

## **DEPARTMENT OF HEALTH AND HUMAN SERVICES**

### **Centers for Medicare & Medicaid Services**

### **Announcement of Requirements and Registration for “Artificial Intelligence Health Outcomes Challenge”**

**Authority:** 15 U.S.C. 3719; 42 U.S.C. 1315a

The Centers for Medicare & Medicaid Services’ (CMS’) Center for Medicare and Medicaid Innovation (Innovation Center) is announcing the Artificial Intelligence (AI) Health Outcomes Challenge, in collaboration with the American Academy of Family Physicians and the Laura and John Arnold Foundation. The CMS AI Health Outcomes Challenge is an opportunity for innovators to demonstrate how AI tools, such as deep learning and neural networks, can be used to predict unplanned hospital and skilled nursing facility (SNF) admissions and adverse events based on Medicare Fee-for-Service (FFS) Parts A and B administrative claims data for potential use by the Innovation Center in testing innovative payment and service delivery models under the authority of section 1115A of the Social Security Act (42 U.S.C. 1315a).

The CMS AI Health Outcomes Challenge will offer monetary prizes to encourage further progress in AI for health and health care and to accelerate development of real-world applications for this technology by the Innovation Center. Participants will analyze large health data sets and respond to a clinical problem description provided by CMS to predict clinical outcomes.

CMS is announcing the AI Health Outcomes Challenge through this notice and is carrying out this challenge under the authority of Section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719), as amended, to stimulate innovation that has the potential to advance the mission of CMS, in particular the Innovation Center. The purpose of the Innovation Center within CMS is to test innovative payment and service delivery models that have the potential to reduce Medicare, Medicaid, and Children’s Health Insurance Program (CHIP) expenditures while preserving or enhancing the quality of care furnished to the beneficiaries of such programs.

This challenge is also authorized under section 1115A of the Social Security Act (42 U.S.C. 1315a), which created the Innovation Center within CMS. The Innovation Center already provides data feedback to model participants as part of testing its models under section 1115A. Through this competition, we are now seeking to enhance these data feedback tools with useful predictions that can spur actions to improve quality and reduce the cost of care.

CMS reserves the right to change or update this notice at any time, including after we announce the results of the competition’s Launch Stage. We will include further details about Stages 1 and 2 in future updates.

#### **Activity dates (Subject to change)**

- Launch Stage
  - Participants submit applications from March 26 - June 18, 2019, 5 p.m. ET
  - CMS announces participants that will move on to Stage 1 by July 19, 2019

- Stage 1
  - Stage 1 participants submit requests for Limited Data Set (LDS) files by July 26, 2019
  - CMS provides LDS files to Stage 1 participants qualified to receive the data by August 2019
  - Participant Stage 1 project packages due November 18, 2019, 5 p.m. ET
  - CMS announces participants that will move on to Stage 2 (“finalists”) by December 13, 2019
  
- Stage 2
  - Stage 2 finalists submit requests for LDS files with additional data by December 20, 2019
  - CMS provides LDS files with additional data to Stage 2 finalists qualified to receive the data by January 2020
  - Finalist Stage 2 project packages due March 26, 2020, 5 p.m. ET
  - CMS announces awardees by April 20, 2020

## **A. Background**

Over 2,000 exabytes (1 exabyte = 1 billion gigabytes) of health care data will be produced in 2020, up more than 1,400 percent since 2013.<sup>1</sup> Yet, medical decision-making and population health management have not significantly changed. AI tools, applied to such needs as diagnostics, precision medicine, and patient monitoring have the potential to transform large volumes of structured and unstructured data into actionable insights that can reduce inefficiencies and enable transformations in healthcare practice and delivery.

Recent advances in deep learning and neural networks have shown some success in predictions for health outcomes, but many barriers remain to implement these tools at scale.<sup>2,3</sup> Quality and availability of data limit the range of questions that AI models can effectively answer, and the current health care payment system that often pays for volume instead of value does not provide incentives to utilize advanced data science in improving beneficiary health outcomes. CMS is actively working to address both of these barriers. In 2018, CMS launched the MyHealthEData Initiative and Blue Button 2.0 to break down barriers that contribute to preventing patients from being able to access and control their medical records and other health data. As part of MyHealthEData, providers are encouraged to share health data and support health IT interoperability, which supports value-driven health care across all settings.

CMS recognizes that AI can transform the role of data in the health care system. Although the use of simple heuristics in medical decision-making is well-established, sophisticated predictive models and more innovative handling of large administrative claims data sets have the potential

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<sup>1</sup> Stanford Medicine. (2017) Stanford Medicine 2017 Health Trends Report: Harnessing the Power of Data in Health. Available online at: <https://med.stanford.edu/content/dam/sm/sm-news/documents/StanfordMedicineHealthTrendsWhitePaper2017.pdf>

<sup>2</sup> Hinton, G. (2018). Deep Learning—A Technology With the Potential to Transform Health Care. *JAMA*, 320(11), 1101-1102. Available online at: <https://jamanetwork.com/journals/jama/fullarticle/2701666>.

<sup>3</sup> Roski, J.; Gillingham, B.; Just, E.; Sohn, E.; Sakarcin, K. (2018). Implementing And Scaling Artificial Intelligence Solutions: Considerations For Policy Makers And Decision Makers. Health Affairs. Blog. Available online at <https://www.healthaffairs.org/doi/10.1377/hblog20180917.283077/full/>.

to improve risk stratification to help health care providers better target interventions and care management resources for Medicare, Medicaid, and CHIP beneficiaries.

Through its models, the Innovation Center provides frequent feedback to model participants in order to support continuous quality improvement, with the understanding that learning and adaptation are essential to enable health care providers and health systems to achieve the greatest efficiencies and improvements possible in each new payment model. The Innovation Center also analyzes claims data to deliver actionable feedback to model participants about their performance, and encourages model participants to use this feedback to drive continuous improvement in their outcomes. With AI, there is the potential to do more. CMS, by virtue of its large data sets, the size and complexity of its beneficiary populations, and its role in testing innovative payment and service delivery models, is an ideal testing ground for AI and related technologies that have the potential to be scaled to the entire health care market.

## **B. Subject of Challenge Competition**

### Background

The Innovation Center tests models with the goals of reducing program expenditures and preserving or enhancing the quality of care for Medicare, Medicaid, and CHIP beneficiaries. Reducing unnecessary hospital and SNF admissions and adverse events are key components of improving quality and reducing the overall cost of care.

High rates of unplanned admissions and adverse events are not only costly to the health care system, but they can also indicate low-quality care during a prior hospital stay, or contribute to poor care coordination in post-acute care. Unnecessary institutionalization can also expose patients to medical risk, and can result in adverse events, including hospital-acquired infections and death.

The rise of value-based payment programs in the U.S. health care system has increased the focus on reducing unnecessary admissions and other measures of quality and utilization.<sup>4,5</sup> Commonly accepted strategies to reduce avoidable admissions and adverse events include improved communication during transitions of care, such as: patient/resident discharge instructions; coordination with post-acute care providers and primary care physicians; reducing complications such as hospital-acquired conditions; and referrals to home health and home and community-based services and social supports. In support of these strategies, physicians and other clinicians in value-based payment programs now receive a tremendous amount of data and alerts about these quality and utilization measures from government programs, accountable care organizations (ACOs), and electronic health record systems, which can be overwhelming and difficult to interpret.

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<sup>4</sup> McCarthy, C; Pandey, A. (2018). Predicting and Preventing Hospital Readmissions in Value-Based Programs. *AHA Journals – Circulation: Cardiovascular Quality and Outcomes*. 11(10). Available online at: <https://www.ahajournals.org/doi/full/10.1161/CIRCOUTCOMES.118.005098>

<sup>5</sup> Ryan, A.; Krinsky, S.; Adler-Milstein, J. (2017). Association Between Hospitals' Engagement in Value-Based Reforms and Readmission Reduction in the Hospital Readmission Reduction Program. *JAMA Internal Medicine*. 177(6):862-868. Available online at: <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2617280>

Physicians and other clinicians need actionable data and more accurate predictive capabilities so that they can provide appropriate resources to patients at the right time. The Innovation Center is interested in better leveraging technology in testing its models, including improving the care quality and utility of the data feedback provided to model participants in an effort to improve quality and reduce costs as part of its model tests. Enhancing data feedback to model participants could drive individually-tailored interventions by model participants, such as care management or home visits, while also providing valuable insights on the success of these interventions for Medicare beneficiaries. This information, in turn, could be used to develop new Innovation Center models that could result in even more effective and more efficient care for Medicare beneficiaries. As a note, we are focusing on only Medicare beneficiaries and data in the AI Health Outcomes Challenge due to the quality, validity, and availability of Medicare data.

### Competition Objectives

1. Use AI/deep learning methodologies<sup>6</sup> to predict unplanned hospital and SNF admissions, and adverse events within 30 days<sup>7</sup> for Medicare beneficiaries, based on a data set of Medicare administrative claims data, including Medicare Part A (hospital) and Medicare Part B (professional services).
2. Develop innovative strategies and methodologies to: explain the AI-derived predictions to front-line clinicians and patients to aid in providing appropriate clinical resources to model participants; and increase use of AI-enhanced data feedback for quality improvement activities among model participants.

### Data Set and Challenge Stages

Throughout the three stages of the competition, participants will be asked to prepare supporting materials (e.g., white papers, slide presentations) to explain their proposed solutions and methodologies. Stage 1 and Stage 2 participants will be asked to create proof-of-concept algorithms, using only the structured Medicare claims data sets provided. (Section C describes the submissions required for each stage.) The winning solution(s) may be considered for future development and use within data support tools at the Innovation Center and throughout CMS.

Participants who are selected for Stage 1 of the competition, based on their Launch Stage applications, may request an LDS with 5 consecutive years of Medicare beneficiary data, encompassing around 2.5-3 million unique beneficiaries. (LDS files contain beneficiary-level health information, but exclude specified direct identifiers as outlined in the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule at 45 CFR 164.514(e).) Participants who are selected for Stage 2 of the competition may request an additional 5 consecutive years of data from the same beneficiary sample.

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<sup>6</sup> Deep learning is part of a broader family of machine learning methods based on learning data representations, as opposed to task-specific algorithms.

<sup>7</sup> Participants should be aware of the lag inherent in claims submission and processing, which would implicitly limit the inputs of a real time AI model to claims that actually were processed and visible to the Medicare claims system. In practice this means that claims would not be visible to the AI engine until the claim effective date (and most likely not until the 'IDR load date' several days after the claim effective date). Many claims would therefore not be available to an AI engine until weeks or months after the 30 day window has passed. Participants should be aware of this limitation so that models take into account when claims would actually become visible to the claims system.

Stage 1 and 2 participants will be able to request access to the LDS files for “research,” defined in the HIPAA Privacy Rule as “a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge.” (See 45 CFR 164.501). Stage 1 and 2 participants deemed qualified to receive the data will be required to sign and comply with a Data Use Agreement (DUA) in order to receive the LDS. The DUA will include specific rules and requirements to receive, store, and protect the LDS. The LDS will be provided free of charge to the Stage 1 and 2 participants deemed qualified to receive it. Stage 1 and 2 participants may not augment or link the LDS at the beneficiary level for competition use, but may use and link other de-identified public data sets to the LDS (e.g., Census data). Participants are not required to use other de-identified public data, however, they will be evaluated on their ability to identify other data sets and types of information that will be useful to further refine their solutions following the competition.

Because research, as defined under the HIPAA Privacy Rule, must “develop or contribute to generalizable knowledge,” CMS typically requires the results of research using CMS data to be made publicly available; therefore, participants will be required to publicly share their findings and/or solutions in compliance with the requirements of the DUA. This could be accomplished through, for example, a presentation at a CMS public meeting, posting findings on a challenge-related or participant-associated website, or publication in a scientific journal.

### **C. Challenge Structure**

The AI Health Outcomes Challenge will run in three stages: the Launch Stage, Stage 1, and Stage 2. The Launch Stage is open to all eligible participants and the competition is intended to attract a wide range of ideas and participants (e.g., large and small entities, individuals and teams, etc.). (Section G describes the eligibility rules.) Up to 20 of the top participants of the Launch Stage will move to Stage 1; up to 5 of the top participants of Stage 1 will move to Stage 2. More details about Stages 1 and 2 will be provided at a later date at the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>).

The **Launch Stage** is an entry stage where participation will be open to the general public and entrants will complete an online application and submit a brief slide deck providing information about the participants and their proposed solution and describing their concept, based on application instructions available at the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>). A judging panel (described in Section F, below) will review entries based on pre-defined judging criteria, and up to 20 Launch Stage participants will be selected to progress to Stage 1. (See Sections F and G, below, for entry rules and judging criteria.)

**Stage 1** is a design stage that asks participants to submit their ideas and solutions related to the clinical problem description, and an associated white paper describing a proof-of-concept algorithm, and other required elements of the entry. Additionally, participants will run an analysis using the LDS to demonstrate that their solution works. Participants may only participate in Stage 1 if they have submitted an application during the Launch Stage and been selected to advance to Stage 1. Each Stage 1 participant may be invited to present their ideas at a meeting with the judging panel and government stakeholders. The judging panel will review entries based on pre-defined judging criteria, and up to five Stage 1 participants will be selected

to progress to Stage 2 and will receive an \$80,000 monetary prize. More information on Stage 1 will be available at a later date at the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>).

**Stage 2** of the challenge asks finalists to further refine their proof-of-concept algorithm related to the clinical problem description and provide an associated white paper describing the concept and other required elements of the entry. Additionally, finalists will be required to run a series of analyses using the LDS with an additional 5 years of data to prove that their concept works, and demonstrate predictive power. Participants may only participate in Stage 2 if they have submitted a design solution in Stage 1 and been selected to advance to Stage 2.

At the end of Stage 2, the judging panel will review entries based on pre-defined judging criteria and award-approving officials will select a grand prize winner and a runner-up (see Sections E and F, below, for entry rules and judging criteria). Each Stage 2 finalist may be invited to present their concepts at an open public meeting with an audience expected to include stakeholders from across government, investors, patients, industry representatives, academics, and non-profit organizations. The grand prize winner will receive \$1 million and the runner-up will receive \$250,000. More information on Stage 2 will be available at a later date at the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>).

#### **D. Amount and Payment of the Prize**

For the CMS AI Health Outcomes Challenge, \$1.65 million in total prize funds will be available. The up to five selected finalists who advance to the final stage of the competition (i.e., Stage 2) will each receive prizes of \$80,000 (for a total of up to \$400,000). The grand prize winner and runner-up will be awarded at the end of Stage 2. The grand prize winner will receive \$1 million and the runner-up will receive \$250,000. CMS is contributing \$1,010,000 to the CMS prize purse and the American Academy of Family Physicians and the Laura and John Arnold Foundation are contributing a total of \$640,000 to their prize purses.

Prizes awarded under this challenge will be paid by electronic funds transfer and may be subject to Federal income taxes. CMS, the American Academy of Family Physicians, and the Laura and John Arnold Foundation will comply with the Internal Revenue Service withholding and reporting requirements, where applicable. CMS, the American Academy of Family Physicians and the Laura and John Arnold Foundation will each distribute their prize money directly to award recipients. (The Laura and John Arnold Foundation will not tender funds under the AI Health Outcomes Challenge to individuals.) If either or both the Laura and John Arnold Foundation and the American Academy of Family Physicians fail to pay any portion of the monetary prize it has indicated it intends to pay, CMS does not have the legal authority to pay the amount on their behalf.

## E. Entry Requirements

Individuals or entities must submit entries following the instructions on the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>) for the Launch Stage of the AI Health Outcomes Challenge by June 18, 2019 at 5:00 p.m. ET.

### *Launch Stage Entry Requirements:*

For the Launch Stage, participants are asked to submit an online application describing themselves and their concept. The Launch Stage of the CMS AI Health Outcomes Challenge opens on March 26, 2019. On that date, an application for the challenge will be available on the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>). CMS will accept applications only through this platform. Complete instructions for entry will be provided on that page.

The Launch Stage entry will be used to determine the top-scoring participants that will move on to Stage 1. The entry will consist of the online application through which participants will provide information about themselves and their proposed solution. Additionally, participants will be required to submit a brief PowerPoint presentation with an introduction to their proposed solution, according to specific criteria that will also be made available on the AI Health Outcomes web page. The presentation may not exceed 10 slides in total length.

### *Stage 1 and 2 Entry Requirements:*

More information about Stage 1 and 2 entry requirements will be made available at the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>) at a future date.

## F. Selection of Winning Submissions and Judging Criteria

A multi-disciplinary judging panel will review and score entries for all stages of the AI Health Outcomes Challenge, based on pre-defined judging criteria stated in this announcement and on the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>). The judging panel will be composed of judges selected by CMS, in its sole and absolute discretion. All final decisions of the judging panel must be certified by the award-approving officials.

Participants shall have no right to observe the deliberations of the judging panel, or to be informed of other participants' calculations, measurements, and results, unless such information is made publicly available by CMS.

Full judging criteria will be available on the AI Health Outcomes Challenge web page (<https://go.cms.gov/AI>). In order to assist the judging panel in evaluating Launch Stage entries, participants should ensure that their entry provides sufficient detail and information to allow judging panel to evaluate the entry in accordance with the following:

### High level judging criteria for the Launch Stage include:

- *Impact and innovation of proposed solution (60%)*
  - To what extent is the proposed approach operationally feasible for CMS;
  - How likely is it to succeed in predicting unplanned hospital and SNF admissions and adverse events?

- Did the participant identify potential roadblocks to implementation and suggest ideas to facilitate resolution of such roadblocks?
- To what degree is the proposed design innovative, creative, and original?
- To what extent did the participant demonstrate how the proposed solution can outperform existing approaches?
- To what extent has the participant identified other data sets and/or types of information that would be useful to further refine their solutions following the competition?
- *AI-Human Collaboration (40%)*
  - To what extent has the participant explained how the proposed AI tool will work with humans (clinicians and patients) to achieve the desired results?
  - To what extent has the participant identified strategies and tools to explain AI predictions to clinicians and patients to build trust and drive transparency?
  - To what extent has the participant demonstrated a link between the proposed solution and benefit to the Medicare population and potential impact on current health care practice and delivery methods?
- *Participant qualifications/history (Assessed and scored, but not included in the weighted score)*
  - Experience of participant in AI/deep learning with complex data sets.
  - Participants' experience with health care-specific data, including experience with and knowledge in hospital admissions data and measures of clinical quality. Note that specific experience with health care data is not required, but will help participants understand and interpret the competition subject and goals.
  - High-level timeline and business plan—has the participant presented an appropriate plan to meet the deadlines and requirements for the competition?
  - Participants' backgrounds, including with respect to location, professional background, and approach.

Judging criteria for the later stages will be published along with more detailed information on the challenges at those stages.

## G. Eligibility

To be eligible to win a prize under the AI Health Outcomes Challenge, an individual or entity--

1. Shall have timely submitted an entry to participate in the relevant stage of the challenge;
2. Shall have complied with all the requirements described in this announcement for participation in this challenge;
3. For prize money from CMS and/or partners, who are jointly sponsoring this challenge: In the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States, and in the case of an individual, whether participating singly or in a group, shall be a citizen or permanent resident of the United States. **Note:** Non-U.S. citizens and nonpermanent residents can participate as individuals or as a member of a team that otherwise satisfies the eligibility criteria but will not be eligible to win a monetary prize (in whole or in part); however, their participation as part of a winning team, if applicable, may be recognized when results are announced;
4. May not be a Federal entity or Federal employee acting within the scope of his or her employment (all non-HHS Federal employees must consult with their agency Ethics

- Official to determine whether the Federal ethics rules will limit or prohibit the acceptance of the AI Health Outcomes Challenge prize);
5. Shall not be a HHS employee;
  6. Federal grantees may not use Federal funds to develop entries unless consistent with the purpose of their grant award; and
  7. Federal contractors may not use Federal funds from a contract to develop AI Health Outcomes Challenge applications or to fund efforts in support of an AI Health Outcomes Challenge entry.

#### **H. Additional Requirements**

1. An individual or entity shall not be deemed ineligible because the individual or entity used Federal facilities or consulted with Federal employees during a competition if the facilities and employees are made available to all individuals and entities participating in the competition on an equitable basis.
2. Participants must also agree to assume any and all risks and waive claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from my participation in this prize contest, whether the injury, death, damage, or loss arises through negligence or otherwise.
3. Participants are not required to obtain liability insurance or demonstrate financial responsibility for claims by a third party for death, bodily injury, or property damage, or loss resulting from an activity carried out in connection with participation in the AI Health Outcomes Challenge.
4. Participants must also agree to indemnify the Federal Government against third party claims for damages arising from or related to AI Health Outcomes Challenge activities.
5. CMS reserves the right to cancel, suspend, and/or modify the AI Health Outcomes Challenge, or any part of it, for any reason, at CMS's sole discretion.

#### **I. Intellectual Property (IP) Rights**

1. Participants are free to discuss their entry and the ideas or technologies that it contains with other parties, are encouraged to share ideas/technologies publicly, are encouraged to collaborate or combine with other participants to strengthen their solutions, and are free to contract with any third parties. Participants should be aware that any agreement signed or obligation undertaken in regard to their participation in the AI Health Outcomes Challenge that conflicts with the challenge rules, terms, and conditions may result in disqualification of the participant's entry.
2. By participating in this challenge, each participant (whether individuals, participating singly or in a group, or entities) warrants that he or she is the sole author or owner of, or has the right to use, any copyrightable works that the submission comprises, that the works are wholly original with the participant (or is an improved version of an existing work that the participant has sufficient rights to use and improve), and that the submission does not infringe any copyright or any other rights of any third party of which participant is aware. In addition, each participant (whether individuals, participating singly or in a group, or entities) grants to CMS an irrevocable, paid-up,

royalty-free nonexclusive worldwide license to reproduce, publish, post, link to, share, and display publicly (e.g., on websites) the submission and abstracts on the web or elsewhere. Each participant will retain all other intellectual property rights in their submissions, as applicable. To participate in the challenge, each participant must warrant that there are no legal obstacles to providing the above-referenced nonexclusive licenses of participant rights to the Federal government. To receive an award, winners will retain ownership of their intellectual property rights in the solution, but participants must grant to the Federal government the nonexclusive, nontransferable, irrevocable, paid up license to practice, or have practiced for or on its behalf, the solution throughout the world for Federal government purposes. Each participant also warrants that the work is free of security threats and/or malware.

3. Each participant must clearly delineate any Intellectual Property (IP) and/or confidential commercial information contained in an entry that the participant wishes to protect as proprietary data.
4. All materials submitted to CMS as part of an entry become CMS agency records. Any confidential commercial or financial information contained in an entry must be clearly designated at the time of entry.
5. If the entry includes any third-party works (such as third-party content or open source code), the participant must be able to provide, upon request, documentation of all appropriate licenses and releases for use of such third-party works. If the participant cannot provide documentation of all required licenses and releases, CMS and Partners reserve the right, at their sole discretion, to disqualify the entry.

## **J. Supplementary Information**

Participants will be required to follow the CMS process for requesting the LDS and sign a DUA with CMS in order to receive a claims data set that encompasses Medicare FFS Parts A/B data for a random 5% sample of Medicare beneficiaries (i.e., the LDS). This data set is expected to contain continuous data for approximately 2.5-3 million beneficiaries.

- In Stage 1, the participants may request 5 years of data, from approximately 2008 through 2012.
- In Stage 2, the finalists may request an additional, continuous 5 years of data for the same set of beneficiaries, from approximately 2013 through 2017.

The DUA will include specific rules and requirements to receive, store, and protect the LDS. Participants should note that all requests for the LDS will be granted or denied at CMS' sole discretion, and that in offering this LDS, CMS does not represent that the participant has met all applicable HIPAA requirements for requesting the data. Participants should consult with their own counsel to make those determinations prior to requesting this data from CMS.

The LDS will be provided free of charge to the Stage 1 and 2 participants deemed qualified to receive it. Stage 1 and 2 participants may not augment or link the LDS at the beneficiary level for competition use, but may use and link other de-identified public data sets to the LDS (e.g., Census data). Participants are not required to use other de-identified public data, however, they will be evaluated on their ability to identify other data sets and types of information that will be useful to further refine their solutions following the competition. Participants will only be

allowed to use the LDS for the purposes of the challenge and will be expected to destroy the files and submit a Certificate of Disposition (COD) form to close their DUA once the competition is complete.

While this LDS will not be offered to Launch Stage participants, they may refer to the following links to learn more about the LDS structure, to inform their entry. **Launch Stage participants should not apply to purchase any CMS Limited Data Sets for their own use in the competition as CMS will offer the LDS for the competition free of charge to the selected participants in Stages 1 and 2. If Launch Stage participants apply to purchase additional LDS for their own use prior to their selection as a participant, CMS will not reimburse the costs of the additional LDS. CMS will provide further guidance to Stage 1 and Stage 2 participants on data use issues at a later date.**

- [LDS data dictionaries/description of files](#)
- [Comparison of RIF, LDS, and PUF](#)
- [LDS DUA information](#)

#### **K. For Further Information**

Questions related to the challenge should be directed to [cmsaichallenge@sensisagency.com](mailto:cmsaichallenge@sensisagency.com). CMS will communicate all official information and updates via <https://go.cms.gov/AI/>. CMS will notify participants of updates via email, but participants should check for updates to the guidelines periodically. CMS and its contractors also may engage participants directly via points-of-contact identified in their entries. However, these interactions will be for status updates and gathering feedback, but nothing transmitted should be taken as official guidance or rule changes.

MAR 19 2019

Date



Seema Verma, Administrator, Centers for Medicare & Medicaid Services