Partnerships

Precision Discharge Platform

May 2016

Partnership with Sutter Health

We have a business associate and contract agreement with Sutter Health. Sutter Health is the largest non-HMO hospital network in Northern California. Sutter serves more than 100 cities and towns, with 26 hospitals in its network. Our agreement with Sutter Health includes 1) access medical record data from 26 hospitals within Sutter Health's network 2) determine integration with medical record systems (EPIC with FHIR), and 3) develop and pilot software product. See Statement of Work and excerpt from signed Business Associates Agreement on following pages.

APPENDIX A

STATEMENT OF WORK

Project Title: "Developing Clinically-Viable Predictive Readmission Risk Models and Evaluating Clinical Implementation"

A.1 Statement of Purpose *(Why and Who?)* - Bayes Impact is partnering with Sutter Health to develop condition-specific readmission prediction models, using a variety of supervised machine learning methods. Specific conditions of interest include (but are not limited to) acute myocardial infarction (AMI), heart failure (HF), chronic obstructive pulmonary disease (COPD), and pneumonia (PN). Bayes Impact will develop the initial models using data from one hospital within Sutter Health's network. They will then investigate the generalizability of their results to other systems by validating our models with data from a variety of hospitals across Sutter's network of twenty six care facilities and examining the effects of population differences (e.g. socioeconomic, demographic, and geographic) on model performance.

A.2 Scope of Services *(What Services?)* - Sutter Health will work with Bayes Impact to verify compliance and security requirements for data use, including any necessary de-identification of personally identifiable patient information. Sutter Health will send Bayes Impact available administrative, clinical, and electronic health records data for use in model development. Sutter Health will send additional supplemental hospital data as needed and will provide ongoing feedback on data analysis and model development. Bi-weekly meetings will be held for the duration of the project (18 months).

1.3 Project Milestones *(When?)* -

Phase	Timeline (18 Months)	Work Plan
1	4.5 Months	Data Collection, Security, Assessment
2	2 Weeks	Exploration of Literature and Supplementary Data
3	6 Months	Analysis and Model Development
4	4 Months	Demonstration Prototype Software Development
5	2 Months	Research on Clinical Application
6	1 Month	Planning for Future Work
7	1 Month	Communication and Distribution of Results

A.4 Deliverables and Acceptance Criteria *(What Tangible Goods?)* -
Sutter Health will send Bayes Impact available administrative, clinical, and electronic health records data for use in model development (phases 1-2). In return, Bayes Impact will create a pilot project proposal that applies their readmission model in clinical practice at Sutter's network of hospitals (phase 7).

A.5 Place of Performance *(Where)* –
All work by Sutter Health's RDD team will take place at their Walnut Creek office.

APPENDIX C: Business Associate Agreement

10.   **Entire Agreement**. This Agreement (together with any recitals and exhibits, which are hereby incorporated by this reference) constitutes the entire understanding and agreement between the parties relating to PHI, and it supersedes any and all prior or contemporaneous agreements, representations and understandings of the parties.

11.   **Waiver**. Any failure of a party to insist upon strict compliance with any term, undertaking or condition of this Agreement shall not be deemed to be a waiver of such term, undertaking or condition. To be effective, a waiver must be in writing, signed and dated by the parties to this Agreement.

12.   **Counterparts**. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall be deemed one and the same instrument. Any photocopy of this executed Agreement may be used as if it were the original.

13.   **Governing Law**. Notwithstanding any other provision to the contrary, this Agreement shall be governed and construed in accordance with the laws of the State of California.

14.   **Interpretation**. Any ambiguities shall be resolved to permit Covered Entity to comply with HIPAA and HITECH, and regulations promulgated under these laws.

15.   **Execution**. By their respective signatures and execution dates, below, each of the following represents that he or she is duly authorized to execute this Agreement and to bind the party on whose behalf such execution is made.

SUTTER HEALTH   **BAYES IMPACT**

By: _____   By: _____

Name: Jacki Monson   Name: Eric Liu

Title: Chief Privacy Officer   Title: COO

Date: 8/13/15   Date: 8/13/2015