

# CMS Medicare Electronic Health Record (EHR) Incentive Program

## Eligible Professionals Public Use File (PUF) General Documentation

### 1. Overview of the PUF

This release contains the Centers for Medicare & Medicaid Services' (CMS) *Medicare Electronic Health Record (EHR) Incentive Program EHR Incentive Program Eligible Professionals Public Use File (PUF)*. This release contains EHR Incentive Program data on Eligible Professionals (EPs) in the Medicare EHR Incentive Program.<sup>1</sup> The *CMS Medicare EHR Incentive Program Eligible Professionals PUF* is an EP-level file in which each record provides the type and specialty of the EP together with his/her responses to the meaningful use core and menu measures.<sup>2</sup> The PUF contains data only on EPs who attested through May 30, 2013.<sup>3</sup> The PUF excludes data from hospitals in the Medicare EHR Incentive Program. There is no data available for participants in the Medicaid EHR Incentive Program.

### 2. Source Data for the PUF

The Medicare and Medicaid EHR Incentive Programs provides incentive payments to EPs, eligible hospitals and critical access hospitals (CAHs) as they adopt, implement, upgrade or demonstrate meaningful use of certified EHR technology. The *CMS Medicare EHR Incentive Program Eligible Professionals PUF* provides detailed attestation data on EPs who met the following criteria:

- a) Registered as Medicare EPs on the Medicare and Medicaid EHR Incentive Program Registration and Attestation System;<sup>4</sup>
- b) Met meaningful use criteria using certified EHR technology, and
- c) Successfully attested, using CMS' Web-based system, that they have met Stage 1 Meaningful Use (MU) requirements using certified EHR technology.

Stage 1 MU requirements include 15 core measures (CMs) and 10 menu set measures (MMs) with specific objectives.<sup>5</sup> EPs must attest to all 15 CMs and to a selection of 5 of the MMs. The

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<sup>1</sup> <https://www.cms.gov/EHRIncentivePrograms/>

<sup>2</sup> [http://www.cms.gov/EHRIncentivePrograms/30\\_Meaningful\\_Use.asp](http://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp)

<sup>3</sup> Payment status of "received payment," "locked for payment," or "payment in progress" in the program data.

<sup>4</sup> <https://ehrincentives.cms.gov/hitech>

<sup>5</sup> See the online tool (<http://www.cms.gov/apps/ehr/>) or the attestation guide

([https://www.cms.gov/EHRIncentivePrograms/Downloads/EP\\_Attestation\\_User\\_Guide.pdf](https://www.cms.gov/EHRIncentivePrograms/Downloads/EP_Attestation_User_Guide.pdf)) for more information on the objectives and measures.

attestation system also includes clinical quality measures (CQMs), which are excluded from the *CMS Medicare EHR Incentive Program Eligible Professionals PUF*. Some objectives require the EP to enter a denominator and a numerator based on number of patients while some others require the EP to meet a specific goal (i.e., whether or not the objective is reached).<sup>6</sup> Finally, the EPs can be excluded from meeting an objective if they meet the requirements of the exclusion (e.g., not providing the services required by the measure).

### **3. Content and Variables of the PUF**

The most important aspects of the *CMS Medicare EHR Incentive Program Eligible Professionals PUF* are as follows:

- It contains information from all EPs that qualified for Medicare EHR Incentive Program incentive payments through May 30, 2013;
- It contains detailed information on EP responses to CMs (numbered CM1- CM15) and MMs (numbered MM1 – MM10); and
- To ensure the privacy and confidentiality of EPs, the PUF contains no fewer than 11 records for each combination of EP type and specialty. To accomplish this, some specialties are suppressed for a small number of EPs in the PUF.

The *CMS EHR Incentive Program Eligible Professionals PUF* contains the following variables:

- 1) EP type;
  - a. Doctors of Medicine or Osteopathy;
  - b. Doctors of Dental Surgery or Dental Medicine;
  - c. Doctors of Podiatric Medicine;
  - d. Doctors of Optometry; and
  - e. Chiropractors.
- 2) EP specialty for each EP type;
- 3) EP responses to 15 CMs and 5 selected MMs;
- 4) The year of attestation; and,
- 5) EHR Certification Number.

In the *CMS EHR Incentive Program Eligible Professionals PUF*, the numerators and denominators that are provided by the EPs were used to calculate percentages. These percentages were then converted to categories using 10 percentage point increments. For example, a percentage value between 0 and 9.99 percent was indicated by a value of 1 and a percentage value between 10 and 19.99 percent was indicated by a value of 2. If an EP is

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<sup>6</sup> See <https://www.cms.gov/EHRIncentivePrograms> for information on how EPs qualify for incentive payments based on attestation data.

excluded from a particular measure, then this is indicated by a value of -1. For measures with more than one exclusion criteria, the EP was assumed to be excluded if any of the exclusion criteria was selected by the EP.<sup>7</sup> To ensure privacy and confidentiality of EPs, other variables, such as EP’s state of residence, are not provided in the PUF. Refer to the Data Dictionary for more information on each of the variables.

#### 4. Methodology and Key Assumptions

The *CMS EHR Incentive Program Eligible Professionals PUF* protects the privacy and confidentiality of the EPs. This is achieved through the use of three de-identification methodologies sequentially. First, the percentages for each measure are categorized (see above). Second, some specialties are suppressed so that every combination of provider type and specialty contains at least 11 records. This step suppresses relatively rare specialties for some types of providers. The number of EPs affected by this step constitutes a very small percentage of the EPs in the PUF as shown in Table 1. Overall, the specialty of the provider is not available for 0.4 percent of the EPs in the PUF. Table 1 also shows that “Doctors of Medicine or Osteopathy” is the largest group of EPs in the PUF and the suppression rate of the specialties is 0.2 percent for this group. Finally, no specialty information is available (i.e., suppression rate of 100 percent) for “Doctors of Dental Surgery or Dental Medicine” because of the small size (30 EPs) of this group in the PUF.

Table 1. Suppression in the *CMS 2011 Medicare EHR Incentive Program Eligible Professionals PUF*

EP Type	Specialty Available	Specialty Suppressed	Total	Suppression Rate
	(a)	(b)	(c)	(d)=(b)/(c)
Doctors of Medicine or Osteopathy	26,105	45	26,150	0.2%
Doctors of Dental Surgery or Dental Medicine	0	30	30	100.0%
Doctors of Podiatric Medicine	1,492	17	1,509	1.1%
Doctors of Optometry	982	16	998	1.6%
Chiropractors	266	0	266	0.0%
<b>Total EPs</b>	<b>28,845</b>	<b>108</b>	<b>28,953</b>	<b>0.4%</b>

In order to protect provider identities, randomized data swapping was performed on a small fraction (about 10%) of the records that needed additional disclosure protection. The swapping

<sup>7</sup> The EP can be excluded from the requirement for any of the exclusion criteria for a given measure. The PUF does not provide information on which exclusion criteria led to the EP being excluded.

was done so as to preserve the distributions of all measures within all provider type and specialty, but may have altered the correlations between different measures.<sup>8</sup>

## 5. Analytic Utility of the PUF

The construction of the variables in the *CMS Medicare EHR Incentive Program Eligible Professionals PUF* is detailed in the Data Dictionary. Users interested in the source variables and their relationships to the variables in the *CMS Medicare EHR Incentive Program Eligible Professionals PUF* are encouraged to review the Data Dictionary. The PUF contains information from CMs and MMs for a total of 237,267 EPs. It also provides information on incentive payments to EPs. Table 2 summarizes the total incentives payments by type of provider.

Table 2. Incentive Payments in the *CMS Medicare EHR Incentive Program Eligible Professionals PUF*

EP Type	Total Incentive Payment*
Chiropractor	\$54,085,148
Doctor of Dental Surgery or Dental Medicine	\$2,525,243
Doctor of Medicine or Osteopathy	\$2,731,610,266
Doctor of Optometry	\$116,702,166
Doctor of Podiatric Medicine	\$121,643,380
<b>All EPs</b>	<b>\$3,026,566,206</b>

\* The *CMS Medicare EHR Incentive Program Eligible Professionals PUF* includes EPs with attestation status of “accepted”, “payment issued”, and “locked for payment”.

Some CMs ask the EP whether or not he/she has met a specific goal. For example, the EP is required to respond by selecting “Yes” or “No” to the following question for CM 2:

“Have you enabled the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period?”

The CMs are summarized in Table 3. Note that CM 2, CM 10, CM 11, CM 12, CM 14, CM 15 are indicator variables (i.e., value of 0 for “No” and 1 for “Yes”). All EPs in the *CMS 2011 Medicare EHR Incentive Program Eligible Professionals PUF* have met these objectives as the PUF contains those who successfully attested through May 30, 2013. Table 4 summarizes similar descriptive statistics for MMs. Even though the state of residence for the EP is not provided in the PUF, Table 6 summarizes the number of EPs and total incentive payments by State.

<sup>8</sup> That is, the univariate distributions of the responses within the provider type and specialty were unchanged.

<sup>9</sup> <http://www.resdac.org/>