DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2014-0062]

ICD-10-CM/AIS Mapping Software

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Request for information.

SUMMARY: This notice announces NHTSA's Request for Information (RFI) and comment on the potential development of a mapping software to translate the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Clinical Modification (ICD-10-CM) discharge diagnoses into Abbreviated Injury Scale (AIS) pre-dot codes, injury descriptors, and severity scores. NHTSA is issuing this RFI in collaboration with, and on behalf of, its member agencies within the DOT Traffic Records Coordinating Committee (DOT|TRCC), specifically the Federal Highway Administration (FHWA), the Federal Motor Carrier Safety Administration (FMCSA), and the Bureau of Transportation Statistics (BTS). Feedback and comments on any aspect of the RFI are welcome from all interested public, private, and academic entities. While all feedback is welcome, DOT is particularly interested in feedback on the questions provided in the last section of this RFI.

DATES: Comments must be received no later than [INSERT DATE 60 DAYS AFTER PUBLICATION OF THIS NOTICE IN THE FEDERAL REGISTER.

ADDRESSES:

Comments: You may submit comments [identified by Docket Number NHTSA-2014-0062] by any of the following methods:

- Internet: To submit comments electronically, go to the U.S. Government regulations Web site at http://www.regulations.gov. Follow the online instructions for submitting comments.

- Fax: Written comments may be faxed to 202-493-2251.

- Mail: Send comments to Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590.

- Hand Delivery: If you plan to submit written comments by hand or courier, please do so at 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC between 9 a.m. and 5 p.m. Eastern Time, Monday through Friday, except federal holidays

- You may call Docket Management at 1-800-647-5527.

Instructions: For detailed instructions on submitting comments and additional information see the Comments heading of the Supplementary Information section of this document. Note that all comments received will be posted without change to http://www.regulations.gov, including any personal information provided. Please see the Privacy Act heading in the **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: For questions about the program discussed herein, contact John Kindelberger, Mathematical Statistician, Office of Data Acquisition, Room W53-446, 1200 New Jersey Avenue, SE, Washington, DC 20590. Telephone: 202–366–4696. E-mail: *john.kindelberger@dot.gov*.

SUPPLEMENTARY INFORMATION: On January 16, 2009, the U.S. Department of Health and Human Services (HHS) published a final rule adopting ICD-10-CM to replace ICD-9-CM in transactions covered by the Health Insurance Portability Accountability Act (HIPAA). The deadline for adopting ICD-10-CM has been postponed several times but is currently scheduled to

take place at some point after October 1, 2015

(http://www.cms.gov/Medicare/Coding/ICD10/index.html?redirect=/icd10).

The "Moving Ahead for Progress in the 21st Century" Act (MAP-21), signed into law on July 6, 2012, requires the FHWA to establish measures for State departments of transportation to assess and report numbers and rates per vehicle mile traveled of roadway fatalities and serious injuries. [§1203; 23 USC 150(c)]. In Notice of Proposed Rulemaking 79 FR 13845 (Mar. 11, 2014), which can be found at http://www.regulation.gov, the FHWA recommends that States prepare themselves so that no later than January 1, 2020, all States use a medical record injury outcome reporting system that links injury outcomes from medical records to crash reports.

The DOT seeks comments and information from the public sector, private sector, and academic communities concerning the potential development of ICD-10-CM/AIS mapping software that would address the issues described in this RFI. While comments are welcome on any area of the RFI, the DOT is particularly interested in responses to the questions listed below. Responders are reminded that feedback or comments on any aspect of this notice are welcome from all interested public, private, and academic entities. While all feedback is welcome, the DOT is particularly interested in feedback on the following questions. Respondents may respond, to some, all, or none of these specific questions:

1. Is there a need for a mapping tool that translates ICD-10-CM codes to the AIS standard?

2. Is there a need for an updated mapping tool that translates ICD-9-CM codes to the AIS standard?

3. Are any steps currently being taken to develop a mapping tool?

4. What capabilities should such a mapping tool possess?

5. What platforms should the mapping tool run on?

6. Should the mapping tool be non-proprietary?

Injury data enables epidemiologists, researchers, and policymakers to better identify the severity of injuries in addition to where, when, and why they occur. This data is, however, frequently spread among discrete databases that are difficult to link to each other or to injury causation data. The ability to link these datasets together is thus critical to efforts to understand injury trends, set injury prevention priorities, identify high risk populations and geographic areas, and develop targeted injury prevention strategies. The DOT, however, is particularly interested in forging and maintaining links among vehicle crash and injury datasets as such links can provide more complete information and better understanding of crash outcomes.

State trauma registry and hospital discharge databases are two of the more significant sources of injury data. Trauma registries are designed to collect large amounts of information about the most seriously injured patients and are not typically used for injury surveillance purposes on their own. Hospital discharge datasets are designed primarily to monitor hospital census, utilization, and financial information but record enough information—like diagnosis codes and external cause/E-codes—to make them useful injury surveillance tools. In addition, the pre-hospital emergency medical services (EMS) patient care reports, compliant with the National EMS Information System (NEMSIS) Standard, may be helpful, as they can serve as good link between the crash data and hospital data. NEMSIS data is submitted to the state level by local EMS agencies, and the collective statewide data is submitted to the National EMS Database. The most effective linkage point at this time is at the State level.

These datasets are generally coded using different methodologies. Trauma registries use the Abbreviated Injury Scale while hospitals and emergency departments use the International Statistical Classification of Diseases and Related Health Problems for diagnosis, reporting, and billing.

The Abbreviated Injury Scale (AIS), developed by the Association for the Advancement of Automotive Medicine (AAAM), is an anatomically based, consensus derived, global severity

scoring system that classifies each injury by body region according to its relative importance on a 6-point ordinal scale (1=minor and 6=maximal). The AIS is the basis for the Injury Severity Score (ISS) calculation of the multiply injured patient. The AIS is protected by copyright, and both individual use and site licenses can be purchased from AAAM (http://www.aaam.org/about-ais.html).

The maximum AIS (MAIS) severity level is a recognized person-level injury severity indicator. For example, the Organization for Economic Co-Operation and Development's International Traffic Safety Data and Analysis Group (IRTAD) has recommended that MAIS of level three or higher be used as the standard for a seriously injured person in a motor vehicle crash (http://www.internationaltransportforum.org/irtadpublic/pdf/Road-Casualties-Web.pdf).

Maintained by the World Health Organization (WHO), the International Statistical Classification of Diseases and Related Health Problems (ICD) is the international standard diagnostic tool for epidemiology, health management, and clinical purposes. While a version of the ninth revision, ICD-9-CM, is currently still widely used in the US, a replacement based on the tenth revision, ICD-10-CM, has been developed by a National Center for Health Statistics (NCHS) Technical Advisory Panel following extensive consultation with physician groups, clinical coders, and others to assure clinical accuracy and utility (http://www.cdc.gov/nchs/icd/icd10cm.htm).

In the early 90's researchers at Johns Hopkins University developed a software tool (ICDMAP) that allowed analysts to generate a Maximum AIS (MAIS) or an Injury Severity Score (ISS) for each injured patient in the hospital discharge database using the ICD-9-CM diagnosis codes of each patient's record. The ICDMAP enabled statewide performance measurement by MAIS and allowed analysts to associate the severity outcomes to with crash, vehicle, and roadway circumstances for planning and/or evaluation of countermeasures.

While the ICDMAP-generated results are not as precise as those derived by clinicians in trauma registries, this approach has been validated and yields good sensitivity in estimating

severity for studying the larger universe of injury hospitalizations. Translating ICD codes to AIS allows all crash-involved injuries to be compiled and analyzed in terms of AIS and MAIS severity. When linked to causal information—State crash databases, for example—ICD codes can be used to improve measurement of crash-related injury severity.

There is not, however, currently any known software or service capable of translating between ICD-10-CM and AIS. Once hospitals transition to the ICD-10-CM, combining these two sets of injury data will no longer be possible, and analyses will be less complete and less useful. Significant effort is needed to develop a mapping tool that will enable mapping of ICD-10-CM diagnosis codes with the corresponding AIS severity codes.

RFI GUIDELINES

Responses to this notice are not offers and cannot be accepted by the Government to form a binding contract or issue a grant. Information obtained as a result of this RFI may be used by the Government for program planning on a non-attribution basis. This RFI notice is NOT a solicitation for proposals, applications, proposal abstracts, or quotations. This RFI notice is not to be construed as a commitment on the part of the Government to award a contract or grant, nor does the Government intend to directly pay for any information or responses submitted as a result of this RFI notice.

COMMENTS:

How do I prepare and submit comments?

Your comments must be written and in English. To ensure that your comments are correctly filed in the Docket, please include the Docket number of this document (NHTSA-2014-0062) in your comments.

Your primary comments must not be more than 15 pages long (49 CFR 553.21). However, you may attach additional documents to your primary comments. There is no limit on the length of the attachments.

Please submit one copy of your comments, including the attachments, to Docket Management at the address given above under **ADDRESSES**.

Please note that pursuant to the Data Quality Act, in order for substantive data to be relied upon and used by the agency, it must meet the information quality standards set forth in the OMB and DOT Data Quality Act guidelines. Accordingly, we encourage you to consult the guidelines in preparing your comments. OMB's guidelines may be accessed at http://www.whitehouse.gov/omb/fedreg_reproducible. DOT's guidelines may be accessed at http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/subject_areas/statistical_policy_and_resear ch/data_quality_guidelines/index.html.

Privacy Act: Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the *Federal Register* published on April 11, 2000 (65 FR 19477-78) or you may visit http://www.regulations.gov.

How can I be sure that my comments were received?

If you wish Docket Management to notify you upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will return the postcard by mail. You may also periodically access http://www.regulations.gov and enter the number for this docket (NHTSA-2014-0062) to see if your comments are on line.

How do I submit confidential business information?

If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential business information, to the Chief Counsel, NHTSA, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Washington, DC, 20590. In addition, you should submit a copy, from which you have deleted the claimed confidential business information, to Docket Management at

the address given above under **ADDRESSES**. When you send a comment containing

information claimed to be confidential business information, you should include a cover letter

setting forth the information specified in our confidential business information regulation (49

CFR Part 512.)

Will the agency consider late comments?

In our response, we will consider all comments that Docket Management receives before

the close of business on the comment closing date indicated above under DATES. To the extent

possible, we will also consider comments that Docket Management receives after that date.

How can I read the comments submitted by other people?

You may read the comments received by Docket Management at the address given above

under **ADDRESSES**. The hours of the Docket are indicated above in the same location.

You may also see the comments on the Internet. To read the comments on the Internet,

take the following steps:

(1) Go to the Federal Docket Management System (FDMS) at

http://www.regulations.gov.

(2)   FDMS provides two basic methods of searching to retrieve dockets and docket

materials that are available in the system: (a) "Quick Search" to search using a full-text search

engine, or (b) "Advanced Search," which displays various indexed fields such as the docket

name, docket identification number, phase of the action, initiating office, date of issuance,

document title, document identification number, type of document, Federal Register reference,

CFR citation, etc. Each data field in the advanced search may be searched independently or in

combination with other fields, as desired. Each search yields a simultaneous display of all

available information found in FDMS that is relevant to the requested subject or topic.

(3) You may download the comments. However, since the comments are imaged

documents, instead of word processing documents, the "pdf" versions of the documents are word

searchable.

Please note that even after the comment closing date, we will continue to file relevant information in the Docket as it becomes available. Further, some people may submit late comments. Accordingly, we recommend that you periodically check the Docket for new material.

Authority: 49 U.S.C. 30111, 30181–83 delegation of authority at 49 CFR 1.95 and 501.8.

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Terry Shelton,
Associate Administrator for the
 National Center for Statistics
 and Analysis.

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