De Novo Measure Scan (DNMS) | De Novo Measure Scan (DNMS), a feature of the Environmental Scan Support Tool on the controlled access version of CMIT, helps users efficiently gather information that is directly pertinent to a measure concept by reducing the effort and time required to start an environmental scan.

What is DNMS?

De Novo Measure Scan (DNMS) is the latest feature of the Environmental Scan Support Tool (ESST) that helps users gather biomedical literature that is directly pertinent to a measure concept. DNMS allows users to choose structured search terms specific to measure concepts to "build" a new measure concept.

How do I access DNMS?

DNMS is freely available to CMIT account holders on the controlled access version of CMIT. Access DNMS or request a CMIT account at https://cmitmms.cms.gov/CMIT.

How does DNMS work?

DNMS permits users to select structured search terms representing concepts that "describe" a measure. The terms are pre-identified from a Clinical Quality Measure (CMQ) ontology (set of concepts), with expansion using National Library of Medicine resources. Structured search terms enable DNMS to efficiently process documents, reducing the time required to run a scan. DNMS is curated by the artificial intelligence system that powers ESST. Using the ESST engine to drive a search, DNMS identifies and prioritizes the most relevant PubMed, PubMed Central and CINAHL content related to queried CQM concepts.

What are Clinical Quality Measure Concepts?

CQM concepts are the properties and characteristics of a measure that represent the components of a Measure Information Form. These are the search terms users select to start a new environmental scan.
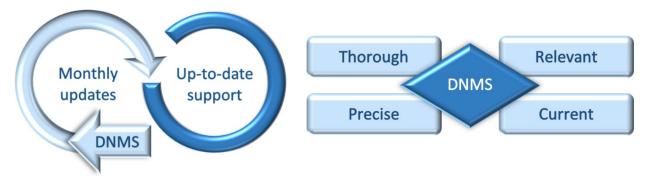
Target Population	*The population of interest*
Numerator: Health Status or Utilization	*The health state or healthcare service that is more or is less likely to occur due to the experience of the Change Concept*
Denominator: Health Status or Utilization	*The preexisting health state or service used prior to the experience of the Change Concept*
Change Concept	*The healthcare behavior that intends to change the likelihood of the Numerator*
Output	*Describes the impact of the Change Concept on the Numerator; is typically a verb (e.g., "prevents")*
Care Setting	*The setting during which the Change Concept occurs*

Questions? Email us at
MMSsupport@battelle.org
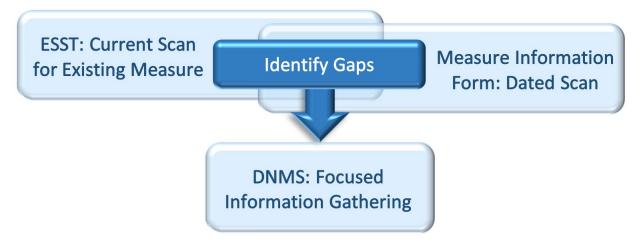
How is DNMS used?

DNMS for New Measures

DNMS is updated monthly with the most **current and relevant** biomedical literature. DNMS can help measure developers **conduct early and frequent scans** specific to measure concepts of their choice while developing new measures. DNMS can help CMS **assess the completeness** of information gathering for candidate measures during the vetting process.

DNMS for Respecification

DNMS helps users gather up-to-date evidentiary support needed to justify the respecification of an existing measure. Before using DNMS, ESST can first be used to evaluate current literature related to the existing measure of interest.
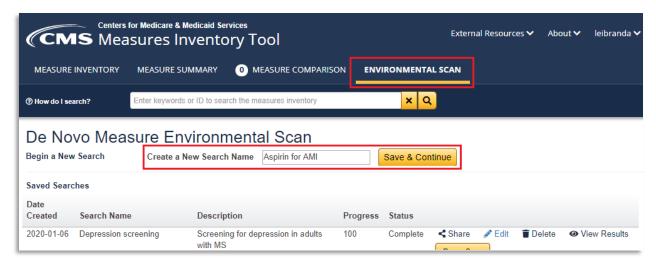
- ESST provides a current environmental scan that a user can **compare** with the preceding scan (evidence cited in the Measure Information Form) to **identify gaps**—areas that need further support to justify respecification. This enables a user to **narrow the focus** of additional information gathering to themes in need of more evidence.

- DNMS helps a user **conduct information gathering specific to gap areas** of interest, to identify additional support needed to justify the respecification of an existing measure.

Questions? Email us at
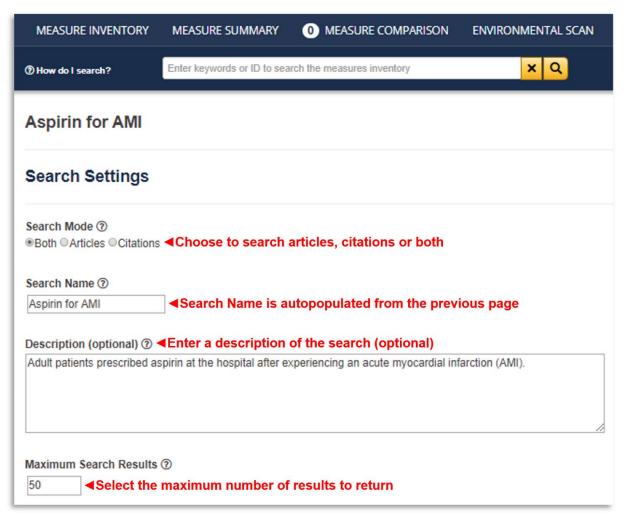MMSsupport@battelle.org

DNMS Quick Start Guide

After logging into controlled access CMIT, click the **Environmental Scan** tab to open DNMS. To begin a new search, type a search name of your choice into **Create a New Search Name** and click **Save & Continue**.
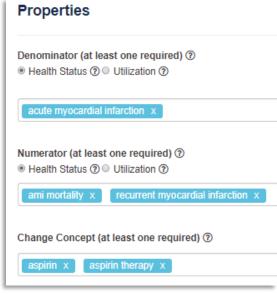

Next, **select the Search Settings** for the new scan and the **Properties and Characteristics** that describe the CQM measure concepts.

Properties

Denominator (at least one required) ⑦
◉ Health Status ⑦ ○ Utilization ⑦

| myoc | ◀ **Begin typing to select terms** |

acute myocardial infarction
chronic myocardial ischemia
myocardial infarction
myocardial ischemia
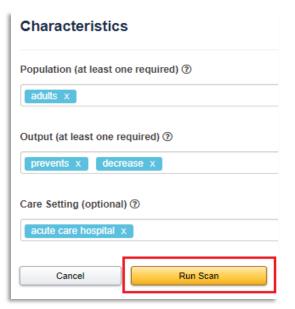myocardial perfusion
old myocardial infarction

DNMS does not allow the use of arbitrary search terms. DNMS uses structured search terms that are pre-identified from CQM concepts and National Library of Medicine resources. Structured search terms reduce the amount of time that DNMS requires to process documents and return results.

To select **Properties and Characteristics** for a measure concept, **type a concept** into the corresponding cell and **select terms** from the drop-down menu. After all desired search terms are selected, click **Run Scan** to begin the environmental scan.

Properties

Denominator (at least one required) ⑦
◉ Health Status ⑦ ○ Utilization ⑦

acute myocardial infarction x

Numerator (at least one required) ⑦
◉ Health Status ⑦ ○ Utilization ⑦

ami mortality x   recurrent myocardial infarction x

Change Concept (at least one required) ⑦

aspirin x   aspirin therapy x

Characteristics

Population (at least one required) ⑦

adults x

Output (at least one required) ⑦

prevents x   decrease x

Care Setting (optional) ⑦

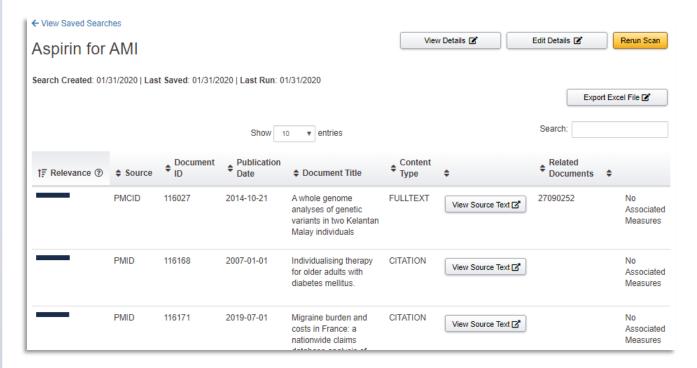acute care hospital x

Cancel   Run Scan

The newly created scan appears in **Saved Searches** on the DNMS home page. Here, progress and status of the scan can be monitored. Results are available when the Status is marked "Complete". To view completed scan results, click **View Results**.

De Novo Measure Environmental Scan

Begin a New Search   Create a New Search Name [   ]   Save & Continue

Saved Searches

Date Created	Search Name	Description	Progress	Status				
2020-01-06	Depression screening	Screening for depression in adults with MS	100	Complete	◁ Share	✏ Edit	🗑 Delete	👁 View Results
					Rerun Scan			
2020-02-04	Aspirin for AMI	Adults prescribed aspirin at hospital after AMI	70	Saving Results	◁ Share	✏ Edit	🗑 Delete	👁 View Results
					Rerun Scan			

The runtime of scans can vary, and the scan progress and status can be monitored on the DNMS home page. The scan will continue to run if logged out of CMIT.
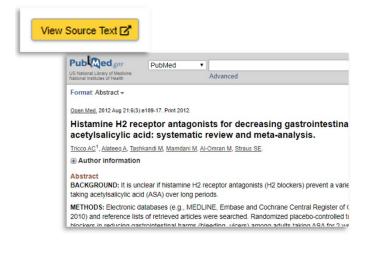
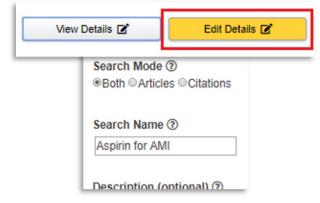The **Scan Results** page shows the identified and prioritized results, which can be filtered by category.

Click **View Details** to see the search terms used.

Click **Edit Details** to edit search parameters.

View source text for the document.

View measures associated with the document