



*Toward an Environmentally Sustainable Academic Enterprise:
An AACN Guide for Nursing Education*

July 2011

Recommendations to the AACN Board from
the Task Force on Environmental Sustainability

**Toward an Environmentally Sustainable Academic Enterprise:
An AACN Guide for Nursing Education**

	Page
Executive Summary	3
Background and Charge to the AACN Task Force	5
Key Concepts and Definitions	5
Recommendations addressing Charge #1: Best practices in schools of nursing	6
1.a. Develop an AACN award program celebrating excellence in environmental sustainability.	6
1.b. Offer a “how to” webinar for AACN deans/directors who wish to learn more about how to advance environmental sustainability initiatives.	6
1.c. Inform AACN member deans/directors about opportunities to collaborate with other national initiatives addressing environmental sustainability.	7
1.d. Encourage business officers to examine the financial benefits of advancing environmentally sustainable practices.	7
1.e. Provide member schools with information about the greening of nursing practice laboratories.	7
1.f. Designate “environmental sustainability” as one of AACN’s Online Collaboration Communities.	8
1.g. When appropriate, incorporate language addressing environmentally sustainable practices into AACN documents and reports.	8
Recommendations addressing Charge #2: Competencies addressing nursing education	9
2.a. Endorse educational competencies related to environmental sustainability for baccalaureate and graduate students.	9
2.b. Direct member schools to appropriate on-line educational materials.	9
2.c. Offer an AACN webinar for faculty who wish to incorporate content on environmental sustainability into their curricula.	9
Conclusion	9
AACN Environmental Sustainability Task Force Members and other contributors to the report	10
Appendices	12
Appendix A. Draft outline for webinar	12
Appendix B: Example e-memo to Deans addressing other national opportunities	14
Appendix C: Environmental Health Scope and Standards of Practice as adopted by the American Nurses Association, 2010	15
Appendix D: American Nurses Association’s Principles of Environmental Health for Nursing Practice, 2007	16
Appendix E: Environmental Health Principles and Recommendations for Public Health Nursing: American Public Health Association, 2005	17
Appendix F: Proposed Competencies addressing Environmental Sustainability as proposed by the AACN Task Force	18
Appendix G: Selected on-line resources	19
Appendix H: Draft outline for a second webinar	20

Executive Summary

In Fall 2009, the AACN Deans/Directors passed a motion in support of AACN taking a leadership role on issues addressing environmental sustainability in nursing education. The following spring the AACN Board of Directors approved the establishment of a Task force on Environmental Sustainability. The Board issued the following charges to the task force:

1. To identify best practices for environmental sustainability of academic nursing units and recommend dissemination strategies, including associated financial impact.
2. To recommend content and competencies for BSN and graduate nursing education related to environmental sustainability and healthcare delivery.

This report, titled *Toward an Environmentally Sustainable Academic Enterprise: An AACN Guide for Nursing Education*, provides recommendations responding to the charges of the task force. As the national voice for baccalaureate and graduate nursing education, AACN is uniquely positioned to: 1) promote environmentally sustainable practices throughout its 669 member schools of nursing, and 2) advance the capacity of nursing educators to incorporate content and competencies addressing environmental sustainability into nursing curricula.

To further advance AACN's leadership in the area of environmentally sustainable academic environments, the task force is advancing 10 recommendations for consideration by the Board. Seven of these recommendations address Charge #1, which focuses on the adoption of best practices within academic nursing units. The remaining three recommendations address Charge #2, which focuses on the recommendation of content and competencies for BSN and graduate nursing education.

Recommendations addressing Charge #1 (best practices addressing environmental sustainability in schools of nursing) include:

- 1.a. Develop an AACN award program that celebrates excellence in environmental sustainability in schools of nursing.
- 1.b. Offer a "how to" webinar for AACN deans/directors who wish to learn more about how to advance environmental sustainability initiatives within their respective schools of nursing.
- 1.c. Inform AACN member deans/directors about opportunities to collaborate with other national initiatives addressing environmental sustainability.
- 1.d. Encourage business officers to examine the financial benefits of advancing environmentally sustainable practices within their respective schools of nursing.
- 1.e. Provide member schools with access to basic information addressing the greening of nursing practice laboratories.
- 1.f. Designate "environmental sustainability" as one of AACN's Online Collaboration Communities.
- 1.g. When appropriate, incorporate language addressing the connections between AACN's mission/vision and the promotion of environmentally sustainable practices into AACN documents and reports.

Recommendations addressing Charge #2 (recommended content and competencies addressing nursing education) include:

- 2.a. Endorse educational competencies addressing environmental sustainability for baccalaureate and graduate students.
- 2.b. Direct member schools to appropriate on-line resources addressing environmental sustainability.

2.c. Offer a second webinar for faculty who wish to incorporate content addressing environmental sustainability into their curricula, clinical experiences, or student leadership activities.

Recommendation 2.a focuses specifically on educational competencies. This recommendation encourages AACN to adopt the following four competencies addressing environmentally sustainable nursing practice. These competencies are appropriate for the inclusion in both undergraduate and graduate nursing programs and specify that nurses:

1. Use healthcare resources in a judicious and thoughtful way.
2. Dispose of healthcare-associated waste, including pharmaceuticals and biomaterials, in a responsible manner.
3. Recognize the importance of minimizing healthcare's biological, chemical, and physical waste stream.
4. Promote the adoption of institutional policies aimed at promoting environmentally sustainability in schools of nursing and/or clinical settings.

Nursing education is inherently forward looking and considers critical issues that students are likely to encounter over the course of their professional lives. Those students educated today will need to critically reexamine the resource intensive aspects of the health care system. The inclusion of environmental sustainability in nursing education ensures that students will become informed members of the healthcare team and more capable of designing and implementing sustainability initiatives in hospitals and clinics. It is in this context that the AACN environmental sustainability task force offers these recommendations for the Board's consideration.

Background and Charges to the AACN Task Force

Nursing leaders throughout the nation are engaged in efforts to create a healthcare system that will be environmentally sustainable for current and future generations. Such efforts are multifaceted and range from the design of green hospitals to the implementation of new policies addressing environmentally preferred purchasing. These efforts, individually and collectively, are aimed at reducing the healthcare's carbon footprint and the volume and toxicity of wastes generated in healthcare organizations.

As the national voice for baccalaureate and graduate nursing education, AACN is uniquely positioned to promote environmentally sustainable practices throughout its 669 member schools of nursing, and enhance the capacity of faculty and students to incorporate principles of environmental sustainability into their practice. In November 2009, the AACN Deans/Directors passed a motion in support of AACN taking a leadership role on issues addressing environmental sustainability on behalf of its member colleges/schools. The following spring the AACN Board commissioned the establishment of a new AACN Task Force on Environmental Sustainability and issued the following charge:

1. To identify best practices for environmental sustainability of academic nursing units and recommend dissemination strategies, including associated financial impact.
2. To recommend content and competencies for BSN and graduate nursing education related to environmental sustainability and healthcare delivery.

This report provides the task force's response to the charges and recommendations for action. The recommendations range from the development of webinars aimed at providing Deans/Directors with actionable information to the endorsement of environmental sustainability competencies for nurses. They are intended to advance AACN's authority as a thought leader in the area of environmental sustainability in nursing education.

Key Concepts and Definitions

This report focuses primarily on *environmentally sustainable healthcare and/or nursing practice*. Rather than a specific outcome or absolute, environmentally sustainable healthcare refers to practices that are viable indefinitely and not disproportionately harmful to the environment. Nursing leaders may be involved in a number of actions addressing environmental sustainability, ranging from facility design to energy conservation programs or waste reduction initiatives.

In this context, environmental sustainability or environmentally sustainable healthcare can be viewed as a subset of environmental health. The Institute of Medicine report titled *Nursing, Health, & the Environment* defines environmental health as freedom from illness or injury related to exposure to toxic agents and other environmental conditions that are potentially detrimental to human health. To the extent possible, the recommendations in this report focus on environmental sustainability in healthcare rather than environmental health overall. Other organizations have developed competencies, reports, and national recommendations regarding the broader rubric of environmental health in nursing; some of those recommendations and/or competencies are provided as background information in the Appendices of this report. In a few instances, however, recommendations addressing environmental sustainability are clearly and operationally nested in the context of environmental health. In those situations, the report uses language and

makes recommendations that are somewhat broader and include facets of environmental health nursing practice.

Recommendations addressing charge #1:

Best Practices Addressing Environmental Sustainability in Schools of Nursing

Recommendation 1.a. Develop an AACN award program that celebrates excellence in environmental sustainability in schools of nursing.

Academic leadership is essential to advancing climate, energy, and sustainability solutions into schools of nursing. In growing numbers, companies and employees are working to discover cost-effective solutions that reduce carbon, benefit consumers, and advance the health of our planet and its population. Recognizing model programs within nursing will serve to motivate and accelerate efforts through academic and healthcare communities.

The task force recommends establishing an annual award celebrating the adoption of environmentally sustainable practices within AACN member schools of nursing. Similar to AACN's *Innovations in Professional Nursing Education Awards*, such an award would shine a light on excellence and provide validation by the AACN leadership. Depending on the preference of the Board, either a single award or multiple awards (e.g., academic health center, small school, private school without an AHC, public school without an AHC) may be planned for Spring 2012.

The proposed annual award will showcase voluntary action and leadership in the following categories:

- Excellence in Communication and Information Dissemination – Recognizing schools that develop innovative educational messages or curricula to increase the awareness of the relationship between environmental sustainability and human health.
- Carbon Reduction - Recognizing schools that have developed programs to inventory their own carbon footprint and sustainability goals, and can demonstrate that they are on the leading edge of managing carbon in their supply chain and increasing the sustainability of the healthcare and educational environment.
- Organizational leadership – Recognizing schools that have “mainstreamed” climate change and sustainability across their operations and can demonstrate that they factor sustainability into their business decisions. Of particular note would be schools that have emerged as leaders in affecting sustainability efforts in partnering healthcare institutions.

Potential funding partners to support this award include the Pew Center on Global Climate Change, US Environmental Protection Agency, and/or Johnson & Johnson (for healthcare sustainability efforts).

Recommendation 1.b. Offer a “how to” webinar for AACN members who wish to design and/or implement initiatives addressing environmental sustainability within their respective schools of nursing.

Appendix A includes a draft outline for such a webinar. The webinar is tentatively titled, “Opening the door: What deans can do to promote environmentally sustainable practices within their institutions,” and focuses on actionable information for deans/directors.

Recommendation 1.c. 1.c. Inform AACN member deans/directors about opportunities to collaborate with other national initiatives addressing environmental sustainability.

The task force recommends that, when appropriate, AACN inform deans/directors aware of other key national university initiatives addressing environmental sustainability. That will allow deans to leverage their college's efforts with related efforts underway at their university. An example of one such initiative currently underway is the *American College & University President's Climate Commitment Initiative*. Appendix B includes an example memo describing this initiative; AACN may opt to use such a memo to communicate with deans/directors regarding this or related initiatives.

Recommendation 1.d. Encourage business officers to examine the financial benefits of advancing environmentally sustainable practices within their respective schools of nursing.

Environmental sustainability in a school of nursing would affect the academic enterprise in many ways. Financially, schools can strategize going green, cost-out the process and determine the return on investment (ROI). It is important to determine the priorities of your school and university/college when choosing the project. Most greening ROIs are not immediate but more long-term. Investing in energy-saving air conditioners, updated efficient heating systems, and well-insulated buildings and classrooms can be a large initial investment. The savings on your energy costs will occur continually and can be significant. When determining the cost, effect, and ROI on a greening project, the return may not appear as actual money. If using local vendors/manufacturers for lab supplies, not only does it reduce the carbon footprint but it also promotes community outreach. Steps such as going paperless and recycling paper, cans, and bottles might provide an immediate return but not directly to the school of nursing. The profit would probably go to the department physically carting the recyclables. The factors involved in the financial breakdown of a greening project can be complicated, but would be worth the time and effort to carefully plan the project.

Recommendation 1.e. Provide member schools with access to basic information addressing the greening of nursing practice laboratories.

The link between health and environment is well established. Clinical labs preparing future nursing professionals can help model environmentally sound practices. Ideas and resources are listed below. Deans/Directors should consider involving students in expanding ideas within their respective institutions and developing a culture of sustainability.

Reduce

- Low-energy lighting can be obtained by replacing incandescent lighting with dimmable LED or compact florescent lighting for substantial energy savings.
- Unplug equipment that is infrequently used.
- Consider water conservation in the restroom facilities with low-flow toilets and timer-based faucets.

Reuse

- Replace disposables with products that can be reused as appropriate. (Repacking a catheter kit after use on a mannequin could help familiarize the student with the kit.)

Recycle

- Keep bins for recycling paper and other products clearly visible.

- Promote reusable water bottles, if fluids are allowed in the lab area.
- Resources for how and where to recycle many materials include: www.obviously.com/recycle and www.electronicrecycling.com

Consider a contest for Earth Day. One university uses funds from parking revenue to fund ideas for promoting a healthy campus environment. Challenge students to look for ways to reduce their carbon footprint: public transportation or a carpool for clinical. Use empty wall space for posters that promote recycling and a healthy environment.

Outside: If you have an adjoining outside area, consider drought tolerant native plants and harvesting rainwater.

Future Building Plans: LEED Certification (Leadership in Energy and Environmental Design) from the US Green Building Council is an excellent option.

Recommendation 1.f. Designate “Environmental Sustainability” as one of AACN’s Online Collaboration Communities.

The AACN Environmental Sustainability Task Force requests that AACN designate Environmental Sustainability as one of its Online Collaboration Communities. The Committee members believe that individual action, institutional and community actions have local and global impact. Sustainability principles impact the fairness, equity, and stability of social systems and cultures. Because AACN and its member schools prepare nurses to function in multiple roles and settings, AACN is in a unique position to have a global impact through a concerted focus on sustainability. Therefore the committee members believe this is an appropriate and timely AACN Online Collaboration Community.

Recommendation 1.g. When appropriate, incorporate language addressing the connections between AACN’s mission/vision and the promotion of environmentally sustainable practices into AACN documents and reports.

AACN is committed to leading innovation and promoting meaningful change by highlighting the efforts of nurse educators to serve the public good. In the area of environmental sustainability, the organization is working to showcase best practices used at schools of nursing to conserve natural resources, promote healthy learning environments, and minimize waste. AACN uses its national platform to encourage the adoption of effective sustainability measures at nursing schools across the country.

**Recommendations addressing Charge #2:
Content and Competencies Addressing Nursing Education**

Recommendation 2.a. Endorse educational competencies addressing environmental sustainability for baccalaureate and graduate students.

Over the past few years standards and principles addressing environmental health have been adopted by several national nursing organizations. The 2010 edition of the American Nurses’ Association (ANA) Scope and Standards of Nursing Practice includes a new standard addressing environmental health (Appendix C). This standard (Standard 16) is worded broadly; it addresses actions to reduce environmental exposures to patients as well as resource stewardship in clinical settings. The standard differentiates between all nurses and advanced practice registered nurses

(APRNs), with APRNs having responsibilities addressing policy development and implementation. In addition to the ANA standard, both ANA and the American Public Health Association have established principles for environmental health focused on their constituency members ([Appendices D and E](#)). Like the ANA standard, the principles are broad and generally encompass nursing roles in environmental assessment, the application of the precautionary principle to clinical decision-making, and the importance of patient advocacy in considering actions with environmental health implications.

Together these documents provide nursing educators with clear information to guide their decisions regarding the inclusion of environmental health content into nursing curricula. The documents have been well received and adopted by many nursing programs in the U.S. and Canada. However, their scope (i.e., environmental health overall) is somewhat broader than the change considered by the AACN task force; the task force was to focus specifically on sustainability within nursing's academic unit. As such, the task force is proposing that AACN endorse a subset of competencies derived from the ANA and APHA documents. It is recommended that AACN endorse educational competencies for undergraduate and graduate students specifying that nurses:

5. Use healthcare resources in a judicious and thoughtful way.
6. Dispose of health care associated waste, including pharmaceuticals and biomaterials, in a responsible manner.
7. Recognize the importance of minimizing healthcare's biological, chemical, and physical waste stream.
8. Consider the adoption of policies aimed at promoting environmentally sustainable schools of nursing and/or clinical settings.

These competencies are also provided in [Appendix F](#).

[Recommendation 2.b](#). Direct member schools to appropriate online resources addressing environmental sustainability.

A summary of links to well established on-line resources is provided in [Appendix G](#). To date the University of Maryland, has assembled the most comprehensive set of resources available regarding environmental health and environmental sustainability in nursing. Other resources include those from federal agencies and advocacy organizations.

[Recommendation 2.c](#). Offer a second webinar for faculty who wish to incorporate content addressing environmental sustainability into their curricula, clinical experiences, and/or student leadership activities.

[Appendix H](#) includes a draft outline for a second webinar focused specifically on how to incorporate content addressing environmental sustainability into program curricula and/or college activities involving students. This second webinar is tentatively titled, "Opening the door: What deans can do to promote environmentally sustainable practices within their institutions."

Conclusion

Nursing education is inherently forward looking and considers critical issues that students are likely to encounter over the course of their professional lives. Those students educated today will need to critically reexamine the resource-intensive aspects of healthcare system. The inclusion of environmental sustainability in nursing education ensures that students will become informed

members of the health care team and more capable of designing and implementing sustainability initiatives in hospitals and clinics.

Contributors to the report and members of the AACN Environmental Sustainability Task Force

Members of the Task Force:

Patricia Butterfield, Dean and Professor, College of Nursing, Washington State University, Spokane, Washington
Linda McCauley, Dean and Professor, Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, Georgia
Barbara Sattler, Professor, University of Maryland School of Nursing, Baltimore, Maryland
Jodi DiGennaro, Assistant to the Dean for Administrative Services, School of Nursing, Adelphi University, New York, New York
Jennifer Ahearn, Chief Operating Officer, AACN, Washington, DC

Additional contributors:

Rosanne Pruitt, Director, Department of Nursing, Clemson University, Clemson, South Carolina
Arlene Wiens, Professor and Chair, Department of Nursing, Eastern Mennonite University, Harrisonburg, Virginia
Clare Hopkins, Professor, School of Nursing, Carlow University, Pittsburg, Pennsylvania
Cynthia Persily, Associate Dean Academic Affairs, School of Nursing, West Virginia University, Morgantown, West Virginia
Elizabeth Schenk, Facilitator of Women's Health, St. Patrick's Hospital, Missoula, Montana

Appendices

Appendix A: Draft outline for webinar addressing the design and implementation of an environment sustainability initiative within a school of nursing.

WEBINARS

Rationale: The AACN has found the use of webinars to be a productive and efficient way to reach a large audience of deans and nursing faculty. It is expected that use of webinars also may be a positive vehicle for involving deans in a discussion of why and how they have a responsibility—both as leaders in/of their schools as well as in/of their universities—to raise environmental awareness and bring efforts to promote environmental sustainability to their institutions.

WEBINAR #1:

Overview: Opening the door: What deans can do to promote environmentally sustainable practices within their institutions (the **graphic** here is a door opening OUT onto a tree-lined, green landscape)

- I. Why deans should care about environmental sustainability
 - A. Professional issues
 1. Why nurses should care about our profession's, our students' and our own individual footprints (Nurses are caregivers—of all disciplines, we have a responsibility to care about the planet itself as well as for the people on it)
 2. Deans have leadership and activist roles in two distinct realms: Nursing *and* Education
 - B. Fiduciary responsibility—
 1. Costs (of attending to or neglecting environmental sustainability) to
 - a. Public health, welfare, & safety
 - b. The environment itself
 2. Financial impact on the school / university
 - C. Local outreach: The greening of the university
 1. How Schools of Nursing can become the impetus for their institutions to care about environmental sustainability
 2. The university community
 - a. Faculty
 - b. Students
 - c. Higher administration
 3. The University Campus—Financial as well as resource impact
- II. Of what deans need to be aware—
 - A. Evidence of best practices
 1. For environmental sustainability (e.g., acquisition/disposal of learning resources, equipment, supplies, etc.)

2. Of environmental sustainability as a thread across the *Essentials* (i.e., emphasis is NOT as a heavy focus, but as important to run THROUGH/ACROSS the competencies)
3. Of dissemination strategies for incorporating across program curricula
4. In nursing education practice settings

B. How deans may sell environmental sustainability

1. Taking concrete steps to
 - a. Role model—Through review/revisions of school philosophy/purpose, policy changes, budgetary decisions, etc.
 - b. Mentoring—Faculty, students, staff to create a learning environment that demonstrates why environmental sustainability is a critical competency to which they are held
 - c. Leading—Reflections on the School's and University's Mission/Vision Statement, Core Values/Outcomes, etc.
2. Making efforts to address environmental sustainability concerns
 - a. Within the School of Nursing
 - b. Across the University

Appendix B. Example e-memo to AACN Deans addressing a national sustainability initiative

Date: June 25, 2011

To: AACN Deans

From: AACN Environmental Health and Sustainability Task Force

Re: How you can support the American College & University Presidents' Climate Commitment

The presidents of U.S. universities have been asked to sign a climate commitment document that affirms their university's pledge to work toward a sustainable world. This document represents a powerful way forward; it ensures that universities will be taking individual and collective action aimed at reducing greenhouse gases and reducing the impact of global climate change. It is an important step forward for our nation.

As a nursing dean, we are asking you to take several steps to amplify and extend efforts to promote environmentally sustainable practices at U.S. universities. Please consider taking the following steps:

1. Review the American College & University Presidents' Climate Commitment (ACUPCC) at <http://www.presidentsclimatecommitment.org/> and determine if your university's president is a signatory. The signatory list can be found at: <http://www.presidentsclimatecommitment.org/signatories>. If your president has signed on, send them an e-mail thanking them. If your president has not signed on, forward the information to them and urge them to become a signatory.
2. Let your president and university leadership know of any efforts your college/school of nursing is taking focusing on environmental sustainability. Such efforts may involve the business operations of your college and focus on issues such as recycling, energy conservation, or green purchasing. Other efforts may be nursing specific and focus on how your college educates students about how to reduce medical waste or minimize the volume of pharmaceuticals entering the waste stream.
3. Look for opportunities to align your college's efforts with efforts at the university level. Through a coordination of effort, there is an opportunity to fundamentally change your university's experience for current and future students. The 2010 ACUPCC Annual Report includes a summary of initiatives at several universities and is an excellent resource of ideas to consider. The report can be found at <http://www.presidentsclimatecommitment.org/reporting/annual-report/2010>.
4. Explore venues to get the word out regarding the efforts your college/school's effort addressing environmental sustainability. Let your communications director know that you'd like to see articles in the local paper or in your nursing publications that shine a light on the good work you are doing to promote sustainable practices within your college/school and within the nursing profession.

Thank you for taking these steps. Together we can ensure that those who walk through the doors of our institutions understand that it is no longer business as usual in regard to resource consumption. There is a better way forward; a way in which our organizations act thoughtfully and comprehensively to safeguard the earth's resources and its people.

Appendix C: Environmental Health Scope and Standards of Practice as adopted by the American Nurses Association (2010)

STANDARD 16. ENVIRONMENTAL HEALTH.

The registered nurse practices in an environmentally safe and healthy manner.

Competencies:

The registered nurse:

- Attains knowledge of environmental health concepts, such as implantation of environmental health strategies.
- Promotes a practice environment that reduces environmental health risks of workers and healthcare consumers.
- Assesses the practice environment for factors such as sound, odor, noise and light that negatively affect health.
- Advocates for the judicious and appropriate use of products used in health care.
- Communicates environmental health risks and exposure reduction strategies to healthcare consumers, families, colleagues and communities.
- Utilizes scientific evidence to determine if a product or treatment is a potential environmental threat.
- Participates in strategies to promote healthy communities.

Additional Competencies for the graduate-level prepared specialty nurse and the advanced practice registered nurse:

The graduate-level prepared specialty nurse and the advanced practice registered nurse:

- Create partnerships that promote sustainable environmental health policies and conditions.
- Analyze the impact of social, political, and economic influences upon the environment and human health exposures.
- Critically evaluate the manner in which environmental health issues are presented by the popular media.
- Advocate for implementation of environmental principles for nursing practice.
- Support nurses in advocating for and implementing environmental principles in nursing practice.

Source: American Nurses Association (ANA). (2010). *Nursing: Scope and Standards of Practice*, Second Edition. Silver Spring, MD: Nursebooks.org.

Appendix D: American Nurses' Association's Principles of Environmental Health for Nursing Practice, 2007

<http://www.nursingworld.org/MainMenuCategories/OccupationalandEnvironmental/environmentalhealth/ANAResources/ANAsPrinciplesofEnvironmentalHealthforNursingPractice.aspx>

1. Knowledge of environmental health concepts is essential to nursing practice.
2. The Precautionary Principle guides nurses in their practice to use products and practices that do not harm human health or the environment and to take preventive action in the face of uncertainty.
3. Nurses have a right to work in an environment that is safe and healthy.
4. Healthy environments are sustained through multidisciplinary collaboration.
5. Choices of materials, products, technology, and practices in the environment that impact nursing practice are based on the best evidence available.
6. Approaches to promoting a healthy environment that respect the diverse values, beliefs, cultures, and circumstances of patients and their families.
7. Nurses participate in assessing the quality of the environment in which they practice and live.
8. Nurses, other health care workers, patients, and communities have the right to know relevant and timely information about the potentially harmful products, chemicals, pollutants, and hazards to which they are exposed.
9. Nurses participate in research of best practices that promote a safe and healthy environment.
10. Nurses must be supported in advocating for and implementing environmental health principles in nursing practice.

Appendix E: Environmental Health Principles and Recommendations for Public Health Nursing: American Public Health Association, Public Health Nursing Section, 2005.

1. Safe and sustainable environments are essential conditions for the public's health.
2. Environmental health is integral to the role and responsibilities of all public health nurses.
3. All public health nurses should possess environmental health knowledge and skills.
4. Environmental health decisions should be grounded in sound science.
5. The Precautionary Principle is a fundamental tenet for all environmental health endeavors.
6. Environmental justice is a right of all populations.
7. Public awareness and community involvement are essential in environmental health decision-making.
8. Communities have a right to relevant and timely information for decisions on environmental health.
9. Environmental health approaches should respect diverse values, beliefs, cultures, and circumstances.
10. Collaboration is essential to effectively protecting the health of all people from environmental harm.
11. Environmental health advocacy must be rooted in scientific integrity, honesty, respect for all persons, and social justice.
12. Environmental health research addressing the effectiveness and public health impact of nursing interventions should be conducted and disseminated.

**Appendix F: Proposed Competencies Addressing
Environmental Sustainability as Proposed by the AACN Task Force**

It is recommended that the AACN endorse competencies that specify that nurses:

1. Use health care resources in a judicious and thoughtful way.
2. Disposes of health care associated waste, including pharmaceuticals and biomaterials, in a responsible manner.
3. Recognizes the importance of minimizing health care's biological, chemical, and physical waste stream.
4. Considers the adoption of policies aimed at promoting environmentally sustainable schools of nursing and/or clinical settings.

Appendix G. Selected on-line resources addressing nursing, environmental sustainability, and environmental health

On-line resources addressing environmental health and nursing:

- EnviRN. University of Maryland based online learning resource for nurses interested in environmental health. <http://envirn.org/>
- Alliance of Nurses for Healthy Environments (ANHE). Also out of University of Maryland. This national organization provides nurses with both educational and networking information addressing a variety of environmental sustainability and environmental health topics. <http://e-commons.org/anhe/>
- American Nurses Association Principles of Environmental Health for Nursing Practice with Implementation Strategies. Guidance documents promoting nursing care that is environmentally safe. <http://www.nursingworld.org/MainMenuCategories/OccupationalandEnvironmental/environmentalhealth/ANAResources.aspx>
- American Public Health Association, Environmental Health Principles for Public Health Nursing. http://www.apha.org/membergroups/newsletters/sectionnewsletters/public_nur/winter06/2550.htm

On-line resources addressing environmentally sustainable healthcare:

- Practice Greenhealth. Organization focused on sustainable, ecofriendly practices in healthcare. <http://www.practicegreenhealth.org/>
- Health care without Harm. <http://noharm.org/>

On-line resources addressing environmentally sustainable business practices:

- EPA's BlueGreen Meeting planner tool <http://www.bluegreenmeetings.org/>
<http://www.bluegreenmeetings.org/HostsAndPlanners/index.htm>
- Green meeting industry council <http://www.greenmeetings.info/>
- National Recycling Coalition's green meetings policy <http://www.fs.fed.us/sustainableoperations/greenteam-toolkit/documents/NationalRecyclingCollolitionGreenMeetingsReference.pdf>
- Corporate social responsibility resources from meeting planners group <http://www.mpiweb.org/Archive/196/82.aspx>

Appendix H. Draft outline for a second webinar tentatively titled, “Incorporating Content and Competencies addressing Environmental Sustainability into Nursing Programs”

Overview: Walking faculty and students through the open door (the **graphic** here is of the Dean as Docent)

- I. Where environmental sustainability may fit:
 - A. Didactic areas to consider (from BSN through doctoral curricula)
 1. Professional issues courses including ethics, health policy, informatics, research, etc. content
 2. Clinical courses including quality improvement, patient safety, professional role, population health, health care delivery, health care costs, etc. content
 - B. Competencies to consider (particularly *Essentials* 1-3, 5-7)
- II. How may be implemented:
 - A. Program and Course Objectives—Develop specific outcomes related to environment
 - B. Classroom/online settings
 1. Incorporate environmental considerations into case scenarios
 2. Address environment as standard area of assessment, intervention, evaluation efforts
 3. Promote considerations of economic impact on patients, communities, national healthcare policies
 - C. Clinical practice settings
 1. Develop specific clinical practice outcomes that address environmental sustainability
 2. In simulation labs
 - a. Use of posters about lab supply/product development, use, & disposal
 - b. Involve faculty/students in discussions about fiscal impact on simulation lab use
 3. In clinical facilities
 - a. Use, disposal, & cost of equipment/supplies for facility, patient bills, etc.
 - b. Include discussions about health and health care delivery impact of environment in post-clinical conferences (for BSN students) and in clinical outcomes evaluations (for MSN/doctoral students)

Example of RESOURCES for use in these webinars:

<http://www.un.org/millenniumgoals/environ.shtml>

<http://www.epa.gov/sustainability/>

<http://www.geneseo.edu/sustainability/what-is>

<http://www.endpoverty2015.org/goals/environmental-sustainability>