

Frequently Asked Questions (FAQs)

Last Updated September 2019

If you can't find an answer to your question here, please e-mail ci@aamc.org.

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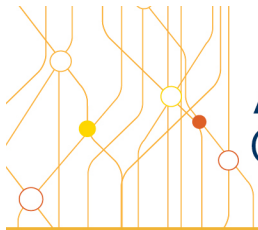
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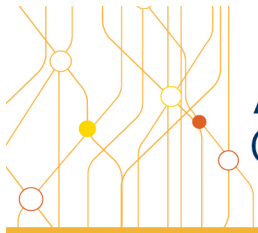
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Frequently Asked Questions (FAQs)

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General

What is the purpose of the AAMC Curriculum Inventory (CI)?

The AAMC Curriculum Inventory (CI) is designed to serve as the premier benchmarking and reporting tool on content, structure, delivery, and assessment of medical school curricula. Reports from the CI help participating institutions benchmark their curricula against national data and understand curricular trends on a given topic on a national scale, and provide AAMC with data to support its advocacy on behalf of medical schools.

The CI gathers medical school curriculum data from curriculum management systems and participants, organizing curriculum data according to standards in a reportable manner.

Visit [CI Homepage](#) to learn more about the AAMC Curriculum Inventory and Reports (CIR).

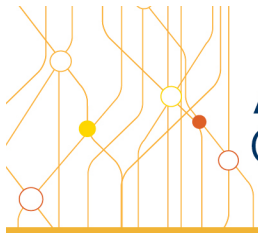
What is MedBiquitous?

MedBiquitous is a program of the AAMC that creates information technology standards for healthcare education and quality improvement. Its members are creating a technology blueprint for the health professions based on XML and Web services standards to seamlessly support health professions learners in ways that will improve patient care and simplify the administrative work associated with education and quality improvement. Learn more about the organization at MedBiq.org.

MedBiquitous developed the standards and specifications for the AAMC Curriculum Inventory (CI). The MedBiquitous Curriculum Inventory Working Group drafted the technical standard, [Curriculum Inventory Specifications](#), along with the associated XML schema and related documents such as the [Curriculum Inventory Standardized Vocabulary](#) and [Curriculum Inventory Implementation Guidelines](#).

Are schools required to upload their curriculum data to the AAMC Curriculum Inventory (CI)?

No – Schools are not required to share curriculum data with the AAMC. However, having a local, school-specific curriculum inventory (also known as a curriculum map or curriculum database) is an [Liaison Committee on Medical Education \(LCME\) accreditation standard](#). Participation in the CI enables schools to have access to benchmarking reports and tools that are only available to participating institutions.



Who can participate in the AAMC Curriculum Inventory (CI)?

Currently, all U.S. and Canadian AAMC-member medical schools are invited and encouraged to participate in the CI by uploading their curriculum data.

What curriculum management system vendors are able to upload curriculum data to the AAMC Curriculum Inventory (CI)?

Here is the [list of all current participating vendors](#) in the CI.

How should AAMC Curriculum Inventory (CI) data be referenced in publications?

If you would like to include a reference to CI data in a piece of scholarship (e.g., paper, presentation, poster, etc.), please use the following citation format:

Association of American Medical Colleges. (Name of Chart or Data Report). AAMC Curriculum Inventory, 201X-201X. (Link to chart if publicly available). Accessed or processed (Date).

Terminology

What are the AAMC Business Rules?

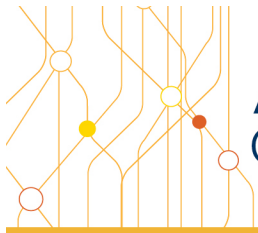
The [AAMC Business Rules](#) are a set of XML validation guidelines built upon the MedBiquitous Curriculum Inventory Standards. Both the MedBiquitous Curriculum Inventory Standards and the AAMC Business Rules must be met in order for a data upload to be successfully processed by the AAMC Curriculum Inventory (CI). The AAMC Business Rules and the MedBiquitous Curriculum Inventory Standards are available for download under [Resources for Developers](#).

How are clerkships modeled in the AAMC Curriculum Inventory (CI)?

Clerkships are represented in the CI as [Sequence Blocks](#). You can designate your clerkship sequence blocks as 'rotations' as a type to signify courses that are repeated throughout the year but hold different cohorts of students. Clerkship sequence blocks require a duration value as well as start and end dates.

What is the MedBiquitous Competency Framework?

A competency framework is an organized and structured representation of a set of interrelated [competency objects](#). The [MedBiquitous Competency Framework](#) sets out the organizational structure of competencies required to participate in the AAMC Curriculum Inventory (CI).



What is a competency object in the AAMC Curriculum Inventory (CI)?

Competency object in the CI is an umbrella term used to describe a statement of learning or performance [expectations](#). Statements can be learning outcomes, competencies, learning objectives, professional roles, etc.

Competency objects are related to one another and the PCRS, and referenced by sequence blocks and events.

Details on how to properly document competency objects are described in the [MedBiquitous Curriculum Inventory Implementation Guidelines](#).

How are courses modeled in the AAMC Curriculum Inventory (CI)?

Courses, including clerkships, are represented in the CI as [Sequence Blocks](#).

What is a data exchange standard?

A data exchange standard is a widely adopted model for organizing electronic information in a common format, such as [XML](#), so systems (databases, applications, etc.) not directly linked to one another can share information with others using the same model.

For example, the AAMC Curriculum Inventory (CI) is being designed according to the [MedBiquitous Curriculum Inventory Specifications](#). Participating schools will be required to organize their curriculum information using the standards set forth in that document so data from multiple systems can be combined into one large data set for national-level reporting on medical school curricula.

How can electives and selectives be modeled in the AAMC Curriculum Inventory (CI)?

An elective or selective course can be represented in the CI as a [sequence block](#). Electives and selectives can also be represented using [nested sequence blocks](#).

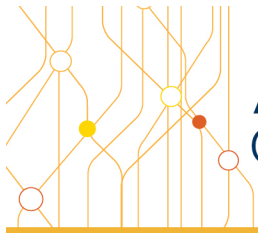
What is an event in the AAMC Curriculum Inventory (CI)?

An event in the CI refers to a single instructional or assessment activity within the curriculum, such as a lecture, lab, tutorial, exam, etc.

Events might commonly be referred to as course or clerkship sessions. Event objects are composed of required and optional elements.

The following elements are required in all event objects:

- Title – A title for the single learning activity
- Event Duration – The length of the learning activity, in hours and/or minutes (e.g., 1.5h; 1h30m; or 90m)



- Educational Method(s) – From the [Standardized Vocabulary](#), one or more instructional method(s), assessment method(s), or both, used in the learning activity
- Reference(s) to Sequence Block(s) – Reference(s) to the sequence block(s) with which the event is associated

The following elements are optional in event objects:

- Description – A free text description of the instruction or assessment activity
- Keyword(s) – Important concept(s) or topic(s) related to the event (Refer to the MedBiquitous Healthcare Learning Object Metadata (LOM) External Link standard for keyword rules and conventions.)
- Interprofessional ('True/False') – An indicator as to whether or not this event is designed to engage students of different health professions as teams (default='False')
- Competency Object Reference(s) – Reference(s) to unique ID(s) for competency object(s), or expectation(s), associated with the event
- Resource Type(s) – Type(s) of resource(s) used in the event (Refer to the [Standardized Vocabulary](#) for resource types that can be associated with events in the Curriculum Inventory.)

Note:

- All events must be associated with at least one sequence block. An event that is not referenced by at least one sequence block will result in an upload error.
- All assessment methods must be marked as formative or summative.
- If more than one instructional method is assigned to an event, one must be marked as primary.
- If an event contains both instructional methods and assessment methods, assessment methods will not be captured in reports on assessments used throughout a sequence block (course, clerkship, etc.). Assessment activities that should appear in such reports (e.g., for LCME DCI) must be documented as individual events with no instructional methods contained in the same event.

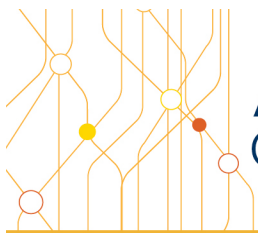
What are event-level competencies in the AAMC Curriculum Inventory (CI)?

Event-level competencies are [expectations](#) (competencies, objectives, etc.) for individual educational sessions or experiences that may be mapped to [sequence block competencies](#) in the CI. Event-level competencies **may not** be mapped directly to [PCRS](#) in the CI, but should be referenced by at least one [event](#).

See [CI Structure & the Competency Framework](#) for more on rules for competency mapping.

What are expectations in the AAMC Curriculum Inventory (CI)?

The term expectation in the CI refers to the knowledge, skills, and/or attitudes (i.e., behaviors) set forth as achievements learners are required to meet in order to successfully complete a component of the curriculum (an [event](#), [sequence block](#), or [program](#)).



Expectations is an umbrella term meant to capture:

- competencies,
- learning objectives,
- learning outcomes,
- milestones,
- entrustable professional activities (EPAs),
- any knowledge, skills, attitudes, behaviors, and/or attributes identified as standards by which learners' achievements of curricular goals are assessed.

The terms **Competency** and **Expectation** are often used interchangeably in CI documentation and materials, in keeping with language used by [MedBiquitous](#) and other resources. However, these terms are not necessarily synonymous with one another and may not be defined the same way from institution to institution.

See [CI Structure & the Competency Framework](#) for more on rules for competency mapping.

What is a nested sequence block in the AAMC Curriculum Inventory (CI)?

A nested sequence block in the CI is a [sequence block](#) embedded within another sequence block in order to represent a series of sequence blocks that are:

- Ordered (delivered according to an established sequence); or
- Unordered (may be delivered in any sequence); or
- Parallel (delivered concurrently).

What is a program in the AAMC Curriculum Inventory (CI)?

Program in the CI refers to the education degree program for which curriculum data is being submitted to the CI. In most cases, this will be the M.D. program of the medical school.

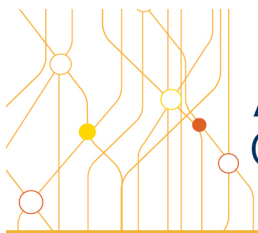
What are program-level competencies in the AAMC Curriculum Inventory (CI)?

Program-level competencies are medical school [expectations](#) (competencies, objectives, etc.) that may be mapped to [event-level competencies](#) and/or [sequence block-level competencies](#) in the CI. Program-level competencies **must** be mapped to one or more [PCRS](#) item(s) in the CI and should not be directly referenced by events or sequence blocks.

See [CI Structure & the Competency Framework](#) for more on rules for competency mapping.

What is a sequence block in the AAMC Curriculum Inventory (CI)?

Sequence block in the CI refers to a component of the curriculum, such as a course, module, clerkship etc. Sequence blocks are comprised of [events](#).



What are sequence block-level competencies in the AAMC Curriculum Inventory (CI)?

Sequence block-level competencies are [expectations](#) (competencies, objectives, etc.) applied to courses or clerkships (or equivalent), which may be mapped to [program-level competencies](#) and/or [event-level competencies](#) in the CI. Sequence block-level competencies may **not** be mapped directly to [PCRS](#) items but should be referenced by one or more [sequence blocks](#).

See [CI Structure & the Competency Framework](#) for more on rules for competency mapping.

What is the AAMC Curriculum Inventory (CI) standardized vocabulary for instructional methods, assessment methods, and resources?

The [AAMC Curriculum Inventory Standardized Instructional and Assessment Methods and Resource Types](#), or CI standardized vocabulary is a common set of instructional methods, assessment methods, and resource types to facilitate aggregate reporting. The CI standardized vocabulary list is intentionally general, capturing concepts from existing terminologies used by CurrMIT, the [Liaison Committee on Medical Education \(LCME\)](#), the [Accreditation Council for Graduate Medical Education \(ACGME\)](#), the [Unified Medical Language System \(UMLS\)](#), and others.

What is XML?

XML stands for Extensible Markup Language, a Web standard that makes it easier to exchange structured data over the Internet.

Curriculum Management for the CI

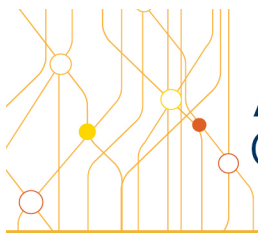
What is the Physician Competency Reference Set (PCRS)?

The [Physician Competency Reference Set \(PCRS\)](#) is a required element to participate in the AAMC Curriculum Inventory (CI). Schools must relate their program level expectations to the PCRS. This relationship allows AAMC to report schools' expectations at a program level in aggregate.

Are schools required to show program-level expectation (competency) mappings for all PCRS items?

No. Schools may not necessarily have [program-level expectations](#) that map to each and every [PCRS](#) item.

The PCRS is not a prescriptive list, outlining competencies or objectives schools "should" have — it is a reference list of general concepts commonly found in medical and health professions education. Not every school will find every PCRS expectation relevant to their program.



Do program-level expectations/competencies need to be mapped "one-to-one" with PCRS?

No. [Program-level expectations](#) may be mapped "**many-to-many**" with [PCRS](#), and vice versa — i.e., program-level expectations may be mapped to multiple PCRS items, and PCRS items may be mapped to multiple program-level expectations, though it would be unusual to map through multiple domains or all PCRS within a single domain.

How do formative assessment methods need to be documented in order to indicate in the methods of assessment tables of the CI Verification Report (Table 5 and 6) that a clerkship/non-clerkship sequence block includes formative assessment?

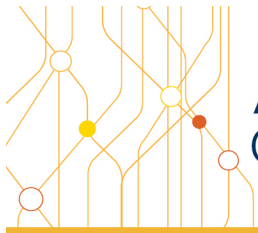
Because Table 5 (Non-Clerkship Sequence Block Assessment Methods) and Table 6 (Clerkship Sequence Block Assessment Methods) of the CI Verification Report indicates whether or not formative assessment is used in a course/clerkship, regardless of frequency, an "Y" will appear in that field if **any** formative assessment methods have been associated with [Events](#) within the [Sequence Block](#) (course/clerkship). Formative assessment methods may be used in combination with any other instructional and/or assessment methods — their inclusion in any Event that is linked to a Sequence Block will result in an "Y" indicating the presence of formative assessment in that course/clerkship.

How do assessment methods need to be documented in order to count toward the "number of exams" for a clerkship/non-clerkship sequence block in the methods of assessment tables in the CI Verification Report (Table 5 and 6)?

In order for an assessment method to be included in the "number of exams" for a clerkship/non-clerkship sequence block within Table 5 (Non-Clerkship Sequence Block Assessment Methods) and Table 6 (Clerkship Sequence Block Assessment Methods) of the CI Verification Report, an [Event](#) must be created for the assessment activity and contain **ONLY** one or more **summative assessment method(s)**. Events that contains any instructional method(s) will be **omitted** from these tables' count of exams.

A single Event may contain multiple assessment methods but counts as only one "exam" in Table 5 (Non-Clerkship Sequence Block Assessment Methods) and Table 6 (Clerkship Sequence Block Assessment Methods) of the CI Verification Report. To show multiple assessments per sequence block, separate Events need to be created for each individual assessment the school wishes to represent in the "exam" count.

Please note that schools are still encouraged to indicate any use of assessment methods in Events that may also contain instructional methods, even though the assessment methods in those instances will not be included in the count of clerkship/non-clerkship sequence block exams for these two methods of assessment tables.



What tagging is required for curricular material in the AAMC Curriculum Inventory (CI)?

Curricular materials are considered resources in the CI. To see a list of all possible resources, click [here](#).

How should courses represent the resources they use?

The [CI Standardized Vocabulary](#) includes Instructional Methods, Assessment Methods, and Resources. All resources used for instruction and assessment (e.g., standardized patients, virtual patients, digital or written media, etc.) should be documented as resources.

Since clerkships have multiple iterations, should tagging be completed multiple times per year OR should a clerkship be tagged for the first iteration only since the material is the same for each other iteration?

Schools should document their clerkships in their internal inventory systems in a manner that meets their operational needs. For example, to ensure comparability across rotations and sites, it might be important that each iteration of the clerkship is documented. For the AAMC Curriculum Inventory (CI), however, only one iteration is needed.

Any iteration can be uploaded and some schools create a 'model' clerkship that they upload to the CI to avoid having to implement a single-case selection system. Conversely, attempts to provide all iterations appear in our databases as multiple clerkships, not as multiple rotations of a single clerkship, and this multiplicity presents a difficult situation for which we have no automatic solution.

Are all assessment methods listed in the MedBiquitous terms considered either formative or summative?

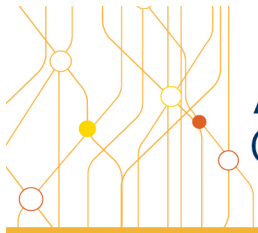
Yes, each assessment method tagged in the AAMC Curriculum Inventory (CI) must be designated as either formative or summative. Please note that while an assessment method can be designated as formative, there is no actual assessment method called 'formative.' Please see [here](#) for the complete list of available assessment methods.

Is it required to create two different tag lists: Formative Assessment and Summative Assessment?

Each assessment method tagged in the AAMC Curriculum Inventory (CI) must be designated as either formative or summative. Whether or not a tag list is needed to accomplish this may depend on your specific software.

What is the requirement in terms of showing the difference between formative and summative when reporting curriculum data?

Each assessment method included in your submission to the AAMC Curriculum Inventory (CI) must be documented either formative or summative, regardless of the specific method used. Tables 5, 6,



and 7 of the Verification Report manifest the summative and formative nature of assessment methods in your CI submission, and the specifics of how these representations are calculated is define within the instructions for those tables. These attributes are also retained as part of the AAMC Curriculum Inventory database, to be used as part of our data reporting.

Sample of the Verification Report, along with other [resources to use your CI](#) are available on the CI website.

Within a one-hour lecture, tagged as instructional method and assessment, should we tag for only the 50-minute block when faculty are present or the whole hour?

Each school can decide how they wish to document curricular time. Schools may wish to document time based on the time communicated to students, the time used to calculate faculty effort, etc. The AAMC Curriculum Inventory (CI) allows for event duration to be documented in hours and/or minutes, so whatever process a school chooses to use to document time is supported.

Does each lecture event need to be tagged with an assessment in the AAMC Curriculum Inventory (CI)?

While not required, many schools tag each lecture event with an assessment in the CI to help them understand how their content is assessed.

How do we document where USMLE Content is covered?

Events in the AAMC Curriculum Inventory (CI) contain titles, descriptions, learning objectives (expectations), and keywords. Any of these fields could be made useful to document USMLE content; one way to ensure coverage of USMLE content is to set up a keyword list based on USMLE concepts.

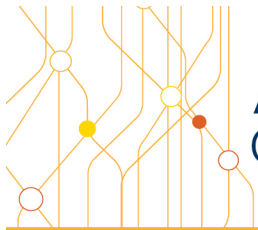
Preparing and Uploading Data

Which academic year's data is to be uploaded to the AAMC Curriculum Inventory (CI)?

Each year, schools are asked to upload their curriculum data from the most recently completed academic year. As an example, in August 2019, schools will be sharing with the CI their curriculum data from the 2018-2019 academic year.

Who can perform data uploads to the AAMC Curriculum Inventory (CI)?

Designated senders are responsible for uploads to the CI. Senders can either be medical school staff familiar with [XML](#) requirements or curriculum managements system vendors contracted by the school to handle uploads compliant with the [standards and specifications](#) for the CI. Senders must be certified via [sender on-boarding process](#) before they are able to submit curriculum inventory data on behalf of a school.



Senders can submit to the CI through either [CI School Portal](#) or [CI Vendor Portal](#) web service. If schools choose to submit their own XML files to the CI without using a curriculum management system vendor, the school must also complete the sender on-boarding process.

See [How can a school set itself up as a sender to upload its own XML file?](#) and [How can a school set a vendor up as a sender to upload an XML file?](#) for additional information

Using the CI School Portal

How can a school set itself up as a sender to the AAMC Curriculum Inventory (CI) to upload its own XML file?

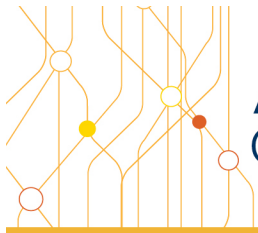
Rather than using an outside vendor, a school can set itself as the data sender to the CI by using the following steps:

- Sign into the CI School Portal
- Go to the "Manage Sender" tab.
- Under "How will you create your curriculum data file?" select "A system at my school will create the file."
- Under "How will you submit your curriculum data file?" select "I will upload a file generated by my school or vendor curriculum management system."
- Click "Save."
- Return to the "Home" tab. An "Upload data" button will now appear on the Home screen. Click the button to browse, locate, and upload your XML file.

How can a school set a vendor up as a sender to the AAMC Curriculum Inventory (CI) to upload an XML file?

In order to assign a vendor as a sender to upload an XML file on their behalf, a school must sign in to the CI School Portal and follow these steps:

- Go to the "Manage Sender" tab.
- Under "How will you create your curriculum data file?" select "A vendor curriculum management system will create my curriculum data file"; Select the appropriate participating vendor from the dropdown menu at right.
- Under "How will you submit your curriculum data file?" select "A vendor will upload my file for me."
- Click "Save."



For Developers

What are the technical standards and specifications being used for the AAMC Curriculum Inventory (CI)?

The CI uses the [MedBiquitous Curriculum Inventory Specifications](#). Data uploads to the CI must adhere to the MedBiquitous Curriculum Inventory XML schema set forth in the Specifications. Data uploads must also meet the [AAMC Business Rules](#). Visit the [MedBiquitous Curriculum Inventory Standards and Schemas web page](#) for additional information about data structure, vocabularies and the MedBiquitous Curriculum Inventory working group.

What are the AAMC Business Rules?

The [AAMC Business Rules](#) are a set of XML validation guidelines built upon the MedBiquitous Curriculum Inventory Standards. Both the MedBiquitous Curriculum Inventory Standards and the AAMC Business Rules must be met in order for a data upload to be successfully processed by the AAMC Curriculum Inventory (CI). The AAMC Business Rules and the MedBiquitous Curriculum Inventory Standards are available for download under [Resources for Developers](#).