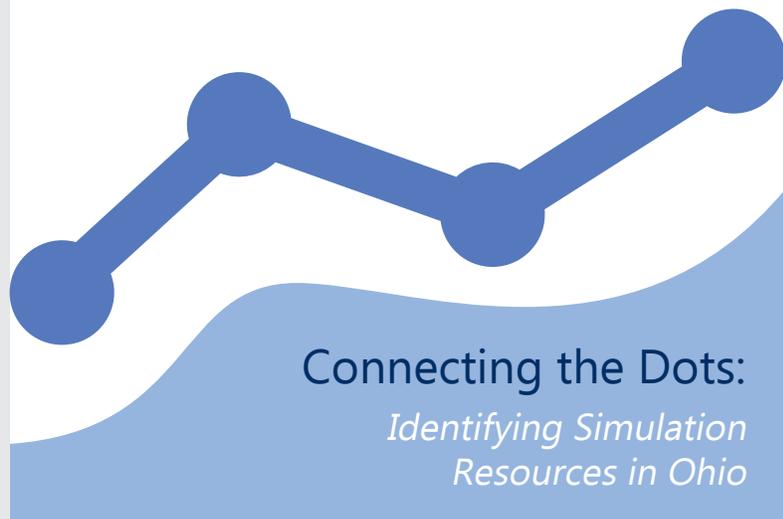


## Background

In 2010, a series of discussions began through the Ohio Network for Nursing Workforce (ONNW), the state's virtual nursing workforce center, about the use of simulation. In practice settings such as hospitals, simulation is used to provide real-life experiences in a safe manner to both newly graduated and seasoned nurses. Simulation also supports interdisciplinary professional training. As patient care needs become more complex in acute care facilities and the need to update or teach new clinical skills to all direct care providers becomes even more critical, simulation offers an efficient and effective way to achieve this.

Over the last decade, Ohio has seen tremendous growth in new schools of nursing as well as in enrollment in established schools. As a result, there is intense competition for clinical training sites, particularly for specialty areas. Schools consistently report that clinical site availability is one of their biggest challenges, along with faculty shortages. Although the Ohio Board of Nursing recognizes the use of simulation in nursing education, there is no specificity around how the amount of simulation training should compare to the amount of onsite clinical training. As a result, schools utilize simulation but generally in addition to clinical site training hours, not as a replacement. With an impending nursing workforce shortage that is projected to be felt in 2014 in Ohio, it will become increasingly important to quantify simulation as a recognized type of clinical site training as schools work to expand their ability to enroll and educate more pre-licensure nursing students.

It became apparent through ONNW discussions that it would be helpful to have a clearer picture of the use of simulation in the state, and since no other comprehensive source of information existed in Ohio, a survey of hospitals and academic programs was determined to be the best option. A statewide profile would also provide partners as well as ONNW data that could guide future simulation planning and programming efforts.



## Connecting the Dots: *Identifying Simulation Resources in Ohio*

### Survey Objectives

The objects of the survey were to:

1. Create a comprehensive state profile of where simulation resources are located and how simulation is utilized.
2. Determine gaps and the need for additional resources.
3. Provide data to encourage moving to establishing a standard for nursing academic programs that recognizes the equivalency of simulation training to onsite clinical training.

### Survey Tool and Process

Data was collected over a four-month period in 2011 using survey tools with the permission of the Florida Center for Nursing that were adapted for use in Ohio. A total of 175 colleges of nursing and 112 hospitals throughout Ohio were contacted with a response rate of 37 percent (65 schools of nursing) and 38 percent (43 hospitals) respectively.



## Survey Key Findings

<p>Simulation is prevalent in Ohio.</p>	<p>Approximately 93 percent of hospitals and 97 percent of schools are using one or more types of simulation technology.</p>
<p>The use of a full-time simulation coordinator is common.</p>	<p>Dedicated simulation coordinators are employed by 64 percent of hospitals and 54 percent of schools. Significantly more than half of hospital coordinators – 64 percent – are registered nurses, and most are highly educated, with 71 percent holding either a Master’s or a doctoral degree. Sixty-four percent of hospital coordinators also work full time. Of those schools that employ coordinators, 93 percent utilize registered nurses in the role and 83 percent employ their coordinators on a full-time basis. As with hospitals, school simulation coordinators are also a highly educated group, with 69 percent holding either a Master’s or doctoral degree. Aside from these dedicated coordinators, additional onsite technical support was rare, with 16 percent of hospital-based simulation centers and 13 percent of school-based centers employing technical support personnel.</p>
<p>Hospitals and schools employ a variety of simulation equipment.</p>	<p>Among hospitals, Laerdal and LifeForm are used most commonly, with each being utilized by 30 percent of facilities. Gaumard is used by 19 percent and METI by 17 percent of hospitals. Among schools, LifeForm is used by 47 percent, Gaumard by 28 percent, METI by 23 percent and Laerdal by 17 percent.</p>
<p>Simulation centers are used mainly on weekdays, with minimal weekend usage.</p>	<p>On average, simulation centers in hospitals are active 25 hours per week during weekdays and 79 percent are inactive on weekends. Schools utilize their centers 15 hours per week during weekdays and 80 percent are inactive on weekends.</p>
<p>Simulation is commonly used to teach health assessment skills.</p>	<p>About 60 percent of hospitals and 83 percent of schools teach health assessment skills using simulation. The primary areas for hospitals are critical care and medical-surgical while schools focus on medical-surgical, maternal-newborn, and pediatrics. Both hospitals and schools primarily use simulation to support the development of critical thinking/ decision-making processes as well as to practice skills and demonstrate competency.</p>

## Survey Key Findings

Organizations that use simulation most commonly write their own scenarios.

While a lack of time for scenario writing was cited as a significant barrier, both hospitals (83 percent) and schools (87 percent) manage to do so. While about half of hospitals utilize pre-packaged scenarios provided by equipment vendors and about one-third modify scenarios developed by others, a common challenge was adapting these scenarios to their own environments, standards and protocols. Schools also reported similar challenges, with 48 percent of them using pre-packed scenarios and 59 percent modifying scenarios developed by others.

Expansion of simulation is in the works.

More than half of hospitals (58 percent) and the majority of schools (82 percent) reported they plan to expand the use of simulation in their curriculums.

There is interest in working together on the usage of simulation.

About 77 percent of hospitals and 72 percent of schools expressed an interest in collaborating with other entities or simulation centers. Both hospitals and schools were most interested in working with others on training and staff development for simulation coordinators and on developing simulation scenarios. Cost was reported by both hospitals and schools as a significant hurdle for collaborative initiatives. Hospitals also reported the location of the equipment as a concern in considering a partnership while schools expressed that faculty with limited knowledge about the use of simulation was their secondary concern.

Hospitals and schools would use a regional collaborative simulation center, if available.

About 69 percent of hospitals and 77 percent of schools expressed interest in participating in a regional collaborative center. While 44 percent of hospitals cited cost as a barrier to such an initiative, most schools (75 percent) cited no barrier at all to participation.

Hospitals and schools have their own needs with respect to simulation.

For hospitals, the most common need, cited by 58 percent of respondents, is evaluating education outcomes. Other significant needs are related to training for faculty, sustaining funding for simulation and the development of multidisciplinary simulation. Among schools, 68 percent reported their most acute need to be providing hands-on training to faculty to implement simulation learning. Research opportunities, training faculty in simulation writing and evaluating education outcomes were also commonly cited needs for schools.

## Survey Implications

In Ohio, simulation education is prevalent in both clinical and academic settings and expected to increase in the future. One of the key opportunities for growth could be expanding the use of simulation in hospitals and schools during weekends provided there is an identified need, such as a nursing program expansion, and sufficient clinical staffing support exists.

There is also significant interest in collaborating on a regional level. This warrants further discussion to determine how collaboration could benefit all partners as well as how to overcome some of the major issues such as cost. The ability to share scenarios would be both time- and cost-efficient, but a major stumbling block arises from the need to customize situations to meet each individual organization's learning objectives or curriculum requirements. One strategy could be to create a set of scenarios that set basic standards for simulation education across multiple facilities and programs but have a mechanism for individual adaptation. Finally, it is clear that more work is needed to evaluate simulation as an effective teaching strategy as well as how to most effectively educate professionals on how to utilize it, whether in the practice or academic setting.

## ONNW's Founding Members

Special thanks to the following founding members of the Ohio Network for Nursing Workforce (ONNW):

- The Greater Cincinnati Health Council
- Licensed Practical Nurse Association of Ohio (LPNAO)
- The Center for Health Affairs and its workforce initiative, NEONI
- Nursing Institute of West Central Ohio
- Ohio Board of Nursing (OBN)
- Ohio Hospital Association (OHA)
- Ohio League for Nursing (OLN)
- Ohio Nurses Association (ONA)
- Ohio Organization of Nurse Executives (OONE)

