Model and will test the impact of 1, 2 or 3 portal R/R's. In Years 2-3, we will send up to 4 reminders and evaluate the impact

of tailored R/R messages, as well as including a pre-commitment prompt asking patients about their intention to get the flu vaccine in the upcoming season, in RCT #2, the value of combining portal R/R with patient direct appointment scheduling in RCT #3. In Years 4-5 we will apply optimal design features from the prior RCTs and test the added value of linking portal R/R to the EHR to customize R/R's by age or chronic disease for the 4th and final RCT. We will assess costs and process measures using RE-AIM methods. Finally, we will create a toolkit to disseminate portal R/R information to other health systems.

2.0 ***List three to five keywords describing this study (separate the words with commas). The keywords may be used for identifying certain types of studies.**
reminder recall, patient portal, EHR, influenza

3.0 ***Is this study conducted or supported by HHS (e.g., the National Institutes of Health, Centers for Control and Prevention, etc.)?**
(●) **Yes** ( ) No

3.1 ***Is NIH the HHS agency supporting or conducting the study?**
(●) **Yes** ( ) No

3.2 ***Please choose one:**

- (●) **I acknowledge that my study is automatically covered by a Certificate of Confidentiality and I understand the responsibilities associated with that Certificate.**
- ( ) The NIH Certificate of Confidentiality policy does not apply to my study (see guidance at right and explain below)

4.0 ***Is this study regulated by the Food and Drug Administration (FDA)?**
( ) Yes (●) **No**

4.1 **If yes, check all that apply:**

- [ ] Human Drugs
- [ ] Medical Devices
- [ ] Biological Products
- [ ] Mobile Medical Applications
- [ ] Food Additives
- [ ] Color Additives
- [ ] Other

ID: IRB#17-001889 View: NEW 2.3 - Methods/Procedures - Descriptors

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Methods/Procedures - Descriptors

Note: The items listed below are not an inclusive list of methods and procedures that may be used in research studies. The list only includes items that will trigger additional questions related to the research or are needed for the review process

1.0 ***Indicate all that apply to this study.**

- [ ] Audio, Visual or Digital Recordings
- [ ] Certificate of Confidentiality for research not supported by NIH

- [x] **Clinical Trial of a Drug, Biologic, Device or a Behavioral Intervention**
- [ ] Community Based Research
- [ ] Controlled Substances (Schedule I or II)
- [ ] Deception or Partial Disclosure
- [ ] Devices/Diagnostics (including Humanitarian Devices - HUD)
- [ ] Drugs/Biologics/Dietary Supplements
- [ ] Expanded Access to Drug, Device or Biologic for Treatment Purposes (aka Compassionate Use, Treatment Use)
- [ ] Genetic Analyses/Genotyping
- [ ] Human Embryonic Stem Cells and/or Induced Pluripotent Stem Cells
- [ ] Human Gene Transfer/ Recombinant DNA
- [ ] Infectious Agents
- [ ] Non-FDA approved medical equipment used with UCLA hospital patients or research participants that operate under the UCLA Hospital License.
- [ ] Radiation (Standard of Care or Investigational Use of radioactive materials, radiation producing machines or ionizing radiation)
- [ ] Substance Abuse Research (with Medication)
- [ ] Treatment in an Emergency Setting (with request to waive consent)
- [ ] **None of the above**

2.0 ***Will the study require services or resources owned/rented/operated or provided by the UCLA Health System (e.g. clinic and/or hospital visit(s), CTRC, professional medical services, clinical treatment, diagnostics, labs, medical supplies, etc.)?**

Please direct any questions about this to The Financial Coverage & Activation Team at coverageanalysis@mednet.ucla.edu.

○ Yes ◉ **No**

ID: IRB#17-001889 View: NEW 6.1 - Funding and Other Study Characteristics

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Funding and Other Study Characteristics

1.0 ***Indicate the funding status for this study**.

- ◉ **Funded**
- ○ Application for funding is pending
- ○ Departmental funding / Self funding / No funding

2.0 ***Check all that apply**:

- [ ] The research will be conducted through the UCLA Clinical and Translational Research Center (CTRC)
- [ ] The study will be supported by or conducted in collaboration with the U.S. Department of Defense (DOD)
- [ ] The study will be supported by or conducted in collaboration with the U.S. Department of Energy (DOE)
- [ ] The study will be supported by or conducted in collaboration with the U.S. Department of Justice (DOJ)
- [ ] The study will be supported by or conducted in collaboration with the U.S. Department of Education (ED)
- [ ] The study will be supported by or conducted in collaboration with the U.S. Department of Protection Agency (EPA)
- [x] **None of the above**

2.1 **If you selected DOD, DOE, DOJ, ED, and/or EPA support/collaboration, please provide your assurances that you will review the additional requirements for research supported by the relevant federal agency.**

Agree ☐

Note: Please refer to the Federally-Supported Research section of the OHRPP guidance document: Funding Considerations for Federally-Funded and Industry-Sponsored Human Research.

ID: IRB#17-001889 View: NEW 6.2 - Funding - Description

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Funding - Description

Based on the response to section 6.1/item1, this study is or will be funded. Please provide the following information.

The Office of Contract and Grant Administration (OCGA) provides the list of funding sources used by webIRB in this section. Please check your OCGA paperwork to find the correct name of the funding source(s) for this study. Identifying the right funding source is important because:

- webIRB will auto-populate the designated funding source name on the approval letter for the study. Many funding sources require an accurate identification of their name on the IRB approval letter before they will release funding;
- The Office of Research Administration uses data from webIRB to generate funding reports.

Click here for tips on how to find the funding source name in webIRB.

1.0 **Identify the funding source(s).**
If a specific funding source has ended, do not delete it, instead please click Update next to the funding entry and **revise item 1.9**.

Funding Source	Funding Source Information

	Funding Source	Funding Source Information
View	NIH-NIAID NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEA	

Name of the Funding Source	NIH-NIAID NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEA
If other, specify	*No Value Entered*
UCLA PI named on the grant, contract, subcontract or gift:	PETER SZILAGYI
Indicate the type of award:	Grant
If other award, specify	*No Value Entered*
Indicate the Grant Title:	Improving Influenza Vaccination Delivery Across a Health System by the Electronic Health Records Patient Portal
Indicate the Award Number assigned by the funding source:	1R01AI135029- 01
Indicate the description that applies to the source of funding named in the above item. If this is a subcontract, indicate the original source of funding:	Federal
If Other, specify	*No Value Entered*
Attach a copy of the funding proposal, subcontract, or scope of work.	**Document Name**: Portal Influenza grant_Final.pdf **Document Version #**: 0.01
Does the content of this IRB application differ from the activities described in the attached funding proposal, subcontract, or scope of work?	Yes
If yes, describe:	This IRB pertains only to the RCT interventional components. Two other IRBs related to the larger scope of work have also been submitted (lay working titles: Patient Portal - Patient Qualitative Interviews and Patient Portal - Provider Qualitative Interviews) that outline the qualitative work to be done with patients and providers, respectively.
Check this box to indicate that this specific funding has ended	No

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Study Design

1.0 ***Check all that apply to the study design.**

- ☐ **Direct subject contact ONLY** – The research activities involve direct contact with study participants (e.g., collection of data or specimens in person or via internet, phone, mail, etc.)
- ☐ **No direct subject contact** – None of the research activities involve direct contact with study participants and include only analyses of data, records and/or human biological specimens (e.g., medical record or other record review, study of specimens left over from clinical procedures).

- [x] **BOTH Direct subject contact AND No direct subject contact – Some of the research activities involve direct contact with study participants and some of the research activities involve analyses of data, records and/or human specimens obtained without contact with participants.**

ID: IRB#17-001889 View: NEW 8.3 - Clinical Trial of a Behavioral Intervention, Drug, Biologic or Device

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Clinical Trial of a Behavioral Intervention, Drug, Biologic or Device

You indicated that this study includes a clinical trial (section 2.3/item 1.0). Please provide the following information

1.0 ***Indicate the type of clinical trial.**

Check all that apply:

- [x] **Randomized**
- [ ] Non-randomized
- [x] **Single Blinded**
- [ ] Double Blinded
- [ ] Placebo
- [ ] Sham Control
- [ ] Active/Treatment Control
- [ ] Open Label
- [ ] Crossover
- [ ] Washout Period
- [ ] Dose Escalation
- [ ] Other

1.1 **If you indicated "other", specify.**

2.0 ***Indicate the type of clinical trial:**

- ( ) Pilot/Feasibility
- ( ) Phase I
- ( ) Phase I/II
- ( ) Phase II
- ( ) Phase II/III
- ( ) Phase III
- ( ) Phase III/IV
- ( ) Phase IV
- ( ) Open Label Extension/Rollover
- ( ) Expanded Access
- (•) **Behavioral**

3.0 ***Indicate the status of registration of registering this trial with ClinicalTrials.gov**

- ( ) Registered
- ( ) Registration Pending

- (●) **Not Registered**

4.0 **If the trial is registered, provide the Trial Registration Number:**

ID: IRB#17-001889 View: NEW 9.2 - Information about Study Data

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Information about Study Data

This information is needed to determine how you will best protect the confidentiality of data.

1.0 ***Indicate all that apply to the study data.**

Check all that apply:

- [x] **Obtained from a medical or clinical record**
- [x] **Created or collected as part of health or mental health care**
- [ ] Used to make healthcare or mental healthcare decisions and/or provided to other healthcare professionals
- [ ] Research data will be entered into the participants' medical or clinical record
- [ ] **None of the above**

2.0 ***Is it reasonably foreseeable that the study will collect information that State or Federal law requires to be reported to other officials (e.g., child or elder abuse), ethically requires action (e.g., suicidal ideation), or is a reportable disease?**

- ( ) Yes (●) **No**

2.1 **If yes, explain below and include a discussion of the reporting requirements in the consent document:**

3.0 ***Indicate if any of the following are being obtained and used without any direct contact with study participants.**

- [ ] Records (Not medical)
- [ ] Human biological specimens
- [x] **None of the Above**

4.0 *Indicate all identifiers that may be **accessed or included in the research records** for the study**:**

- [x] **Names**
- [x] **Dates**
- [x] **Age (if over 89 years)**
- [x] **Postal Address**
- [x] **Phone Numbers**
- [ ] Fax Numbers
- [x] **E-Mail Address**
- [ ] Social Security Number
- [x] **Medical Record Number**
- [x] **Health Plan Numbers**
- [ ] Account Numbers
- [ ] License/Certificate Numbers
- [ ] Vehicle ID Numbers

- [ ] Device Identifiers/Serial Numbers
- [ ] Web URLS
- [ ] IP Address Numbers
- [ ] Biometric Identifiers (including finger and voice prints)
- [ ] Facial Photos/Images
- [x] **Any Other Unique Identifier (this does not include the code assigned by the investigator to identify the data)**
- [ ] **None of the above**

4.1 **If social security numbers will be collected explain why they are necessary, how they will be used, how they will be protected and how long they will be retained.**

5.0 ***Select all that apply:**

- [x] **The data and/or specimens will be directly labeled with personal identifying information when acquired by the investigator for this research**
- [ ] The data and/or specimens will be labeled with a code that the research team can link to personal identifying information when acquired by the investigator for this research
- [ ] The data and/or specimens will not be labeled with any personal identifying information, nor with a code that the research team can link to personal identifying information when acquired by the investigator for this research
- [ ] The data are restricted use data (A term used in Social-Behavioral research. See guidance on the right.)

5.1 **Indicate how the data will be used when this study is completed.**

Check all that apply:

- [x] **Use for this study**
- [ ] Use for possible future research
- [ ] Use to create a bank or repository at UCLA
- [ ] Add to existing repository
- [ ] Other

5.1.1 **If Other, specify:**

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Privacy and Confidentiality

Important Notes:

- **Privacy is about people.** Privacy refers to a person's wish to control the access of others to themselves.
- **Confidentiality is about data.** Confidentiality refers to the researcher's plan to handle, manage, and disseminate the participant's identifiable private information.

See OHRPP Quick Guide: Protecting Privacy and Maintaining Confidentiality

1.0 ***Privacy: How will the investigator maintain privacy in the research setting(s)? (e.g., interviewing participant in a room or area where conversations cannot be overheard by others, or**

conducting medical procedures in an examination room, or behind a curtain in an emergency room).

This proposal for multiple RCTs involves reminding patients within the UCLA health system, via their patient portal, that they are due for an annual flu vaccine. Since the messages will all be delivered via the portal, patients must have their own unique ID and passwords to sign in, helping to maintain their privacy. Also patients will sign on at a time and place convenient to them, ensuring that they can use a private (usually home) setting.

To maintain privacy we will carry out the following measures:
1) RCT 1: The messages delivered to the patient throughout RCT 1 will not include any identifiable patient information. The reminder, which will be delivered to the patient when they log into their UCLA patient portal (individual password protected) will be a generic message that they are due for their seasonal flu shot. Please see section 10.1 for an example of the message (title: RCT #1 Reminders).

2) RCT 2: Patients in the intervention arms of the RCT will receive up to 4 reminders via the portal, notifying them of a new letter from their provider in the portal system. The letter will include the first name of the patient and the patient's provider name will be added below the signature line. The letter is only accessible to patients once they or their patient proxy (in the case of a patient proxy, typically for young children or elderly patients) log into their UCLA patient portal (password protected). The patient population that received a generic message in RCT #1 is being subdivided into 4 groups (children <18 years, young adults (18-<65 years), older adults (65+ years) and patients with diabetes meeting the SUPREME criteria. A message will only be sent after a child turns 6 months of age (the recommended minimum age for influenza vaccination).

In addition, half of the patients randomized to each arm (2 intervention arms- one with positively framed messages highlighting the benefits of vaccination, one with negatively framed messages highlighting the risks of not vaccinating, and a control arm) will receive a pre-commitment question asking about their intention to get vaccinated (prior to the reminders being sent). Prompting for pre-commitment has been shown to be an effective means of encouraging patients to follow through with a health behavior in prior studies and it's impact will be evaluated on receipt of influenza vaccine.

The RCT design, subpopulations and letter components have been approved by the MyChart subcommittee, Ambulatory Operations Advisory Group, and the UCLA Health Primary Care Committee.

Please see section 10.1 for an example of the messages that will be sent (Title: RCT #2 Reminders_child, RCT #2 Reminders_young adult, RCT #2 Reminders_older adult, RCT#2, diabetes registry patients) and the pre-commitment question.

3) RCT 3: Patients who are randomized to the intervention arm that allows for patient directed scheduling will only be able to access such services when logging onto their patient portal, that is protected by a patient selected user name and password. Please see section 10.1 for an example of the message (title: RCT #3 Reminders).

4) RCT 4: Patients will receive customized educational messages tailored to address chronic conditions or health concerns they may be afflicted with, and the related benefits of receipt of the seasonal flu vaccine. This message is only accessible to the patient when he/she logs into their patient portal with the self selected user name and password. Please see section 10.1 for an example of the message (title: RCT #4 Reminders) .

5) Names or other PHI of study participants will not be divulged by study personnel.

2.0 *__Confidentiality: If the protocol will collect and maintain identifiable data, explain how the planned safeguards to maintain confidentiality of identifiable data and data security are appropriate to the degree of risk from disclosure.__

Note: Other sections of the application (e.g., Sections 9.3, 9.3a, 9.4, 9.5, and 15.3) will request specifications such as identification of persons who will have access to code keys or measures to comply with HIPAA requirements.

Confidentiality will be maintained with the following procedures

1) any data transfer will occur between entities at UCLA and will involve encrypted mechanisms

2) all electronic data will be stored in locked and password protected computers, in locked rooms. Only the statistician will have access to identifiable data.

3) All UCLA personnel will complete required CITI and HIPAA courses and training, and all personnel from other institutions will also be required to complete analogous courses and training. Verification of the completion of these trainings must be provided to UCLA personnel upon request.

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Data Security

You indicated that the study team will have access to personally identifiable or coded information (Section 9.2/item 5). Please complete the following items.

1.0 ***Do you agree to follow the OHRPP Data Security in Research guidance and procedures?**

- (●) **Yes**
- ( ) I have an alternate equally effective plan (*Note: The plan must be attached to item #2.1*)

2.0 ***Do you have a data security plan for this study?** *(Note: a plan is not required for all studies; it may be recommended in some instance).*

( ) Yes (●) **No**

2.1 **If yes, attach it here:**

Document Name	Document Version #
There are no items to display	

3.0 ***Indicate all that apply to personally identifiable information or codes during conduct of the study:**

- [ ] The data and/or specimens will be coded
- [ ] The personal identifying information will be removed and destroyed
- [x] **Personally identifying information will be maintained with the data and/or specimens**

3.1 **If you indicated that the personal identifying information will be removed or destroyed or that the data/specimens will be coded, provide the following information:**

- **The process for removing and destroying the personal identifying information or for coding the information, and**
- **Indicate who will perform the task**

4.0 ***Will coded or personally identifiable data be collected, transmitted or stored via the internet?**

(●) **Yes** ( ) No

4.1 **If yes, indicate all that apply:**

- [ ] A mechanism such as Survey Monkey, Zoomerang, or an e-mail anonymizing service will be used to strip off the IP addresses for data submitted via e-mail.
- [x] **The data will be encrypted.**
- [x] **A firewall will be used to protect the research computer from unauthorized access.**
- [ ] Controlled access privileges will be used on the hardware storing the data.
- [x] **Other.**

4.1.1 **If you indicated "Other", describe:**

ISS prepares CSV files, and uploads them to a UCLA Health Box folder. The UCLA CTSI Informatics Program (IP) will generate and send the Supreme diabetes data set (MRNs only) to the statistician via UCLA Health Box. The statistician downloads these to the GIM server, to a folder with access restricted to only to him. He then convert these files to password-protected Excel files, deleting the original CSVs in Box.

5.0 *Provide your assurances that if there is a data security breach for this study, the PI will notify the IRB and your department's IT Compliance Coordinator.

Agree ☑

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Data Security - Identifiable Data

You indicated that personally identifiable information will be maintained with the study data and/or specimens during conduct of the study (Section 9.3/item 3). Please complete the following items.

1.0 *Will any personally identifiable data be stored on portable devices (e.g., laptops, PDAs, iPods, external hard drives)?

○ Yes ◉ No

1.1 If yes, provide the rationale for keeping personally identifiable information on a portable device(s):

2.0 Indicate how the information will be handled and stored to assure confidentiality.

2.1 *Electronic Data:

☑	**Encryption or password protection software will be used**
☑	**Secure network server will be used to store data**
☐	Stand alone desktop computer will be used to store data (not connected to server/internet)
☐	A contracted outside vendor will store the code key. The vendor will have a business associate agreement with UCLA.
☐	Other
☐	**Not Applicable**

2.2 *Hardcopy Data, Recordings and Specimens:

☑	**Locked file cabinet or locked room with limited access by authorized personnel**
☐	Locked lab/refrigerator/freezer with limited access by authorized personnel
☐	Other
☐	**Not Applicable**

2.3 If you indicated "Other" in item 2.1 or 2.2 above, describe here:

3.0 *By checking this box, I provide my assurance that all the person(s) who will have access to the personally identifiable information have been identified in section 1.1 or section 1.1a.

Agree ☑

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Data Security Plan

You indicated that the study will have access to personally identifiable or coded information (Section 9.2/item 5). Please complete the following items:

1.0 ***After the study is completed**, indicate how the data codes and/or personal identifying information will be handled.

Check all that apply:

- [x] **All data files will be stripped of personal identifiers and/or the key to the code destroyed.**
- [ ] All specimens will be stripped of personal identifiers and/or the key to the code destroyed.
- [ ] Personal identifiers and/or codes linking the data and/or specimens to personal identifiers will be maintained for future research.
- [ ] Audio or Video recordings will be transcribed and then destroyed or modified to eliminate the possibility that study participants could be identified.
- [ ] Photos or Images will be modified to eliminate the possibility that study participants could be identified.
- [ ] Restricted use data will be destroyed or returned to the source.

1.1 **If you indicated that personal identifiers will be maintained for future research, provide the following information:**
a) How the information will be securely handled and stored
b) assure confidentiality, and
c) who will have access to the identifiers and/or codes.

2.0 **Describe any additional steps, if any, to be taken to assure that the subjects' identities and any personal identifying information are kept confidential.**
As part of the randomization process, the statistician is grouping family members together. Data elements used to group family members include:
-Address
-Primary phone
-Secondary phone
-Guarantor address (address lines, state, zip code)
-Guarantor phone number
-Patient ID of the Guarantor
-Guarantor MRN
-Emergency Contact Name
-Patient ID of the Emergency Contact
-MRN number of the Emergency Contact
-Address of the Emergency Contact (Address lines, city, state, zipcode)
-Subscriber Number
-Membership number

These variables will be deleted upon completion of the RCT #2 intervention (by February 1st, 2020).

The study team will obtain follow up CareConnect data extracts from ISS related to the intervention and that are needed for conducting analyses. This data will be kept for ~2 years. All remaining data elements in section 9.6, Item 4.0 for RCT 2 will be retained by the statistician on the GIM server for an estimated two years.

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Use of Data and/or Specimens without Direct Contact

You indicated that some or all of the research activities do not involve direct contact with study participants (Section 8.1/item 1.0). Please provide the following information.

1.0 If **all** of your research activities are without direct contact with study participants, provide the following

information:

1.1 **Indicate the purpose of the research, specifying the problems and/or hypotheses to be addressed**:

1.2 **Describe the study design and proposed data analyses**:
The MyChart system allows for patient proxies to be designated which happens many times with young children or older adults, but any patient may make a proxy designation. To properly understand and analyze patient or proxy engagement with the MyChart system (i.e receipt of electronic flu reminders, checking of messages etc.), we need to gather proxy activity and account data (ex. # of logins) in addition to the patient data.

1.3 ***If you will conduct genetic analysis with specimens, provide your assurance that the results will not be disclosed to subjects or used for clinical care.**

- ○ Agree
- ◉ **Not Applicable**

2.0 ***Describe specimens and/or data that will be acquired without direct contact with study participants. Complete this item for each type used in the study:**

Source	Data and/or Specimens Information

	Source	Data and/or Specimens Information
View	ISS will generate a dataset on an annual basis of all FPG primary care clinic patients and provide data elements that include demographics, identifiers (MRN, DOB), insurance, MyChart utilization information, diagnoses and outcomes such as vaccination status and encounters. This data set will be refreshed each year. There may be an overlap of patients between the years. IP will generate a dataset for RCT#2 for 2019 of MRNs of patients meeting modified diabetes criteria (SUPREME criteria) using laboratory test results, medication data and ICD diagnosis codes) and that currently have active MyChart status.	

Data and/or Specimens? Indicate all that apply:	Data
Indicate whether the data and/or specimens are pre-existing, at the time of this study, and/or if collection will be prospective:	Pre-existing Prospective
Describe the data and/or specimens and indicate the original collection dates:	For 2018, ISS-generated data extraction contained 382,634 patients. Data elements used in that data collection period were included in section 9.6, item 4.0 (and the data collection period was primary care patients as of 8/1/18. For 2019, the ISS-generated data extraction contains 430,712 patients and the IP-generated data extraction contains 48,551 patients (and only MRNs will be provided). The data collection period is primary care patients as of 9/1/19.
Indicate the approximate number of data records and/or specimens to be collected:	For each RCT, the ISS will generate a fresh dataset. We anticipate roughly the same numbers of patient records, but there may be variability depending on whether the number of primary care practices within the UCLA health system changes. Separate amendments will reflect changes in numbers of patients.
Will the specimens be used with animals?	No
If yes, indicate the IACUC Number:	*No Value Entered*

3.0 ***If any sources of data and/or specimens are not at UCLA, provide your agreement that the appropriate institutional approvals for release will be obtained** (e.g., IRB approval).

- ○ Agree
- ◉ **Not Applicable**

4.0 **Attach any data abstraction tools or lists with the data elements to be collected.**

Document Name	Document Version #
Data Request.docx	0.06
Informatics Program (IP)_Diabetes_SUPREME data elements	0.02
Track Changes_Data Request.docx	0.11

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Study Summary - Research Study

1.0 Study Materials: As applicable to this study, attach the following:

- **Protocol, Dissertation Proposal or Study Plan**
- **Preliminary Data**
- **Surveys, Questionnaires or other instruments to be used with study participants**
- **References**

Document Name	Document Version #
Health Belief Model.docx	0.01
portal RR EHR Linkage.docx	0.01
Pre-commitment Question_RCT2	0.03
RCT #1 Reminders.docx	0.02
RCT #1 Reminders_December.docx	0.01
RCT #2 December and January Reminders	0.01
RCT #2 Reminders_Children	0.03
RCT #2 Reminders_OlderAdult.docx	0.03
RCT #2 Reminders_YoungAdult	0.03
RCT #3 Reminders.docx	0.01
RCT #4 Reminders.docx	0.01
RCT#2 Reminders_Diabetic	0.02
Summary of Outcome Measures RCT1.docx	0.01
Track changes_RCT #1 Reminders.docx	0.03
Track Changes_RCT #1_changes for December.docx	0.01
Track changes_RCT #3 Reminders.docx	0.01
Track Changes_RCT #4 Reminders.docx	0.01

2.0 *Specific Aims: Indicate the purpose of the research, specifying the problems and/or hypotheses to be addressed.

The overall purpose of the RCTs is to evaluate the impact that R/R, delivered through the patient portal, could have on the flu immunization rates of UCLA Health patients. The intent is to ultimately take the information learned and create and disseminate an adaptable toolkit to other health systems.

Specific aims are
Aim #1: Adapt algorithms, educational messages, and protocols previously used for mailed or phone influenza vaccine R/R, to create a patient portal research platform. (Aim 1 is outlined in detail in IRB applications titled: Patient Portal - Patient Qualitative Interviews and Patient- Portal Provider Qualitative Interview)

Aim #2: Assess the impact of portal R/R and key design features upon flu vaccination rates and costs.

2a: RCT #1: Using a 4-arm RCT, clustering within practices (up to 55), compare the effectiveness of 1, 2, or 3 portal R/R's vs. 0 R/R's on influenza vaccination rates
Hyp. 2a.1 [Primary Outcome]: >1 portal R/R will increase vaccination rates vs. no R/R.
Hyp. 2a.2: More R/R messages will raise vaccination rates (3R/R > 2R/R > 1R/R > 0R/R).

2b. RCT #2: Using a 3-arm RCT (up to 55 practices), compare the effectiveness of flu reminder recall messages that have been tailored for one of 4 subpopulations- 1) children <18 years, 2) young adults (18-<65 years), 3)older adults (65+ years) and 4) patients with diabetes (identified by SUPREME criteria by CTSI). Within each subpopulation, one arm will receive positively-framed messages highlighting the benefits of flu vaccination, one arm will receive negatively framed messages highlighting the risks associated with not getting the flu vaccine and one arm will serve as the control arm (no portal reminders).

2c. RCT #2: In addition, we will test the impact of a "pre-commitment" question asking whether the patient plans to receive the flu vaccine (prior to the reminders going out). This question will be asked of half of patients per arm

of the 3-arm RCT. Previous research has indicated pre-commitment can improve the likelihood a patient follows through with a behavior. We intend to determine whether pre-commitment increases the likelihood of getting the flu vaccine.

In summary, families will be randomized using a 3x2 factorial allocation (no reminder v. positively-framed reminder v. negatively-framed reminder, and no pre-commitment question v. pre-commitment question). Family members will be divided into 4 non-overlapping cohorts (age <18 years, 18-64 years non-diabetic, 65+ years non-diabetic, and 18+ years diabetic), and a single index member per family per cohort will be selected for inclusion in the study. Only active users affiliated with a UCLA primary care practice will be included in the study sample. For single individuals not part of a family, that individual will serve as the index patient.

Hyp 2b, RCT #2:. Vaccination rates will differ by receipt of no reminders, positively framed reminders and negatively framed reminders.
2b.1 Vaccination rates will be higher among patients receiving positively framed reminders than among patients receiving no reminders.
2b.2 Vaccination rates will be higher among patients receiving negatively framed reminders than among patients receiving no reminders.
2b.3. Vaccination rates will be higher among patients receiving positively framed reminders than among patients receiving negatively framed reminders.
The arm receiving the pre-commitment question, asking about their intention to get the flu vaccine (prior to the reminders going out), are more likely to follow through with influenza vaccination; therefore, the pre-commitment arm will have higher rates of flu vaccination than the control arm for the pre-commitment component.
Hyp 2c. RCT #2: Vaccination rates will be higher among patients receiving a pre-commitment question than among patients not receiving the pre-commitment question.

2d: RCT #3: Using a 2-arm RCT (up to 55 practices) compare effectiveness of combining portal R/R with patient direct appointment scheduling vs. portal R/R alone on influenza vaccination rates.
Hyp. 2d: Adding direct appointment scheduling will raise vaccine rates vs portal R/R alone.

2e. RCT #4: Using a 2-arm RCT (up to 55 practices), compare effectiveness of linking portal R/R with the EHR (in order to customize messages) vs. portal R/R alone on influenza vaccination rates.
Hyp. 2e: Adding EHR customization will raise vaccination rates vs portal R/R alone.

2f. Costs: Measure costs and cost-effectiveness of portal R/R and added design features (RCTs 1-4).
Hyp.2f: Costs per additional vaccination are low, regardless of # R/R's or design features.

Aim 3: Develop an adoption guide/toolkit for other health systems.

3.0 ***Background and Significance: Provide a summary of the background for this study and explain how it will contribute to existing knowledge.**

For greater than minimal risk biomedical studies, include preliminary data. If necessary, attach in Item 1.0 graphs or tables used to convey information. If there no preliminary data are available, briefly indicate why this proposed study is a reasonable starting point.

Seasonal influenza disease causes substantial morbidity and mortality in the U.S. Across all ages, and averaged over multiple seasons which vary in disease severity, influenza causes >25 million cases of illness, 31 million outpatient visits, 3.1 million hospitalization days, and ≈40,000 deaths. Influenza is estimated to cost the US $10 billion in direct medical costs, $16 billion in lost earnings, and $87 billion in total economic burden annually. The greatest burden is in the elderly, yet influenza also causes high morbidity in children. As an example, among children below 5 years of age, during a typical influenza season 7-26% are infected with the virus, 5-10% make an outpatient visit, 1-3% make an emergency department visit, 0.1-1% are hospitalized due to influenza, and many die from influenza infection. Reducing morbidity from influenza infection is a top priority for Healthy People 2020 and for the National Institute of Allergy and Immunology (NIAID).

Since 2008, the Advisory Committee for Immunization Practices (ACIP) and professional organizations-- the American Academy of Pediatrics (AAP), American Academy of Family Physicians (AAFP), American College of Obstetricians and Gynecologists (ACOG), and the American College of Physicians (ACP) -- have recommended annual vaccination of all US residents over 6 months of age. Healthy People 2020 goals are to increase child influenza and 18-64y adult vaccination rates to >80%, and adult >65y rates to >90%.

Epidemiological studies support the fact that patients with diabetes are at high risk for complications, hospitalization, and death from influenza. Influenza vaccination is also recommended because it is more challenging to control blood sugar levels during periods of infection. Although the flu vaccine is widely

recommended, influenza vaccination rates remain low.

Our team has conceptualized barriers to vaccinations into a widely used model. Patient Barriers include the need for extra visits for vaccination, insufficient knowledge, and poor access to vaccination services or not knowing about existing practice strategies such as walk-in visits, nurse-only vaccinations, or temporary flu-vaccine clinics. Provider and System Barriers: The two most important barriers are that few practices or health systems use reminder/recall (R/R) to remind patients about influenza vaccinations and that vaccination is inconvenient. Another barrier is missed opportunities for vaccination during healthcare visits.

Studies have evaluated interventions to reduce access barriers for influenza vaccination-- nurse flu vaccine clinics, after hours or expanded site flu vaccine clinics, reducing missed opportunities, and bundled interventions including after-hours clinics plus strong provider recommendations. Experts see the need to optimize access and reduce inconvenience of vaccination for all ages and demographic groups, and advancing technology in the medical arena could help reduce such barriers.

About 96% of children and elderly, and 87% of all US residents have a primary care provider. By 2014, 83% of office-based providers used EHRs. A breakthrough linked to EHRs is the patient portal (herein called “portal”): a communication system allowing providers and patients to communicate with each other about laboratory data and patient issues. Surprisingly, there are no RCTs of portal R/R for flu vaccination.

Portals have appeal as a mechanism to remind patients. Messages come from the provider and studies show that a strong provider recommendation can increase vaccination rates. Portals use email, so R/R messages are inexpensive. Portal R/R can include education, web links, and attachments which mail or phone R/R cannot easily include. Two IT design enhancements might raise portal impact even further—allowing patients to schedule their own appointments, and linking with the EHR to customize messages (e.g., by age, or if patients are healthy or have a chronic condition at high risk for influenza). Thus portal R/R is very promising.

For RCT #2, we will evaluate the impact of positively-framed messages versus negatively-framed messages versus control (standard of care) to see if either type of message has an impact on the receipt of influenza vaccination. The current literature is mixed as to which message type is more effective. The RCT #2 study design will enable us to evaluate the impact in different sub-populations which may demonstrate variability in preference. In addition, RCT #2 will allow us to test the impact of pre-commitment. In the field of behavioral economics, pre-commitment has shown promise as a means of behavior change- in this case, receipt of influenza vaccination.. The study design will enable us to evaluate the impact of a pre-commitment question.

4.0 ***Research Design and Methods: Describe in detail the design and methodology of the study.**

OVERALL STUDY DESIGN

Subject Characteristics
Subjects receiving the intervention will be patients at one of the primary care practices within UCLA Health’s System (up to 55 practices), and will include patients of any age. A proportion of the patients from these practices will be selected to participate - i.e. those who meet the inclusion criteria. Randomization techniques will occur before each RCT.

RCT 1: Patient will either be randomized to receive 0 (control), 1, 2 or 3 flu reminder messages via the portal.

RCT 2: A 3x2 factorial design with test the impact (in each subpopulation) of positively-framed messages, negatively-framed messages or no messages regarding influenza vaccination via the portal, as well as the impact of pre-commitment question sent via the portal, prior to the messages being sent, asking about the patient's intention to get the influenza vaccine and asking them to schedule an influenza vaccine. The question will be asked of half of the patients within each of the 3 arms. Patients will be randomized using the 3x2 factorial allocation (no reminder v. positively-framed reminder v. negatively-framed reminder, and no pre-commitment question v. pre-commitment question).

The subpopulations are 1) children <18 years, 2) adults 18-<65 years, 3) older adults 65+ years and 4) patients with diabetes (as defined by the SUPREME criteria).

RCT 3: Patient will either be randomized to receive a flu R/R message via the portal plus the added capability of direct appointment scheduling versus only receiving a flu R/R message without direct scheduling abilities (comparison group)

RCT 4: Patient will either be randomized to receive a flu R/R message via the portal that is linked to their EHR for message customization versus only receiving the standard flu R/R message via the portal without EHR

message customization (comparison group).

Only one RCT will be performed per year, with the 4 RCTs to be conducted over the course of four consecutive years.

Number of Subjects
There are approx n = 385,000 patients in the primary care registry (RCT#1) who are active/inactive portal users and affiliated with the primary care practices of interest for this research, and will be randomized into either the control, 1, 2, or 3 reminder arms (for RCT #1).

Many patients are members of the same family. As such, the research team will assemble family units (using household address, primary telephone number, patient ID of the guarantor, and insurance member ID as the variables of commonality to create these family units). For RCT 1, for each family, 1 individual will be randomly selected as the index patient. Only index patients who are also active portal users and affiliated with a primary care practice (criteria explained below) will have their data analyzed as part of the primary analysis plan. Secondary analyses will involve all study subjects.

For RCT 2, there will be up to 480,000 primary care patients (approximately 430,000 from the ISS dataset and 50,000 MRN numbers from the IP dataset (diabetes patients)). For this RCT, more than one index patient will be allowed per family, but with only one index patient per subpopulation. For example, if a family includes two parents ages <65, one with and one without diabetes, as well as three children <18 years, one parent would serve as the index parent in the adult subpopulation, one would serve as the index patient in the diabetes subpopulation, and one of the three children would be randomly selected to serve as the index patient for the <18 year subpopulation.

Gender and age: We anticipate the gender distribution to be roughly equal. All ages of patients will be included in the study; however, patient will not receive a message until they are 6 months of age, as the flu vaccine is not recommended for those less than 6 months of age.

Racial and ethnic origin: There are no enrollment restrictions based on race/ethnicity.

Inclusion criteria
A patient at one of the clinics of interest within the UCLA Health System (up to 55 practices). An individual is deemed a primary care patient of the UCLA Health System through the following algorithm:

Assigned managed care patients (UCLAMG) +
Attributed patients from other payers/ACOs
 ≥2 PCP visits in the past 3 years; or
 ≥1 PCP visit with preventive service code in past 1 year (99381-99397 or G0438/G0439)
 All visits cannot be urgent care visits (ie excludes visits after hours or on weekends, not by urgent care codes since UCLA does not bill accordingly)

Active patient: We decided to use the algorithm outlined above and currently approved and in place by the UCLA Health System as the research team believes it to be a generalizable model that could be applied to other health systems.

For RCT 2's diabetes subpopulation, individuals must 1) meet the criteria for being considered a primary care patient of the UCLA health system and 2) be listed in the IP data (MRNs) provided by the CTSI as meeting the SUPREME criteria for diabetes.

Exclusion criteria
Patients will be excluded from the overall study if they are not part of UCLA's primary care registry per the above algorithm detailed in the inclusion criteria.

Creating family units
An overall address field will be constructed from the data pull including the address, city, state, and zip code fields. Primary telephone number, patient ID of the guarantor and insurance member ID will be used as other variables in the process to create the family units. The following steps taken to create these family units in RCT 1 is described below:

1. Start with a single entry in the contact data pull
2. Add any other entries with the same patient ID as any existing entry to the family
3. Add any other entries with the same address as any existing entry to the family
4. Add any other entries with the same primary phone as any existing entry to the family
5. Add any other entries with a patient ID matching the patient ID of guarantor as any existing entry to the family
6. Add any other entries with the same insurance member ID as any existing entry to the family
7. Repeat steps 2-6 until no new matches are found - this forms a single family

8. Repeat steps 1-7 on the remaining entries to build each additional family until all entries have been associated with a family.

Please note - when there were errors with the address and telephone number, these variables were not used to group families (ex. instances with 20+ entries with the same data for telephone number).
For RCT 2, the same process will be used for grouping families, however, MRN of the guarantor and contact information for the guarantor, as well as Patient ID, Patient MRN and contact information of the emergency contact will be added to enhance our ability to identify possible family units.

Definition of active portal user:
We can only send portal R/R messages to patients who have signed up for the portal. Since some patients sign up for the portal but never use it, we define an active portal user as a patient (or proxy on behalf of the patient) who has used the portal within 12m (~59% of UCLA patients), and who has logged in 1 or more times in the past 12 months (reference date for login activity will be selected by the research team and then working backwards by 365 days, example of a range 8/1/17 - 7/31/18 for RCT #1 excluding their initial activation login and any subsequent logins on the same date of account activation.]

RCT #1: Selection of index patient from each family unit
1. If the family contains any active portal user per our definition above, the index patient is randomly selected from among these patients.
2. If the family contains no active portal users, the index patient is randomly selected from all patients in the family.

RCT #1: Selection of the index patient for primary analysis:
1. An active portal user per the definition above
2. The patient is affiliated with one of the primary care clinics of interest
3. The patient was randomly selected as the index patient in their family unit
We will assess primary intervention effects among eligible index patients, and secondary analyses for the entire primary care registry since the impact of the intervention reflects the extent of portal penetration and high correlation that exists among members of the same family (n=385,000 patients in RCT #1; up to 480,000 patients for RCT #2,(ISS-generated data extraction: of 430,000; IP-generated data extraction of approximately 50,000 (MRNS only).

For RCT #2, since we have multiple subgroup populations, a single index member per family per age and diabetes subgroup (if applicable) will be selected for inclusion in the study. Only active users affiliated with a UCLA primary care practice will be included in the study sample.

METHODS AND STUDY PROCEDURES

The UCLA Health System is made up in part of approx 55 primary care practices. The leadership team at UCLA Health has agreed to allow these practices to participate in the 4 RCTs outlined below.

Among the primary care practices (up to n= 55), patients who meet the inclusion criteria (outlined above and in section 11.1 item 4.0) will be randomized into the study arms. Below is a detailed outline of each of the four RCTs and the interventional components.

RCT 1 (conducted 2018)
We propose a randomized trial, where patients are randomized within practices to 0, 1, 2 or 3 R/R messages sent via the portal on a 1:1:1:1 basis. Our prior studies showed the effects of influenza R/R can vary by patient and practice factors (i.e. age, race, practice type). We will select 1 adult or 1 child per household to be the index patient for randomization since family members can affect each other’s receipt of vaccine.

Inclusion criteria: Outlined above.

Eligibility for R/R: Our EHR will identify subjects who are eligible for either 1 or 2 influenza vaccinations based on ACIP algorithms (2 are recommended for children <9 years who have not had a prior flu vaccination).

Spacing of R/R messages: Based on our prior studies, we plan to send up to 3 R/R messages, spaced every 3-4 weeks, beginning in October; Aim 1 findings may modify plans.

Languages: R/R messages will be in English. Portal messages in Spanish will not be available during RCT 1 due to technological capabilities.

Health Literacy: We will use plain language <8th grade reading level per Flesch-Kincaid analysis.

In Aim 1 we will adapt messages with input from key stakeholders (see IRB submissions titled: Patient Portal - Patient Qualitative Interviews and Patient- Portal Provider Qualitative Interview for full outline of protocol). Our

message content will be rooted in decades of work by vaccine communication expertise and rooted in the Health Beliefs Model (see file named: Health Belief Model for multiple examples of the content that will be adapted for the message). The content of the R/R message will be the same for each reminder that is sent.

Please see item 1.0 for the language to be used in the messages. Please note, the file titled RCT #1 Reminders is the language used in the first two reminders (sent in October and November 2018), and the file titled RCT #1 Reminders_December is the language for the third and final reminder to be sent in December 2018 for RCT #1.

Website link: the research team is working with UCLA marketing department to develop a new flu educational webpage. This webpage is currently under-development, but we will embed short health educational videos (examples below) on the UCLA website specific for this project:

https://www.youtube.com/watch?v=EstDvA-mr5A

https://www.youtube.com/watch?v=QTjchoH1KYM

The purpose of this website is to determine what subject areas of vaccine education (i.e. safety, effectiveness, general info) that patients are most interested in. All content will be approved by UCLA's marketing dept.

RCT 2
Randomization: We plan to conduct a 3 x 2 factorial RCT (effectiveness trial). We will conduct a within practice randomization strategy where patients will receive either a positively-framed message reminding patients to get the influenza vaccine (emphasizing the benefits of getting vaccinated) versus a negatively-framed message reminding patients to get the influenza vaccine (emphasizing the negative consequences of not getting vaccinated) versus control (no message).

Inclusion criteria: We will have the same inclusion criteria as described above for RCT #1. However, the diabetes patients will be a subset of the primary care patient population who meet the SUPREME criteria for diabetes (the MRNs of patients meeting these criteria will be provided in the IP dataset developed by the CTSI).

R/R Message Content: We will possibly use up to 4 R/R reminders tailored to four subpopulations among the primary care patients identified, based on age group and diabetes status. These include 1) less than 18 year olds (non-diabetic), 2) adults ages 18-<65 (non-diabetic), 3) adults ages 65+ years (non-diabetic)and 4) primary care patients ages 18+ who are diabetic.

Please see item 1.0 for examples of the messages to be used (title: RCT #2 Reminders_Child, RCT #2 Reminders_Adult RCT #2 Reminders_Older Adult, RCT #2 Reminders_Diabetic). Please note: no track change version of these reminders are available as these messages were newly created and the drafts submitted are the first version.

There are two components to RCT #2- 1) reminders and 2) pre-commitment question. The reminders that are positively-frame, reminders that are negatively framed or no reminders. Patients will be randomized using a 3x2 factorial allocation (no reminder v. positively-framed reminder v. negatively-framed reminder, and no pre-commitment question v. pre-commitment question).

Randomization: Families will be randomized using a 3x2 factorial allocation (no reminder v. positively-framed reminder v. negatively-framed reminder, and no pre-commitment question v. pre-commitment question).Family members will be divided into 4 non-overlapping cohorts (age <18, 18-64 non-diabetic, 65+ non-diabetic, and 18+ diabetic), and a single index member per family per cohort will be selected for inclusion in the study. Only active users affiliated with a UCLA primary care practice will be included in the study sample. Individual patients that are not connected to other family members will serve as the index patient.

RCT 3
Randomization: We plan a 2-arm, pragmatic comparative effectiveness trial without a standard-of-care control group, again clustering by practice. We will randomize patients within practices to (Arm 1) portal R/R + direct appt. scheduling versus (Arm 2) portal R/R without direct appt. scheduling. We will capitalize on findings from RCT #1 about the optimal # R/R's, and content of messages to guide the intervention and enhance the portal R/R's. We again will select 1 individual per household and perform balancing stratification as in Aim #1 to balance age and race/ethnicity groups. We will use the same UCLA-based 1° care practices (up to n = 55).

Design Components of the Portal R/R Intervention: Inclusion Criteria, eligibility for R/R, and spacing of R/R messages: We have the same inclusion criteria as described for RCT #1.

We may modify the spacing of R/R messages and message components based on the quantitative and qualitative analyses (IRB submissions titled: Patient Portal - Patient Qualitative Interviews and Patient- Portal Provider Qualitative Interview) after RCT #1. Since each influenza vaccination season is a new opportunity for vaccination, we will include patients who were selected and randomized in RCT #1 and 2; we will adjust for prior

vaccination in the analyses.

R/R Message Content: The content of each R/R message will be the same for each study arm. As discussed above we may modify the R/R message content slightly based the results of the prior RCTs and the qualitative interviews to follow. The number of R/R's sent will be based upon the optimal number from Aim 1 and will be identical for both study arms.

(Arm 1) Intervention Arm for RCT #3 (Portal R/R + Direct Appointment Scheduling): We will add a direct appointment scheduling option to this study arm to test the added value in raising influenza vaccination rates. The UCLA patient portal already has the capability to allow patients to directly schedule an appointment with their physician, although presently this has been implemented for only a few primary care practices. However, scheduling for flu vaccine visits would require additional programming and algorithms. As part of this study, we will create "flu vaccine" appointment slots for every practice to accommodate direct scheduling of appointments for flu vaccines. The days and times of these slots (during hours/after hours) will vary by practice, depending on practice capabilities, resources, and preferences. Patients will receive the portal message similar to RCT #1. In the intervention arm, the message will also contain a link to enable patients to directly schedule an appointment for a nurse flu vaccine visit at a day and time that is convenient for the patient and is available.

(Arm 2) Comparison (Portal R/R alone): For this study arm, we will send portal R/R messages but will not include a link in the message to the patient direct appointment scheduling module.

Please see item 1.0 for examples of the messages to be used (title: RCT #3 Reminders). Example message for Arm 2 same as that used in RCT #1.

RCT 4
Randomization and Design Components: We plan a 2-arm, pragmatic comparative effectiveness trial. We will randomize patients within practices to (Arm 1) portal R/R + EHR linkage/customization vs. (Arm 2) portal R/R without EHR linkage/customization. For both arms, we will adopt the optimal # R/R's from RCT #1, and use patient direct appointment scheduling from RCT #3 if it was more effective than portal R/R without that design feature, at a low cost.
Inclusion criteria and balancing stratification will parallel the prior RCTs. We plan to use the same UCLA-based primary care practices as were used in the prior RCTs; no practices will be excluded. As above, we may make minor changes to message content or algorithms based upon the results of RCTs 1-3.

(Arm 1) Intervention (Portal R/R + EHR Linkage): Current Epic-based portals do not link with EHR data such as patient age, primary language, or presence of a chronic condition. Based upon data from the literature, we will write algorithms to identify patients who are at high-risk for influenza disease—e.g., elderly, infants, chronic disease (e.g., child asthma, adult COPD or heart/lung disease), or immunocompromised. We will also identify those at risk for low health literacy (e.g., primary language other than English) given limited data in the EHR. Also, UCLA may soon implement a health literacy EHR screen. We will classify patients as low or high risk, and customize portal R/R messages to address risks (see file: portal RR EHR Linkage in item 1.0 of this section). Messages for both intervention groups will share the same core message. For Arm 1 (EHR linkage) we will add customized information based on the EHR data on age and chronic disease, and perhaps based on health literacy levels.

(Arm 1), Intervention group: Please see item 1.0 for an example message (title: RCT #4 Reminders)

(Arm 2), Comparison, (Portal R/R): We will send portal R/R messages without EHR-based customization.

Example message for Arm 2 same as that used in RCT 1.

Toolkit Development (Aim 3)

Toolkit and Adoption Guide: In the final year we will develop an online toolkit and adoption guide for portal-based R/R, with a manual of operations for algorithms, messages, data management protocols and costs for start-up and maintenance. Guides will contain FAQs and common scenarios, references, websites, and other materials for health systems to personalize portal R/R. We will use diffusion of innovation methods guided by our National Advisory Board. The toolkit and guide will be adaptable for pandemic flu vaccination R/R.

Please note, should the language included in any of the messages outlines for RCT 1 - RCT 4 change, and amendment will be submitted.

MEASURES

After each RCT, qualitative provider and patient interviews will be conducted. Those procedures and measures are outlined in IRB submissions titled: Patient Portal - Patient Qualitative Interviews and Patient- Portal Provider Qualitative Interview.

RCT 1
Independent Variables: The key variable is study group (portal R/R vs control).
Treatment Variables: Exposure to: (a) any portal R/R messages or (b) 1, 2 or 3 R/R's; see Analysis for RCT 1.

Covariates: Covariates considered for analyses (found in studies to affect flu vaccine rates) include: Practice variables will include type- (ex. pediatric, internal medicine, geriatric, or Med-Peds, and family medicine).

Patient variables will include - age (6m-17y, 18-64y, 65+y), race/ethnicity, gender, primary language (by EHR), degree of portal use, and receipt of influenza vaccination in prior years. We recognize few UCLA patients have Medicaid; we will focus on low-income groups in the dissemination phase (Aim 3).

Dependent Measures
Vaccine Outcome: The primary outcome is influenza vaccination during the vaccination season as measured by analysis of EHR data. For children <9y who had not received prior influenza vaccination, the outcome will be at least 1 influenza vaccination.

Process Outcomes: These will include: (a) total # visits to the practice during the study time period, (b) # flu-vaccine or nurse visits, and (c) missed opportunities. Visits will be measured by the EHR; using ICD-10/CPT codes to classify visits to primary care as preventive, acute/chronic, or nurse-vaccination. Missed opportunities are defined as # vaccine-eligible visits during which the patient did not receive an influenza vaccination. These process metrics will help assess how the intervention worked.

Additional Measures: see file: Summary of outcome measures RCT 1 which shows additional measures, grounded in the RE-AIM framework. Found in item 1.0 of this section.

Costs: Since the intervention is implemented centrally we assume no added practice costs. We also assume practice costs/vaccination from portal R/R is identical to standard practice costs/vaccination. We will assess the time and costs of study and implementation personnel and non-personnel costs, distinguishing planning costs from intervention costs. We will measure costs using a standardized time study/resource survey sent weekly to all individuals working on the study that delineates (a) the # hours spent for each individual, and (b) research vs implementation time. We will use national salary estimates by work code from the Bureau of Labor Statistics to value personnel time in standard rates. We will measure non-personnel costs EHR hardware, software, materials.

RCT 2
Measures: the key independent variables are the message arm (positively-framed message vs. negatively-framed message versus control) and pre-commitment question arm (to receive a pre-commitment question or no pre-commitment question) resulting in 4 non-overlapping cohorts (age <18, 18-64 non-diabetic, 65+ non-diabetic, and 18+ diabetic). All other measures will be the same as for RCT 1.

RCT 3
Measures: The key independent variable is study arm (portal R/R + direct appt. scheduling vs. portal R/R alone). All other measures will be the same as for RCT #1.

RCT 4
Measures: The key independent variable will be study arm (portal R/R + EHR-based customization) vs. portal R/R alone. All other measures will be the same as for RCTs #1-3.

Cost and Cost Effectiveness
Costs: We will assume that the actual per-dose vaccination costs (administration costs, vaccine costs, storage, etc.) are identical for intervention and comparison patients and equal to the average national reimbursement for an influenza vaccine dose. The difference in total costs between the study arms will be influenced by the total costs of implementing the intervention, the difference in vaccination rates within study arms, and the subsequent health care utilization by the population (which we can model from prior studies)

Effectiveness: For each RCT we will estimate effectiveness using model-based, standardized expected values (mean) at the end of each RCT. We will calculate incremental cost-effectiveness ratios (ICERs) for each intervention arm.

For example, to compare costs in RCT #1 for Arm 3 R/R's vs Arm 2 R/R's, the ICER is: ICER (Arms 3 R/R vs 2 R/R) = (costArm 3 R/R – costArm 2 R/R) / (Flu vaccine rateArm 3 R/R – Flu vaccine rateArm 2 R/R)

In the numerator of the above equation, the costArm X is equal to [(# Flu vaccine doses given per study arm x average national vaccine reimbursement per dose) + average costs per patient in that Arm]. The denominator of the equation is the difference in model-based, standardized expected values at the end of the intervention.

4.1 * **Will you be providing results of any experimental tests that are performed for the study?**

- ○ Yes - Complete Items 4.1.1 and 4.1.2
- ○ No
- ◉ **Not Applicable**

4.1.1 **You indicated in Item 4.1 that the research involves experimental tests. Please describe the tests, provide a rationale for providing participants with the experimental test results and explain what, how and by whom participants and their health care provider will be told about the meaning, reliability, and applicability of the test results for health care decisions.**

4.1.2 **Will tests be performed by a Clinical Laboratory Improvement Amendments (CLIA) approved lab?**

○ Yes ○ No

5.0 ***Indicate how much time will be required of the subjects, per visit or contact, and in total for the study.**

RCT 1: Participants will receive up to 3 R/R messages via the patient portal. It will take < 30 seconds to read the message in it's entirety. The maximum amount time required for subjects in RCT 1 is 1 minute and 30 seconds.

The time required for RCT 2, 3 and 4 is estimated to be slightly longer. RCT 2 will include a pre-commitment question in addition to the reminders. RCT 3 allows for an added component of some participants being able to schedule their own flu vaccine only appointment. The maximum estimated amount of time to be involved in RCT 3 would be up to 5 minutes (1.5 minutes for reading 3 messages and 3.5 minutes involved with scheduling an appointment).

The maximum time for RCT 2 and RCT 4 would be up to 2 and one half minutes (reading and responding to the pre-commitment question(RCT #2) and up to 4 R/R messages with tailored messages).

6.0 ***Statistics and Data Analysis: Describe the proposed statistical procedures or descriptive analyses for the study. If applicable, indicate how the sample size was determined.**

RCT 1
Analytic Plan: The primary outcome is receipt of influenza vaccine among eligible index patients comparing the effectiveness of 1, 2, or 3 MyChart flu reminders to zero MyChart flu reminders.

Secondary measures are receipt of influenza vaccine among all identified patients in the primary care registry (per the algorithm outlined above in the inclusion criteria), process metrics, # subsequent preventive visits, and costs.

Power Analysis: Power was evaluated using a simulation study. We assumed a within-practice randomization plan, and expect at minimum the sample sizes reported in Table 3 (n=145,684). We further assumed, based on preliminary UCLA Health data, that influenza vaccination rates are 42% among portal users without receipt of any portal-based R/R, and 45%, 47% and 49% among users in the 1, 2, and 3 R/R arms. We estimate 1,248 portal user families per practice (we will select 1 subject per family), based on our estimated mean family size of 2.38 portal users per family, and up to 55 practices.

Adjusting for clustering of patients in practices, and assuming an intraclass correlation (ICC) of 1% (consistent with previous work), this sample size provides >90% power to detect an overall difference of 5 percentage points between portal-based R/R (combining 1, 2, + 3 R/R arms) and 0 R/R arm for all users and subgroups of interest (age and race/ethnicity). The power for the subgroups corresponds to evaluating the treatment effect within each subgroup. These power analyses represent conservative estimates based on the available patient sample—we expect larger effect sizes based upon our prior R/R studies. An estimated number of index subjects is 1,248 x 55

= 68,640.

Hyp. 2a.1: Patients receiving 1, 2, or 3 portal R/R will have higher influenza vaccination rates than 0 R/R. Primary outcomes (patient receipt of flu vaccine) are binary; our main explanatory variable will be an indicator for the receipt of any portal-based R/R. We will employ intent-to-treat analyses using mixed effects logistic regression models with practice random effects, an approach recommended for RCTs in which the goal is to estimate the causal effects of interventions on individuals, adjusted for patient correlation within practice. In addition to the treatment variable, the covariates in the model will include patient age (6m-17y, 18-64y, 65+y), race/ethnicity, gender, primary language, degree of portal use, flu vaccination in prior year, and practice type (internal medicine, family medicine, pediatric). This method performs well in situations where the number of observations per cluster is large and for unequal cluster sizes. Hypothesis tests will be two-sided and a p value < 0.05 will be considered statistically significant. We will use SAS v9.4 (SAS Institute Inc., Cary, NC).

Hyp 2a.2: More R/R messages will incrementally increase vaccine rates (3 R/R > 2 R/R > 1 R/R > 0 R/R): As above, we will use mixed effects logistic regression models. The major difference for these analyses is that we will test for pairwise differences between consecutive study arms. With linear contrasts we can determine if each additional R/R increases vaccination rates. Bonferroni corrections will be applied to account for multiple comparisons. The expected sample size provides >90% power to conservatively detect an OR of 1.13 between consecutive study arms (corresponding to a 3% increase in vaccination rates from the baseline rate of 42%).

Subgroup analysis: We will test Hyp. 2a.1 and 2a.2 stratifying by age (6m-17y, 18-64y, 65+y) and race/ethnicity (Hispanic, NH Black, NH Asian, NH White). We will apply Bonferroni corrections to account for multiple comparisons.

Process measures: Because other process measures (# visits, # vaccination or nurse visits, and # missed opportunities) are count outcomes, we will use negative binomial mixed effects models to compare incidence rates between arms, controlling for the patient and practice covariates mentioned above.

RCT 2
Analysis: The primary outcome will be the patient's end of flu season vaccination status. Intervention effects will be assessed using mixed effects log-binomial models. Models will contain terms for reminder arm (no reminder, positively-framed reminder, negatively-framed reminder), pre-commitment arm (no pre-commitment question, pre-commitment question), and the interaction of these terms. Models will adjust for patient characteristics, including age, sex, race/ethnicity, primary language, primary insurer, and prior year vaccination status. Practice random effects will be used to account for clustering of patients by primary care practice. Assessment of Hyp 1 will involve performing an overall F-test for the main effect of reminder arm, followed by pairwise comparisons of arms if the overall test is significant. Assessment of Hyp 2 will involve testing the main effect of pre-commitment arm. An exploratory analysis will be performed to assess interaction effects. Intervention effects will be summarized in terms of risk ratios and 95% confidence intervals. A 4-fold Bonferroni correction will be performed to account for the three pairwise comparisons of reminder arms, as well as the assessment of the pre-commitment question, providing for an overall significance level of 0.05. The secondary outcome will be number of missed opportunities during the flu season. This will be analyzed similarly to the primary outcome, but using a negative binomial regression model in place of the log-binomial model. The analysis will be performed separately in each of the patient cohorts (age <18, 18-64 non-diabetic, 65+ non-diabetic, and 18+ diabetic).

Power: For conservatism, power was evaluated for the pediatrics cohort, which is expected to be the smallest of the cohorts (N ~= 27,000, allocating 4,500 patients to each of the 6 arms). The planned design provides 80% power to detect a 2.5 percentage point difference between pairs of reminder arms, and 80% power to detect a 2.0 percentage point difference between the pre-commitment arms. This conservative assumes a control arm vaccination rate of 50% (for maximum variability), and an alpha of 0.0125 (4-fold Bonferroni correction for an overall alpha of 0.05).

RCT 3
Analytic Plan: The primary outcome is receipt of influenza vaccine by eligible patients comparing the effectiveness of portal-based R/R + direct appointment scheduling group vs. the portal-based R/R-only group.

Hyp. 3c: Patients receiving portal-based R/R + direct appointment scheduling will have higher influenza vaccination rates than portal-based R/R only. We will use the assumptions as stated above for Aim 2b and estimate >90% power to detect an 3% points difference between the two intervention arms. To test Hyp. 2c we will use the analytic plan as described above for Aim 2b. .

RCT 4
Analytic Plan, Power, and Analysis: The primary outcome is receipt of influenza vaccine by eligible patients comparing the effectiveness of the portal-based R/R + EHR customization vs. the portal-based R/R only group. We use the same assumptions as for Aim 2b, and again estimate >90% power to detect an overall difference of 3 percentage points between the portal-based R/R + EHR customization versus portal R/R alone.

To test Hyp. 2d: (Adding EHR customization will raise rates over portal R/R messages alone) we plan an identical analytic approach to Aim 2b above.

Cost Effectiveness
Hyp. 2e: Costs per additional vaccination are low, regardless of # R/R's or design features (e.g., EHR link).

Cost analyses: These will follow accepted guidelines for cost estimation in conjunction with RCTs and as we have done in previous trials. Cost effectiveness models will compare marginal costs of vaccines received using a health system perspective. The use of a societal perspective is standard but requires that all costs and benefits accruing to any member of society be included in the analysis, and prior studies have demonstrated cost-effectiveness (and often cost-savings) for flu vaccination. However, sustainability of programs is often dependent on demonstrating cost-effectiveness from the health system perspective.
Comparisons to other R/R Modalities: Higher vaccination rates and lower costs for portal-based R/R will be interpreted as a dominant public health intervention. If portal-based R/R and previously published practice-based or centralized letter/telephone R/R are shown to have equipoise then we will conduct a cost minimization analysis, describing the relative cost burden from the health system and the practice or health system (portal-based) perspectives for portal-based R/R vs other modalities.

ID: IRB#17-001889 View: NEW 11.1 - Characteristics of the Study Population

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Characteristics of the Study Population

1.0 ***Is this an observational or ethnographic study for which the number of participants observed or interviewed cannot be determined in advance.**

○ Yes ◉ **No**

2.0 **If you answered "no" to item 1.0, indicate the maximum number of study participants you hope to enroll:**
385,000 for RCT1, 480,000 for RCT2

3.0 **How many participants do you expect you will need to recruit, consent and/or screen to meet the target number above?**
385,000 for RCT1, 480,000 for RCT2

4.0 ***Indicate the specific inclusion criteria for enrollment of each of the groups of research participants in this study.**
If there are any inclusion criteria based on *gender, pregnancy/childbearing potential, race, ethnicity or language spoken*, explain the nature of and scientific rationale for the inclusions.
Inclusion criteria
A patient at one of the clinics of interest within the UCLA Health System (up to n = 55 practices). An individual is deemed a primary care patient of the UCLA Health System through the following algorithm:

Assigned managed care patients (UCLAMG) +
Attributed patients from other payers/ACOs
□ ≥2 PCP visits in the past 3 years; or
□ ≥1 PCP visit with preventive service code in past 1 year (99381-99397 or G0438/G0439)
□ All visits cannot be urgent care visits (ie excludes visits after hours or on weekends, not by urgent care codes since UCLA does not bill accordingly)

Active patient: We decided to use the algorithm currently approved and in place by the UCLA Health System as the research team believes it to be a generalizable model that could be applied to other health systems.

For RCT #2, once primary care patients have been identified using the inclusion criteria described above, the sample will be subdivided into 4 non-overlapping cohorts (age <18, 18-64 non-diabetic, 65+ non-diabetic, and 18+ diabetic), Messages will only be sent to children once they reach 6 months of age (influenza vaccination recommended for those ages 6 months and older). For the diabetes group, patients will be included if their MRN is in the IP dataset provided by the CTSI.

In terms of the rationale for inclusion, influenza vaccination is recommended to all individuals greater than 6 months of age and influenza rates are suboptimal across all age groups. Patients with diabetes are being included because influenza infection poses higher risks for diabetics, greatly increasing the likelihood of hospitalization and also frequently making blood sugar levels more challenging to control

5.0 ***Indicate the specific exclusion criteria for each of the groups of research participants in this study.**
If there are any exclusion criteria based on *gender, pregnancy/childbearing potential, race, ethnicity or language spoken*, explain the nature of and scientific rationale for the exclusions.
Exclusion criteria
Patients will be excluded from the overall study if they are not included in UCLA's primary care registry per the above algorithm detailed in the inclusion criteria. A patient will be excluded from receiving a tailored messages for the subset of primary care patients with diabetes if they are not in the IP dataset with MRN numbers of those meeting the SUPREME criteria.

6.0 ***How (chart review, additional tests/exams for study purposes, etc.), when and by whom will eligibility be determined?**
In order to identify the potential patients, we will conduct the steps outlined in the Inclusion Criteria to assemble the study sample prior to each of the 4 RCTs. The set inclusion criteria is to ensure that we enroll active patients of the UCLA Health System who seek care at one of the primary care clinics in the health system. For the subset of patients with diabetes, the Informatics Program (IP) of the CTSI will indicate which primary care patients meet the SUPREME criteria (by provided the MRNs).

Randomization techniques will be conducted by the research statistical team for each RCT. Further details on the sampling procedures can be found in section 18.3.

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Characteristics of Study Population

1.0 ***Indicate the age range of the study participants.**

Check all that apply:

- [x] **0 to 6 years**
- [x] **7 to 11 years**
- [x] **12 to 17 years**
- [ ] 17 or younger **in California** who can consent for themselves - see note below
- [ ] 17 or younger **outside California** who can consent for themselves - see note below
- [x] **18 years or older**

NOTE:

- For additional information on minors **in California** who are permitted to consent for themselves please refer to the section "Legal Exceptions Permitting Certain Minors to Consent" in the OHRPP Guidance document, Child Assent and Permission by Parents or Guardians
- For additional information on minors **outside of California** who are permitted to consent for themselves please refer to the section "Exceptions Outside of California" in the OHRPP Guidance document, Child Assent and Permission by Parents or Guardians

2.0 ***Indicate if any of the following populations/specimens will be specifically recruited/obtained for the study.**

- [ ] Adults who are competent to give informed consent
- [ ] Adults unable to give informed consent
- [ ] Adults with diminished capacity to consent

- [ ] Fetal Tissue
- [ ] Neonates
- [ ] Participants Unable to Read, Speak, or understand English
- [ ] Pregnant Women/Fetuses
- [ ] Prisoners
- [ ] UCLA Faculty/Staff
- [ ] UCLA Students
- [ ] Wards
- [x] **Unknown/Not Applicable**

3.0 * **Is it possible that there may be non-English speakers enrolled in this study or children whose parents are non-English speaking?**

(•) **Yes** ( ) No

ID: IRB#17-001889 View: NEW 12.1 - Children (Minors)

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Children (Minors)

You indicated that children will participate in the study (Section 11.2/item 1.0). Please provide the following information.

1.0 ***Choose the description that is applicable to this study:**

- [x] **The research does not involve greater than minimal risk (45 CFR 46.404/21 CFR 50.51)**
- [ ] The research involves greater than minimal risk, but presents the prospect of direct benefit to individuals (45 CFR 46.405/21 CFR 50.52)
- [ ] The research involves greater than minimal risk and no prospect of direct benefit to individual subjects, but it likely to yield generalizable knowledge about the subject's disorder or condition (45 CFR 46.406/21 CFR 50.53)
- [ ] The research does not fall under any of the above categories, but presents an opportunity to understand, prevent, or alleviate a serious problem affecting the health or welfare of children. (note: after IRB review, studies in this category must be sent to the Secretary, HHS for a determination)(45 CFR 46.407/21 CFR 50.54)

2.0 **If you selected more than one description, indicate the groups of children involved in the study and the category for each group.**

3.0 ***Provide justification for involving Minors in this research (check all that apply).**

- [ ] The primary focus of the study is children and/or adolescents
- [ ] This is a study about a disease or condition that specifically affects children
- [x] **Other**

3.1 **If you checked "other," describe.**
Influenza vaccine is recommended for all individuals ages 6 months and older. Primary care practices within the UCLA Health System provide care to minors and influenza vaccination is an important tool for reducing the burden of vaccine-preventable illness. While all individuals are at risk of experience influenza, young children are at particularly high risk of complications from influenza infection; therefore, it is important to include this group in interventions that aim to increase influenza vaccination rates.

View: NEW 14.1 - Risks & Benefits

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Risks & Benefits

Benefits

1.0 ***Are there any potential direct benefits (physical, psychological, social or other) to study participants?**

(•) **Yes** ( ) No

1.1 **If yes, describe.**
The benefit is a reminder to receive a recommended vaccine that offers protection from influenza, which can be very serious and can require hospitalization or can lead to death in some cases.

2.0 ***Describe the potential benefits to society including the importance of the knowledge to be gained.**
The benefit to society would be a better understanding of effective R/R messages and modalities that could be scaled up nationally and disseminated to other health systems to increase influenza vaccination (improve individual and herd immunity). This is particularly important for the influenza vaccine as in today's current society many have decided to forgo essential and recommended vaccines for themselves and their children, thereby increasing their personal risk.

Risks

3.0 ***Indicate the potential risks/discomforts, if any, associated with each intervention or research procedure.**

Additionally discuss any measures that will be taken to minimize risks. If data are available, estimate (a) the probability that a given harm may occur, (b) its severity, and (c) its potential reversibility. The information provided should be reflected in risks section of the informed consent documents.

If this is an exempt study and there are no risks, indicate N/A. Otherwise, please see the help text.
The major risk is one of breach of privacy and confidentiality. We will maintain the strictest of procedures to prevent either of these problems as described above (i.e. staff training, maintaining strict confidentiality of data).

There is always a risk of complications with vaccination, but this study does not vaccinate patients per se -- rather, it reminds patients (or parents of eligible minors) to receive a recommended vaccine and patients should discuss the benefits and risk of influenza and vaccination with their healthcare provider.

Risk/Benefit Analysis

4.0 ***RISKS/BENEFIT ANALYSIS: Indicate how the *risks to the participants are reasonable in relation to anticipated benefits*, if any, to participants and the importance of the knowledge that may reasonably be expected to result from the study:**
The study does not represent more than minimal risk. The objective is to encourage patients to schedule a visit to see their primary health care provider and to make an appointment to receive a recommended vaccine. The vaccine is recommended by the Advisory Committee of Immunization Practices (ACIP) for all individuals over the age of 6 months and older on an annual basis. Therefore, indicating a patient is due for an influenza vaccination does not represent sensitive information. In addition, the message will only be delivered and accessible via the patient portal which is user name and password protected. The greatest risk is one of loss of confidentiality.

Alternatives

5.0

*Indicate the alternatives to participating in this study.

Check all that apply.

- [ ] All types of studies - Choose not to participate in the study
- [ ] Clinical/Intervention Studies - Receive standard of care instead of participating in the study
- [ ] Clinical/Intervention Studies - Medication, device, or other treatment is available off study
- [x] **Item is Not Applicable (e.g., study of existing data)**
- [ ] Other

5.1 **If "other" was selected, specify.**

5.2 **If this is a clinical/intervention study:**

Describe the standard of care or activities at UCLA (or study site) that are available to prospective participants who do not enroll in this study. If not applicable to your study, state not applicable (N/A).
N/A

ID: IRB#17-001889 View: NEW 15.1 - Data & Safety Monitoring Plan

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Data & Safety Monitoring Plan

1.0 ***Is a Data and Safety Monitoring Plan (DSMP) required by the funding agency or other entity?**

○ Yes ◉ **No**

ID: IRB#17-001889 View: NEW 15.2 - Data & Safety Monitoring Plan (continued)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Data & Safety Monitoring Plan (continued)

Important Note:
All interventional studies involving more than minimal risk must include a Data and Safety Monitoring Plan (DSMP). A DSMP is a plan established to assure that each research study has a mechanism for appropriate oversight and monitoring of the conduct of the study to ensure the safety of participants and the validity and integrity of the data. The DSMP should indicate specifically whether or not there will be a formal Data Safety Monitoring Board (DSMB) or Data Monitoring Committee (DMC).

Most, but not all studies (i.e., non-interventional studies) undergoing full board review will require a DSMP. You will need a DSMP if any of the following apply:
1. This is a Phase I, II or III clinical trial
2. This is an investigator initiated trial (Section 2.1/item 3.0)
3. This study involves treatment in an emergency setting (Section 2.3/item 1.0)
4. A Data/Safety Monitoring Plan is required by the funding agency (Section 15.1/item 1.0)
5. This study is greater than minimal risk (Section 1.1b/item 1.0)

1.0 ***Indicate who will be responsible for overseeing the study safety. Check all that apply.**

- [x] **The Principal Investigator**
- [ ] Designee of the Principal Investigator

- [ ] The DSMP includes at least one person who is not associated with the study
- [ ] A formally constituted Data and Safety Monitoring Board (DSMB)
- [ ] Medical monitor designated by the sponsor
- [ ] Other

1.1 **If you indicated that a designee would be responsible for overseeing the study safety, or that the DSMP would include at least one person not associated with the study, provide the name(s) of this individual (s). Also, provide a brief explanation of why this person(s) would be appropriate in this role(s).**

1.2 **If you indicated "other," describe or indicate where the information can be found in the attached protocol.**

2.0 ***Provide your assurance that information about serious, unanticipated problems related to the study (e.g., adverse events, incidents and violations) will be reported to the IRB within the time frames specified by the Summary Sheet of Reporting Requirements.**

Agree ☑

Provide the following information as appropriate to the study:

3.0 ***Are there plans to perform an interim safety analysis?**

○ Yes ◉ **No**

3.1 **If yes, describe or indicate where the information can be found in the attached protocol.**

4.0 ***Have stopping rules been established for the study?**

○ Yes ◉ **No**

4.1 **If yes, describe or indicate where the information can be found in the attached protocol.**

5.0 ***Are there defined rules for withdrawing participants from study interventions?**

○ Yes ◉ **No**

5.1 **If yes, describe or indicate where the information can be found in the attached protocol.**

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Payment, Costs, and Injury

1.0 ***Indicate what the participants will receive for their participation in the study.**

Check all that apply.

- [x] **No payment will be provided**
- [ ] University check
- [ ] Course Credit
- [ ] Cash
- [ ] Gift Cards/Bruincard Deposit
- [ ] Non-Monetary Gifts or Services
- [ ] Other (including vouchers for parking)

1.1 **If you selected Non-Monetary Gifts or Services or Other, describe:**

1.2 **If you selected *Cash* and/or *Gift Cards/Bruincard Deposit* please specify the estimated total amount of money you will require to pay all participants during the length of the entire study. This information is required by UCLA Business and Finance Services (BFS), the office that will provide the cash/gift cards for payment.**

2.0 **If study participants will receive financial or other payment for their participation in the study, please provide the following information:**

- If applicable, the amount each participant will receive and the payment schedule to be followed including whether partial payment will be provided when the participant does not complete the study.
- If there are different plans for different populations or sub-studies, specify the groups and describe the plans.
- If families or children will be involved in the research, clarify how the payments, items or services will be apportioned.

3.0 ***Will subjects** incur **any financial obligations from participation in the study?**

○ Yes ◉ **No**

3.1 **If yes, describe:**

4.0 ***Indicate below that you are familiar with UCLA policy related to treatment and compensation for injury and that you will use in the consent form for this study the appropriate UC required statement describing "Treatment and Compensation for Injury." Click here to access the UCLA policy: Treatment and Compensation for Research Related Injury.**

Note: Select **Not Applicable** if study is minimal risk.

- ○ Agree
- ◉ **Not Applicable**

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

HIPAA Authorization

According to your responses to section 9.2/item 1.0, this study uses protected health information. Please provide the following information.

1.0 ***Indicate all that apply to use of or disclosure of PHI in this study:**

- ☐ All UC participants will sign a UC HIPAA Research Authorization for Release of Personal Health Information for Research.
- ☐ **Another Institutions' Healthcare Authorization** for Release of Health Information will be used **or a waiver** for release of health information will be granted **from another Institution**.
- ☐ **A Waiver of HIPAA Research Authorization** is requested for **screening** using UC medical records. I assure that the PHI collected for this study will not be reused or disclosed, except as indicated in this application.
- ☑ **A Total Waiver of HIPAA Research Authorization is requested for the entire study. I assure that the PHI collected for this study from UC records will not be reused or disclosed, except as indicated in this application.**
- ☐ **Limited Data Set with a Data Use Agreement** will be obtained from UC medical records. I assure that I will follow the data security plan outlined in this application to protect the identifiers from improper use or disclosure.
- ☐ **None of the above. This study will be conducted outside the United States**

2.0 ***Indicate to whom or where you will grant access to personal identifying information (including PHI) as part of the study process:**

- ☑ **There is no plan to share identifiers outside the study team**
- ☐ The study sponsor; on site only (if there is more than one study sponsor, specify below).
- ☐ A foreign country or countries
- ☐ Other

2.1 **If you checked "other", "a foreign country or countries", or if "there is more than one sponsor", specify.**

3.0 ***The investigator's agreement is needed to the following:**

- The protected health information requested is the minimum necessary to meet the research objectives

- The protected health information that is obtained as part of this study will not be used or disclosed to any other person other than study personnel or to the parties listed in item Section 17.1/item 2, except as required by law.

- Study Sponsors will **not** be provided with personal identifying information (including PHI) to take from the study site at any time, including the end of the study.

- Data and specimens shared with outside entities, such as study sponsors, will be coded or de-identified.

Agree ☑

ID: IRB#17-001889 View: NEW 17.2 - HIPAA - Waiver of Authorization

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

HIPAA - Waiver of Authorization

According to your responses to Section 17.1/item 1, a waiver of authorization is requested. Please provide the following information.

In addition to the information that will be requested later in this application for a waiver of informed consent, HIPAA requires the following information for a waiver of authorization:

1.0 ***Indicate why the research could not be practicably conducted without access to and use of the**

protected health information.

Check all that apply.

- [x] **The PHI is needed to identify potential participants with a specific medical condition**
- [x] **It would not be feasible to individually contact the large numbers of potential subjects in the study**
- [ ] It would not be possible to locate many of the individuals whose records would be used for the study
- [ ] Many of the individuals, whose records would be used for the study, are now deceased
- [ ] Other

1.1 If you checked "other", specify.

ID: IRB#17-001889 View: NEW 18.1 - Identification/Recruitment Methods

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Identification/Recruitment Methods

1.0 ***How will you identify and/or recruit participants for this study.**

Check all that apply:

- [ ] Advertisements/Flyers/Information Sheet/Internet Postings
- [ ] Direct recruitment of potential study participants (e.g., physicians talking with their own or clinic patients about the study, contact between the study team and potential subjects in person, on the phone or on the internet, etc.)
- [x] **Random or Other Probability Sampling**
- [ ] Recruitment Letters/Emails
- [ ] Referrals (e.g., referrals from non-investigator healthcare providers, snowball sampling, participants referring other participants, etc.)
- [x] **Review of medical records to identify potential research participants**
- [ ] Review of publicly available records
- [x] **Review of other records**
- [ ] Participant pool for which potential research participants have given permission for future contact
- [ ] Potential Study Participants are identified from another IRB approved study or IRB approved screening protocol
- [ ] Other

ID: IRB#17-001889 View: NEW 18.3 - Identification Methods

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Identification Methods

Random or Other Probability Sampling

1.0 If you have indicated that probability sampling will be used to identify potential study participants (Section 18.1/Item 1.0), please indicate the specific technique(s) and how it will be used in this study.

Enrollment for all 4 RCTs will be done by selecting eligible patients who are part of the primary care registry, and who seek care at one of the primary care practices of interest and randomly allocating them to one of the study arms.

Family units will be built from the individuals in the primary care registry (exact steps have been outlined previously in this application). From the family units, the statisticians will randomly select 1 index patient per family unit in RCT #1 in the following ways:

1. If the family contains any active portal user (per our definition outlined earlier in this application), the index patients are selected from among those patients
2. If the family contains no active portal users, the index patient is randomly selected from all patients in the family.

For RCT 2, more than one index patient may be selected. One index patient per subpopulation (defined by age or by diabetes status) will be selected (if applicable).

Index patients will be stratified by affiliated practice and actives/inactive portal status. The index patient/patients (for RCT 2, there may be multiple index patients), along with all members of that household, will be randomized the same arm, of either the intervention or comparison arms for each RCT (RCT 1: 4-arm trial, RCT 2: 3x2 factorial design; RCT 3 and 4, each a 2-arm trial).

Review of Publicly Available Records

2.0 If you have indicated that publicly available records will be used to identify potential participants for the study (Section 18.1/item 1.0), please indicate the type(s) of records to be used.

Review of Other Records

3.0 If you have indicated that other records will be used to identify potential study participants (Section 18.1/item 1.0), please indicate the type(s) of records to be used.

The study team will receive data from UCLA's CareConnect team regarding the number of logins to the patient portal/MyChart done by either the patient, or their designated proxy within the last 365 days (from a reference date selected by the research team). This data is a key part of the study to determine which patients are considered to be active MyChart/portal users (per the study definition) or not, and if there exists a difference between the groups in receipt of flu vaccine.

3.1 If applicable, indicate the permissions that you have received to review the records.

Another IRB Approved Study or Screening Protocol

4.0 If you have indicated that potential subjects are identified from another study or from a screening protocol (Section 18.1/item 1.0), please provide the IRB# for the study.

4.1 If you do not have the IRB#, please provide the title of the study.

Identification/Recruitment - Other

5.0 If you have indicated that "other" ways will be used to identify or recruit study participants (Section 18.1/item 1.0), please describe.

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Review of Medical Records

1.0 *You have indicated that potential research participants will be identified from medical records (Section 18.1/item 1). Indicate the specific records to be reviewed and the information that will be obtained to identify potential participants for this study.

A patient at one of the clinics of interest within the UCLA Health System (up to n =55). An individual is deemed a primary care patient of the UCLA Health System through the following algorithm:

Assigned managed care patients (UCLAMG) +
Attributed patients from other payers/ACOs
 ≥2 PCP visits in the past 3 years; or
 ≥1 PCP visit with preventive service code in past 1 year
 All visits cannot be urgent care visits (ie excludes visits after hours or on weekends, not by urgent care codes since UCLA does not bill accordingly)

Review of medical records is needed in order to obtain the information about visit data/codes, a patient's membership in managed care or the ACO. Data will be obtained through the oversight of UCLA's CareConnect team (ISS data) to determine possibly participant eligibility and inclusion in the study sample for RCT1. For RCT 2, data will again be obtained through the CareConnect team for the ISS data. The CTSI Informatics Program (IP) will provide a patient list (MRNs) of diabetes patients meeting SUPREME criteria. These patients will have active MyChart accounts and DOMSTAT (the statistician, Sitaram Vangala) will determine which of these patients were seen in the FPG primary care clinics (patient cohort as identified by the ISS data) and only the FPG patients will be contacted for the intervention.

To determine if a patient is due for the flu vaccine:
We will review the UCLA Health System database regularly throughout the influenza season (over the course of 4 consecutive flu seasons for each RCT) to determine who is eligible to receive an influenza vaccination (i.e. not up to date for current year's influenza vaccine). Reminders will be sent to patients whose records within the UCLA Health System indicate that they have not yet received their annual influenza vaccine.

1.1 If you have a data sheet summarizing the information that will be obtained from the records, you can upload it here instead of listing the information above.

Document Name	Document Version #
There are no items to display	

Federal and State Regulations require that the IRB review the information below to determine if a waiver of consent and authorization is appropriate for use of medical record information for recruitment purposes.

2.0 *Do you assure the following?

- The information that will be reviewed is the minimal necessary to identify potential research participants for this research.
- The information that will be obtained for identification of participants will not be reused or disclosed outside the research team, except as required by law.
- All study personnel will comply with HIPAA regulations.
- Review of the medical records will not result in greater than minimal risk by taking appropriate precautions to protect the confidentiality of the information.

Agree ☑

3.0 *Indicate why the potential study participants' rights and welfare would not be adversely affected by waiving consent to review their medical records.

Check all that apply.

- ☑ **Precautions will be taken on protect the confidentiality of the research participants**
- ☐ The information from the medical records will not be used in any way other than to identify potential research participants
- ☐ Other

3.1 If other, describe

4.0 *Indicate why the research could not practicably be carried out without a waiver of consent.

Check all that apply.

☑ **The identities of the potential study participants who would meet the criteria for this study would not be known without access to their medical records**

☐ Other

4.1 If other, specify

5.0 NON-UC INSTUTITION(S) / AGENCY(IES) HIPAA POLICIES AND PROCEDURES

If your research will involve access, use, or disclosure of PHI held by a non-UC institution/agency, please provide your assurances that you will comply with that (those) instutition(s)/agency(ies)' HIPAA policies and procedures.

Agree ☐

ID: IRB#17-001889 View: NEW 19.1 - Eligibility Screening

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Eligibility Screening

1.0 ***Will you be conducting a preliminary assessment with potential research participants to determine study eligibility during the recruitment process?**

○ Yes ◉ **No**

ID: IRB#17-001889 View: NEW 20.1 - Informed Consent Process

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Informed Consent Process

You indicated that adults (and/or minors who are permitted to consent for themselves) are participating in the study (Section 11.2/item 1.0 or Section 12.2/item 1.0).

For additional information on minors who are permitted to consent for themselves please refer to the section "Legal Exceptions Permitting Certain Minors to Consent" in the OHRPP Guidance document, Child Assent and Permission by Parents or Guardians.

1.0 ***Indicate your plans for obtaining informed consent for this study.**

Check all that apply:

☐ **Signed consent** will be obtained from the research participant or Legally Authorized Representative.

- Signed consent means research participants will be asked to **sign and date** a written consent form.

☐ **A waiver of signed consent is requested for the entire study.** One of the following procedures will be conducted:

- **A written information sheet will** be used. Signed consent will not be obtained from research participants.
- **Oral consent** will be obtained from the research participant or Legally Authorized Representative (LAR)
- This option should be selected if the study involves consenting participants via the internet.

☑ **A waiver of consent is being requested.**

- **Research participants will not be asked to sign a consent form or give oral consent**

☐ Consent will be obtained by a collaborating institution.

1.1 **- If you checked more than one plan above, list the study groups and the plan that you will use for each.**
- If you checked "Consent will be obtained by a collaborating institution", explain the consent process and upload a copy of the most recent approved consent document in item 1.2.

1.2 **If applicable, attach the consent document(s) from collaborating institution(s).**

Document Name	Document Version #
There are no items to display	

ID: IRB#17-001889 View: NEW 20.4 - Request to Waive Informed Consent for the Study

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Request to Waive Informed Consent for the Study

You indicated that you are requesting a waiver of consent (Section 20.1/item 1). The following information is needed.

1.0 ***Does this study pose more than minimal risk?**
○ Yes ◉ **No**

2.0 ***Would the participants' rights and welfare be adversely affected by waiving consent?**
○ Yes ◉ **No**

3.0 ***Explain why the research could not practicably be carried out without the waiver of consent.**

Check all that apply.

- ☑ **It would not be possible to contact all of the participants associated with the data or specimens to obtain consent**
- ☐ The design of the study does not allow the possibility of obtaining consent
- ☑ **The size of the potential study population is so large that it would not be feasible to obtain consent**
- ☑ **Requiring informed consent may introduce systematic bias into the data**
- ☐ The risk of contacting the participants is greater than the risk of the study procedures
- ☐ Other

3.1 **If you indicated that the study design does not allow the possibility of obtaining consent, or that requiring consent may introduce systematic bias or checked "other", provide any information that may assist the IRB to understand why obtaining consent would not be feasible.**
Requiring consent would introduce systematic bias into all 4 RCTs. If patients know these 4 studies will occur, it could influence their behavior in getting the flu vaccine prior to actual initiation of the study. Self selection prior to the study of who would opt in or out would also bias the results as those who opt in may be more health conscious. This would in turn bias the results and the research team would be limited in the types of generalizable conclusions to be made.

4.0 ***Would it be appropriate to provide participants with information about the study after their participation?**

Check all that apply.

- [ ] No, the data will not be stored with identifiers with which to contact the participants
- [ ] No, the information that is found will have no impact on treatment or care
- [ ] No, there is not a feasible mechanism by which to notify participants/respondents
- [x] **No, other**
- [ ] Yes
- [ ] **Not Applicable** - analysis of secondary data

4.1 **If you checked "no other," specify.**
It would be more appropriate to provide the information obtained from the four RCTs to health system administrators and providers. This will be taking place as part of Aim 3 of our submission.

4.2 **If you indicated "yes," indicate the information that would be provided and the mechanism.**

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Permission/Assent Process - Minors

You indicated that minors are participating in the study (Section 11.2/Item 1.0 or Section 11.2/Item 2.0). Please provide the following information.

1.0 ***Indicate your plans for obtaining assent and parental permission for this study.**

Check all that apply.

- [ ] Signed assent will be obtained from all minors
- [ ] Signed assent will be obtained for some minors
- [ ] Minors will receive an oral explanation of the study, a written information sheet, or both and will not be asked to sign an assent form.
- [ ] Signed permission will be obtained from the parent or guardian
- [ ] Request to waive assent for this study; parental permission will be obtained.
- [ ] Parents will receive an oral explanation of the study, written information sheet or both and will not be asked to sign a permission form.
- [ ] Request to waive parental permission for this study; assent will be obtained
- [x] **Request to waive both Parental Permission and Assent**
- [ ] Consent will be obtained by a collaborating institution.

1.1 **- If you will use different plans for obtaining assent and/or permission with different groups of participants, list the groups and plans here.**
- If you checked "Consent will be obtained by a collaborating institution", explain the consent process and upload a copy of the most recent approved consent document in Item 1.2.

1.2

Document Name	Document Version #
There are no items to display	

***Note**: If there is more than one group of minors participating in the study with varying degrees of risk, you may be presented with more than one screen requesting information on plans to obtain parental permission.*

ID: IRB#17-001889 View: NEW 21.2 - Request to Waive both Parental Permission and Assent for the Study

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Request to Waive both Parental Permission and Assent for the Study

You indicated that you are requesting a waiver of parental permission and assent (Section 21.1/item 1). The following information is needed.

1.0 ***Does this study pose more than minimal risk?**

○ Yes ◉ **No**

2.0 ***Would the participants' rights and welfare be adversely affected by waiving consent?**

○ Yes ◉ **No**

3.0 ***Explain why the research could not practicably be carried out without the waiver of consent.**

Check all that apply.

- ☑ **It would not be possible to contact all of the participants associated with the data or specimens to obtain consent**
- ☐ The design of the study does not allow the possibility of obtaining consent
- ☑ **The size of the potential study population is so large that it would not be feasible to obtain consent**
- ☑ **Requiring informed consent may introduce systematic bias into the data**
- ☐ The risk of contacting the participants is greater than the risk of the study procedures
- ☐ Other

3.1 **If you indicated that the study design does not allow the possibility of obtaining consent, that requiring consent may introduce systematic bias or checked "other", provide any information that may assist the IRB to understand why obtaining consent would not be feasible.**

Requiring parental permission and assent would introduce systematic bias into all 4 RCTs. If parents of patients <19 years of age know these 4 studies will occur, it could influence their behavior in getting the flu vaccine for their child prior to actual initiation of the study. Self selection prior to the study of who would opt in or out would also bias the results as those who may opt in could be more health conscious as compared to those who opt out. This would in turn bias the results and the research team would be limited in the types of generalizable conclusions to be made.

4.0 ***Would it be appropriate to provide participants with information about the study after their participation?**

Check all that apply.

- ☐ No, the data will not be stored with identifiers with which to contact the participants
- ☐ No, the information that is found will have no impact on treatment or care
- ☐ No, there is not a feasible mechanism by which to notify participants/respondents
- ☑ **No, other**

- [ ] Yes
- [ ] **Not Applicable** - analysis of secondary data

4.1 **If you checked "no, other", specify.**
It would be more appropriate to provide the information obtained from the four RCTs to health system administrators and providers. This will be taking place as part of Aim 3 of our submission.

4.2 **If you indicated "yes", indicate the information that would be provided and the mechanism.**

ID: IRB#17-001889 View: NEW 22.1 - Cultural Considerations

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Cultural Considerations

The following items are designed to acquaint the IRB with cultural features of the population that you are studying that may require procedures to ensure truly informed consent.

1.0 ***Check all that apply to the population(s) with which this study will be conducted.**

- [ ] Participants may be illiterate or insufficiently literate to be able to comprehend a conventional written informed consent form.
- [ ] The participants may be reluctant or unwilling to sign a written informed consent form.
- [ ] The husbands make decisions for their wives.
- [ ] Elders make decisions for younger adult family members.
- [ ] Elders make decisions for their community.
- [ ] It is considered impolite to refuse a request.
- [ ] People are fearful of refusing requests that they regard as coming from authorities.
- [x] **None of the above are applicable to this study.**

1.1 **If any of the above items are applicable to this study, indicate the steps that you will take to ensure voluntary participation after providing the study information, and if applicable, any planned involvement with the community regarding the consent process.**

ID: IRB#17-001889 View: NEW 22.2 - Non-English Speaking Study Participants

This view has been locked by amendment(s)

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Non-English Speaking Study Participants

You indicated that you would involve non-English speaking participants in the study (Section 11.2/Item 2.0) and/or that there is a possibility that non-English speaking participants may be enrolled in the study (Section 11.2/Item 3.0). Please provide the following information.

1.0

***Indicate the method that you use to conduct the consent process[1] with participants who do not speak English.**

Check all that apply.

- [x] **The consent form and other study documents will be available in the participants' primary language. Study personnel (or qualified translators) able to discuss the participation in the patients' language will be present for the consent process.**
- [ ] Study staff or qualified translators will discuss the study in the participants' language.
- [ ] An oral consent process will be used. Study personnel (or qualified translators) able to discuss the participation in the participants' language will be present for the consent process.
- [ ] The short form or another method will be used to conduct the consent process.

Important Note: The short form may be used in very limited circumstances. For additional information please refer to the " 'Short Form' Method" section of the OHRPP guidance document, Research Involving Non-English Speaking Research Participants.

1.1 If you checked "short form or another method", provide additional details.

2.0 ***How will you maintain the ability to communicate with non-English speakers throughout their participation in the study?**
Indicate "N/A" if not applicable to your study.
We are requesting a waiver of consent for the entire study so while there are no consent forms, the reminder recall messages will also be made available in Spanish when the portal technology has finished programming that capability.

As of now, no translated versions of the reminders are available as the programming of this translation functionality is still occurring on the technical side of the patient portal, but will be uploaded for approval prior to use. No Spanish versions will be available as the current technology available with the portal only allows for single language - English.

3.0 ***If you are conducting research for which there is a real or foreseeable risk of biomedical harm in the state of California, indicate your agreement that you will provide the participants who do not read, speak, or understand English a copy of the Research Participants Bill of Rights in a language in which they are fluent. Translations into the most common languages in the greater Los Angeles area are available for download on the OHRPP website.**

- ( ) Agree
- (•) **Not Applicable**

[1] *If minors are involved in the study, this would also include the processes of obtaining parental permission and assent, as applicable.*

Warning: Save your work at least every 15 minutes by clicking "Save" or "Continue."

Additional Information and/or Attachments

1.0 Attach any other documents that have not been specifically requested in previous items, but are needed for IRB Review.

Document Name	Document Version #
There are no items to display	

2.0 If there is any additional information that you want to communicate about this study, include it in the area provided. Note: this section should not be used instead of the standard application items.

Instructions for Study Submission

You have completed your application, **but it has *not yet been submitted*.**

FOLLOW THESE STEPS TO SUBMIT THE APPLICATION TO THE IRB FOR REVIEW:

1. Click the **Finish** button to return to exit the SmartForm and return to the study workspace.
2. Use the **View SmartForm Progress** function to make sure that the application is complete.
3. If you are the PI or PI Proxy, click **Submit Study** under **My Activities**. If you are a member of the study team, you can let the PI know that the study is ready to submit by clicking **Send Ready Notification.**
4. Once the study is submitted, the state indicator at the top of the page will no longer display **Pre-Submission.**
5. After submission of the study, the **PI Assurances** activity will immediately become available under **My Activities**. The PI should provide his/her assurances at that time. If the PI is not available, the study can be submitted by a PI Proxy and the assurances provided at a later time. The study will be reviewed by the IRB while the **PI Assurances** are pending; however, it will not be approved until the **PI assurances** are completed.
6. ***If there is a Faculty Sponsor for the study***: The study can not be submitted to the IRB until the Faculty Sponsor provides his/her assurances through **FS Assurances** activity.

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Audio, Visual or Digital Recordings

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Certificate of Confidentiality for research not supported by NIH

The Certificate of Confidentiality button in this section is only if your study is NOT supported or conducted by NIH but you will obtain a Certificate of Confidentiality (for example, for studies collecting information about illegal drug use).

If you previously checked this box for an NIH-supported study before the policy change, you do not need to change your response here.

Certificates of Confidentiality are issued by the National Institutes of Health (NIH) to protect the privacy of research subjects by protecting investigators and institutions from being compelled to release information that could be used to identify subjects with a research project. Certificates of Confidentiality are issued to institutions or universities where the research is conducted. They allow the investigator and others who have access to research records to refuse to disclose identifying information in any civil, criminal, administrative, legislative, or other proceeding, whether at the federal, state, or local level.

Effective October 1, 2017, NIH has updated its policy for issuing Certificates of Confidentiality for NIH-funded and conducted research. For information about the policy change or about obtaining Certificates for research supported by other agencies, please see https://humansubjects.nih.gov/coc/index.

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Clinical Trial of a Drug, Biologic, Device or a Behavioral Intervention

A clinical trial is a research study designed to answer specific questions about medical or behavioral treatments. The trial may be interventional or observational. Interventional studies are those in which the

research participants are assigned by the investigator to a treatment or other intervention, and the outcomes measured. Observational studies are those in which individuals are observed and the outcomes are measured by the investigators.

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

ID: IRB#17-001889 View: Display - Method Description

Community Based Research

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Controlled Substances (Schedule I or II)

Check here only if you are using a Schedule I or II Controlled substance in this study. Research using Schedule I or Schedule II controlled Substances must be submitted to the Research Advisory Panel of California for review and approval prior to initiation. Research using Schedule III, IV, or V Controlled Substances as a study drug do not require review by the Research Advisory Panel. For further information see: http://ag.ca.gov/research/guide.php o Schedule I Controlled Substances are drugs or substances with a high potential for abuse, that have no currently accepted medical use in treatment in the United States. Examples of Schedule I Controlled Substances are: heroin, lysergic acid diethylamide (LSD), methylenedioxy-methamphetamine (MDMA), marijuana, and psilocybin. o Schedule II Controlled Substances are drugs or substances with a high potential for abuse, that have a currently accepted medical use in treatment in the United States, or a currently accepted medical use with severe restrictions. Examples of Schedule II Controlled Substances are: fentanyl, methadone, methylphenidate, morphine, and oxycodone. For further information see: http://www.deadiversion.usdoj.gov/schedules/index.html

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Deception or Partial Disclosure

Deception includes withholding information about the real purpose of the study or purposely giving subjects false information about some aspect of the research to prevent bias. Some professions, such as the American Psychological Association (APA) have ethical codes regarding the use of deception in research. (See sections 8.07 and 8.08 at http://www.apa.org/ethics/code/index.aspx#807) If deception is included in the study, you must also apply for approval of a waiver of the informed consent process (Section 20.1) in addition to selecting the other consent procedures planned for the study (e.g., written or oral consent).

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Devices/Diagnostics (including Humanitarian Devices - HUD)

A medical device is defined, in part, as any health care product that does not achieve its primary intended purposes by chemical action or by being metabolized. Medical devices include, among other things, surgical lasers, wheelchairs, sutures, pacemakers, vascular grafts, intraocular lenses, and orthopedic pins. Medical devices also include diagnostic aids such as reagents and test kits for in vitro diagnosis (IVD) of disease and other medical conditions such as pregnancy. For further information see: http://www.fda.gov/oc/ohrt/irbs/irbreview.pdf

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Drugs/Biologics/Dietary Supplements

- Drug: The term "drug" means: articles recognized in the official United States Pharmacopoeia, official Homoeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and articles (other than food) intended to affect the structure or any function of the body of man or other animals.
- Biologics vs. Drugs: Most drugs consist of pure chemical substances and their structures are known. Most biologics, however, are complex mixtures that are not easily identified or characterized. Biological products differ from conventional drugs in that they tend to be heat-sensitive and susceptible to microbial contamination. This requires sterile processes to be applied from initial manufacturing steps. For more information see: http://www.fda.gov/consumer/updates/biologics062608.html#drugs
- Dietary Supplements are products that are intended to supplement the diet and have one of the following ingredients:
    - A vitamin
    - A mineral
    - An herb or other botanical
    - An amino acid
    - A dietary substance for use by man to supplement the diet by increasing the total daily intake
    - A concentrate, metabolite, constituents, or an extract of combinations of these ingredients.

For additional information see: http://www.foodsafety.gov/~dms/supplmnt.html

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Expanded Access to Drug, Device or Biologic for Treatment Purposes (aka Compassionate Use, Treatment Use)

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Genetic Analyses/Genotyping

Genetic analyses/genotyping include, but are not limited to, studies of inheritable conditions or traits, gene markers or mutations, and pedigrees.

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Human Embryonic Stem Cells and/or Induced Pluripotent Stem Cells

Research with human embryonic stem cells (hESC) and related lines requires IRB review under the following conditions: o Clinical research in which human subjects are given hESCs or related products. o When the UCLA research team will have a research related direct interaction or intervention with the cell donors, including donation of blastocysts or gametes for the purpose of creating hESCs,. o Cells provided to the UCLA research team that have identifiers or codes that can be linked back to the donor. Research involving hESC requires review and approval by the ESCRO Committee. For further information see: http://www.stemcell.ucla.edu/research

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Human Gene Transfer/ Recombinant DNA

Studies involving gene transfer and/or recombinant DNA require approval of the UCLA Institutional Biosafety Committee (IBC) and the NIH Recombinant DNA Advisory Committee (RAC) . Human gene transfer is an investigational method for correcting defective genes responsible for disease development through one of the following techniques: o A normal gene may be inserted into a nonspecific location within the genome to replace a nonfunctional gene. o An abnormal gene could be swapped for a normal gene. o The abnormal gene could be repaired through selective reverse mutation, which returns the gene to its normal function. o The regulation of a particular gene could be altered. Recombinant DNA molecules, according to the NIH Guidelines, are defined as either: (i) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in a living cell, or (ii) molecules that result from the replication of those described in (i) above.

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Infectious Agents

Studies involving the use of Risk Group 2 or 3 infectious agents (such as bacteria, fungi, parasites, prions, rickettsia, viruses, etc.) require approval of the UCLA Institutional Biosafety Committee (IBC).

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Non-FDA approved medical equipment used with UCLA hospital patients or research participants that operate under the UCLA Hospital License.

Clinical Engineering is responsible for completing incoming inspections on investigational devices that are used to diagnose, treat or monitor a patient and that are used in the patient care area on site at UCLA, but *not* in other hospitals such as Cedars Sinai, CHLA, or Drew. If a device is FDA and/or testing - laboratory approved for the purpose it was designed, then evaluation is not required of the device. If you have a copy of an inspection report from Clinical Engineering, please attach here. As appropriate, please contact Clinical Engineering at 310-267-9000 to arrange an inspection.

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Radiation (Standard of Care or Investigational Use of radioactive materials, radiation producing machines or ionizing radiation)

Note: This includes CT-guided biopsy, fluoroscopy use, etc.; MRI is not included. The radiological procedures included in this study must be described in the SafetyNet system. Please create a new SafetyNet application after submitting this webIRB application to the IRB for review.

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Substance Abuse Research (with Medication)

Research for the treatment of controlled substance addiction or abuse that uses any drug (scheduled or not) as treatment, requires the review and approval of the Research Advisory Panel of California prior to initiation. For further information see: For further information see: http://ag.ca.gov/research/guide.php

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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Treatment in an Emergency Setting (with request to waive consent)

Federal regulations allow certain research activities to be conducted in emergency settings with waiver of informed consent - in the interest of facilitating potentially life-saving and life-enhancing research with protecting the rights and welfare of participants. For further information see: o OHRP Guidance: http://www.hhs.gov/ohrp/humansubjects/guidance/hsdc97-01.htm o FDA Guidance: http://www.fda.gov/oc/ohrt/irbs/except.html

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

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None of the above

Click "OK" below to return to the SmartForm page where you can select the appropriate response.

ID: IRB#17-001889 View: Specimens and/or data that will be acquired without direct contact with study participants

Specimens and/or Data that will be Acquired without direct contact with study participants

1.1 ***Data and/or Specimens? Indicate all that apply:**

- [x] **Data**
- [ ] Specimens

1.2 ***Indicate the source of the data and/or specimens. If the source is UCLA or a previous study, also indicate the IRB#:**
ISS will generate a dataset on an annual basis of all FPG primary care clinic patients and provide data elements that include demographics, identifiers (MRN, DOB), insurance, MyChart utilization information, diagnoses and outcomes such as vaccination status and encounters. This data set will be refreshed each year. There may be an overlap of patients between the years. IP will generate a dataset for RCT#2 for 2019 of MRNs of patients meeting modified diabetes criteria (SUPREME criteria) using laboratory test results, medication data and ICD diagnosis codes) and that currently have active MyChart status.

1.3 ***Indicate whether the data and/or specimens are pre-existing, at the time of this study, and/or if collection will be prospective. Check all that apply:**

- [x] **Pre-existing**
- [x] **Prospective**

1.4 ***Describe the data and/or specimens and indicate the original collection dates. If collection is in progress, indicate the planned end date or "continuing."** (*e.g., academic records for children 6-12 years for the time period between 1995-2005, or tumor samples collected from adults between January 1, 2009 to December 31, 2009*).

For 2018, ISS-generated data extraction contained 382,634 patients. Data elements used in that data collection period were included in section 9.6, item 4.0 (and the data collection period was primary care patients as of 8/1/18.

For 2019, the ISS-generated data extraction contains 430,712 patients and the IP-generated data extraction contains 48,551 patients (and only MRNs will be provided). The data collection period is primary care patients as of 9/1/19.

1.5 ***Indicate the approximate number of data records and/or specimens to be collected.**
For each RCT, the ISS will generate a fresh dataset. We anticipate roughly the same numbers of patient records, but there may be variability depending on whether the number of primary care practices within the UCLA health system changes. Separate amendments will reflect changes in numbers of patients.

1.6

If you indicated that you will be using specimens, provide the following information.

1.6.1 Will the specimens be used with animals?

○ Yes ◉ **No**

1.6.1.1 If yes, indicate the IACUC Number: