



## ASPIRE Recognition of Excellence in Healthcare Simulation in a Medical, Dental, Veterinary School Short Description of the Area of Healthcare Simulation

### Definition

Simulation in healthcare education is a “technique, not a technology that replaces or amplifies real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner” (Gaba 2004). Simulation may include a range of technologies and educational contexts that include but are not limited to: simulated (standardized patients), simple and partial task trainers, full body patient mannequins, virtual reality, augmented reality, haptic, hybrid models, and simulated environments. An institution that has achieved excellence in healthcare simulation education ensures it is well-designed (embedded in appropriate educational theory), and integrated into the curriculum, uses it as an adjunct to patient or health systems care training and/or assessment experiences, and provides for outcome driven measures that are continuously evaluated for quality and improvement.

### Scope

An applicant institution or organization may have a single centralized simulation program or a decentralized series of simulation activities aimed at enhancing standards of teaching/education, faculty preparedness, and scholarship. These may include programs and activities for:

- teaching and assessing clinical and procedural skills;
- promoting critical thinking and problem-solving skills;
- fostering communication and teamwork;
- introducing and promoting interprofessional learning and practice;
- developing patient safety, healthcare systems, and/or cultural awareness;
- individualizing (“precision”) care and public health;
- exploring healthcare systems science and practice.

Cultural, geographic, social, fiscal and other issues may influence how healthcare simulation education is delivered at an institution and will vary among institutions. Excellence may be identified and recognized in institutions with limited resources just as much as in “resource-rich” institutions. The way in which institutions demonstrate context appropriateness will be taken into account by the panel when reviewing each submission.

### Conceptual Frameworks

Excellence in healthcare simulation may be seen as the product of four components (Figures 1 & 2): organizational framework (curricular institutionalization), training resources and educational use, faculty and support personnel expertise and innovation and scholarship. This framework will be used to map the criteria of excellence in healthcare simulation education to continue to facilitate institutions to “aspire” and achieve excellence in all four domains.

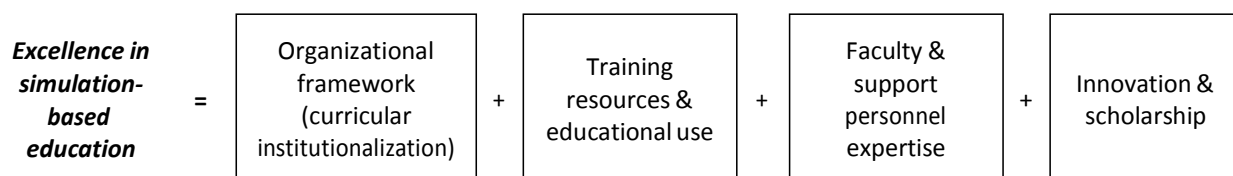
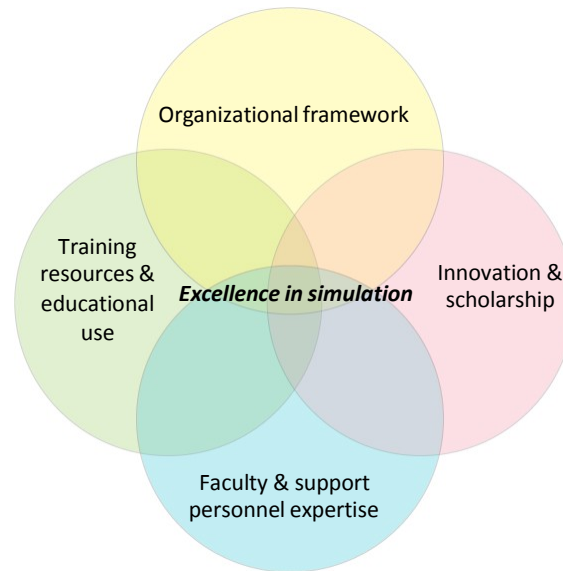


Figure 1 – Conceptual framework for determining excellence in simulation-based healthcare education



**Figure 2 – Conceptual framework illustrating relationships of various components contributing to excellence in simulation-based healthcare education**

- *Organizational framework (Curricular institutionalization)* includes elements necessary for full adoption and integration of simulation-based medical education into an institution’s mission and culture. It involves the decision of an institution to fully embrace its goal of improving patient care and patient safety through reducing and preventing medical errors, as well as more individual goals of teaching and assessing across a wide range of competencies.
- *Training resources and educational use* refers to incorporating appropriate simulation methodologies that meet an institution’s needs. In addition, it includes having the necessary physical space and support resources for simulation-based training. It also encompasses best evidence justification for, and application of, the associated curricula, learning strategies and outcome measures.
- *Faculty and support personnel expertise* includes healthcare professionals trained in the proper use of simulation-based education. It also includes administrative and technical individuals involved in the operation, management, and administration of simulation-based training, as well as researchers dedicated to advancing the field.
- *Innovation and scholarship* refer to the development of resources, training and clinical practice that have made a transformative impact. It also includes developing resources that have undergone peer review and dissemination and/or execution of outcomes research that has been published, presentations at conferences, and papers for policy makers.

### **Application process**

Applicants will describe the entire scope of the institution’s simulation programs in the application summary and will specify whether the application will describe the whole series of simulation programs or focus on a specific simulation program that prepares learners for clinical practice. The program(s) should include a focus on undergraduate and graduate entry healthcare education, but may also include those involving postgraduates and practicing clinicians. The school’s designated program(s) will constitute “the program of healthcare simulation” for the ASPIRE program application and be assessed using the criteria for excellence.

## Criteria and Evidence of Excellence

**Criterion 1 – Organizational Framework (Curricular institutionalization):** The institution’s healthcare simulation education program has clear goals that are aligned with its organizational priorities and objectives, is systematically designed, and serves the educational mission of the institution.

Sub-Criteria	Examples of Evidence
1.1. The institution’s program has clear goals, is aligned with school priorities and objectives, and/or influences organizational culture.	Narrative description of the institution’s simulation-based education program goals, how the program facilitates targeted priorities of the institution (and national, international), and/or if not aligned with institutional priorities then how it works to improve the educational climate.
1.2. The institution’s program uses a systematic curriculum development model that is informed by a theoretical framework and best practices to design and implement simulation-based education.	Narrative description of the curriculum development model, theoretical framework and evidence used to design simulation-based education. Provide an example(s) of how the model was applied to design and/or implement a horizontally and/or vertically integrated training program.
1.3. The institution’s program focuses on improving educational practice.	Narrative description of how the program addresses the overall aim to improve educational practice.

**Criterion 2 – Training Resources and Educational Use:** The institution’s simulation healthcare program incorporates appropriate simulation methodologies that meet its institution’s needs. In addition, it includes having the necessary physical space and support resources for simulation-based training. It also encompasses evidence-based justification and application of the associated curricula, learning strategies and outcome measures.

Sub-Criteria	Examples of Evidence
2.1. The institution’s program uses a systematic process to align simulation technologies and methodologies with the its defined training needs.	Narrative description of the process used to align its simulation training resources (space, equipment, simulation device(s), support technology) and methodologies (individual, team-based, immersive) to its defined training needs.
2.2. The institution’s simulation program is grounded in best-evidence practice for education and training;	Narrative description of demonstrating that simulation training activities are grounded in best practices or proven conceptual frameworks for education. Provide an example of how the framework was applied to guiding simulation activities (scenario development, practice sessions).
2.3. The institution uses a rigorous and standardized process for developing and implementing outcome measures that assesses the outcome of and assessment (of learning – summative assessment).	Narrative description of how the program develops and/or uses outcomes measures with evidence for their construct validity. Provide an example describing a rigorous process for demonstrating validity evidence when using an assessment instrument for trainees.

2.4. The institution incorporates evidence-based feedback and debriefing methods into its simulation learning activities (formative assessment).	Narrative description of how the program uses structured (best evidence) feedback and debriefing methods (it has either developed or adopted) as part of the simulation-based learning process. Provide specific example(s) of feedback and/or debriefing techniques that are used in simulation activity or program.
2.5. The institution uses a continuous and systematic process of quality assurance and improvement of its simulation program.	Narrative description of the formal process used to evaluate the simulation program including identifying the model / framework used (these can be national or international standards / criteria). Provide an example (in the form of a summary table or executive summary) of such a process used for one or more of the simulation programs.

**Criterion 3 - Faculty and support personnel expertise:** The healthcare simulation program ensures that its faculty and support personnel have demonstrated expertise in simulation-based healthcare education. This not only includes professionals trained in the best evidence use of simulation-based medical education, but also includes individuals involved in the operation, management, and administration of simulation-based training, and researchers dedicated to advancing the field.

Sub-Criteria	Examples of Evidence
3.1. The institution's simulation program expects its faculty, administrative staff, and technical personnel to have expertise in simulation-based education, and supports their development by providing resources needed to achieve their goals and sustain their activities.	Narrative description of the recruitment, selection and preparation of simulation faculty and staff for their role and how they are supported by the institution to advance their own scholarly and professional development, including keeping up-to-date with developments in the field. Describe formal training that faculty must undergo for using simulation for training and/or assessment; (workshops, courses (face-to-face, online), seminars, certificate, diploma, degree).
3.2. The institution's simulation program has faculty with expertise in carrying out simulation-based educational research and supports their development by providing resources needed to achieve their goals and sustain their activity.	Narrative description of the recruitment, selection and preparation of faculty to carry out simulation-based health care research and how they are supported by the institution to advance their own scholarly and professional development. Describe formal training that faculty must undergo for using simulation for research purposes.

**Criterion 4 – Innovation and scholarship: The institution promotes innovation, impact and scholarship in simulation-based healthcare education.**

Sub-Criteria	Examples of Evidence
4.1. The institution promotes innovation in simulation-based healthcare education.	Narrative description of educational innovations employed in faculty development during the past five years with reference to evaluation reports and/or publications describing innovations and associated scholarship (if available).
4.2. The institution's faculty (and where appropriate their learners) conduct research related to simulation-based healthcare education.	List of scholarly presentations and/or publications related to simulation-based healthcare education in the past five years.
4.3. The faculty advance simulation-based healthcare education nationally and internationally.	List of awards, invitations to speak and consultations (e.g. to assist other institutions with simulation-based healthcare education) by faculty to advance simulation-based healthcare educational practices, leadership and scholarship locally, nationally and internationally in the past five years.